

in Science Press

Psychology Applications & Developments III

Edited by Clara Pracana & Michael Wang



Advances in Psychology and Psychological Trends

Psychology Applications & Developments III
Advances in Psychology and Psychological Trends Series

Edited by: Prof. Dr. Clara Pracana and Prof. Michael Wang



Edited by:

Prof. Dr. Clara Pracana
Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy
Portugal

Prof. Michael Wang
Emeritus Professor of Clinical Psychology, University of Leicester
United Kingdom

Published and distributed by:



Rua Tomás Ribeiro, 45, 1ºD, 1050-225 Lisboa, Portugal
www.insciencepress.org

Printed by:

GIMA - GESTÃO DE IMAGEM EMPRESARIAL, LDA.
CET - Centro Empresarial Tejo, Rua de Xabregas Nº 6 - Lote B
1900-440 Lisboa, Portugal

Printed on acid-free paper

ISSN (electronic version): 2184-2019

ISSN (printed version): 2183-2854

ISBN of this Volume: 978-989-99864-4-2

Legal Deposit: 435727/17

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FOREWORD

InScience Press is pleased to publish the book entitled *Psychology Applications & Developments III* as part of the Advances in Psychology and Psychological Trends series. These series of books comprise authors' and editors' work to address generalized research, focused in specific sections in the Psychology area.

In this third volume, a committed set of authors explore the Psychology field, therefore contributing to reach the frontiers of knowledge. Success depends on the participation of those who wish to find creative solutions and believe in their potential to change the world, altogether, to increase public engagement and cooperation from communities. Part of our mission is to serve society with these initiatives and promote knowledge. Therefore it is necessary the reinforcement of research efforts in all fields and cooperation between the most assorted studies and backgrounds.

In particular, this book explores six major areas within general Psychology, divided into six sections: Social Psychology, Clinical Psychology, Educational Psychology, Cognitive and Experimental Psychology, Psychoanalytical Psychotherapy and Legal Psychology. Each section comprises chapters that have emerged from extended and peer reviewed selected papers originally published in the proceedings of the International Psychological Applications Conference and Trends (InPACT) conference series (<http://www.inpact-psychologyconference.org/>). This conference occurs annually with successful outcomes. Original papers have been selected and its authors were invited to extend them significantly to once again undergo an evaluation process, afterwards the authors of the accepted chapters were requested to make corrections and improve the final submitted chapters. This process has resulted in the final publication of 25 high quality chapters organized into 6 sections. The following sections' small description and chapters' abstracts provide information on this book contents.

Section 1, entitled "Social Psychology", gives a glance on projects from a psycho-social perspective. Themes vary from traumas, well-being, motivational potential as well as health promoting habits.

Chapter 1: *Post-Traumatic Stress Responses among Refugees Following Xenophobic Attacks in Durban, South Africa*; by Gail Womersley, Amir Shroufi, Nathalie Severy & Gilles Van Cutsem. Following a spate of xenophobic attacks against foreign nationals in Durban, South Africa, displacement camps were set up to shelter predominantly Congolese and Burundian refugees. Embedded within the emergency program a prevalence study of symptoms of posttraumatic stress disorder (PTSD) was conducted among a convenience sample of this population. Twenty-seven participants included men and women who were screened for

symptoms using the Harvard Trauma Questionnaire (HTQ). Results indicate a prevalence rate of 85% among this population. Limitations include the small sample size and potential self-reporting. The high prevalence rate of people who meet diagnostic criteria for PTSD has profound implications for psychosocial interventions and access to mental health services for this community – as well as significant broader legal and social justice implications.

Chapter 2: *The Relationship between Emotional and Personal Well-Being and Psychological Well-Being, Extroversion-Introversion, Burnout and Adaptation*; by Galina Glotova & Larisa Karapetyan. The theoretical construct “emotional and personal well-being” and the interrelations between parameters of the research tool “Self-assessment of Emotional and Personal Well-Being” (Glotova & Karapetyan, 2009) and various personal qualities are considered. The participants had to assess themselves on a seven-point scale, using the following parameters: “happy”, “lucky”, “optimist” (positive emotional component A); “successful”, “competent”, “reliable” (positive personal component B); “pessimistic”, “unhappy”, “envious” (negative component C). The results for each of the nine parameters were analyzed and the general index of self-assessment of emotional and personal well-being (A+B-C) was calculated. The following research instruments were used too: Myers-Briggs Type Indicator; Maslach Burnout Inventory; Rogers-Diamond Test of Social-Psychological Adaptation; Ryff Scales of Psychological Well-Being. The five studies were conducted among adults aged 18-65 years. It was revealed that people that scored highly in the general index of emotional and personal well-being are characterized by extroversion, high scores of adaptation, self-acceptance and acceptance of others, emotional comfort, internality, need to dominate and, on the contrary, low scores of burnout. In the correlation study many statistically significant correlations were obtained between the parameters of the “Self-assessment of Emotional and Personal Well-Being” research method and the six factors of “The Ryff Scales of Psychological Well-Being”.

Chapter 3: *Motivational Potential of the Personnel in the Period of Preparing an Industrial Enterprise to the Decommissioning*; by Liubov Kotlyarova & Ekaterina Sysoeva. Knowing characteristics of the motivational potential of the personnel allows an optimal approach to the human resources when dealing with such personnel problems as designing system of stimulation and involving the staff into the labour activity; evaluation of the occupational and personal competencies of the specialists enrolled in the activities going through harsh conditions or lack of information, when state of cognitive dissonance frequently emerges (Sheridan, 1987; Anokhin, 2000; Bodrov, 2006). The existing content, personality and process theories of motivation in psychology and management offer a thorough explanation of the personnel labour behaviour (Madsen, 1959; Locke, 1968; Weiner, 1972; McClelland, 1971, 1987; Milne, 2007; Herzberg, 2003; Ilyin, 2008). At the same time such sphere as the characteristics of the motivational potential of the staff of an industrial enterprise in the period of preparing it to the

decommissioning due to depletion of the technological resource remains little-studied. The article contains the results of the studying motivational potential of the personnel in the period of preparing a nuclear power station to the decommissioning. 87% of the employees have taken part in the survey. All the structural departments of the enterprise are represented in the research sample.

Chapter 4: *Factors Related to the Parental Burden of Childrearing in Japan*; by Mizuka Ohtaka. The parental burden of childrearing is considered to be a cause of the declining birth rate in Japan and has an adverse effect on children's development (Matsuda, 2010; Ministry of Health, Labour and Welfare, 2006). How, then, can this burden be reduced? This study aimed to answer this question by examining factors related to the burden of childrearing. Data from the 'Survey on Children and Child Rearing' (Survey Research Centre, 2012) was analyzed. The survey targeted 3,000 Japanese parents over the age of 18, who had children under the age of 6 years. A total of 2,481 valid responses were analysed. The results indicated that parents who felt a greater burden of childrearing tended to be women, have more children, have less income, and be mothers without regular work. On the other hand, those who felt a lesser burden were parents who had relatives, friends and acquaintances who took care of the children in emergencies, and who had neither anxieties nor worries about childrearing. In addition, for parents with anxieties and worries about childrearing, their burden was eased by asking acquaintances. The result suggests that support from others is important in order to tackle the anxiety of childrearing and to ease the burden felt by parents.

Chapter 5: *Goal Attainment in Self-Care: The Mediating Role of Commitment in the Relationship Between Motivation and Goal Progress*; by Ladislav Lovaš & Marcela Bobková. The purpose of the study was to examine the relationship between goal commitment, self-concordance and goal progress as goal dimensions in the area of self-care. The study tested if goal commitment would mediate or moderate the relationship between self-concordance and progress towards self-care goals. With respect to this aim, 156 participants (aged 18-26 y; 77 M, 79 F) reported their motivation for pursuing selected self-care goals (4 items), assessed their commitment to them (3 items) and examined the perceived progress they had already made (2 items). Correlational analysis confirmed close relationships between self-concordance, goal commitment and goal progress in both cases (goals in the areas of physical as well as psychological self-care). Further analysis confirmed that in both areas, the relationship between self-concordance and goal progress is mediated and not moderated by goal commitment. The findings are discussed in the context of goal dimension structure and in the context of self-care stimulation and effectiveness.

Chapter 6: *On Health and Appearance-Oriented Eating Regulation Goals: A Look at Personal and Vicarious Goals*; by Noémie Carbonneau, Marina Milyavskaya & Geneviève Lavigne. The regulation of eating behaviours is among the most common health goals among the general population (e.g., Milyavskaya & Nadolny, 2016). According to Self-Determination Theory (SDT), goals are often pursued in the service of broader life-goals, or aspirations (Kasser & Ryan, 1996), which can be categorized as extrinsic (such as aspirations for wealth, fame, and physical attractiveness) or intrinsic (such as aspirations for personal growth and community contribution). In accordance with SDT, it has been proposed that eating regulation goals can be pursued in order to reach a slender and physically attractive body or in order to have a more healthy and fit lifestyle (e.g., Verstuyf, Vansteenkiste, & Soenens, 2012). The main purpose of this chapter is to present a brief summary of the literature on health vs. appearance-oriented eating regulation goals. More specifically, we present studies that have examined how these two types of eating regulation goals are differently related to eating behaviours, well-being, and interpersonal styles with others. We also review our recent research (Carbonneau & Milyavskaya, 2017) showing that the health vs. appearance orientation not only applies to personal goals, but also to the goals that individuals have for their romantic partners.

Chapter 7: *Predicting Socio-Political Attitudes: Insights from the 2015 Federal Election in Canada*; by Derek J. Gaudet, Kathryn Flood & Lisa A. Best. The purpose of this study was to examine the role of personality and left-right wing affiliation in predicting attitudes on several socio-political topics (e.g. abortion, euthanasia). Participants completed a demographics questionnaire, a set of personality measures, and a contentious issues questionnaire (CIQ). Our final sample consisted of 267 participants. A total score on the CIQ was created and hierarchical linear regression found that left-right wing affiliation, openness, and private self-consciousness predicted higher total CIQ scores. Right wing affiliation predicted lower CIQ score. The results of this study suggest that that total CIQ score was measuring right-left wing attitudes on socio-political issues and could be a useful tool in predicting voting behaviour.

Chapter 8: *Social/Emotional Development in Adolescents Previously Diagnosed with Selective Mutism: A Narrative Approach to Understanding*; by Paschale McCarthy. Selective Mutism is a childhood anxiety disorder characterized by a total absence of speech in social contexts, despite the child being capable of speech and speaking typically in the home. Research on this intriguing disorder remains limited and a notable gap is the absence of research into the retrospective accounts of experiencing this disorder as a child; the child's perspective, and the child's voice is largely absent from the literature. This research seeks to fill this gap in the literature by affording previously mute children an opportunity to voice their subjective experience of the disorder. A narrative approach was employed to explore the experience of selective mutism in 12 previously diagnosed adolescents,

and its effects on social/emotional development and identity during the critical period of adolescence. The research also explored how the selectively mute child made sense of their symptom and the years of self-imposed silence. A qualitative approach using thematic analysis of the narratives revealed commonalities across individual experiences in terms of identity construction, fear of change/difference, isolation from peers, and a move from self-protection to coping. Narrative accounts afford a unique perspective on selective mutism, and how it might affect early development and self-identification.

Chapter 9: *Gender, Socioeconomic and Psychological Factors of Emigration Intentions among Slovak University Students*; by Olga Orosova, Beata Gajdosova & Marta Kulanova. The objectives of this study were to explore the associations between gender, socioeconomic factors, psychological factors and emigration intentions among Slovak university students as well as testing for the moderating effects of gender on the relationships between psychological factors and emigration intentions. The data were collected online from 375 students (75.5% females; $M=22.9$; $SD=3.0$). Students were asked to report their gender, their perception of Slovakia's economic future, perception of their financial situation, home/family satisfaction, desire to change their living environment and the importance of religion in their life. Multiple binary logistic regression models were used for data analyses. A lower level of home/family satisfaction and a higher level of desire to change their living environment were more likely to be reported by undecided students and students with emigration intentions (leavers) compared to students without emigration intentions (stayers). A lower level of the importance of religion was more likely to be reported only by students with emigration intentions (leavers) compared to students without emigration intentions (stayers). A moderating effect of gender on the relationships between the importance of religion and emigration intentions among Slovak university students was found. The results contribute to a better understanding of the psychological and socioeconomic predictors of emigration intentions.

Section 2, entitled "Clinical Psychology", provides reviews and studies within various fields concerning relationship processes in clinical practice. Each chapter is diversified, mainly addressing thematics related to individuals well-being and improvement of quality of life.

Chapter 10: *The Influence of Personality and Coping Styles on Forgiveness*; by Samantha A. Fowler & Lilly E. Both. Three types of forgiveness have been identified: forgiveness of self; forgiveness of others; and forgiveness of situations (such as illness or natural disaster). Forgiveness is related to personality factors; however, there is scant research to date examining the relation between coping styles and forgiveness. We recruited 160 undergraduate students to complete questionnaires. There were significant correlations among personality, coping styles, and forgiveness. When personality factor scores were used hierarchical

multiple regression analyses, forgiveness of self was predicted by lower scores on Neuroticism and emotion focused coping, and higher scores on problem focused coping. Forgiveness of situations was predicted by lower scores on Neuroticism and emotion focused coping, and higher scores on Openness, Agreeableness, and problem focused coping. Finally, forgiveness of others was predicted by higher Agreeableness scores; coping styles did not contribute additional variance in this model. Regressions were also conducted using the facet (subscale) scores. Forgiveness of self was predicted by lower scores on hostility, depression, and self-consciousness. Forgiveness of situations was predicted by lower vulnerability. Higher altruism drove the relation between Agreeableness and forgiveness of others. Finally, lower emotion focused coping scores and higher problem focused coping scores contributed unique variance in each of the facet models.

Chapter 11: *Negative Consequences of Helping and the Length of Work Experience*; by Miroslava Köverová & Beáta Ráczová. The research study presents the partial results of a broader study investigating the negative consequences of helping, their sources and prevention possibilities. The main aim of the research was to explore the differences in the level of burnout, perceived stress and compassion fatigue among helping professionals with different lengths of practice. It was hypothesized that less experienced helpers would report lower levels of burnout, perceived stress and compassion fatigue than more experienced helpers. Helping professionals who work in institutions providing social care in Slovakia participated (n = 748), and completed the Maslach burnout inventory (Maslach, Jackson, & Leiter, 1996), Perceived stress scale (Cohen, Kamarck, & Mermelstein, 1983) and Professional quality of life scale - Compassion fatigue subscale (Stamm, 2010). A one-way MANOVA showed that helping professionals with 10 or more years of experience reported higher levels of burnout (exhaustion) and compassion fatigue compared with their colleagues who were at the beginning of their careers (0-3 years of practice). These research findings suggest that the length of experience at work is an important factor in experiencing the negative consequences of helping. The results form a basis for the preparation of prevention and intervention programs for specific groups of helping professionals in Slovakia.

Chapter 12: *'Safe-Touches' Sexual Abuse Prevention: A Pilot Study on Children, Teachers and Parents*; by Tinia Apergi, Eva-Manolia Syngelaki & Chrysanthi Nega. In recent years, many school-based prevention programs have been developed in response to the worrying prevalence rates and serious consequences of child sexual abuse. In Greece one out of six children are victims of sexual abuse before the age of 18 years and schools do not offer abuse prevention programs. This study presents a three-folded prevention program addressing all stakeholders: children, teachers and parents. A sample of 467 primary school students in grades 1-3, participated in the Safe Touches program, a classroom based curriculum, and outcomes were assessed by the Children Knowledge of Abuse Questionnaire-RIII. Children in 2nd and 3rd grade attained significantly greater increases on the

inappropriate touch knowledge from pre- to post-test than children in 1st grade. For teachers ($n=75$) and parents ($n=110$) a 2-hours training seminar was delivered. Concepts covered in the seminars were recognition of signs, psychological consequences, legislation and reporting procedures. Teachers and parents reported an increase in the knowledge, attitudes and practices of Child Sexual Abuse (CSA) concepts. Overall, the program proved effective in enhancing children's knowledge and prevention skills, as well as building awareness in parents and teachers. Future research should focus on behavior changes as an outcome measure, and examination of longer-term retention of knowledge gains.

Chapter 13: *Construct and Incremental Validity of the Slovak Version of Trait Emotional Intelligence Questionnaire – Adolescent's Short Form*; by Lada Kaliská & Eva Sollarová. The study analyzes construct (convergent and discriminant) and incremental validity of trait emotional intelligence (EI) of the Slovak version of Trait Emotional Intelligence Questionnaire – Adolescent's Short Form (TEIQUE-ASF) created by K.V. Petrides (2009) adapted to the Slovak conditions by Kaliská, Nábělková and Salbot (2015). The research sample consisted of 307 high school students (average age: 17.7 /SD=.46/). The validation tools: Ten-Item Personality Inventory – TIPI (Gosling, Rentfrow, & Swann, 2003), Type D-personality – DS14 (Denollet, 2005), State-Trait Anxiety Inventory – STAI (adapted by Muller, Ruisel, & Farkaš, 1980), Rosenberg's Self-esteem Scale – RSS (Rosenberg, 1965), Scale of Emotional Habitual Subjective Well-being – SEHP (Džuka & Dalbert, 2002) were used to examine trait EI construct and incremental validity by correlation and regression analyses. The results proved that high trait EI is positively correlated to personality and affect-related variables of self-confidence, emotional stability and extraversion and positive emotional state of mind (convergent validity) and negatively correlated to trait anxiety, type D-personality, self-depreciation and negative emotional state of mind (discriminant validity). Trait EI significantly predicts 2.8% of unique variance in trait anxiety after controlling for three variables supporting convergent validity and 1.2% of unique variance in trait anxiety after controlling for the variables supporting discriminant validity of trait EI in a sample of the Slovak high school adolescents.

Chapter 14: *Exploring Binge Eating Symptomatology in a General Population Sample*; by Lynne M. Harris & Jennifer McKenzie. Binge Eating Disorder (BED) is characterised by the consumption of large amounts of food in a relatively short period of time without compensatory behaviour, such as purging or compulsive exercise. Much of what is known about BED comes from studies of overweight or obese treatment seeking individuals, although around one third of those with BED are in the non-obese weight range. This study examined the predictors of BE symptomatology among those in the normal body mass index (BMI) range ($n=223$; 88.3% female; mean age 28.7 years) and the overweight / obese BMI range ($n=179$; 85.5% female; mean age 32.9 years). Participants completed an online questionnaire comprising self-report measures of physical and psychological

health, demographics and height and weight. Hierarchical regression analysis indicated that the significant predictors of binge eating symptomatology for those in the normal weight range were age, sex, self esteem, shape concerns, and dietary restraint, accounting for about 71% of variance in the severity of BE symptomatology. For those in the overweight or obese BMI range, sex, emotional regulation, and shape concerns were the only significant predictors, accounting for around 68% of variance in the severity of BE symptomatology. The findings have implications for treatment of individuals with BE symptomatology.

Chapter 15: *Personality, Gender and Ethnic Differences in Assessment of Chronic Pain Syndrome (CPS)*; by Abraham A. Argun. Chronic pain syndrome (CPS), a multifaceted biopsychosocial phenomenon, is a great medical, quality of life and socioeconomic concern, leading up to many permanent total disabilities, drug overdose and deaths in USA. Multiple variables may be associated with this problem. Psychologically, certain patterns on MMPI-2 have been associated with CPS. This archival study examined a sample (N=275) of industrially injured patients with CPS for the effects of gender, ethnicity, marital status and personality disorders, psychometrically. First, P-3 & MBMD for the initial screening and if necessary, MMPI-2 and MCMI-III were administered. The sample was cleaned up by excluding the invalid protocols. Descriptive statistics and one- way analysis of variance were used to examine personality scales of the MCMI-III and clinical scales of the MMPI-2. Only a few scales measured significant effects for marital status, but significant gender and ethnicity effects were shown on several scales of MMPI-2, MCMI-III and MBMD at $**p<.01$ and $*p<.05$. MCMI-III severe personality disorders highly correlated with MMPI-2 pathologically disabling patterns. Certain personality types may be more susceptible to CPS. Limitations, lack of randomized sampling and control group, with implications to assessment, treatment and med/legal evaluations, will be discussed along with suggestions for future research.

Chapter 16: *Construct Validity of the TCT- DP in Different School Levels*; by Sara Ibérico Nogueira, Maria Leonor Almeida & Tiago Souza Lima. The Test for Creative Thinking-Drawing Production (TCT-DP, Urban & Jellen, 1986) is one of the most used instruments for the assessment of creative potential. A previous study with undergraduate and postgraduate Portuguese students presented a two-factor model with good and acceptable indices of fit, suggesting the importance of both conventional and non-conventional thinking for the creative process. This study aims to test the factor structure of the TCT-DP in a sample of younger Portuguese students. The sample has 2263 students, mostly female (51.5%) and upper middle class (25,7%), from different school levels. A one-factor and two-factor models were tested for each school level. The results of the CFA analysis indicate a marginal fit for the two-factor solution. Indices of RMSEA and GFI are above the cut-off recommended in literature, although CFI is below the recommended values. However, the two-factor model has better fit-indices

compared with the one-factor solution. The comparison of the models with one and two factors through $\Delta\chi^2$ index indicates significant differences between the two models. Although these results are contrasting, it suggests that the TCT-DP, for the first 12 school years, can be best represented by a two-factor structure.

Section 3, entitled “Educational Psychology”, offers a range of research about teachers and students, the learning process, as well as the behavior from a psycho-educational standpoint.

Chapter 17: *School Transition Stress: Gender and Age Differences*; by Cynthia Cassoni, Marta Regina Gonçalves Correia-Zanini, Edna Maria Marturano & Anne Marie Fontaine. Introduction: Transitional periods within compulsory education are capable of causing stress, which can compromise children's physical and psychosocial development. Method: A longitudinal study with data collection at three moments – first, fifth and sixth years. Objective: To monitor symptoms of stress during two transition periods (first and sixth year), focusing on changes in age and gender differences. The sample consisted of 25 boys and 27 girls, with a mean age of 6.8 years at the time of the first data collection. They responded to the Child Stress Scale (CSS). Results: They suggest that the year of school transition had a significant effect on stress symptoms. Higher values were found in the first series, and no significant differences were found between Grades 5 and 6. The girls had higher stress symptoms in the first and sixth years, while the boys presented higher stress symptoms only in the first grade. Conclusion: The results pointed to the presence of stress in periods of school transition, with girls and boys reacting differently according to age. More research is needed on gender and school transitions, as well as studies on the effectiveness of interventions aimed at reducing stress in childhood.

Chapter 18: *Parenting Programmes: A Transplant Model in Practice*; by Katy Smart. This mixed-methods research explored parents' and trainers' perceptions of the impact of parenting programmes by following 136 families through a total of 20 courses (*Triple-P*, *Incredible Years* and *PEEP*). The research questions investigated their views on the parenting programme process, parental behaviour changes taking place post-intervention and subsequent behavioural, developmental and/or educational impact on their children. A major theme that developed from the analysis of parents' data was the importance of the right learning environment, specifically one which promotes a Transplant as opposed to an Expert Model of parent-professional practice. Another notable finding was the significance of the family working together in order to avoid creating an imbalance in the parenting structure within the family.

Chapter 19: *Parenting Stress and its Influencing Factors Among Kosovar Mothers*; by Zamira Hyseni Duraku. Parenting behaviors are considered to be influenced by certain stressors, deriving from situational, contextual, or parental or child

domains. The main goal of this study was to examine the interplay of children's age, number of children and gender with parenting stress level among Kosovar mothers. The Parenting Stress Scale (PSS; Berry & Jones, 1995) was used to assess parenting-related stress among Kosovar mothers. The measuring instrument consisted of an online survey distributed to a sample of (N=226) Kosovar mothers. Evaluation of the individual predictors indicated that number of children, child age, and child gender were all significantly associated with high levels of parenting stress, all having $ps < .05$. Parents of more than one child were over 8 times more likely to have high levels of parent stress ($OR = 8.120$). Conversely, parents of children younger than school age had decreased odds of high parenting stress ($OR = .083$). Similarly, those who had only female children were less likely to experience high parenting stress ($OR = .346$) compared to those with children of mixed genders. The Kosovar mothers' parenting stress indicators are in line with the existing parenting stress triggers found within other population groups, since number of children, child age, and child gender were all significantly associated with high levels of parenting stress.

Chapter 20: *Implementation of Social-Emotional Learning Programs in Japanese Schools: School Teachers' Perception of Anchor Points in Educational Practice*; by Reizo Koizumi. The present study examined which factors school teachers perceive as anchor points (bases or elements for constructing and developing a system) to implement and sustain social and emotional learning (SEL) programs. The most suitable subject area and aims of SEL were also surveyed. The participants were 111 school teachers in Japan where schools are strongly controlled under national curriculum standards. A factor analysis of the responses to a questionnaire of anchor points revealed the following four factors: (1) Procedures for Conducting a Program (e.g., trials at one class or one grade level), (2) Necessary Contents and Items for Implementation (e.g., teaching plans, teaching material), (3) Partnership with Families and Local Community (e.g., having partnership with local community), and (4) Leadership in Conducting a Program (e.g., leadership by the chief teacher in practical research). Among these four, factors 2 and 4 were more highly perceived as anchor points for incorporating SEL programs. As a proper curriculum area for SEL programs, Special Activities (e.g., class meetings, class activities, student council, and school events) were given the highest evaluation scores among the major curriculum areas. The programs' main aim was to improve the communication competency and interpersonal relationship ability of Japanese children.

Chapter 21: *Putting the Past in its Place - Assessing Students' Perceptions of their Early Experiences and Self-Awareness as Explored in a Counselling Programme*; by Suzie Savvidou & Petros Kefalas. Assessment in higher education is constantly driving new research, centered on forms of testing based on real-life situations and self-reflection. Within the field of counselling, self-reflection needs to start with the trainees' self-identity — essential part of which is influenced by their past

experiences. Past experiences have a major impact on thinking and feeling patterns, which in turn affect the trainees' personal and professional development. We present a reflective learning and assessment procedure through a project completed in our postgraduate programme in Counselling Psychology. The project is part of a Personal & Professional Development module, with a theoretical part on personality development and a practical part with reflective activities. We aim to "put the past in place" by exploring past experiences that have shaped aspects of the trainees' personalities. Analysis of assessment indicates a number of main themes rooted in early experiences. Such patterns may affect the feeling and thinking patterns adopted by trainees; e.g. feeling guilty when not behaving upon others' expectations or developing "faulty" ideas about an "ideal parent", as well as the possibility of transforming these patterns into more functional ones, within this learning experience.

Section 4, entitled "Cognitive Experimental Psychology", delivers chapters concerning, as the title indicates, studies and research in the area of behavior from the point of cognitive aspects. Concepts as attention and personality are presented here.

Chapter 22: *Missing Targets in Multiple-Target Search*; by Margit Höfler & Birgit Hübel. When searching for more than one target object in the visual environment, a subsequent target is often overlooked once a first target has been found. Here we were interested in whether subsequent search misses (SSMs) are caused by a semantic set bias. According to this bias, a target that is different from the semantic category of the first target should be missed more often than a target of the same category. We asked 26 participants to search for drawings of none, one, or two targets (dangerous objects) within a set of 18 – 20 everyday objects presented on a computer display. If there were two targets in the display, they could have been from either the same category (two guns or two thrust weapons), or from different categories (one gun, one thrust weapon). The findings showed that the search lasted longer when only one target was present, as compared to when two or no targets were present. However, search accuracy did not differ in regards to the target category (same or different). We also did not observe an effect of SSMs. This suggests that there is, at least with the current set of stimuli, no semantic set bias in multiple-target search.

Chapter 23: *Using Personality Tests in Research: Are Longer Tests Necessarily Better?*; by David Freeze, Tracy A. Freeze, Lisa A. Best & Kathryn E. Flood. According to the Five Factor Model, the five dimensions of personality are Neuroticism, Extraversion, Agreeableness, Openness to Experience, and Conscientiousness. Although the Neuroticism, Extraversion, Openness Personality Inventory (NEO-PI-R) is the gold standard of personality testing, it is time-consuming, sometimes cumbersome, and provides detailed analysis that is not always necessary. Our purpose was to compare longer (NEO-PI-R; 240 items),

medium (Big Five Inventory; 44 items) and shorter (Ten Item Personality Inventory; 10 items) tests. Further, because we were interested if a single item could be used to measure each of the five factors, we asked participants to rate five sets of trait descriptors. Participants were recruited from university samples and completed a series of personality inventories. Results indicated moderate/strong correlations between the tests, including between the single item and established tests. For each test, the dominant trait was defined as the trait associated with the highest absolute factor z -score. There was significant test concordance, particularly for Extraversion and Conscientiousness. Thus, participants had a general sense of their personality suggesting that a single item may some indication of specific traits. Although facet level measurement is sometimes preferable, shorter tests can be used when time is a factor or to provide a quick measure of personality.

Section 5, entitled “Psychoanalytical Psychotherapy”, presents a chapter concerning, as the title indicates, aspects of psychoanalytic psychotherapy at the beginning of clinical practice.

Chapter 24: *A Therapist’s Struggle to Establish the Psychoanalytic Frame*; by Sevilay Sitrava. This paper concerns two aspects of my psychoanalytic psychotherapy work with D, who was 20 years old. I saw him once a week for two years. During the first year, we tried to establish a framework for the therapy. In the second year of the psychotherapy, we were able to establish the psychoanalytic frame, and D had progressed to associate freely during the sessions. This had led the psychotherapy process to a more efficient point. I will focus on two of the material settings of this frame; fixed session day and time; and the psychic element of free association. My main focus on this paper is on D’s acting-out towards the time elements of the frame, and free association. I will explain how they were, or were not worked through, and what I encountered as an inexperienced therapist.

Section 6, entitled “Legal Psychology”, explored in this chapter, provide information on prevolitional processes and video games playing.

Chapter 25: *The Role of Prevolitional Processes in Video Game Playing - A Test of the Theory of Planned Behavior and the Extended Model of Goal-Directed Behavior Applied to Video Game Playing*; by Bibiána Kováčová Holevová. The aim of the current study is to investigate the relationship between prevolitional processes and video game playing. In the study, models of attitude, the Theory of Planned Behavior (TPB) and the Extended Model of Goal-directed Behavior (EMGB) are tested with structural equation models to analyze the process that leads to video game playing. In addition, the role of the goal underlying video game playing within the EMGB is examined. The participants were 210 video game players who completed measures of Goal Desire, Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Desire, Anticipated Emotions, Intention to play and Playing Behavior (intensity of video game playing). The

results showed that the TPB achieved a perfect fit although the predictive power of this model was weak. The EMGB demonstrated an unsatisfactory fit and the model had to be revised. Goal Desire was found to contribute to Behavioral Desire, but also to Playing Behavior. The consequence of this direct effect can be habitual or automatic processes which should not be omitted when considering prevolitional processes that lead to video game playing. The potential explanations for this are explored.

Special thanks to all the above authors, editorial advisory board members, and reviewers, who contributed with their efforts to make this book possible.

December 2017

Prof. Dr. Clara Pracana
Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy
Portugal

Prof. Michael Wang
Emeritus Professor of Clinical Psychology, University of Leicester
United Kingdom

CONTRIBUTORS

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Samantha A. Fowler, *University of New Brunswick, Canada*
Sara Ibérico Nogueira, *Universidade Lusófona
de Humanidades e Tecnologias, Portugal*
Suzie Savvidou, *The University of Sheffield International Faculty, Greece*
Tinia Apergi, *The American College of Greece-Deree College & ELIZA-Society
for the Prevention of Cruelty to Children, Greece*
Tracy A. Freeze, *Crandall University, Canada*
Zamira Hyseni Duraku, *University of Prishtina, Kosovo*

Section 1
Social Psychology

Chapter #1

POST-TRAUMATIC STRESS RESPONSES AMONG REFUGEES FOLLOWING XENOPHOBIC ATTACKS IN DURBAN, SOUTH AFRICA

Gail Womersley¹, Amir Shroufi², Nathalie Severy³, & Gilles Van Cutsem²

¹ University of Neuchâtel, Switzerland

² Médecins Sans Frontières – Operational Centre Brussels, South African mission, Belgium

³ Médecins Sans Frontières – Operational Centre Brussels, Medical Department, Belgium

ABSTRACT

Following a spate of xenophobic attacks against foreign nationals in Durban, South Africa, displacement camps were set up to shelter predominantly Congolese and Burundian refugees. Embedded within the emergency program a prevalence study of symptoms of posttraumatic stress disorder (PTSD) was conducted among a convenience sample of this population. Twenty-seven participants included men and women who were screened for symptoms using the Harvard Trauma Questionnaire (HTQ). Results indicate a prevalence rate of 85% among this population. Limitations include the small sample size and potential self-reporting. The high prevalence rate of people who meet diagnostic criteria for PTSD has profound implications for psychosocial interventions and access to mental health services for this community – as well as significant broader legal and social justice implications.

Keywords: PTSD, refugees, trauma, cross-cultural.

1. INTRODUCTION

Over the past two decades, there has been an increasing interest in the question of trauma among refugee populations. In general, the literature reports greater mental health difficulties among refugees compared to general populations within host communities, documenting statistically significant higher levels of post-traumatic stress, anxiety and depression (Abbott, 2016; Ainamani, Elbert, Olema, & Hecker, 2017; de Arellano & Danielson, 2008; Lambert & Alhassoon, 2015; Van Ommeren et al., 2001). Significant rates of medically unexplained pain and somatoform disorder have also been highlighted (Drozdek, Noor, Lutt, & Foy, 2003; Van Ommeren et al., 2001). In terms of PTSD prevalence specifically, a meta-review conducted by Steel and colleagues in 2009 (Steel et al., 2009) examined results of 181 surveys comprising 81 866 refugees and other conflict-affected persons from 40 countries, which revealed an average prevalence rate of PTSD across all surveys of 30.6%. However, there was an alarmingly large inter-survey variability of symptoms (0%-99%) noted. Other meta-reviews have similarly noted diverse prevalence rates of PTSD among refugee communities ranging from 4% to 86% across studies (Hollifield et al., 2002; Tekin et al., 2016). This discrepancy remains unexplained (Bogic et al., 2012).

Despite a high prevalence of PTSD noted among refugee communities, the assessment of refugees' mental health remains complicated. There have been significant concerns raised in the literature over the cross-cultural validity of PTSD itself as a diagnostic construct, particularly among humanitarian interventions (Bracken, 2001, 2002; Eagle, 2014; Marsella, 2010; Summerfield, 1996). There is also a lack of standardized measurement tools for posttraumatic stress responses among culturally diverse populations, a reflection of the significant void in our knowledge regarding the relation of culture to trauma and the relevance of a PTSD diagnosis to refugee populations (Drozdek & Wilson, 2007; Mattar, 2011; Summerfield, 2001). Furthermore, the medicalisation of trauma on an individual level, linked to specific 'traumatic' events in the past, risks rendering us blind to other ongoing aspects of interpersonal, political and social violence on a more global scale, including significant post migration factors that may be deemed equally traumatic by refugees (Bäärnhielm, 2016; Maier & Straub, 2011; Derrick Silove, Austin, & Steel, 2007; Steel et al., 2011).

Although systematic research into the mental health of refugees is in its infancy, there is growing evidence that salient migration stress facing refugees adds to the effect of previous trauma in creating risk of ongoing posttraumatic stress disorder and other psychiatric symptoms (Derrick Silove et al., 2007; Derrick Silove, Steel, & Watters, 2000). In a meta-review of the literature focussed on moderating effects of a variety of enduring, contextual stressors, Porter and Haslam (Porter & Haslam, 2005) found that the psychological consequences of forced displacement were varied significantly as a function of chronic stressors (e.g., locus of displacement and type of accommodation in exile) and were also associated with other factors. Post-migration experiences, such as unemployment, insecure residency, fear of repatriation, and social discrimination have similarly been shown in the literature to be significantly correlated with mental problems in refugees (Bogic et al., 2012; Loizos, 2002; Tekin et al., 2016; Volkan, 2004; Watters, 2001).

In a recent review of the literature, Kartal and Kiripoulos (Kartal & Kiripoulos, 2016) note that the relationships between traumatic events, migration, and mental health outcomes upon arrival in the host country are complex and poorly understood. Acculturative stress within the sample of refugees they examined was associated with greater experiences of cultural loss and nostalgia. This loss itself was found to exacerbate PTSD symptoms. They suggest that the influence of post-migratory demands on mental health differs not only based on the individual's acculturation process alone. It also depends on the characteristics of the local context reflecting the acculturative preferences of the host society. The authors highlight these findings as a confirmation of Berry's (Berry, 1997, 2003; Sam & Berry, 2010) acculturation model. This model delineates the mechanisms through which the host society impacts on the acculturation process of refugees by imposing either encouraging or less desirable acculturative strategies (either encouraging or opposing ethnic diversity and participation in the larger society) which in turn influences mental health. This model has been confirmed elsewhere in the literature: multiple comparative studies examining correlations between the post-migration context and refugees from the same country of origin yet who have resettled in different countries convincingly demonstrate the significant effect of post-migratory factors on symptoms of PTSD. Bogic and colleagues (Bogic et al., 2012) for example, assessed 854 war refugees from the former Yugoslavia having resettled across three countries. They found higher rates of PTSD to be significantly associated with migration-related stress and having a temporary resident permit. Similarly, Kartal and Kiripoulos (Kartal & Kiripoulos, 2016) assessed a sample of 138 Bosnian refugees resettled in both Austria and Australia. After controlling for age, sex, and exposure to traumatic events, acculturative stress associated with post-migratory experiences predicted severity of PTSD.

Acceptance of the host society matters. In a multi-agency guide on the mental health of refugee populations released in 2015, UN agencies and other international humanitarian organizations have highlighted the fact that for most refugees and migrants potentially traumatic events from the past are not the only, or even most important, source of psychological distress but that the majority of emotional suffering is directly related to current stresses and worries and uncertainty about the future (IASC, 2015; MHPSS, 2015). Given the significantly high prevalence rate of PTSD noted among refugees, further exacerbated by reception conditions in the host country, we examine the prevalence of PTSD among refugees who were exposed to xenophobic attacks in their host country of South Africa.

2. BACKGROUND

In April 2015, following an upsurge in violent xenophobic attacks throughout the country, displacement camps were set up to house roughly 7,500 foreign nationals seeking refuge in Durban, KwaZulu-Natal. Médecins Sans Frontières/Doctors without Borders (M.S.F.) were among the actors intervening in the camp by providing the population with basic medical care and psychosocial support. The majority were refugees and asylum seekers from the Democratic Republic of Congo and Burundi who choose to remain in the camps: stating that they cannot return home to their countries of origin safely due to fear of persecution and that they fear returning to the South African communities from which they fled, in many cases after experiencing significantly violent attacks on themselves and their property. The people remaining in the displacement camps represent a population which has been exposed to multiple traumatic events – both in their countries of origin and more recently in South Africa – and were therefore presumed to be at risk of experiencing symptoms of post-traumatic stress. As part of a package of psychosocial care offered by MSF in the displacement camps, a study of post-traumatic stress symptoms was conducted among a convenience sample of refugees in order to explore the extent of the psychological trauma among this particular population, to reflect on the relevance of a PTSD diagnosis within this particular cultural setting and to offer relevant treatment.

3. METHODS

After obtaining authorization from the local municipality and campsite managers, men and women – all of them foreign nationals from the DRC or Burundi - were approached on site at three displacement camps by a researcher/clinical psychologist working for M.S.F. The Harvard Trauma Questionnaire (H.T.Q.) was used as a screening instrument due its recognised cultural sensitivity in assessing highly traumatised populations (Mollica et al., 1992; Mollica, McInnes, Poole, & Tor, 1998; Shoeb, Weinstein, & Mollica, 2007). The HTQ was subsequently administered with the assistance of the researcher and results scored. PTSD was defined according to a scoring algorithm previously described by the Harvard Refugee Trauma Group on the basis of DSM IV diagnostic criteria (American Psychiatric Association, 1994; Mollica et al., 1992). The aim was to identify and highlight the mental health needs of this particular population, to develop a culturally-appropriate intervention programme as well as to enrich advocacy campaigns for their humane treatment by state and non-governmental organizations alike.

4. RESULTS

27 participants completed the Harvard Trauma Questionnaire with the researcher. The results of questions 1-16 of part 4 of the HTQ were subsequently noted and scored. The mean score was 2,87. Participants included 12 women, out of which all 12 (100%) met diagnostic criteria and 15 men, out of which 12 (80%) met diagnostic criteria. When questioned about the traumatic event which participants had either experienced, witnessed or heard about, the majority referred to events which had taken place in their country of origin, as well as the recent xenophobic attacks. 22 participants (81%) reported experiencing or witnessing conflict, murder, torture and/or sexual violence. All participants had been in the camp for at least 7 weeks after the xenophobic violence. For all participants, the traumatic symptoms reported were related to events which had happened in their countries of origin, exacerbated by the xenophobic violence and experiences of being in a refugee camp.

Participants rated the items of the HTQ on a scale of 1 to 4. A score of 1 indicates 'not at all', 2 indicates 'a little,' 3 indicates 'quite a bit' and 4 indicates 'extremely.' The mean results of these scores are indicated below, in table 1.

*Table 1.
Mean scores of the HTQ.*

| | ITEM | Mean Score | Standard Deviation |
|------------|---|------------|--------------------|
| 1. | Recurrent thoughts or memories of the most hurtful or terrifying events | 3,11 | 0,89 |
| 2. | Feeling as though the event is happening again | 3,41 | 0,75 |
| 3. | Recurrent nightmares | 2,37 | 1,21 |
| 4. | Feeling detached or withdrawn from people | 3,00 | 1,11 |
| 5. | Unable to feel emotions | 2,48 | 1,25 |
| 6. | Feeling jumpy, easily startled | 3,00 | 0,92 |
| 7. | Difficulty concentrating | 2,78 | 0,93 |
| 8. | Trouble sleeping | 3,04 | 0,94 |
| 9. | Feeling on guard | 3,19 | 0,89 |
| 10. | Feeling irritable or having outbursts of anger | 3,07 | 0,87 |
| 11. | Avoiding activities that remind you of the traumatic or hurtful event | 2,85 | 1,67 |
| 12. | Inability to remember parts of the most traumatic or hurtful events | 1,93 | 1,11 |
| 13. | Less interest in daily activities | 2,96 | 1,06 |
| 14. | Feeling as if you don't have a future | 3,15 | 1,06 |
| 15. | Avoiding thoughts or feelings associated with the traumatic or hurtful experience | 2,41 | 1,15 |
| 16. | Sudden emotional or physical reaction when reminded of the most hurtful or traumatic events | 3,34 | 0,83 |
| TOTAL MEAN | | 3,34 | |

There were no statistically significant outliers in terms of the mean response to individual items ($p < 0,05$). However, it must be noted that the mean response of items 3, 5, 12 and 15 fell below 2,5. This suggests that participants reported not being strongly affected by recurrent nightmares, an inability to feel emotions, an inability to remember

part of the most traumatic or hurtful event in their lives or a sense of avoiding thoughts or feelings associated with the traumatic or hurtful experience. In general, participants reported being fully aware and emotionally responsive to the traumatic events which they had experienced or witnessed. The highest mean response to an individual item was to item number 2 (mean score = 3,4). This item refers to a feeling that the event is happening again. When questioned, the majority of participants explained that the recent xenophobic attacks which they had experienced or witnessed in South Africa had triggered traumatic memories or flashbacks of events from which they had had to flee in their country of origin.

The greatest standard deviations were for item 3 ('recurrent nightmares,' std dev = 1,21), 5 ('unable to feel emotions,' std dev = 1,25) and 11 ('avoiding activities that remind you of the hurtful or traumatic event,' std dev = 1,67).

5. DISCUSSION

Examining trauma among migrants, more specifically refugees, is a complex issue. One needs to consider a myriad of interacting factors including pre-migration exposure to trauma, the potentially traumatizing nature of the migration experience itself as well as the post-migration acculturation process and current living difficulties. It is interesting to note that the highest mean scores for the items were obtained for the items: "Feeling as though the event is happening again" (3,41). It is impossible to know, but we suggest that this item regarding triggers of previous trauma may similarly be linked to post-migration factors which risk retraumatizing this population – having to relive experiences of violence and consequent fleeing once more after arrival in the host country. The prevalence of PTSD noted among this population appears to have been influenced not only by pre-migration traumas and the post-migration adjustment experience but also by the current social and political environment in which the refugees found themselves. All of these factors tend to be interrelated, multi-faceted and generally cumulative.

For people whose lives are characterized by ongoing hardship, often shaped by discrimination, poverty and other current and future dangers, traumatic events may fall within a continuum of suffering and may not be singled out or experienced with the same precision as the definition of PTSD appears to demand (Eagle, 2014). Furthermore, individuals with a trauma history rarely experience only a single traumatic event but rather are likely to have experienced several episodes of traumatic exposure (Cloitre et al., 2009). In many countries around the world, conflict is not an abnormal situation of short duration but rather a '*fait connu*' (Summerfield, 1996) p. 33., influencing all aspects of political, socio-economic and cultural relations in a society. As such, extreme trauma owing to torture and war is both an individual and collective process that refers to and is dependent on a given social context, marked by its intensity, extremely long duration and interdependency between the social and the psychological dimensions (Becker, Lira, Castillo, Gomez, & Kovalskys, 1990). This is a particularly relevant consideration for the mental health of refugees in light of the multiple and arguably ongoing environmental stressors and potentially traumatic experiences with which they are faced.

6. FUTURE RESEARCH DIRECTIONS

Many participants reported experiencing symptoms arising from multiple types of traumatic events or incidents. The notion of prolonged exposure to trauma as potentially resulting in a 'complex PTSD' pathology was first developed by Herman (Herman, 1992) – and has since become an integral concept in the literature examining the complex and

prolonged traumatic experiences of refugee communities (Droždek, 2015; Drozdek et al., 2003; Mollica et al., 1998; Momartin, Silove, Manicavasagar, & Steel, 2003; D Silove, Ventevogel, & Rees, 2017). The notions of ‘cumulative trauma’ first developed by Khan (Khan, 1977), ‘complex PTSD’ developed by Herman (Herman, 1992, 1997), ‘extreme trauma’ developed by Becker (Becker et al., 1990) and ‘Continuous Traumatic Stress’ introduced by those offering psychological services to political activists during the repressive apartheid years in South Africa (Eagle, 2014; Eagle & Kaminer, 2013), were all constructs developed to conceptualize trauma as having been accumulated over time through exposure to repeated stressors within the environment. We believe that such concepts could allow for a more thorough understanding of the traumatic experiences of the participants in this study.

Limitations of the study include the convenience sampling and the small sample size taken by convenience. Meta-analyses of prevalence studies have indicated that small studies have much higher prevalence than the apparent true prevalence (Terhakopian, Sinaii, Engel, Schnurr, & Hoge, 2008). A recommendation for future research would therefore be to increase the sample size, as well as to compare this group of individuals with a control group of people from the same national group who are not living in the displacement camp. Another limitation is potential self-reporting bias. Perceived secondary gain for being considered psychologically impacted by the events may have included, for example, the perceived hope of improved access to social, medical, psychological and legal services. To minimise the impact of this bias, all participants were clearly informed of the fact that responses to the questionnaire would in no way impact treatment by state mechanisms or NGOs. Future research could include an added qualitative component whereby the results of the questionnaire are interpreted in the light of the participant’s qualitative explanations of symptoms elicited through qualitative interview techniques.

7. CONCLUSION/DISCUSSION

This study found a significantly high prevalence rate (85%) of post-traumatic stress symptoms which were self-reported among a convenience sample of refugees and asylum seekers residing in displaced camps after fleeing from xenophobic violence in Durban, South Africa. This population experienced numerous traumatic events and suffered from repressive measures inside and outside of their countries of origin, and continued to face uncertainty about their security and future within South Africa. PTSD symptoms scores among the participants were significantly more than those reported in other long-term refugee populations screened using the HTQ, such as 45,5% among earthquake survivors in Wenchuan China (Kun et al., 2009), 37.2% among Cambodian refugees living on the Thai–Cambodian border camps (Cardozo, Talley, Burton, & Crawford, 2004), 29,3% among populations living in conflict-ridden southern Lebanon (Farhood, Dimassi, & Lehtinen, 2006) or 11.8% among Guatemalan refugees living in Chiapas, Mexico (Sabin, Cardozo, Nackerud, Kaiser, & Varese, 2003). It is possible that the high prevalence rate of traumatic stress response symptoms reported could be partly attributed to the current significant levels of environmental stress and insecurity. The individual item symptom analysis suggests a culturally specific presentation of trauma response which could be explored in future research.

Despite limitations, the high prevalence rate of people who meet diagnostic criteria for PTSD has profound implications for psychosocial interventions and access to mental health services for this community – as well as significant broader legal and social justice implications. Given such high prevalence of mental health problems in this population,

interventions need to be largely community-based rather than health facility-based. The long-term and ongoing nature of the ongoing violence and a history of composite trauma reported by participants necessitate a long-term intervention, including dialogue with local communities concerning the re-integration of this population and sustained engagement with local community-based services.

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AUTHORS INFORMATION

Full name: Gail Womersley

Institutional affiliation: University of Neuchatel

Institutional address: 1 Espace Louis-Agassiz, Neuchatel, Switzerland

Short biographical sketch: Gail Womersley has recently joined the University of Neuchâtel as a doctoral assistant. Before joining the university, she worked with Médecins Sans Frontières as a clinical psychologist in projects assisting refugee and internally displaced populations in South Sudan, the Central African Republic, Ukraine, Zimbabwe and the Democratic Republic of Congo.

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She has also worked with other non-governmental organizations in Israel and the United Kingdom, as well as for the Department of Health and the Department of Defense in South Africa. She is particularly interested in cross-cultural manifestations of trauma and its implications for legal and social policy as well as clinical practice.

Full name: Amir Shroufi

Institutional affiliation: Médecins Sans Frontières

Institutional address: Operational Centre Brussels, South African mission

Short biographical sketch: Dr Amir Shroufi is a medical doctor and public health specialist who has worked for MSF in Pakistan, Zimbabwe, Lebanon, Ukraine, and is currently the Medical Coordinator for MSF in South Africa.

Full name: Nathalie Severy

Institutional affiliation: Médecins Sans Frontières

Institutional address: Operational Centre Brussels, Medical department

Short biographical sketch: Nathalie Severy is a clinical psychologist (Master in 1999 with a specialization in intercultural psychology, post master in 2017 in victimology and psycho traumatism). Before joining MSF, she worked in France in association dealing with HIV patients (Association APRAE, Cognac Jay hospital) with victims of torture (Association Primo Levi), refugees (Foyer d'accueil Chartrain) and emergency crisis interventions (IAPR). She has been working in MSF in the field between 2003 and 2010 in different positions (Field psychologist, field coordinator, medical coordinator and consultant) in different contexts (DRC, Occupied Palestinian Territories, Nigeria, Sri Lanka, China, Armenia, Abkhazia, South Sudan, South Korea...). Since 2011, she is the Mental Health Referent at the medical department in MSF.

Full name: Gilles van Cutsem

Institutional affiliation: Médecins Sans Frontières

Institutional address: Operational Centre Brussels, Medical department

Short biographical sketch: Dr Gilles Van Cutsem is HIV & TB Adviser for Médecins Sans Frontières's Southern African Medical Unit (SAMU) and an Honorary Research Associate at the Centre for Infectious Disease Epidemiology and Research of the University of Cape Town. He holds a Medical Doctor degree from the University of Louvain, a Diploma of Tropical Medicine from the Institute for Tropical Medicine in Antwerp and a Masters in Public Health and Epidemiology from the University of Cape Town. He's worked with MSF for the past 19 years, in Southern Sudan, Angola, Mozambique, South Africa and Liberia, in clinical, research, coordination and advisory positions, mostly on HIV and TB, but also Ebola, cholera, malnutrition, primary care and emergency medicine.

Chapter #2

THE RELATIONSHIP BETWEEN EMOTIONAL AND PERSONAL WELL-BEING AND PSYCHOLOGICAL WELL-BEING, EXTROVERSION-INTROVERSION, BURNOUT AND ADAPTATION

Galina Glotova¹, & Larisa Karapetyan²

¹Psychological Department, Lomonosov Moscow State University, Russia

²Psychological Department, Ural Federal University, Russia

ABSTRACT

The theoretical construct “emotional and personal well-being” and the interrelations between parameters of the research tool “Self-assessment of Emotional and Personal Well-Being” (Glotova & Karapetyan, 2009) and various personal qualities are considered. The participants had to assess themselves on a seven-point scale, using the following parameters: “happy”, “lucky”, “optimist” (positive emotional component A); “successful”, “competent”, “reliable” (positive personal component B); “pessimistic”, “unhappy”, “envious” (negative component C). The results for each of the nine parameters were analyzed and the general index of self-assessment of emotional and personal well-being (A+B-C) was calculated. The following research instruments were used too: Myers-Briggs Type Indicator; Maslach Burnout Inventory; Rogers-Diamond Test of Social-Psychological Adaptation; Ryff Scales of Psychological Well-Being. The five studies were conducted among adults aged 18-65 years. It was revealed that people that scored highly in the general index of emotional and personal well-being are characterized by extroversion, high scores of adaptation, self-acceptance and acceptance of others, emotional comfort, internality, need to dominate and, on the contrary, low scores of burnout. In the correlation study many statistically significant correlations were obtained between the parameters of the “Self-assessment of Emotional and Personal Well-Being” research method and the six factors of “The Ryff Scales of Psychological Well-Being”.

Keywords: well-being, extroversion-introversion, burnout, adaptation.

1. INTRODUCTION

The concept “well-being” was studied in psychology in the context of analyzing concepts such as “happiness”, “life satisfaction”, “quality of life”, “psychological well-being”, “subjective well-being”. The theoretical base for understanding “psychological well-being” was put forward by Bradburn (1969), who formulated this concept and delimited it from the term “mental health” (Bradburn, 1969). After Bradburn’s book “The structure of psychological well-being” (1969), several areas of research into well-being appeared around the same time (Diener, 1984; Ryff, 1995; etc.), in which two different concepts were accurately defined: psychological well-being and subjective well-being.

Bradburn (1969) has developed the model of psychological well-being in terms of finding balance between positive and negative affects, and everyday life events reflected in consciousness lead to the accumulation of the affect (joy or disappointment). Respectively, an indicator of psychological well-being and general feeling of satisfaction with life is, according to Bradburn, the divergence between positive and negative affects. The person

feels happy and satisfied when the positive affect outweighs the negative, and has a high level of psychological well-being. On the contrary, when the sum of negative experiences outweighs the positive, the person experiences dissatisfaction and feels unhappy, indicating a low level of psychological well-being. At the same time, according to Bradburn, positive and negative affects do not depend on each other: perhaps both prevalence of this or that of them, and their equality (Bradburn, 1969, p. 5). With the concept of “psychological well-being”, Bradburn (1969) nonetheless described a phenomenon that consequently received the name “subjective well-being”.

The term “subjective well-being” appears thanks to Diener (1984), who has made a significant contribution to understanding the phenomenon of well-being. According to Diener, apart from pleasant and unpleasant emotions, there is a third component at the structure of subjective well-being – life satisfaction. The components taken together form a uniform indicator of subjective well-being (Diener, 1984, 1994). Diener, Suh, Lucas, & Smith (1999), after analyzing data from various authors and using their own empirical researches, have shown which intra personal determinants and objective factors of subjective well-being exist. The authors have analyzed the influence of factors such as gender, age, race, employment, education level, income, religious preferences, matrimonial relations, life experiences, psychological type of the person and their conditions of health (Campbell, Converse, & Rodgers, 1976; Diener, 1984; Diener, Suh, Lucas, & Smith, 1999). People with the raised neuroticism are more often inclined to show negative emotions, and those who are more extrovert show negative emotions less often (Costa, & McCrae, 1980). Wilson (1967) has revealed the positive correlation between a positive attitude to life and high self-esteem, and a more optimistic perception of events.

Ryff also set the task to develop the theoretical concept of psychological well-being, and then test this using research. She discovered that psychology always dealt with a person’s psychological well-being or problems, and not only theoretically (though without using the term “psychological well-being”), but also practically (in psychotherapy) (Ryff, 1989, 1995). The short characteristic of theories which have been used during the creation of the theoretical model of psychological well-being was given (Ryff & Keyes, 1995, p. 720), including Ericsson’s “stages of psychosocial development”, Jahoda’s “mental health”, Birren’s “mental health at late age”, Jung’s “individuation”, Maslow’s “self-actualization”, Rogers’s “full human functioning”, Allport’s “maturity”, Neugarten’s “executive processes of the personality”, and Buhler’s “the main vital tendencies”.

Ryff’s theory led to a new method of psychotherapy, “well-being therapy”, for which she has developed the original questionnaire, “The Ryff Scale of Psychological Well-Being” (Ryff, 1989, 1995), which was widely adopted in psychology and also adapted for the Russian sample (Shevelenkova & Fesenko, 2005). In the US, this questionnaire revealed certain regularities of psychological well-being. As a person gets older, the assessment of components of psychological well-being such as “autonomy” and “environmental mastery” increases. Appreciation of the components “personal growth” and “purpose in life” are more characteristic of young people, and goes down with age (Ryff, & Keyes, 1995, p. 720).

In later research, which was also conducted on the basis of Ryff’s six-factor model (Keyes, Shmotkin, & Ryff, 2002), there is an interesting attempt to overcome the ambiguities that take place when using this model in empirical research. In particular, only two scales show highly reliable correlations with indicators of scales “happiness”, “life satisfaction”, “depression” (Ryff, & Keyes, 1995). Authors suggest distinguishing between two types of well-being – subjective well-being (SWB) and psychological well-being (PWB). Subjective well-being is understood as life assessment in terms of satisfaction (“life

satisfaction”) and a balance between positive and negative affects. That it, in fact, the understanding of well-being that developed in earlier research (Bradburn, 1969; Diener, 1984; Diener, Larsen, Levine, & Emmons, 1985; Watson, Clark, & Tellegen, 1988), which preceded researches of Ryff and her six-factor model of psychological well-being. Psychological well-being, according to authors, includes obligations under the solution of existential challenges of life. Authors have assumed that these two areas are conceptually connected, but are empirically various and differently connected with social and demographic and personal features. The ambiguity in defining the concept of subjective well-being is noted by Busseri (2015). He gives an empirical assessment of the competing structural approaches in which subjective well-being and its structure is understood differently: as a set of three independent components, as a hierarchical design or a system of relationships of cause and effect. Gallagher, Lopez, and Preacher (2009) suggest considering the structure of subjective well-being proceeding from hedonistic, eudemonistic and social and psychological approaches to studying of this phenomenon. In analyzing modern approaches to research of subjective well-being, authors have allocated three types of well-being: hedonic well-being, which is identified with subjective well-being (Bradburn, 1969; Diener, 1984); eudemonic well-being, or psychological, well-being (Ryff, 1989; Ryan, Huta, & Deci, 2006); social well-being described in the research of Keyes (1998) and Ryff & Singer (2006). As a result of research, the authors have come to an empirical model of well-being in which there are levels of three main structures: hedonic, eudemonic and social. As a result of the confirmatory factor analysis, three factors were allocated. Positive, negative affects and life satisfaction have got to the first factor (“hedonic well-being”) with high loadings. Social acceptance, updating, coordination, cooperation, integration and positive relations with other people have got to the second factor (“social well-being”). Scales such as autonomy, environmental mastery, personal growth, purpose in life, and self-acceptance have got to the third factor (“eudemonic well-being”) (Gallagher, Lopez, & Preacher, 2009).

With use of the factor analysis, the connected but differing status of subjective (SWB) and psychological well-being (PWB) has been confirmed among a group of 3032 Americans between the ages of 25-74. The probability of optimum well-being (high SWB and PWB) increased with increase in age, education level, indicators on “extroversion” (E) and “consciousness/conscientiousness” (C) scales, and reduction of indicators on the “neuroticism” (N) scale. Subjects with higher rates of subjective well-being (SWB>PWB) were younger, had a higher education level, and indicators on the scale “openness to experience”(O) were higher than among subjects with higher rates of psychological well-being (PWB>SWB) (Keyes, Shmotkin, & Ryff, 2002).

According to Sandvik, Diener, and Seidlitz (1993), ordinary tools of the self-report (use of “self-assessment”) have confirmed the validity: the data obtained by means of the self-report highly correlate with the results received by means of the research equipment “non-self-report measures” when the subjective well-being of examinees was estimated by their family and friends. Today, questionnaires remain the most widespread form of gathering data on the psychology of the personality. Diener, Suh, Lucas, and Smith (1999); Ryff (1989, 1995) give the greatest value in development of subjective and psychological well-being as not so much objective (gender, age, income level, professional employment), but as related to many subjective, intra personal factors. The psychological correlates of subjective and psychological well-being are now being actively studied abroad.

According to Archontaki, Lewis, and Bates (2013), psychological well-being is influenced by genetics, influencing self-checking and psychological predisposition to

choose the purpose, personal growth and forming of positive social communications. The existence of genetic determination in psychological well-being suggests that psychological well-being is connected with basic personality characteristics such as, for example, extroversion and neuroticism.

Schutte and Ryff (1997) studied interrelations between indicators of the personality using "The big five" (NEO Five-Factor Inventory, Costa & McCrae, 1992) and indicators of psychological well-being using the Ryff's Psychological Well-Being inventory (PWB) (Ryff, 1989) in adults of middle age. In research, it has been revealed that indicators on such scales as "self-acceptance", "environmental mastery" and "purpose in life" are authentically connected with "neuroticism" (N), "extroversion" (E) and "consciousness/conscientiousness" (C). The scale "personal growth" is connected with "openness to experience" (O) and "extroversion" (E); the scale "positive relations with others" is connected with "conscientiousness" (C) and "extroversion" (E); the scale "autonomy" is connected with "neuroticism" (N). Authors draw a conclusion about existence of difficult interrelations between psychological well-being and features of the personality.

As a result of longitudinal research, Soto (2015) has found that in emotionally stable extroverts with expressed indicators of goodwill and conscientiousness, the level of subjective well-being increases over time. Moreover, subjects who had an initially high level of subjective well-being became more focused on the inner world, more benevolent and balanced over time. The data obtained demonstrates that the level of subjective well-being is a correct predictor of development of personality traits such as conscientiousness, goodwill and emotional stability. Friedman, Kern, and Reynolds (2010) conducted longitudinal research. It was discovered that neuroticism at a young age is a correct indicator of a low level of subjective well-being and poor physical health later on in life. Both for men and women, extroversion in youth has been connected with high social competence later on in life.

Campbell (1976, 1981); Inglehart and Rabier (1986), pointing the connections of quality of life with "internal health" or the individual's degree of satisfaction with different spheres of life, emphasize that feelings of happiness and life satisfaction are different, but their crossings are possible. Some research gives reason to claim that the person's social environment has an essential but not exhaustive influence on life satisfaction. For example, Campbell, Converse, and Rodgers (1976) show extremely weak correlations between the indicators of life satisfaction and variables of a social environment.

Ryan and Deci's theory of self-determination contributes to studying psychological well-being, including in the structure of basic psychological needs of the person the needs for autonomy, competence and communication with others. If society helps to satisfy these requirements, the level of subjective well-being increases (Ryan, & Deci, 2000, p. 68).

According to Fava and Tomba (2009), despite difficult life situations, psychological well-being promotes positive self-assessment, finding a sense of continuous growth and development, belief that life is filled with meaning, qualitative relations with other people, the ability to deal with life effectively and self-determination. According to Drigotas (2000), a person's psychological well-being is influenced by a certain relation of the loved one, namely when the relation of the loved one is congruent to an ideal image of the person.

Hofmann, Luhmann, Fisher, Vohs, and Baumeister (2014) have shown that the locus of control is an important factor of emotional well-being and life satisfaction. Self-checking can promote increase in psychological well-being, helping people to avoid motivational conflicts, preferring more worthy though more difficult purpose. According to King, Richards, and Stemmerich (1998), a decrease in level of subjective well-being is connected to the strategy of avoiding fears. At the same time, the existence of the daily purposes

which are connected with the global vital purposes poorly predicted the subjective well-being of subjects.

King and Raspin (2004) studied the influence of perception of a divorce in the past on the level of relevant subjective well-being of women. It was found out that the importance lost had a negative effect on the level of subjective well-being in divorced women. Authors come to a conclusion that the regret of what “could have been” negatively effects subjective well-being.

In the article of Branscombe, Schmitt and Harvey (1999), the influence of prejudice on the subjective well-being of the Afro-Americans concerning the fact that they are the victims of racism is discussed. In analyzing aspects of Asian mentality in the context of subjective well-being, Suh (2007) comes to a conclusion that the strong need to belong and highly context-sensitive Self influence decrease in the level of subjective well-being is mediated through a set of behavioral, cognitive and emotional personal dispositions. Such behavioral dispositions are: avoidance orientation, prevention-focused orientation, less pressure to be happy and less capitalization. Among cognitive predictors of decrease in subjective well-being, the author points out social comparison and excessive reliance on external, social information. Emotional factors such as less value placed on happiness and less savoring have a negative effect on the level of subjective well-being (Suh, 2007, p. 1328).

2. BACKGROUND

The study of human well-being has a long history. Since ancient times, this subject has been reviewed from the angle of two research traditions: the hedonistic and the eudemonistic one (Lopez & Snyder, 2009). Nowadays, these traditions are represented by the constructs of “subjective well-being” (Diener & Larsen, 1993; Diener, Suh, Lucas, & Smith, 1999) and “psychological well-being” (Ryff, 1989; Ryff & Keyes, 1995). These constructs are considered relatively autonomous, though both of them are related to people perceiving their well-being (Keyes, Shmotkin, & Ryff, 2002). Thus, “subjective well-being” and “psychological well-being” can be experienced simultaneously by one person, and though combinations differ depending on the individual, both types of well-being can be developed at the same level (high, medium or low), or one of them can be more pronounced than the other (Keyes, Shmotkin and Ryff, 2002). The components of “subjective well-being” are significantly different from the components of psychological well-being. “Subjective well-being” includes components such as “satisfaction with life” and “balance of positive and negative affects” (Diener & Suh, 1997), whereas “psychological well-being” includes six integral constructs (“self-acceptance”, “personal growth”, “purpose in life”, “positive relations with others”, “environmental mastery”, “autonomy”) (Ryff & Keyes, 1995, p. 720). Subjective well-being can be described as emotional well-being due to its integral constructs, while psychological well-being can be described as the well-being of human personality. Ryff & Keyes (1995) have shown that psychological well-being is something more “than feeling happy and satisfied with life” (p. 725). Thus, two important oppositions emerge from the study of human well-being: a) opposition of subjective (emotional) to psychological (personal) well-being; b) opposition of the positive affect to the negative affect. These two parameters were used as a basis for the development of a new construct: “emotional and personal well-being” (Glotova & Karapetyan, 2009, 2017).

The construct “emotional and personal well-being” includes two positive components: “emotional” (A), and “personal” (B), and one negative component (C). The theoretically

selected components were expanded with the content of the nine integral constructs based on empirical data and on philosophical and psychological literature. Happiness, luck and optimism were identified as the three elements of the “positive emotional component” (A). Success, competence and reliability were identified as the three elements of the “positive personal component” (B). Pessimism, unhappiness (emotional elements), and envy (personal element) were identified as the three elements of the “negative component” (C). The “Self-Assessment of Emotional and Personal Well-Being” research instrument including nine mono-scales was developed on the basis of this construct. In psychological research that studies individual’s perception of well-being based on any constructs and using different research instruments, the question of a specific psychological correlation always comes up. It was indicated that subjective well-being is closely correlated with personality traits (Gutiérrez, Jiménez, Hernandez, & Puente, 2005; Hayes & Joseph, 2003; Lucas, 2008; Lucas & Fujita, 2000). For example, correlation was identified between some components of both subjective and psychological well-being and extroversion (Lucas & Fujita, 2000; Schmutte & Ryff, 1997), and also depression (Ryff & Keyes, 1995). In this study, the task was to explore some of the psychological correlates of the new construct, “emotional and personal well-being” (EPWB), and to compare them with the psychological correlates of the constructs “subjective well-being” and “psychological well-being”.

3. OBJECTIVES

The first objective of the research was to explore how adults evaluate their own emotional and personal well-being. The second objective was to explore the correlations between self-assessment of emotional and personal well-being with extroversion-introversion, burnout, adaptation and the factors of C. Ryff’s psychological well-being.

4. DESIGN

A quasi-experimental study was conducted. The correlation analysis (by Spearman) has been applied to the data obtained in researches 1-5 for studying connections between parameters of the tool "Self-assessment of Emotional and Personal Well-Being" with results of other tools of psychological diagnostics. The factor analysis by the principal component method with Varimax rotation and normalization according to Kaiser was applied to the data obtained in study 5 for more detailed research of connections between parameters of the "Self-assessment of Emotional and Personal Well-being" tool and factors of Riff’s tool.

5. METHODS

The “Self-Assessment of Emotional and Personal Well-Being” research instrument (Glotova & Karapetyan, 2009) includes nine mono-scales that are integrated into three components: a positive emotional component (A), a positive personality component (B), and a negative component (C). The study was conducted among adults aged 18-65, whereby participants had to assess themselves on a seven-point scale, using the following parameters: “happy”, “lucky”, “optimist” (positive emotional component A); “successful”, “competent”, “reliable” (positive personal component B); “pessimistic”, “unhappy”, “envious” (negative component C) (Study 1, n=2229). The results for each of the nine

parameters were analyzed and the general index of self-assessment of emotional and personal well-being was calculated using this formula: A+B-C. In addition, the sum of positive components A+B, as well as their difference A-B, which characterizes the dominance of one or the other of the positive component in the structure of the respondent's emotional and personal well-being, can be calculated.

The following research instruments were also used: Myers-Briggs Type Indicator (MBTI, F; EI scale) (Myers & McCaulley, 1985) (Study 2, n=857); Maslach Burnout Inventory (MBI) (Maslach, Jackson, & Leiter, 1996) (Study 3, n=381);

Rogers-Diamond Test of Social-Psychological Adaptation (SPA) (Raygorodsky, 2000) (Study 4, n=1201); Ryff Scales of Psychological Well-Being (Shevelenkova & Fesenko, 2005) (Study 5, n=55).

6. RESULTS

Study 1 was conducted using the "Self-Assessment of Emotional and Personal Well-Being" research instrument for adults aged 18-65 (n=2229). The descriptive statistics were obtained for each of the nine parameters and for the general index of self-assessment of emotional and personal well-being (A+B-C). The scores for the general index ranged between -9.00 to 39.00, M=23.67, SD=7.92, Me=25.

Study 2 explored the correlations between the parameters and the index of self-assessment of emotional and personal well-being and the continuous "extroversion-introversion" (EI) scale of the Myers-Briggs (MBTI, F) research tool (high scores on the EI scale correlate with introversion, and low scores correlate with extroversion).

Spearman's correlation coefficient of the general index of self-assessment of personal and emotional well-being (A+B-C) with the continuous "extroversion-introversion" (EI) Myers-Briggs (MBTI, F) scale, is negative, weak and statistically significant ($r = -0.280$; $p \leq 0.001$).

Table 1 shows Spearman's coefficients of correlation between nine parameters of the "Self-Assessment of Emotional and Personal Well-Being" research instrument and the continuous scale "extroversion-introversion" (EI).

Table 1.
Correlations between the parameters of the "Self-Assessment of Emotional and Personal Well-Being" research instrument and the scores of the continuous scale EI (MBTI, F) (n = 857).

| A | EI | B | EI | C | EI |
|----------|-----------|------------|-----------|-------------|----------|
| Happy | -0.206*** | Successful | -0.198*** | Pessimistic | 0.127*** |
| Lucky | -0.218*** | Competent | -0.162*** | Unhappy | 0.053 |
| Optimist | -0.248*** | Reliable | -0.172*** | Envious | 0.083* |

Note: *** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$

As is shown in table 1, all six positive parameters of the "Self-Assessment of Emotional and Personal Well-Being" research instrument showed negative correlation (at $p \leq 0,001$) with the EI scale. The negative parameters, on the contrary, had shown positive correlations with the EI scale: the parameter "pessimistic" at $p \leq 0.001$; "envious" at $p \leq 0.05$ (it is significant though not meaningful); for "unhappy" the correlation is non-significant. The above stated means that people who assess themselves highly in parameters "happy",

“lucky”, “optimist”, “successful”, “competent” and “reliable”, and assess themselves lowly in parameters “pessimistic” and “envious”, tend to be extroverts.

Study 3 (n=381) used the Maslach Burnout Inventory (MBI) to explore the correlations between the nine parameters and the general index of self-assessment of emotional and personal well-being and the burnout indicators. The presence of burnout is indicated by high scores on the scale of “emotional exhaustion” and “depersonalization”, and low scores on the scale of “personal achievements”.

The general index showed statistically significant negative correlations with the indicators of “emotional exhaustion” ($r = -0.307, p \leq 0.001$), “depersonalization” ($r = -0.275, p \leq 0.001$), and significant positive correlation with the “personal achievements” indicator ($r = 0.259, p \leq 0.001$).

For nine parameters of the “Self-Assessment of Personal and Emotional Well-Being” research instrument, 24 out of 27 possible correlations are significant, with 15 of them being significant at $p \leq 0.001$, 7 - at $p \leq 0.01$ and 3 - at $p \leq 0.05$ (Table 2).

Table 2.

Spearman’s correlations between the parameters of the “Self-Assessment of Personal and Emotional Well-Being” research instrument and the MBI burnout indicators (n = 381).

| Nine parameters | Emotional exhaustion | Depersonalization | Personal achievements |
|-----------------|----------------------|-------------------|-----------------------|
| Happy | -0.226*** | -0.186*** | 0.185*** |
| Lucky | -0.212*** | -0.167** | 0.176*** |
| Optimist | -0.202*** | -0.190*** | 0.212*** |
| Successful | -0.251*** | -0.220*** | 0.260*** |
| Competent | -0.115* | -0.158** | 0.182*** |
| Reliable | -0.178*** | -0.177*** | 0.152** |
| Pessimistic | 0.223*** | 0.160** | -0.122* |
| Unhappy | 0.150** | 0.103 | -0.095 |
| Envious | 0.157** | 0.152** | -0.041 |

Note: *** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$

As can be seen in Table 2, the six positive parameters of self-assessment of personal and emotional well-being had shown weak negative statistically significant correlations with “emotional exhaustion”, and the three negative parameters correlated positively. The six positive parameters showed weak negative statistically significant correlations with “depersonalization”, and two of the negative three showed weak positive significant correlation with “depersonalization”, and the parameter “unhappy” tended towards positive correlation. In other words, the higher the scores of the negative parameters of self-assessment of emotional and personal well-being, the higher the indicators of burnout on the scale of “emotional exhaustion” and “depersonalization”. In contrast, the six positive parameters of self-assessment of emotional and personal well-being correlated weak positively with the scale of “personal achievements”, while the negative parameters correlated weak negatively (or statistically significantly – the “pessimistic” parameter or in

tendency – the “unhappy” parameter, or, else, no significant correlation was indicated as in the case of the “envious” parameter).

Thus, the higher the scores of the positive parameters of self-assessment of emotional and personal well-being, the higher the scores on the scale of “personal achievements”, and the lower the scores are the indicators of burnout on this scale.

Table 2 shows that the closest correlation with the scales of the MBI was shown by three parameters – “happy”, “lucky”, and “optimist”, characterizing the positive emotional component of well-being (A), where 8 of 9 possible correlations are significant at $p \leq 0.001$ and only 1 (the correlation between the “lucky” parameter and “depersonalization”) is significant at $p \leq 0.01$.

For “successful”, “competent”, and “reliable”, the three parameters that characterize the positive personal component (B) of well-being, 6 of 9 possible correlations are significant at $p \leq 0.001$, 2 - at $p \leq 0.01$; and 1 correlation (the correlation between the parameters “competent” and “emotional exhaustion”) is significant at $p \leq 0.05$.

For the three parameters “happy”, “optimist” and “successful”, the correlations on three scales of MBI are statistically significant at $p \leq 0.001$.

Three parameters characterizing the negative component of well-being (C) have fewer significant correlations - 6 out of the possible 9. Table 2 shows that all three negative parameters of self-assessment of emotional and personal well-being are positively significant correlated with “emotional exhaustion”, two with “depersonalization”, and “personal achievements” are only significantly negatively correlated with the “pessimistic” parameter.

Thus, the higher the scores for the emotional (A) and personal (B) parameters of the positive components of self-assessment of emotional and personal well-being, and the lower the scores for the parameters of the negative component (C), the less exhaustion is indicated in tendency, and vice versa.

In Study 4, multiple correlations were revealed, using Spearman’s correlation analysis, between the nine parameters and the general index of self-assessment of emotional and personal well-being and the integral indicators of the Rogers-Diamond Test of Social-Psychological Adaptation (SPA) research instrument ($n = 1201$).

The general index of self-assessment of emotional and personal well-being (A+B-C) significantly correlated with all six integral indicators of SPA: with “adaptation” ($r = 0.422$, $p \leq 0.001$), “self-acceptance” ($r = 0.401$, $p \leq 0.001$), “acceptance of others” ($r = 0.360$, $p \leq 0.001$), “emotional comfort” ($r = 0.428$, $p \leq 0.001$), “internality” ($r = 0.349$, $p \leq 0.001$), “need to dominate” ($r = 0.244$, $p \leq 0.001$).

Using Spearman’s correlation analysis of nine parameters of the “Self-Assessment of Emotional and Personal Well-Being” research instrument with the integral coefficients of the SPA ($n = 1201$), 52 out of 54 possible statistically significant correlations were obtained, and, moreover, all 52 had a high level of significance ($p \leq 0.001$). The positive parameters “happy”, “lucky”, “optimist”, “successful” and “competent” revealed six out of six possible significant positive correlations with the integral coefficients of SPA, and the parameter “reliable” revealed five significant positive correlations. The negative parameters “pessimistic” and “unhappy” revealed six significant negative correlations out of the possible six, with the integral coefficients of SPA, and the parameter “envious” demonstrated five significant negative correlations out of six (no significant correlation was found with the integral coefficient “need to dominate”). The parameter “optimist” has shown moderate positive correlations with the integral coefficients of the SPA, such as “adaptation”, “self-acceptance”, “acceptance of others” and “emotional comfort”. The parameter “lucky” has shown moderate positive correlation with integral coefficient of the

SPA “emotional comfort”. Parameters “pessimistic” and “unhappy” have shown moderate negative correlations with the integral coefficients of the SPA, such as “adaptation”, “self-acceptance” and “emotional comfort”. Furthermore, the parameter “pessimist” has shown moderate negative correlation with the integral coefficient of the SPA “acceptance of others”. Other statistically significant correlations were weak.

In the correlation study 5 conducted on a sample of 55 respondents, multiple statistically significant relations were found (according to Spearman) between the integrative parameters of the “Self-assessment of emotional and personal well-being” research instrument and the factors of C. Ryff’s instrument, translated and adapted to the Russian sample (Shevelenkova & Fesenko, 2005). The results are shown in Table 3.

Table 3.
Correlations of the parameters of the “Self-assessment of Emotional and Personal Well-Being” research instrument with the factors of Ryff’s instrument (n=55).

| C. Ryff EPWB | Positive relations with others | Autonomy | Environmental mastery | Personal growth | Purpose in life | Self- acceptance |
|-----------------|---|----------|--------------------------|--------------------|--------------------|---------------------|
| A | .670*** | .511*** | .614*** | .596*** | .692*** | .653*** |
| B | .521*** | .342* | .593*** | .415** | .420*** | .498*** |
| A+B | .740*** | .552*** | .733*** | .633*** | .686*** | .695*** |
| C | -.270* | -.355** | -.289* | -.370** | -.462*** | -.325* |
| A+B-C | .715*** | .551*** | .709*** | .672*** | .718*** | .702*** |

Note: *** $p \leq 0,001$; ** $p \leq 0,01$; * $p \leq 0,05$

One can see in Table 3 that all 30 correlations are statistically significant. Moreover, the parameters A, A+B and the index A+B-C are connected with all six factors of Ryff’s tool only by strong positive correlations at a high level of significance ($p \leq 0,001$). In total, out of 30 possible relations between the five integrative parameters of the “Self-assessment of Emotional and Personal Well-Being” research instrument and six factors of Ryff’s tool, 23 are statistically significant at $p \leq 0,001$, 3 ones are at $p \leq 0,01$, and 4 ones are at $p \leq 0,05$. At the same time, positive parameters (A, B, A+B) correlate with the factors of Ryff’s tool positively (14 correlations are strong, 4 ones are moderate), and the negative parameter (C) correlates negatively (4 correlations are moderate, and 2 ones are weak). In addition, the correlations of the emotional component of well-being (A) are stronger than the correlations of the personal component of well-being (B).

As for the nine mono-scales, three positive mono-scales of the emotional component of well-being (A) “happy”, “lucky”, “optimist” have statistically significant positive correlations with all six factors of Ryff’s tool (18 significant correlations out of 18 possible ones). The personal component of well-being (B) has 15 statistically significant positive correlations: the mono-scale “successful” correlates with all six factors of Ryff’s tool; the mono-scale “competent” showed 5 significant correlations (there is no correlation with the “autonomy” factor); the mono-scale “reliable” has 4 significant correlations (there are no correlations to the factors “autonomy” and “purpose in life”). Out of the negative components of well-being (C), the mono-scale “unhappy” has statistically significant negative correlation with all six factors of Ryff’s tool; the mono-scale “pessimist” has shown 3 negative significant correlations, and the mono-scale “envious” has shown 2

negative significant correlations. It should be noted that in Ryff's instrument all six factors are positive, there are no negative factors.

The factor analysis has been carried out for verification of the assumption that the "Self-assessment of Emotional and Personal Well-Being" research instrument and Ryff's instrument are intended for studying the same psychological phenomenon – a person's experiences of internal well-being. To carry out the factor analysis, we used six factors that make up Ryff's theory, five integrative parameters of the "Self-assessment of Emotional and Personal Well-Being" such as A, B, C, A+B, A+B-C, and also the sixth parameter A-B. The factors were extracted through the principal component method with Varimax rotation and normalization according to Kaiser.

The first factor (the explained variance of 57.86%) can be considered as a "generalized factor of the inner well-being experienced by a person" (Table 4).

Table 4.
Results of factor analysis of six parameters of the "Self-evaluation of Emotional and Personal Well-Being" research instrument and the six parameters of Ryff's instrument.

| Parameters | Factors | |
|--|----------|----------|
| | Factor 1 | Factor 2 |
| General index of emotional and personal well-being (A+B-C) | .939 | |
| Positive components of well-being (A+B) | .918 | |
| Environmental mastery, C. Ryff | .865 | |
| Emotional component of well-being (A) | .853 | |
| Self-acceptance, C. Ryff | .826 | |
| Purpose in life, C. Ryff | .819 | |
| Personal growth, C. Ryff | .750 | |
| Positive relations with others, C. Ryff | .744 | |
| Personal component of well-being (B) | .694 | -.692 |
| Autonomy, C. Ryff | .689 | |
| Negative component of well-being (C) | -.522 | |
| Difference between the emotional and the personal components of well-being (A-B) | | .939 |
| Percentage of explained variance | 57.86% | 13.73% |

The second factor is a balance between two positive components of well-being, i.e. emotional and personal ones. The second factor includes "the difference between the emotional and personal components of well-being (A-B)" with a positive factor load. "The personal component of well-being (B)" is presented in both factors. It is present at the first factor with a positive factor load because it is one of components of internal well-being. It is present at the second factor with a negative factor load because increase in an indicator of "the personal component of well-being (B)" leads to a reduced difference between the A and B components, and at B>A, the difference becomes negative. The A-B parameter allows to analyze the balance between personal and emotional components of well-being (equality or prevalence of one of them) in each participant of the study.

7. DISCUSSION

When considering the results of the studies conducted, it is noted that a person's sense of inner well-being is a complex multidimensional phenomenon that can be studied using

various constructs. Along with constructs of “subjective well-being” and “psychological well-being”, new constructs can also be created. There may be certain overlap between the new and old constructs in terms of content, but they have some defined differences nonetheless. One of these new constructs is “emotional and personal well-being”. This construct was formed with the aim of integrating hedonistic and eudemonistic aspects in the understanding of well-being within a single construct and instrument, as well as taking into account the balance of positive and negative affects. Accordingly, the instrument for “Self-assessment of Emotional and Personal Well-Being” consists of three components: the “positive emotional component (A)”, the “positive personal component (B)”, and the “negative component (C)”.

In our research, the correlations were examined between the parameters of the “Self-assessment of Emotional and Personal Well-Being” instrument and those in Ryff’s tool, as well as the indicators of psychological tests for studying extroversion-introversion, adaptation and burnout.

Strong correlations for positive parameters (A, A+B) and general index (A+B-C), as well as two strong and four moderate correlations for positive parameter (B) were found between these parameters of “Self-assessment of Emotional and Personal Well-Being” and those of the Ryff’s tool. The presence of these statistically significant positive correlations can be considered as an indicator that both constructs and both research tools are related to the study of the same psychological phenomenon: the experience of a person’s inner well-being. Six statistically significant negative correlations were found between the negative parameters (C) and the factors of Ryff’s tool, four of which were moderate and two of which were weak, which can be explained by the fact that there are no negative indicators in Ryff’s tool.

Correlations were identified between higher scores of the parameters of “Self-Assessment of Emotional and Personal Well-Being” and extroversion, and between lower scores of these parameters and introversion, which corresponds to the results obtained using other constructs of well-being and other research instruments. Thus, in the research by Schmutte and Ryff (1997), five of the six parameters of “psychological well-being”, as described in the Psychological Well-Being Inventory (Ryff, 1989) (“self-acceptance”, “personal growth”, “purpose in life”, “positive relations with others”, “environmental mastery”), showed statistically significant correlations with the scale “extroversion” (E) of NEO Five-Factor Inventory (Costa & McCrae, 1992). The research of Keyes, Shmotkin, and Ryff (2002) showed that the probability of optimal well-being (high levels both of subjective well-being and psychological well-being) increased together with increasing indicators on the scale of “extroversion” (E). In our study, a similar trend was seen (weak statistically significant correlations) for eight mono-scales of “Self-assessment of Emotional and Personal Well-Being”, with a continuous scale of “extroversion-introversion” as in the Myers-Briggs (MBTI, F) instrument.

The correlations between nine parameters and the general index of “Self-Assessment of Emotional and Personal Well-Being” instrument and the integral indicators of the SPA are of interest to us because the six integral indicators of SPA represent the six integral constructs constituting the content of the generalized construct “social and psychological adaptation”. These integral SPA constructs have certain similarities with the integral constructs that constitute the generalized constructs of “subjective well-being” and “psychological well-being”. The integral indicator “emotional comfort” is similar in meaning to “balance of positive and negative affects”, which is used in the study of “subjective well-being”. The integral indicator of “self-acceptance” in the SPA research instrument corresponds to the factor of “self-acceptance” in Ryff’s theory.

Part of the remaining integral indicators of the SPA research instrument, although named differently, has a certain semantic similarity to the factors of “psychological well-being” identified by Ryff (1989). Thus, the integral indicator of “acceptance of others” is similar in meaning to the factor “positive relations with others”; the integral indicator of “adaptation” may be related to the factors “environmental mastery” and “personal growth”; and the integral indicator of “internality” can be compared with the factors “autonomy” and “purpose in life”. The correlations obtained as a result of our study between the parameters and the general index of the “Self-Assessment of Emotional and Personal Well-Being” research tool and the integral indicators of the “Social and psychological adaptation” (SPA) research tool indicate that the generalized construct of “social and psychological adaptation” consists of integral constructs, which by their nature are associated with an individual’s perception of various aspects of well-being – whether subjective, psychological, or emotional and personal.

In our study, a trend was seen whereby weak statistically significant correlations were found between the parameters of “Self-assessment of Emotional and Personal Well-Being” and the indicators of burnout. This confirms the correlation between self-assessment of emotional and personal well-being and the individual aspects of a person’s emotions. This study has revealed the correlations between the individual’s perception of a specific extent of well-being and manifestations of burnout, whereas the study of Schmutte and Ryff (1997), where the research instrument of NEO Five-Factor Inventory (Costa & McCrae, 1992) explored the correlation between four of the six parameters of “psychological well-being”, as described in Psychological Well-Being Inventory (Ryff, 1989) (“self-acceptance”, “purpose in life”, “environmental mastery”, “autonomy”), showed statistically significant correlations with “neuroticism” (N). It was also indicated that six parameters of “psychological well-being” showed statistically significant negative correlations with the scale “depression” and the “negative affect” scale, and statistically significant positive correlations with “positive affect” and “balance of positive and negative affects” (Ryff & Keyes, 1995, p. 724). In addition, the emotions in the form of balance of positive and negative affects and satisfaction with life is the essence of the construct “subjective well-being”, also called “emotional well-being” (Diener, 1984; Diener et al., 1999).

The obtained data confirm the possibility of using the construct of “emotional and personal well-being” for research and practical purposes just as the constructs of “subjective well-being” and “psychological well-being” are used.

8. CONCLUSIONS

1. Along with constructs such as “subjective well-being” and “psychological well-being”, the phenomenon of an individual’s perception of their well-being can be studied using the construct of “emotional and personal well-being” as provided in our studies.

2. Parameters of the “Self-assessment of Emotional and Personal Well-Being” research instrument revealed a lot of correlations with the parameters of “The Ryff Scales of Psychological Well-Being”.

3. Nine parameters and the general index of self-assessment of emotional and personal well-being have revealed a lot of statistically significant correlations with the indicators of extroversion-introversion, burnout and adaptation.

4. People with an appreciation of positive parameters and high general index of self-assessment of emotional and personal well-being tend to be more extrovert, have

higher levels of adaptation, self-acceptance and acceptance of others, emotional comfort, internality and need to dominate. On the other hand, they demonstrate lower levels of burnout.

9. FUTURE RESEARCH DIRECTIONS

The main limitation of the research considered is related to the use of the new construct and research instrument “Self-assessment of Emotional and Personal Well-Being”, which wasn’t used in research done by other authors. Therefore, the results received in this research were compared with the results received on the basis of other constructs and other research tools which have been described in the scientific literature devoted to the study of a person’s inner well-being. The construct “Emotional and Personal Well-being” demands further studying and accumulation of the empirical data with regard to its heuristic opportunities. As one of the areas for future research, it is necessary to carry out studies of interrelations of the construct of “emotional and personal well-being” with a wider range of constructs concerning an individual’s experience of well-being. In addition, it is necessary to expand the list of personality features for studying interrelations with emotional and personal well-being. One more area of further research is the study of age dynamics in emotional and personal well-being and its interrelations with the individual’s professional activity. Other important areas are the study of an individual’s implicit representations of well-being, and the development of technology for optimization of emotional and personal well-being.

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KEY TERMS & DEFINITIONS

Subjective well-being is a kind of well-being characterized by parameters such as satisfaction with life and balance of negative and positive affects.

Psychological well-being is a kind of well-being determined on the basis of the degree of expression of six factors, i.e.: Positive relations with others; Autonomy; Environmental mastery; Personal growth; Purpose in life; Self-acceptance.

Emotional and personal well-being is a kind of well-being defined on the basis of six positive and three negative mono-scales with the calculation of the general index of emotional and personal well-being.

Extroversion is a personality trait characterized by orientation of mental activity towards the outer world.

Introversion is a personality trait characterized by orientation of mental activity towards the inner world.

Adaptation is the ability to respond adequately to various influences of the natural or social environment in both usual and unusual situations.

Social and psychological adaptation is the person's ability to respond adequately to social and psychological factors.

Emotional burnout is the negative mental phenomenon described as the accruing emotional exhaustion under the influence of professional stress that can lead to personal changes in situations involving communication with people.

AUTHORS INFORMATION

Full name: Glotova Galina Anatolyevna, Doctor of psychological sciences, Professor

Institutional affiliation: Leading researcher of laboratory of pedagogical psychology of psychological department at Lomonosov Moscow State University

Institutional address: Psychology department, 125009, Moscow, Mokhovaya St., 11, str. 9, Russia / Personal postal address: 105264, Moscow, Sirenevy Boulevard, 28, apartment 2

Biographical sketch: Glotova Galina Anatolyevna is the leading researcher of laboratory of pedagogical psychology of psychological department at the Lomonosov Moscow State University. She finished postgraduate study in "Pedagogical, children's and age psychology" on chair of pedagogics and pedagogical psychology of the Moscow State University. The doctor of psychological sciences since 1995, professor since 1996, in 1997 studied training at Gent University (Belgium). G. A. Glotova is the member of RPS (Russian Psychological Society). Scientific interests: pedagogical psychology, positive psychology, well-being psychology, postnonclassical approach in psychology and using of ideas of semiotics and synergetics in psychological research of the development and functioning of personality.

Full name: Karapetyan Larisa Vladimirovna, Candidate of Psychological Sciences, Associate Professor.

Institutional affiliation: Assistant professor of Institute of Social and Political Sciences. Department of General and Social Psychology at The Federal State Autonomous Educational Institution of Higher Education "Ural Federal University named after the first President of Russia B.N. Yeltsin".

Institutional address: Department of General and Social Psychology, Yekaterinburg, 620002, Mira Ave., 19, Russia / Personal postal address: Yekaterinburg, 620073, Krestinsky st., 59, building 1, ap. 60

Biographical sketch: Karapetyan Larisa Vladimirovna graduated in 1991 from the Sverdlovskiy State Pedagogical Institute. Specialty: Pedagogics and Psychology (preschool). Qualification: Teacher of preschool pedagogics and psychology, methodologist for preschool education. In 2000 she defended her Ph.D. thesis on professional stress resistance of the college teacher at the Krasnoyarsk State University. Scientific interests: extreme psychology, psychology of safety, positive psychology, well-being psychology.

Chapter #3

MOTIVATIONAL POTENTIAL OF THE PERSONNEL IN THE PERIOD OF PREPARING AN INDUSTRIAL ENTERPRISE TO THE DECOMMISSIONING

Liubov Kotlyarova, & Ekaterina Sysoeva

*Department of Human Resource Management, National Research Nuclear University
(NRNU "MEPhI"), Russia*

ABSTRACT

Knowing characteristics of the motivational potential of the personnel allows an optimal approach to the human resources when dealing with such personnel problems as designing system of stimulation and involving the staff into the labour activity; evaluation of the occupational and personal competencies of the specialists enrolled in the activities going through harsh conditions or lack of information, when state of cognitive dissonance frequently emerges (Sheridan, 1987; Anokhin, 2000; Bodrov, 2006). The existing content, personality and process theories of motivation in psychology and management offer a thorough explanation of the personnel labour behaviour (Madsen, 1959; Locke, 1968; Weiner, 1972; McClelland, 1971, 1987; Milne, 2007; Herzberg, 2003; Ilyin, 2008). At the same time such sphere as the characteristics of the motivational potential of the staff of an industrial enterprise in the period of preparing it to the decommissioning due to depletion of the technological resource remains little-studied. The article contains the results of the studying motivational potential of the personnel in the period of preparing a nuclear power station to the decommissioning. 87% of the employees have taken part in the survey. All the structural departments of the enterprise are represented in the research sample.

Keywords: motivational potential, motivational orientation, profile, personnel, enterprise.

1. INTRODUCTION

Industrial enterprises cease their activity after having depleted their technological resource. The period of decommissioning can last from several months to several years. The management faces the actual tasks of providing effective performance at the stage of decommissioning and maintaining material and human resources for the industry (Kochan & Dyer, 1993; Antonov, Ivanova, & Tumin, 2012).

The period of decommissioning has its own characteristics: the number of the staff needed is decreasing sufficiently; the demand on the specialists in new directions is arising because of the changing the contents of the enterprise activity; the organizational labour conditions are changing and that is why a new system of incentives is introduced.

In order to keep the labour potential the management of the enterprise makes the following offers to the employees: similar vacancies at other enterprises of the same industry; vacancies at the enterprise during the period of its decommissioning; training in other directions of activity being in demand in the industry. The employees, in their turn, have to make their choice concerning their future interaction with the employer.

Some industrial sectors (metallurgy, coal, oil and engineering industry etc.) have a large experience of preparing enterprises to the shutdown. Specially approved and dependable technologies providing safety of the activity are used in those cases (Gorshenin, 2006).

In the new industrial sectors such as the atomic and chemical industries this experience has not been accumulated yet so innovative technologies associated with some degree of risk are applied (Tretiakov, 1993; Polovinko & Makarova, 2006).

Providing interruptive and effective work of the enterprise in such conditions and minimizing risks of arising of unfavourable industrial processes supposed to become possible only due to the human factor. Specialists, possessing not just a high level of professional qualification, but also a certain personality potential are to be involved in the activity. A special feature of such potential is the ability of the employees to keep a high productivity in various conditions of the production: from the current ones, demanding strict following the technological regulations and performing algorithmic operations to the unexpected, requiring instant activation in a situation of uncertainty and revealing the abilities to make right decisions preventing development of an uncontrolled technological process (Makarov & Varshavskiy, 2004). In such situations the role of the human factor becomes crucial in the providing the effective work of the enterprise (Salvendy, 1987; Anokhin, 2000; Bodrov, 2006; Armstrong, 2010; Ng, 2016). Using the knowledge of the labour potential of the personnel appears to be of importance for solving such organizational-managing problems as providing staff recruitment and rotation, designing and implementation the system of incentives and involvement personnel in the production activity (Viteles, 1953; Abramova, 1988; Kibanov, 2016).

The elements of the personal potential are motivational, intellectual, behavioral and communication characteristics (Sheridan, 1987; Leontiev, 2011). Among the leading qualities, regulating work activity, the characteristics of personal motivational sphere are marked out (Likert, 1953; Latham, 2007; Milne, 2007; Odegov, Rudenko, Apenko, & Merko, 2010).

2. BACKGROUND

The issues of work motivation are covered in a large number of works related to the management and industrial engineering, organizational psychology and psychology of labour. The researchers are of the same opinion that in order the top management of an enterprise could make a right decision concerning the kinds of incentives the estimation of individual motivational structure of the employees is important.

The review of available bibliographical sources has shown that in spite of the detailed studying of the problem of staff motivation there are some little-investigated issues concerning formation of labour motives and motivational sphere of the personnel during the period of preparing an enterprise to the decommissioning.

When analyzing publications regarding this subject we have come to the conclusion that nowadays neither the scientific community nor the specialists in the applied psychology have a common point of view on the estimation different aspects of personnel motivational sphere.

When designing the current research we have been guided by the two-factor theory of motivation (Hezberg, Mausner, & Snyderman, 1959; Herzberg, 2003); the conception of work motivation (McClelland, 1971, 1987), the expectancy theory (Vroom, & Deci, 1970; Lunenburg, 2011), the conception of work motives (Ilyin, 2008) and the conception of motivational orientation (c, 2005).

Herzberg's (2003) two-factor theory bases on two large groups of factors, influencing the work of an employee: motivators stimulating intensive work and so-called hygiene factors creating favourable atmosphere in the workplace. The typical motivators are: professional achievements, recognition and success, work engagement, interest in the job and its elements, responsibility, opportunity for career and personal growth etc.

McClelland (1987) defines three types of needs and corresponding motives, which are the explanation constructs for understanding different types of work behaviour: need for achievement, need for affiliation and need for power. According to this theory the effectiveness of the personnel activity in any sphere can be revealed through its motivational structure.

Ilyin (2008) states: "Human behaviour is always "polymotivated", i.e. is conditioned by a large number of reasons" (p. 122).

According to the Vroom's (1970) theory, in order to develop the most effective system of work motivation it is necessary: (1) to design a system of different kinds of work incentives and rewards; (2) to make the system of rewards in particular organization understandable for each employee and (3) to find out the needs of every employee promptly as well as the rewards having the highest importance for each individual.

Studying the motivational sphere of personality, Milman (2005) has marked out two main orientations in its structure: the consuming and the productive. Material motives compose the consuming motivation: work as economical necessity and opportunity to earn money as means of getting some profit of the activity. The basics of the productive activity are the needs focused on the professional development and activity as well as social achievements.

As the publications review shows, many researchers in the sphere of staff management and authors of the psychological theories and conceptions come to the conclusion that for making right decisions concerning the kinds of incentives by the top management it is important to estimate individual motivational structure of the employees.

3. OBJECTIVES, DESIGN, METHODS

3.1. The research aim, design and sample description

The aim of the current research is studying motivational potential of the personnel during the period of preparing an industrial enterprise to its decommissioning.

The object of studying is personnel of an industrial enterprise of the energy complex (nuclear power plant - NPP). The more detailed characteristics of the enterprise and its activity can be found in the previous publication (Sysoeva, Silenko, & Pravnik, 2017).

The research was carried out from 2014 to 2016 and consisted of two stages.

The first stage includes employees' survey, aimed at defining motivational readiness to continuation of the activity. 2250 employees have taken part in the survey. All the structural departments of the enterprise are presented in the survey.

According to the survey results the sample is divided into three groups: (1) employees who are ready to renew the contract with enterprises of the same industry; (2) employees in the decision making process and (3) those who are going to stop their working in the same industry.

The second stage is aimed at the problems connected with defining characteristics of the motivational potential of the employees.

For fulfilling the research tasks the research sample consisted of 270 employees is formed. While forming the sample the principles of randomized sampling and equal

presentation of various staff categories from all main departments of the enterprise are applied.

The qualification structure of the sample is: top managers – 14%, specialists – 54%, maintenance staff – 1.5%, workers – 30.5%. The major part of the employees has a higher education (69.5%) and a secondary technical education (11.5%) and that corresponds to the qualification requirements.

The average age of the staff is 38.3 years. The number of the employees in the age range up to 40 years is 56% of the whole sample. The gender structure is: 88% men and 12% women.

3.2. Research methods

The motivational potential is considered and studied as (1) motivational readiness of the staff to continuation or ceasing working at the enterprises of the industry, (2) structure of motives of labour activity and (3) profile (structure) of personal motivational orientation.

In order to estimate the motivational readiness to the continuation of the activity and leading work motives we have designed a special questionnaire. It includes two groups of questions. The first group consists of the questions aimed at defining motivational readiness of the staff to continuing the activity at the enterprises of the same industry. After estimating the motivational readiness it is possible to mark out three typological groups: (1) employees, demonstrating the intention to renew the contract and continue work relations; (2) employees with no clear attitude to the continuation of the work interaction with the employer and (3) employees who do not plan to conclude a contract for the continuation of the activity.

The second block is based on the ideas of Herzberg et al. (1959) and includes 60 questions aimed at defining the structure of the motives, underlying in the readiness for continuation of the activity. The questionnaire allows defining eight motives regarding inclination to: material wellbeing, recognition by the others, responsibility and independence, dependence on the managers, career, reaching success in job, personal growth (self-development), affiliation.

In order to define the motivational orientation the technique Diagnostics of Personal Motivational Structure of Milman (2005) is applied. According to his conception, motivational scales reflect two main personality orientations: consuming and productive. The technique includes seven motivational scales. For the completeness of diagnostics each of these seven scales is subdivided into four more subscales, defining: whole-life motivation (concerning the whole sphere of life activity); work motivation; “ideal” state of the motive understood by the author as “a level of a drive to act” (Milman, 2005, p. 42); real state of a certain motive. The total index of personal motivational sphere according to the test results consists of 28 scales of motivational profile (some scales can be consolidated). The whole personal motivational picture is reflected in a personal motivational profile representing the correlations between various motivational scales. A character of motivational profile (MP) can be defined according to the profiles typology. That is why after specifying the characteristics of motivational sphere of each testee, his/her motivational profile can be attributed to one of nine following types: progressive (Pr), regressive (Reg), expressive (Exp), impulsive (Imp), flat (Fl) or combined (progressive-expressive – Pr-Exp, progressive-impulsive - Pr-Imp, regressive-impulsive – Reg-Imp and regressive-expressive – Reg-Exp).

The *progressive type* of the motivational profile positively correlates with successful working activity. Most often this type of the MP is met among creative people. At the same time, this kind of profile is typical for a socially-oriented person and that fact can be included into a concept of creative and productive orientation of a person.

The *regressive type* is characterized by a pronounced orientation to consuming motives and their domination over the productive, developing ones.

The *expressive type* is related to self-affirmation in the society, developed ambition, eccentricity, constant rising of aspiration level.

The *impulsive type* is characterized by the fact that it corresponds to the impulsive type of character accentuation (Groisman, 1995).

The *flat type* of motivational profile reflects deficient differentiation of personal motivational hierarchy or its complete absence. All the motives of such structure have almost the same value, and that leads to wider entropy and ambiguity of their realization. It is known from the management theory that flat managing structures have low efficiency when dealing with complex structures (Repkin, 2013).

The obtained data were processed by mathematical and statistical methods using SPSS 17.0 package. The ranking method and the comparative analysis were applied. While collecting data traditional methods were used as well as the internet-technologies (using programs Psychometric Expert 6, SurveyMonkey).

4. THE RESULTS

The first task of the research was defining motivational readiness of the staff to the continuation of the activity and marking out typological groups according to this criterion.

The survey was carried out after the leaders of the industry had made the decision on the decommissioning of the enterprise due to the depletion of the technological resource.

Then the tasks connected with defining characteristics of the motivational potential in every typological group, marked out according to the criterion of readiness to the continuation of the activity at the enterprises of the same industry, were performed. As the characteristics of the motivational potential the leading work motives and features of motivational orientation of the personnel were considered.

4.1. The readiness of the personnel to the continuation of work at the enterprises of the same industry

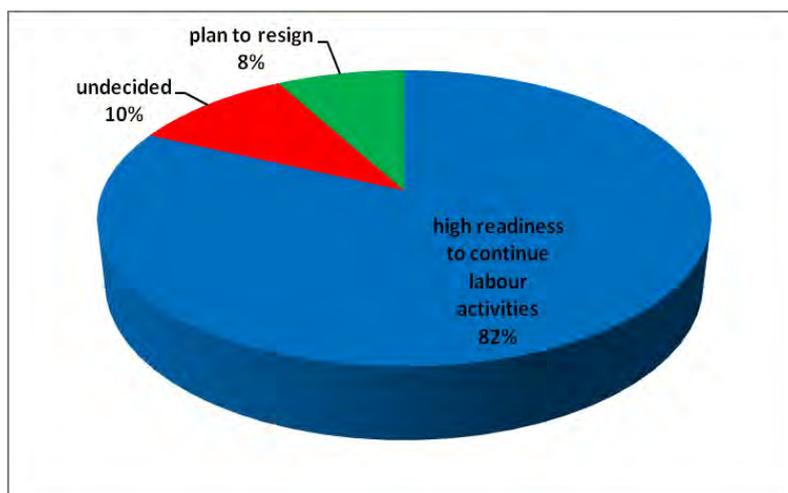
After the survey aimed at defining readiness of the personnel to the continuation of work at the enterprises of the industry and analysis of the obtained results, three groups are marked out in the sample (Figure 1):

Group 1 – the respondents showing the readiness to the continuing cooperation at the enterprises of the industry – 82 %;

Group 2 – the respondents in the decision making process concerning continuation of the cooperation with the employer – 10 %;

Group 3 – the respondents who do not plan continuing working at the enterprises of the industry – 8 %.

Figure. 1.
The results of the survey among the personnel on their readiness to continue labour activities at the plants of the industry.



Let us consider the results regarding the studying of the staff's opinion on the choice of the enterprise at which they would like to continue their labour activity.

The survey shows the 43% of the respondents from the Group 1 (they form the Subgroup A) prefer to continuing working at the enterprise during the period of its shutdown.

22% respondents (they form the Subgroup B) indicate that all variants of the employment in the same industry are suitable for them and they are ready to settle their interests according to the needs of the enterprise. The analysis shows that the special feature of this group is the qualification of its members: they are specialists of high qualification levels and leaders of the linear structures.

It has to be mentioned that the enterprises of the industry are situated in various regions of Russia, differed in climatic characteristics and in the level of the development of social infrastructures. The readiness to the engaging to any enterprise of the industry confirms high mobility of the specialists with high qualification and of the managers of linear departments, which can be interpreted as a favourable factor when solving problems connected with staff rotation.

35% of the respondents (they form the Subgroup C) demonstrate their readiness to continuing labour activity at the enterprises of the industry situated in regions with favourable climate and developed social infrastructure.

Basing on the survey results one can come to the conclusion that the major part of the employees are willing to continue their work activity at the enterprises of the industry, but there is a difference in the attitudes towards the relationship with the employer.

4.2. Motivational potential of the employees, demonstrated the intention to continue working at the enterprises of the industry

Let us consider the analysis of the results of the survey aimed at defining the structure of leading work motives and motivational orientation of the personnel in the moment when the employees were to make a decision on the choice of the future employment because of the shutdown of the enterprise.

The procedure of the data collecting and the results of the primary processing are described in details in the pervious publications (Sysoeva et al., 2017).

Mathematical and statistical processing consists of carrying out factor analysis which allows marking out of the sixty parameters being investigated eight the most important: guaranteed employment at the enterprises of the industry in the period after the completion of the contract with the enterprise to be shutdown; transfer to the structural departments of the management company or getting a higher position at the same enterprise (promotion); opportunity to extend professional competences and getting experience in new directions; employer's financing employees' education (getting a higher educational degree or higher education) or of employees' children education; sufficient salary increase and extra payment during the contract period (material incentives); contribution of the enterprise to the purchase of the accommodation for employees (co-financing); social package; affiliation to the organization having leading positions in the world energy market.

After using Milman's technique Diagnostics of Personal Motivational Structure personal motivational profiles reflecting motivational orientation for each testee are compiled (Table 1).

*Table 1.
The distribution of motivational profiles in the groups with different attitudes towards continuing work at the enterprises of the same industry.*

| The distribution of motivational profiles in the groups with different attitudes towards continuing work at the enterprises of the same industry, % | Subgroup A (motivation at continuing the activity at the enterprise during the period of decommissioning) | Subgroup B (readiness to transfer to any enterprise of the same industry) | Subgroup C (readiness to continuing the activity at the enterprises situated in the central region of the country) |
|---|---|---|--|
| Pr | 30.5 | 45.0 | 15.6 |
| Reg | 12.6 | 8.1 | 24.7 |
| Ex | 14.7 | 14.2 | 15.6 |
| Reg | 6.2 | 6.2 | 5.2 |
| Imp | 1.2 | 0 | 2.5 |
| Pr-Exp | 14.7 | 14.2 | 9.1 |
| Pr-Imp | 4.2 | 4.1 | 5.2 |
| Reg-Imp | 7.4 | 4.1 | 7.8 |
| Reg-Exp | 8.5 | 4.1 | 14.3 |

Let us consider the characteristics of the motivational potential in each subgroup.

The results of the Subgroup A.

In the subgroup A following motives of the labour activity are marked out: (1) guaranteed employment; (2) job promotion; (3) material stimulation of labour activity (salary increase and extra payment); (4) development and improvement of professional competences; (5) affiliation to the leading company; (6) financing employees' education by

the employer; (7) contribution of the enterprise to the purchase of accommodation for the employees; (8) social package. The data are presented according to the order of rank significance.

The Table 1 shows that in the Subgroup A three types of motivational profiles dominate: progressive, expressive and progressive-expressive.

In the Subgroup B a single type of motivational profile tends to dominate – the progressive one. This fact demonstrates the pronounced orientation to the professional development and inclination to achieve mastership in the activity, a high degree of involvement into activity and its development (Table 1).

The following work motives in the Subgroup B can be marked out (in order of rank significance): (1) development and improvement of professional competences; (2) job promotion; (3) guaranteed employment; (4) affiliation to the leading company; (5) material stimulation of the work activity; (6) financing employees' education by the employer; (7) contribution of the enterprise to the purchase of accommodation for the employees (co-financing); (8) social package.

In the Subgroup C the regressive and regressive-expressive types of motivational profile have the higher frequency (Table 1).

The intensity of work motives in the Subgroup C (in order of rank significance): (1) guaranteed employment; (2) job promotion; (3) material stimulation of the working activity (salary increase and extra payments); (4) contribution of the enterprise to the employees' accommodation purchase; (5) social package; (6) financing employees' education by the employer; (7) development and improvement of professional competences; (8) affiliation to the leading company.

Summarizing the obtained results, we can come to the conclusion that the major part of the employees with a positive attitude towards continuation of work at the enterprises of the industry has the following leading motives: inclination to professional development, promotion and appreciation in the professional environment, orientation to the worthy salary and high degree of organizational identity.

4.3. Motivational potential of the employees who are in the decision making process concerning continuation their activity while taking part in the survey

The second group (10%) consists of the respondents who mention they have not come to the conclusion whether to renew a contract for the continuing activity in the same industry or to resign and to search for a new employment on their own.

The following distribution of the motivational profiles characterizing motivational orientation is found out in this group: progressive – 9.1%, regressive – 27.3%, expressive – 9.1%, impulsive – 13.7%, flat – 4.5%, progressive-expressive – 4.5%, progressive-impulsive – 9.1%, regressive-impulsive – 22.7% and regressive-expressive – 0%). The tendency to domination of regressive and regressive-impulsive types is pronounced.

After having ranked the leading motives in this group the following structure can be seen (1) material stimulation of the working activity; (2) affiliation to the leading company; (3) guaranteed employment; (4) job promotion; (5) social package; (6) contribution of the enterprise to the employees' accommodation purchase (co-financing); (7) financing employees' education by the employer; (8) development and improvement of professional competences.

Summarizing the results we can come to the conclusion that in the group of the respondents who has not made a decision of their future employment the consuming motives prevail over the productive ones and in the personal profile such features as impulsiveness and egocentricity can be found.

4.4. Motivational potential of the employees who do not plan to continue working for the same industry

The third subgroup (8% of the sample) consists of the employees who mention that they do not plan to continue working at the enterprises of the same industry and they have their own plan of a future employment. The following distribution of the motivational profiles, marked out by a Milman's technique, can be seen: progressive – 5.6%, regressive – 11.1%, expressive – 5.6%, impulsive – 11.1%, flat – 0%, progressive-expressive – 5.6%, progressive-impulsive – 27.7%, regressive-impulsive – 27.7% and regressive-expressive – 5.6%.

The structure of the leading motives in this group is following (the motives are mentioned in the order of rank significance): (1) material stimulation of the working activity; (2) contribution of the enterprise to the employees' accommodation purchase (co-financing); (3) guaranteed employment; (4) social package; (5) financing employees' education by the employer; (6) job promotion; (7) development and improvement of professional competences; (8) affiliation to the leading company.

Summarizing the results we can come to the conclusion on the domination of the progressive-impulsive and regressive-impulsive types in this group and on the prevailing the consuming motives over productive ones.

5. FUTURE RESEARCH DIRECTIONS

Current research is aimed at the studying motivational potential of the high-tech industrial enterprise, which is being prepared to decommissioning. For providing effective production at this stage of its life cycle, the human resources reserve is being formed. The reserve is formed not only of the inner sources (actual employees of the enterprise), but of the outer sources as well: employees of other enterprises of the industry, graduates of the universities and colleges etc. On our opinion studying the motivational potential of the specialists to be involved from the outer sources is a problem of the highest importance.

Previously we have underlined that in order to provide an effective activity of the high-tech enterprise at the stage of decommissioning innovative technologies should be applied. For their implementation specialists with a certain personal potential (resistance to stress, developed creative thinking, pronounced cognitive motivation) should be got involved. In this context studying correlations between motivational potential, professional adaptation and effectiveness of the activity of the employees are of importance. The data concerning personal potential of the personnel can be used for developing criteria of the professionally important qualities for new directions of activity.

6. CONCLUSION

The results of the current research confirm the data from other sources and show that during the period of decommissioning, when the staff faces the problem of future employment, changes in motivational sphere of the employees can occur (Vernon, 1969; Armstrong, 2010). First of all, it should be mentioned that certain attitudes towards the activity are being formed.

The results of the survey show that the number of respondents with a positive attitude to the continuing the activity in the same industry is 82% of the whole sample, those in the decision making process – 10% and intending to resign – 8%. Those data are very different from the calculated values (65%, 3%, 32% relatively), which had been considered while

designing the operating plan for decommissioning. These differences can be explained. Taking into account that there are no such data in other sources as there is no experience of decommissioning of the enterprise of such type, the management had been guided by the values existing in other spheres of industry. Thus, the obtained data on the motivational readiness of the personnel to continuation of the activity at the final stage can be used as the orientation basis for designing a project on the staff rotation in the enterprises of the industry and in strategic planning.

The analysis of work motives of the employees who are ready to continue working during the enterprise shutdown (the number is 43%) shows that their leading motives are: material stimulation of the work activity; guaranteed employment; job promotion; development of professional competences; affiliation to the company, having leading positions in the world energy market. The analysis of the motivational orientation profiles allows making a conclusion on the pronounced inclination of the employees of this group to professional promotion and achievements, intention to get recognition and significance in the professional environment. These regularities can be used while designing programs of extra material and non-material kinds of stimulating of work activity.

The research has marked out a group of employees (22% of the sample) with high readiness to any possible variant of their future employment at the enterprises of the industry and orientation to the needs of the enterprise in resource allocation. A single type of the motivational profile dominates in this group – the progressive one. Its characteristic feature is the orientation of a personality on the development of the activity by one's initiative. Cognitive orientation, in its turn, reflects a creative approach to the activity and a high level of social and personal maturity. The analysis of the leading work motives in this group allows making a conclusion of a pronounced commitment to the profession and of the importance of the motives of self-actualization, directed to the professional development and professional achievements.

The knowledge of the characteristics of the motivational sphere of the employees with high mobility and the intention to make their contribution to the production development and improvement of the enterprise activity has a great importance for developing training programs, professional growth and evaluation of individual achievements of the specialists (Arkes & Garske, 1997; Dessler, 2010).

More than one third of the sample (35%) demonstrates readiness to continue their work activity at the enterprises of the industry situated in the regions with favourable climate and developed social structure. In this group there is a tendency to domination of the motives of guaranteed employment, material security and job promotion. The analysis of the data on motivational profiles distribution shows that the most frequent types in this group are the regressive and the regressive-expressive ones, which are associated with such features as self-affirmation in the society, developed ambition, eccentricity and constant rising of aspiration level. These regularities can be used for developing programs of material and non-material stimulation of the work activity and career growth.

In the course of the research a group of the respondents is found out, who have complications in making the decision whether to continue the activity at the enterprise during its decommissioning, to be transferred to other enterprises of the same industry or to resign and search for their new employment independently. The analysis of the motivational sphere shows that, on one hand, their consuming motives, associated with material security, are considerably pronounced, and on the hand, communication and affiliation to the company are very important for them. For the employees with such attitude is helpful to carry out organizational arrangements (discussions, consultations, negotiations etc.), aimed at assistance in making a decision on the future interaction with the employer.

The obtained data concerning motivational potential of the personnel during the preparation of the high-tech enterprise to the decommissioning allows taking a more focused view at some factors of professional motivation.

The results of the research can be applied in the practice of dealing with personnel in various spheres of high-tech industrial production.

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AUTHORS INFORMATION

Full name: Liubov Kotlyarova

Institutional affiliation: National Research Nuclear University (NRNU "MEPhI"), Russia

Institutional address: Moscow, Kashirskoye shosse, 39

Email address: lnkot-konf@yandex.ru

Short biographical sketch: Liubov Kotlyarova, PhD (Psychology) is an associate professor in the Department of the HR Management in the Faculty of Business Computer Science and Complex Systems Management. She is a lecturer of the HR-management and a supervisor of research projects concerning organizational behavior. She is also an Academic Board Member of the Moscow Department of the Russian Psychological Society. The sphere of her professional interests includes HR management: implementation of the innovation methods increasing the effectiveness of the organizational behaviour and optimizing the social-psychological climate among the personnel working at the plants of the nuclear industry.

Full name: Ekaterina Sysoeva

Institutional affiliation: National Research Nuclear University (NRNU "MEPhI"), Russia

Institutional address: Moscow, Kashirskoye shosse, 39

Email address: sysoeva-mephi@yandex.ru

Short biographical sketch: Ekaterina Sysoeva is a postgraduate student in the Management in the Nuclear Industry. She is a member of the Moscow Department of the Russian Psychological Society. Her scientific interests lie in studying organizational behaviour.

Chapter #4

FACTORS RELATED TO THE PARENTAL BURDEN OF CHILDREARING IN JAPAN

Mizuka Ohtaka

*Department of Politics and Public Administration, Faculty of Law, Yamanashi Gakuin University,
Japan*

ABSTRACT

The parental burden of childrearing is considered to be a cause of the declining birth rate in Japan and has an adverse effect on children's development (Matsuda, 2010; Ministry of Health, Labour and Welfare, 2006). How, then, can this burden be reduced? This study aimed to answer this question by examining factors related to the burden of childrearing. Data from the 'Survey on Children and Child Rearing' (Survey Research Centre, 2012) was analyzed. The survey targeted 3,000 Japanese parents over the age of 18, who had children under the age of 6 years. A total of 2,481 valid responses were analysed. The results indicated that parents who felt a greater burden of childrearing tended to be women, have more children, have less income, and be mothers without regular work. On the other hand, those who felt a lesser burden were parents who had relatives, friends and acquaintances who took care of the children in emergencies, and who had neither anxieties nor worries about childrearing. In addition, for parents with anxieties and worries about childrearing, their burden was eased by asking acquaintances. The result suggests that support from others is important in order to tackle the anxiety of childrearing and to ease the burden felt by parents.

Keywords: childrearing, support, Japan.

1. INTRODUCTION

Japan's declining birth rate is a major social problem, and may affect the sustainability of its labour force and social security programs. Figure 1 shows the decline in the total fertility rate in Japan since 1950, compared with U.S.A., France and Sweden. Although the total fertility rates in other countries in 2014 were about 2 (1.86 in U.S.A., 1.98 in France, and 1.88 in Sweden), in Japan was 1.42. The Ministry of Health, Labour and Welfare (2006) cited that the parental burden of childrearing contributed to this decline. Matsuda (2010) also indicated that the parental burden of childrearing was a fundamental problem affecting the declining birth rate in Japan. In fact, according to the National Women's Education Center Japan (2005), less than half of Japanese parents thought childrearing was very fun, contrasted with about 60% of parents in U.S.A., France and Sweden (see Figure 2). In addition, Nozaki (2017) analysed the data on married 371 fathers and 298 mothers from the Japanese General Social Survey (Osaka University of Commerce, 2006) and found the mothers who thought that families rather than government had the responsibility of childrearing did not have three or more children. Thus, this study focused on perceived parental burden of childrearing in Japan.

Figure 1.
Total fertility rate (Cabinet Office, 2016).

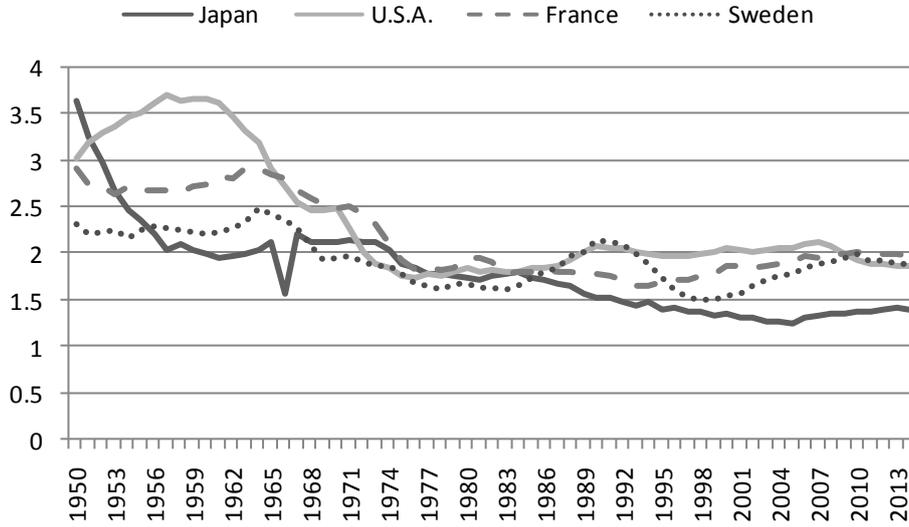
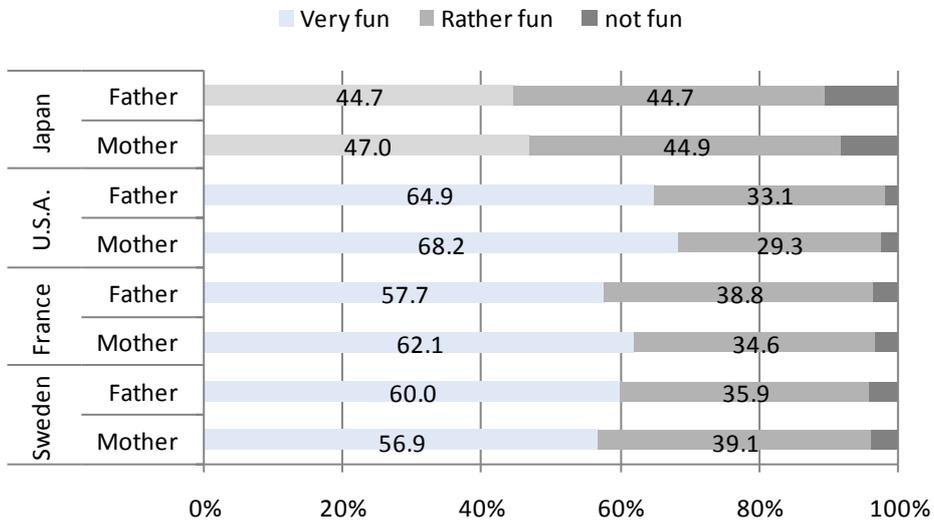


Figure 2.
Parental burden of childrearing (National Women’s Education Center Japan, 2005).



2. BACKGROUND

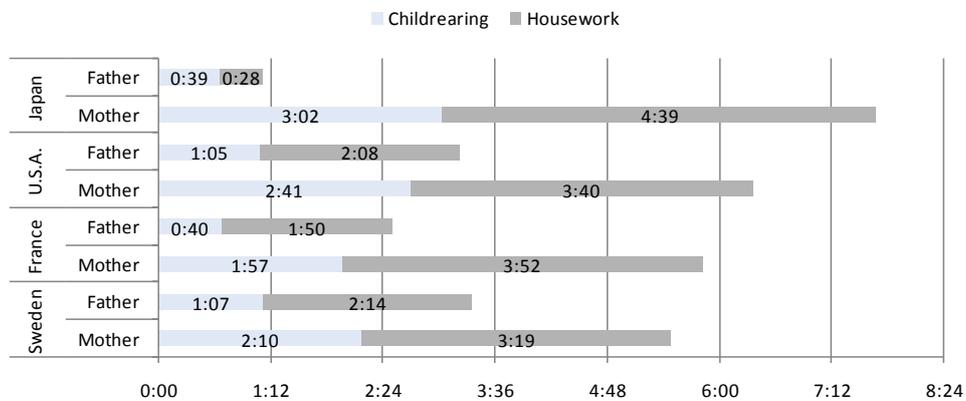
Previous studies have focused on mothers’ anxiety and worry about childrearing as a major factor concerning the burden of childrearing (Matsuda, 2007; 2008; 2010; Mishina, Takayama, Aizawa, Tshuchida, & Sugama, 2012; Tanaka & Lowry, 2013). For example,

Mishina et al. (2012) analysed the data on 1,229 mothers who had 3 months infants from Birth Cohort Study (National Center for Child Health and Development, 2003) and found that their childrearing anxiety related to their childrearing burden positively and their quality of life negatively. Matsuda (2007) conducted a survey of mothers whose children went to nursery schools or kindergartens in Japan. The analyses of the data on 2,350 mothers, who were over 40 years of age and married, indicated that mothers who felt anxious about childrearing did not desire to have more children. Furthermore, their children’s psychological development was delayed (Matsuda, 2010). Although these previous studies have only targeted mothers, it was necessary to also target fathers in Japan.

Rush (2015) reviewed previous research on the changing role of fathers in Japan and concluded that since 2000s normative social policy discourses aimed at ending the social norm of ‘male breadwinning female homemaking’ based on the division of labour by gender and aimed gender equality and work-life balance.

As shown in Figure 3, in Japan, fathers with children younger than 6 years of age spend an average of only 39 minutes a day with them. However, according to the Benesse Educational Research and Development Institute (2014), the number of fathers who desired to participate in housework and childrearing more than the current average increased between 2005 and 2014 in Japan. At the same time, the number of fathers who cannot have confidence dealing with their children also increased (see Figure 4). Such lack of self-confidence may lead fathers to worry and to have anxiety about childrearing.

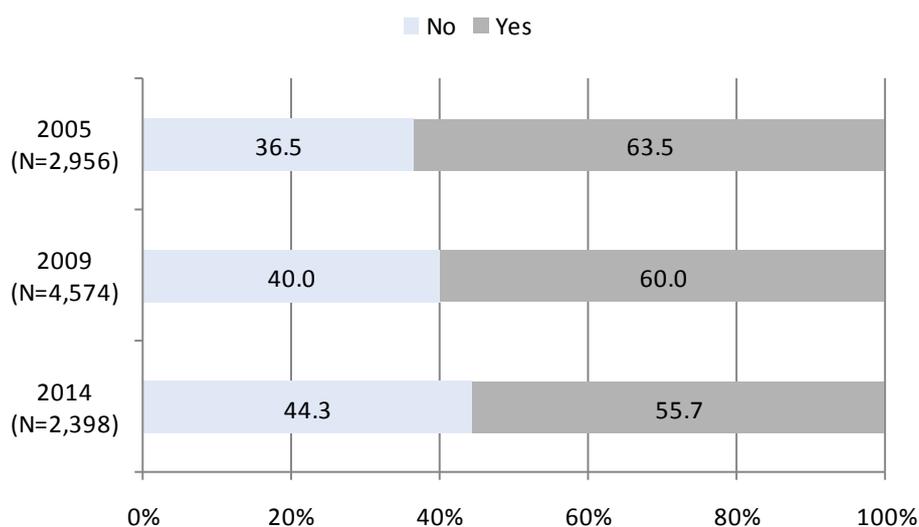
Figure 3.
Time given for childrearing and housework -Family with children younger than 6 years of age (Fathering Japan, 2017).



What are the factors that can reduce the burden of childrearing for parents who worry about childrearing? Previous studies have suggested that social support is effective. Matsuda (2008) analysed three surveys’ data on mothers with preschool children: The first data consisted of 481 mothers with preschool children, the second data consisted of 587 mothers with children younger than 5 years old, and the third data consisted of 407 mothers with 4–6 year-old children. The results of these investigations were consistent; Matsuda (2008) concluded that mothers who have non-kin social networks, such as friends and acquaintances, did not feel anxious about childrearing. Moreover, Matsuda (2010) found that mothers’ childrearing networks reduced their worry about childrearing. Specifically, mothers with social networks, either kin or non-kin who take care of their children when

they go out and provide some advice on childrearing, are not likely to worry about childrearing. On the other hand, Tanaka and Lowry (2013) explored the correlation between mothers' unmet need for spousal support (in those living with spouses) and their mental health. The data were drawn from 495 mothers of 3–5 year-old children (Japan Institutes for Labour Policy and Training, 2003). Mothers' need for support was measured on items such as supporting childcare and housework, listening and communicating about childcare, etc. They found that mothers' unmet need for support from their spouses significantly led to their childrearing depression or neurosis. In addition, Ueki et al. (2015) conducted a survey of 1,077 mothers arrived at the outpatient unit of a Japanese pediatric hospital with sick children and indicated that their state anxiety was correlated negatively with the availability of support persons for childrearing. These results suggested that social support was critical for easing parents' worries about childrearing. Thus, even if parents have anxiety and worries about childrearing, social support can lighten this burden.

Figure 4.
Self-confidence in dealing with their children (Benesse Educational Research and Development Institute, 2014).



In addition to support from spouses, family and friends, professional support is also helpful because parents often have problems with childrearing which cannot be solved without specialised knowledge, skill or advice. For example, when children suffer from injuries or illness, professional support from doctors and nurses is necessary. If children have trouble in nursery schools or kindergartens, support from the staff is useful. Parents also can consult with officers in municipalities and childrearing support centres. Because such professional support can alleviate parents' worries about childrearing, this study examined not only social support but also professional support for parents.

Furthermore, parents may gather technical information from specialised magazines and Internet sites. For example, Porter & Ispa (2013) analysed online messages posted by mothers of 0-2 year olds on the websites of two best-selling parenting magazines in the United States. They found that mothers questioned of advice from family members and

pediatricians because they wanted to get second opinions and asked whether their children were normal. Gaining information from magazines and Internet sites anonymously can also reassure parents.

3. METHODS

The data from the 'Survey on Children and Child Rearing' (Survey Research Centre, 2012) were analysed to examine factors that contribute to perceived parental burden. The survey sample consisted of 3,000 parents over 18 years of age who had children under the age of 6 years from Internet research monitors; one respondent from each household was screened out; all parents were living in Japan at the time of the survey. In total, 2,592 parents responded (valid response rate: 86.40%). Date: 27-31 October 2012; Method: Internet (self-administered); Consent: Confirmed before starting to respond the questions; Incentive: Frequent shopper program points worth 40 yen. This study analysed 2,481 responses from the respondents lived with their children and their children's other parents.

3.1. Variables

Regarding 'Burden', the respondents were asked, '*How do you feel about childrearing?*' They answered 1 = *Very fun*; 2 = *Rather fun*; 3 = *Cannot say*; 4 = *Rather hard*; or 5 = *Very Hard*.

For 'Income', the respondents were asked to rate '*Income of household*' where 1 = *Less than 3 million yen*; 2 = *Less than 5 million yen but more than 3 million yen*; 3 = *Less than 10 million yen but more than 5 million yen* or 4 = *More than 10 million yen*.

For 'Relatives', the respondents were asked, '*Do relatives live near enough to be able to reach your home within 30 minutes?*' They answered 1 = *Yes* or 0 = *No*.

For 'Emergency', respondents were asked, '*Do you have relatives, friends or acquaintances taking care of your children in emergencies?*' They answered 1 = *Yes* or 0 = *No*.

For 'No worry', the respondents were asked a multiple choice question '*How do you cope with anxieties or worries about childrearing?*'. This study recorded 1 = selected *I have neither anxieties nor worries about childrearing in particular* or 0 = did not select the choice. The other choices were as follows: asking '*Relatives*', '*Acquaintances*', '*Nursery staff*', '*Office*' and '*Medical worker*', '*Information gathering*' '*Other*' and '*No*'. Regarding 'Measure', with the respondents who did not select '*I have neither anxieties nor worries about childrearing in particular*', this study set '*No*' as reference choice and recorded the other choices as 1 = selected or 0 = did not select respectively.

4. RESULTS

4.1. Respondents

The mean age of respondents was 37.29 ($SD = 5.12$) years. The sample was balanced in terms of gender (men 49.74%; women 50.26%). They had 1.67 ($SD = 0.71$) children on average. 97.30% of the fathers worked regularly and 0.93% irregularly. 21.08% of the mothers worked regularly and 19.67% irregularly.

4.2. Descriptive statistics

For 'Burden', 28.90% of the 2,481 respondents answered 1 = *Very fun*; 52.40% answered 2 = *Rather fun*; 14.35% answered 3 = *Cannot say*; 3.67% answered 4 = *Rather hard*; or 0.69% answered 5 = *Very Hard*.

For 'Income', 8.83% of the 2,481 respondents answered 1 = *Less than 3 million yen*; 35.27% answered 2 = *Less than 5 million yen but more than 3 million yen*; 46.96% answered 3 = *Less than 10 million yen but more than 5 million yen* or 8.95% answered 4 = *More than 10 million yen*.

For 'Relatives', 64.85% of the 2,481 respondents answered 1 = *Yes (Relatives live near enough to be able to reach your home within 30 minutes)* or 35.15 % answered 0 = *No*.

For 'Emergency', 78.03% of the 2,481 respondents answered 1 = *Yes (I have relatives, friends or acquaintances taking care of your children in emergencies)* or 21.97% answered 0 = *No*.

For 'No worry' and 'Measure', 8.79% of the 2,481 respondents selected *I have neither anxieties nor worries about childrearing in particular*; 65.26% selected '*asking relatives*'; 63.64% selected '*asking acquaintances*'; 22.41% selected '*asking nursery staff*'; 12.41% selected '*asking office*'; 10.36% selected '*asking medical worker*'; 29.83% selected '*Information gathering*'; 0.64% selected '*Other*'; and 3.79% selected '*No*'.

4.3. Multiple regression analysis

This study used several multiple regression analyses to examine the factors correlated with parental burden of childrearing. Table 1 shows the results.

First, the results of Model 1 (whose dependent variable was 'Burden' and independent variables were age and gender, $F(2, 2478) = 43.55, p < .001$) indicated that parents who felt a greater burden of childrearing were women rather than men.

Second, other demographic variables were added as independent variables in Model 2 ($F(8, 2472) = 16.20, p < .001$). The results indicated that parents who felt a greater burden of childrearing had more children, had less income, and were mothers without regular work.

Third, 'Relative', 'Emergency' and 'No worry' were added as independent variables in Model 3 ($F(11, 2469) = 15.80, p < .001$). The results indicated that those who feel a lesser burden were parents who had relatives, friends and acquaintances who took care of children in emergencies and who had no anxieties or worries about childrearing.

Next, limiting the analysis target to the parents who had anxieties and worries about childrearing, seven measures to cope with anxieties and worries were added as independent variables in Model 4 ($F(17, 2245) = 14.41, p < .001$). The results indicated that their burden was eased by asking relatives, acquaintances and medical workers and by gathering information from specialised magazines and Internet sites. In addition, income's effect was not significant.

Finally, Model 5 ($F(16, 1037) = 3.33, p < .001$) limited the analysis target to fathers and Model 6 ($F(16, 1192) = 8.53, p < .001$) limited the analysis target to mothers who had anxieties and worries about childrearing. Comparing these results, it was concluded that though mothers with regular work felt a lesser burden than other mothers, there is no connection between the fathers' burden of childrearing and whether their spouses worked regularly or not, and asking relatives reduced fathers' burden, but living near relatives reduced mothers' burden. Although asking medical workers and gathering information eased mothers' burden, such an effect was not significant for fathers' burden.

Table 1.
Multiple Regression analysis.

| Dependent Variable: Burden | | | |
|---|---------|---------|---------|
| Model | β | | |
| | 1 | 2 | 3 |
| N | 2,481 | 2,481 | 2,481 |
| Age | .03 | .04† | .04† |
| Gender (0. Men, 1. Women) | .19*** | .19*** | .17*** |
| Number of children | | .07** | .08*** |
| Income | | -.05* | -.06** |
| Fathers' work; Regular | | .01 | .00 |
| Fathers' work; Non-regular | | -.01 | -.01 |
| Mothers' work; Regular | | -.08*** | -.07** |
| Mothers' work; Non-regular | | .01 | .02 |
| Relative | | | -.03 |
| Emergency | | | -.10*** |
| No worry | | | -.06** |
| R ² | .03 | .05 | .07 |
| † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ | | | |
| Dependent Variable: Burden | | | |
| Model | β | | |
| | 4 | 5 | 6 |
| N | 2,263 | 1,054 | 1,209 |
| Age | .03 | .05 | .03 |
| Gender (0. Men, 1. Women) | .21*** | / | / |
| Number of children | .08*** | .09** | .08** |
| Income | -.03 | -.06† | -.01 |
| Fathers' work; Regular | .00 | .00 | .00 |
| Fathers' work; Non-regular | -.01 | -.05 | .02 |
| Mothers' work; Regular | -.07** | -.03 | -.10** |
| Mothers' work; Non-regular | .03 | .03 | .04 |
| Relative | -.03 | .01 | -.07* |
| Emergency | -.08** | -.09* | -.07* |
| No worry | / | / | / |
| Measure; Relatives | -.06** | -.07* | -.05† |
| Measure; Acquaintances | -.14*** | -.08* | -.21*** |
| Measure; Nursery staff | -.01 | -.00 | -.02 |
| Measure; Office | .03 | .02 | .05 |
| Measure; Medical workers | -.06** | -.06† | -.06* |
| Measure; Information gathering | -.06** | -.05 | -.07* |
| Measure; Other | -.02 | -.02 | -.02 |
| R ² | .10 | .05 | .10 |
| † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ | | | |

5. DISCUSSION / FUTURE RESEARCH DIRECTIONS

This study showed that anxiety and worry over childrearing were key factors in the burden of childrearing. In the future, we should survey both mothers and fathers and investigate how to alleviate their anxieties and worries about childrearing. According to results of the Benesse Educational Research and Development Institute (2014), fathers who return home from work later (after 9 p.m.) cannot have enough time with their children and are likely to lack self-confidence in childrearing. Therefore, making fathers' working hours flexible and cutting back on work hours could be helpful strategies.

Asking acquaintances is an effective means for reducing the childrearing burden of both fathers and mothers. These findings propose that social support from acquaintances is valuable to parents for lightening their burden of childrearing. Moving forward, how to increase parents' social support is worth examining. Incidentally, based on results of fieldwork and interviews, Kawano (2014) argued that drop-in centers provided preschoolers' mothers friendly interactions with non-family members. Furthermore, since asking relatives and acquaintances can alleviate fathers' childrearing burden, studying how to expand fathers' childrearing networks might prove to be useful.

Technical support, such as asking medical workers and gathering information from specialised magazines and Internet sites, reduces mothers' burden of childrearing, but not fathers'. This result might be because mothers are the main providers of childcare (Holloway, 2010). In case children have difficulties and need special support, mothers in Japan primarily have a duty and responsibility to ask experts and gather technical information to deal with problems. In the connection, while father's childrearing burden is reduced by asking relatives, it is that relatives live near to ease mothers' childrearing burden, because mothers may have more practical burden and need more concrete support than fathers.

The number of children with developmental disorders, such as Learning Disorder (LD), Attention Deficit Hyperactivity Disorder (ADHD) and high-functioning autism, have increased recently in Japan. According to a survey conducted by MEXT (Ministry of Education, Culture, Sports, Science and Technology, 2006), the percentage of elementary and junior high school students who show remarkable difficulty in learning ability or behavior conduct was estimated at 6.3% in 2002 and at 6.5% in 2012. This change means an increase of approximately 20,000 elementary and junior high school students who may have developmental disorders. These children and their parents need appropriate expert support. Furthermore, even if children do not have developmental disorders, parents are likely to experience anxiety about such a possibility. Therefore, expert support is becoming more important for all parents.

In this study, parents who felt a greater burden of childrearing were mothers, had more children and less income, without mothers' regular work, had social networks they could rely on in emergencies. For parents with low income and many children, financial support is effective. However, taking measures to cope with anxieties and worries into consideration, the effect of income on parental burden of childrearing was not significant. This finding suggests that the correlation between income and parental burden of childrearing might be spurious because each of them correlates with measures to cope with anxieties and worries. This also indicates that, even though less income, having measures to cope with anxieties and worries can reduce parental burden of childrearing. Therefore, it is important to offer parents measures to cope with anxieties and worries.

Concerning mothers' work status, this study showed that while mothers with regular work felt less childrearing burden, mothers' non-regular work did not such effect on parents' burden of childrearing. This might be because mothers with regular work do not have as heavy responsibility for childrearing as mothers with non-regular work and mothers without work. This result implies that women's empowerment can reduce mothers' childrearing burden. However, only 38.0% of the married women who delivered their first child between 2005 to 2009 and employed before their childbirth, continued to work after their first child (Cabinet Office, 2006). In the future, we should examine the factors that let mothers continue to work regularly. Moreover, for inevitable emergencies, enhancing extended daycare, holiday and night childcare and care for sick or convalescent children is vital.

By examining both social and professional support for both mothers and fathers, this study found that mothers felt greater burden of childrearing than fathers and suggested that mothers might bear the heavier and more practical responsibility of childrearing than fathers according to the division of labour by gender role. In order to reduce mothers' burden of childrearing, fathers should share the responsibility of childrearing more than now. Fathers' gender role attitudes (Keizer, 2015) and masculinity (Schmidt, Rieder, Zartler, Schadler, & Richter, 2015) can be the keys to share the responsibility and burden of childrearing with mothers. In the future, more investigation to improve fathers' attitudes towards childrearing is needed.

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ACKNOWLEDGEMENTS

The data for this secondary analysis 'Survey on Children and Child Rearing, Survey Research Centre (2012)' was provided by the Social Science Japan Data Archive, Center for Social Research and Data Archives, Institute of Social Science, The University of Tokyo.

AUTHOR INFORMATION

Full name: Mizuka Ohtaka

Institutional affiliation: Department of Politics and Public Administration, Faculty of Law, Yamanashi Gakuin University

Institutional address: 2-4-5 Sakaori, Kofu-shi, Yamanashi, Japan

Short biographical sketch: Mizuka Ohtaka is an associate professor of the Department of Politics and Public Administration, Faculty of Law, at Yamanashi Gakuin University, Japan. She graduated in educational psychology from Osaka University in 2003 and received her PhD in social psychology from the University of Tokyo in 2013. She teaches social psychology and social survey mainly. Her research interest is interpersonal relationships and support.

Chapter #5

GOAL ATTAINMENT IN SELF-CARE: THE MEDIATING ROLE OF COMMITMENT IN THE RELATIONSHIP BETWEEN MOTIVATION AND GOAL PROGRESS

Ladislav Lovaš, & Marcela Bobková

Department of Psychology, University of Pavol Jozef Šafárik in Košice, Slovak Republic

ABSTRACT

The purpose of the study was to examine the relationship between goal commitment, self-concordance and goal progress as goal dimensions in the area of self-care. The study tested if goal commitment would mediate or moderate the relationship between self-concordance and progress towards self-care goals. With respect to this aim, 156 participants (aged 18-26 y; 77 M, 79 F) reported their motivation for pursuing selected self-care goals (4 items), assessed their commitment to them (3 items) and examined the perceived progress they had already made (2 items). Correlational analysis confirmed close relationships between self-concordance, goal commitment and goal progress in both cases (goals in the areas of physical as well as psychological self-care). Further analysis confirmed that in both areas, the relationship between self-concordance and goal progress is mediated and not moderated by goal commitment. The findings are discussed in the context of goal dimension structure and in the context of self-care stimulation and effectiveness.

Keywords: self-concordance, goal commitment, goal progress, self-care.

1. INTRODUCTION

Self-care plays an important role in the well-being and life satisfaction of an individual. In the area of work, self-care can help in coping with stress. This is particularly important in helping professions in which long-term stress and phenomena such as burnout, secondary trauma or compassion fatigue are frequently observed (Cox & Steiner, 2013). In addition, motivation to attain certain goals, commitment to these goals and perceived progress in attaining these goals also play an important role in this area. The aim of the study was to verify the hypothesis that perceived progress in self-care is associated with motivation, as defined by the self-concordance model, and that the relationship between motivation and perceived progress is mediated or moderated by commitment to self-concordant goals.

1.1. Goal attainment

Goals add structure to our everyday activities. Making progress in goals connected to intrinsic aspiration leads to the feeling that “one is alive and energized” (Hope, Milyavskaya, Holding, & Koestner, 2016, p. 100). Goals function as objects or aims of behaviour and standards for assessing one’s satisfaction. They direct, energize and motivate people as well as affecting their persistence (Latham, 2004). Goal intentions make a commitment to act and are important predictors of attainment; the stronger the intention is, the greater the probability of its realization (Gollwitzer & Sheeran, 2006).

The setting of goals is a discrepancy-creating process representing the difference between one's present condition and the desire to achieve a future valued outcome. Feedback is one of the key moderators in goal setting (Locke & Latham, 2006). People need feedback in order to monitor their goal progress and to adjust the necessary effort and/or modify their strategy (Latham, 2004). Feedback principles have been defined within the control theory of behaviour. The comparison between a goal (a reference point) and a perceptual input (the identification of one's progress towards a goal) is how living systems make adjustments in the output function. In order to diminish the perceived discrepancy (deviation from the standard) the actions of approach are induced. The self-regulation of the goals which one wants to avoid or "anti-goals" results in a discrepancy-enlarging loop to escape from these goals (Carver & Scheier, 2002).

Human behaviour is purposefully directed action regulated by an individual's goals. Goal-setting research has studied the relationship of goal attributes in better performance of people. The most important finding has been that performance is a linear function of goal difficulty when there is adequate ability and commitment to the goal. Given enough ability, the performance drop at high goal difficulty levels occurs with only a large decrease in goal commitment (Latham & Locke, 1991).

Goal commitment refers to the extent to which an individual is attached to the goal. In other words, if he considers it important, wants to reach it and keep it despite any obstacles. It is a major aspect of goal intensity – the attribute of goals referring to the mental effort or scope involved in a mental process. Less committed people give up in the face of hard goals and may favour easier ones (Latham & Locke, 1991). The relinquishment of commitment involves the reduction in the importance attached to the goal. By this, the goal is redefined as not important for one's welfare. The reduction of the goal's importance involves a reorganization of the self-concept and change in identity. The commitment to personal goals and confidence fosters persistence and perseverance when one is confronted by adversity (Wrosch, Scheier, Carver & Schulz, 2003).

If there is no commitment, then difficult goals do not enhance performance. It means that commitment to those goals is a necessary condition of the persistence in pursuing it. A significant factor that increases one's commitment is volition. Free engagement in actions implies self-consistency. Self-set goals are more psychologically binding than assigned goals that can be attributed to external sources. Research has found that individuals with a high need for achievement have higher commitment in self-set conditions when the goal originates from the self-concept. Subjects with a low need for achievement would very likely achieve commitment in reaching difficult goals only in reward-punishment types of situations (Hollenbeck, Williams & Klein, 1989). Goals without commitment, an essential moderator of goal directed behaviour, are motivation free (Klein, Wesson, Hollenbeck, Wright, & DeShon, 2001).

1.2. Self-concordance

According to the self-concordance theory (Sheldon & Elliott, 1999), the self-concordance of goals reflects the degree to which the stated goals express the enduring interests and values of an individual. In the context of self-determination theory (Ryan & Deci, 2000), self-concordance can be characterized as the extent to which basic psychological needs are fulfilled. The development of the self-concordance theory was influenced by self-determination theory, the earlier macro-theory, explaining how underlying motives influence goal accomplishment (Downes, Kristof-Brown, Judge & Darnold, 2017). Self-concordance is operationalized as a continuum of internalization that consists of *external regulation*, which controls the behaviour of an individual on the basis

of reward or punishment, *introjected regulation* of avoidance of guilt and discounting, *identified regulation* of acting in the context of personally important values and *integrated regulation* that expresses the inherent identification of an individual with what she or he does (Chirkov, Kim, Ryan & Kaplan, 2003).

Deci and Ryan (2008) have said that the quality of motivation plays a more important role in predicting many important outcomes than the total amount of motivation. When the striving for goals is authentic and autonomous, further personality development is enabled which promotes people's life goals or aspirations, vitality and the satisfaction of basic psychological needs. The coherence of striving for the satisfaction of one's organismic needs and acting for more autonomous reasons are predictors of engagement in meaningful activities, daily mood and vitality (Sheldon & Kasser, 1995). Goals selected and pursued for self-determined reasons foster goal attainment, facilitate optimal functioning and increase personal well-being (Ryan & Deci, 2000; Sheldon & Kasser, 1998). People feel a sense of autonomy and experience self-endorsement in their actions or volition in the process of pursuing a goal (Deci & Ryan, 2008). Therefore, the self-determination theory of human motivation and personality highlights the importance of self-motivation in behavioural regulation. Controlled motivation defines the experience of the pressure to think, feel or behave in certain ways and stands in contrast to self-motivation (Ryan & Deci, 2000). Koestner, Lekes, Chicoine and Powers (2002) refer to this by introducing the term **self-concordance** which they define as the degree to which a goal reflects personal values and interests.

1.3. Self-care

There is no single definition of self-care which has been broadly accepted. Different professions view self-care within their own domain of practice. Self-care can be characterized as the deliberate care performed by individuals to improve their physical and mental health in order to maintain well-being (Godfrey et al., 2011). Richard and Shea (2011) define self-care as "the ability to care for oneself and the performance of activities necessary to achieve, maintain or promote optimal health" (p. 261). Orem's self-care deficit theory of nursing (Orem, 1991) emphasizes the meaning of self-care for the regulation of human functioning and promotion of personal development. The term self-care is associated with other concepts such as the concept of self-management, self-monitoring, symptom management and self-efficacy (Richard & Shea, 2011).

Self-care plays an important role in well-being and life satisfaction. It is a basic prerequisite for personal prosperity in various areas of life for an individual. Moreover, people who make more progress and strive for more autonomous reasons in the process of goal attainment experience a more enhanced sense of well-being. Self-determination is therefore an important moderator in the impact of goal progress on well-being (Sheldon & Kasser, 1998).

The study of self-care has unfortunately been incorrectly reduced to health-care. Self-care is not only about health and illness but also includes psychological and spiritual components (Lovaš, 2014). Carroll, Gilroy and Murra (1999) have defined self-care as the integration of physical, emotional, cognitive, play and spiritual elements. Specifically, therapists with a high commitment to self-care regularly practice self-care strategies and believe that self-care is also an important protective factor in avoiding unethical treatment with clients.

As a result, Lovaš (2014) has argued that there is a need for an understanding of self-care in a wider context. He regards the performed activities of self-care as external manifestations of self-regulatory processes. The strength model of self-control (Baumeister,

Vohs & Tice, 2007) provides a useful basis for balancing the negative consequences of ego depletion such as burnout or other pathological states. Failures in self-care have probably been caused by a similar reduction in the capacity to regulate self-care activities, especially in the helping professions.

2. OBJECTIVES

The aim of the present study is to investigate whether goal commitment mediates or moderates the relationship between self-concordance and goal progress. The purpose of the research is to study these relationships in the context of self-care goals. Goal setting theory explains why some people perform better in the process of goal-directed behaviour. The initial hypothesis was that the goals affect performance and motivate action. The setting of a goal is a discrepancy-inducing process and as such permits people to perceive progress towards a specific goal. Following this, the theory attempts to specify the regulatory mechanisms, causal factors and moderators of performance (Latham & Locke, 1991).

It is hypothesised that perceived progress in self-care is associated with self-concordance and that the relationship between them is mediated or moderated by goal commitment.

3. METHOD

3.1. Participants and procedure

The participants were 156 undergraduate students (79 females, 77 males) aged 18-26 ($M = 22.03$, $SD 2.04$). A non-probability sampling technique was used. The respondents were asked to choose from a structured list of goals the one that was the most important to them. Then they completed scales related to that goal. Goal characteristics were measured twice; once in the area of physical self-care and the second time in the area of psychological self-care.

4. MEASURES

Three goal variables were examined; **self-concordance**, **goal commitment**, **goal progress**. These can be found in the research of personal goals by Koestner et al. (2002) and Monzani et al. (2015). At the beginning, instructions were given; *„In different spheres of your life you undoubtedly pursue some goals that you intend to implement. They represent intentions, plans and projects. We would like to know about the characteristics of your goals in the sphere of self-care.“* A list of the most frequent goals that were chosen by participants for physical self-care include “improve physical fitness (29.5%)”, “eat healthily (18.6%)”, “gain muscles (26% of males)”, “lose weight (16.5% of females)” and for psychological self-care “autonomy and independence (31.4%)”, “have my destiny firmly in the hands (16.7%)”, and “purposefulness and diligence (12.8%)”.

4.1. Goal self-concordance

The participants were asked to rate their motivation – why they strived to attain that goal. External, introjected, identified and intrinsic reasons were measured by using four items rated on a scale of 1 (*not at all for this reason*) to 7 (*completely because of this reason*). The items were: „striving because somebody else wants you to or because you’ll get something from somebody if you do“, „striving because you would feel ashamed,

guilty, or anxious if you didn't strive for this“, „striving because you really believe it's an important goal to have – you endorse it freely and wholeheartedly“, and „striving purely because of the fun and enjoyment that striving provides you.“ According to Koestner et al. (2002), the self-concordance score is calculated by deducting the sum of the external and introjected regulation from the sum of the intrinsic and identified regulation.

4.2. Goal commitment

Goal commitment was assessed by using three items: „No matter what happens, I will not give up this goal“, „I have the urgent feeling to immediately start working on this goal“, „Even if it means a lot of effort, I will do everything necessary to accomplish this goal.“ They were rated on a 1 (*completely disagree*) to 7 (*strongly agree*) scale. The reliability for physical self-care was $\alpha = .784$ and for psychological self-care $\alpha = .767$.

4.3. Goal progress

Goal progress was assessed by using two items: „I have made a great deal of progress concerning this goal“, „I have had quite a lot of success in pursuing this goal.“ Both were rated on a scale of 1 (*completely disagree*) to 7 (*strongly agree*). The internal consistency of the items was $\alpha = .849$ for physical self-care and $\alpha = .872$ for psychological self-care.

5. RESULTS

5.1. Preliminary analyses

The means and standard deviations were calculated for all goal variables. The participants tended to pursue goals for mostly autonomous reasons. They reported high goal commitment and success in progress towards their goals (M = 48.92 % completion in physical self-care goal, M = 57.36 % completion in psychological self-care goal). The relationships among the variables were explored using correlational analysis.

Table 1 shows that the results of the analyses in the sphere of physical as well as psychological self-care were similar. Self-concordance was significantly positively related to goal commitment and goal progress. Commitment was significantly positively related to goal progress.

Table 1.
Means, standard deviations and Pearson correlation coefficients among goal variables.

| Variable | M | SD | 1. | 2. | 3. |
|-------------------------|-------|------|----|-------|-------|
| Physical self-care | | | | | |
| 1. Self-concordance | 4.51 | 3.84 | — | .36** | .20* |
| 2. Goal commitment | 15.37 | 3.75 | | — | .59** |
| 3. Goal progress | 8.81 | 2.92 | | | — |
| Psychological self-care | | | | | |
| 1. Self-concordance | 4.42 | 3.49 | — | .35** | .20* |
| 2. Goal commitment | 16.42 | 3.40 | | — | .35** |
| 3. Goal progress | 9.99 | 2.60 | | | — |

* $p < .05$, ** $p < .01$

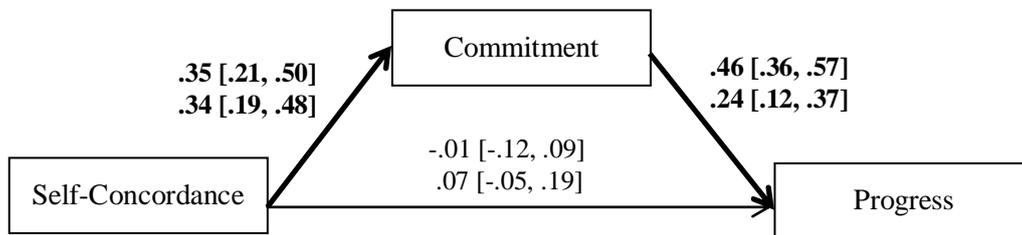
5.2. Mediation

The classical mediation model was tested, as shown in Figure 1, using the Process Macro for SPSS. In the case that the 95% confidence interval did not include 0, the effect was considered significant.

Figure 1 shows the values of the regression coefficients and direct effects of motivation on goal progress. The direct effects of self-concordance on progress were not statistically significant.

Figure 1.

Mediation model of goal progress and pairs of regression coefficients. Values in bold are significantly different (95 % CI, $p < 0.001$). Values above represent the measurement in physical self-care and values below represent the measurement in psychological self-care.



It was found that goal commitment mediated the relationship between self-concordance and goal progress. Table 2 shows the results of the indirect effects using the bootstrap method. In order to examine the significance of the mediation effect, a Sobel test was also carried out. The results indicate the full mediation for the model of physical and psychological self-care, respectively.

Table 2.

Indirect effects through goal commitment on goal progress.

| Indirect effects | Estimate (SE) | 95% CI |
|-------------------------|--------------------|----------------------|
| physical self-care | .163 (.038) | [.096; .248] |
| psychological self-care | .083 (.027) | [.041; .148] |

Note. Test for indirect effect in physical self-care ($p < .001$) and in psychological self-care ($p = .003$).

5.3. Moderation

For the goals in physical and psychological self-care, a simple moderation model was also tested using the Process Macro for SPSS. The interaction between self-concordance and goal commitment in physical self-care contributed to the variance of goal progress ($b = .026$, $SE = .012$, $p = .038$, 95% CI [.001, .050]) and explained an additional 1.6 % of the variance in goal progress.

In order to describe the nature of the interaction effect, the Johnson-Neyman technique was used. It identified a moderator value -9.987 (scale score 5.385, $M = 15.372$, $SD = 3.745$, $Min = 4$, $Max = 21$), a transition point between a region of significance and a region of non-significant effect of the moderator on a dependent variable at which the

predictor is related to outcome (Hayes & Rockwood, 2016). Only 1.9 % of the sample fell within this region of significance.

The result was a negative conditional effect of self-concordance on goal progress. As commitment decreases, the relationship between self-concordance and goal progress becomes more negative with the lowest commitment score. The link between self-concordance and goal progress towards psychological self-care goal was not moderated by commitment ($b = .008$, $SE = .015$, 95% CI $[-.023, .038]$).

The results of the moderation analysis supported the assumption of goal commitment as a mediator and not a moderator.

6. DISCUSSION

Goal commitment is usually conceptualized as a moderator variable which moderates, for example, the relationship between goal difficulty and performance (Klein, Wesson, Hollenbeck & Alge, 1999) or the relationship between goal progress and subjective well-being (Brunstein, 1993). Goal commitment has many definitions and the assumption of moderation is not valid in all its concepts (Tubbs, 1993). The use of commitment as a moderator has typically been inconsistent with the results of studies (Hollenbeck & Klein, 1987). Moreover, attempts to empirically verify its moderating role have usually been unsuccessful (Tubbs, 1993).

According to Latham and Locke (1991), goal commitment can operate as a moderator of performance as well as a direct causal factor. Tubbs (1993) has argued that self-report measures of commitment are less effective when a moderating relationship is explored and thus often results in rejecting the moderation hypothesis. Wright, O'Leary-Kelly, Cortina, Klein and Hollenbeck (1994) did not agree with this claim and have considered commitment as "an attitude about a particular goal (personal or assigned) that is best measured directly via self-report measures" (p. 801).

The aim of this study was to investigate the relationship between motivation and perceived progress. It performed a mediation as well as a moderation analysis. There was support for the current hypothesis that goal commitment mediates or moderates the relationship between motivation and goal progress. Progress in achieving self-concordant goals is an outcome of higher goal commitment to them which works as a mediator of the relationship. There has been little research with similar results. For example, Sue-Chan and Ong (2002) found goal commitment and self-efficacy to be complete mediators of the goal assignment-performance relationship. Monzani et al. (2015) tested the role of commitment and other personal goal dimensions in fostering goal progress and assessed the mediational effect via commitment between expectancy and progress as well as between value and progress. The mediational effect of commitment was found to be statistically significant (Monzani et al., 2015).

Despite the primary focus on the interrelations of variables, the study has broadened the area of very limited research in the field of psychological self-care. It has verified the existence of a mediation effect in two models; one for the physical self-care goal and the other for the psychological self-care goal. The limitations of this study are the self-reported measures of goal progress which may not reflect objective reality. In addition, the structured lists of goals instead of using open questions meant that the participants did not have a greater freedom of choice. On the other hand, the study tried to create an exhaustive list of goals which could ease the selection. The most frequent goals people may have in the field of physical and psychological self-care were included.

The present study contributes to the knowledge of the self-concordance theory and the process of goal attainment. Recent research has suggested that more self-concordant goals are more likely to be successfully accomplished because pursuing those goals feels easier. Greater goal progress is made because of subjective ease, and not because people exert more actual effort in order to reach a truly wanted goal (Werner, Milyavskaya, Foxen-Craft & Koestner, 2016). When people pursue such goals they also experience fewer obstacles, which prevent people from goal non-attainment (Milyavskaya, Inzlicht, Hope & Koestner, 2015).

7. FUTURE RESEARCH DIRECTIONS

For future self-care research, there should be greater concentration on the psychological aspects of self-care. Moreover, it would be beneficial to study self-care as a self-regulatory process. The intention of this could be to help improve the ability to strategically regulate the failures in self-care activities. Practically, there could be the creation of an intervention program based on the findings of the current research. The importance of goal commitment in the process of attaining self-care goals is evident and the main objective would be to make the commitment increase. In further research, it is recommended to study these relationships experimentally. This is the most appropriate way for drawing casual conclusions.

8. CONCLUSION

The aim of the present study was to measure the mediational and moderation effect of goal commitment in the relationship between self-concordance and goal progress. The goal of the research was to study these relationships in the context of self-care goals. It was hypothesised that goal commitment mediates or moderates the relationship between motivation and goal progress. In conclusion, the results have shown the indirect effect of self-concordance on goal progress through goal commitment. Self-concordance leads to goal commitment which works as a regulatory mechanism of goal progress. The results of the moderation analysis have supported the findings of goal commitment as a mediator variable. The most reported goal among participants in physical self-care was the goal of improving physical fitness and in psychological self-care the goal for autonomy and independence.

The current research offers an explanation as to how self-concordance, goal commitment and goal progress function with each other. It contributes to knowledge by the model which explains the relationship between self-concordance and goal progress through goal commitment as the mediator variable. Motivation as an indirect casual factor increases goal commitment which in turn increases goal progress.

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ACKNOWLEDGMENTS

The research is a part of grant *VEGA 1/0924/15 Self-Regulation Processes in Attaining of Distal Goals* and grant *APVV-14-092 Self-Care as a Factor of Balancing Negative Consequences of Helping Professions*.

AUTHORS INFORMATION

Full name: Ladislav Lovaš

Institutional affiliation: University of Pavol Jozef Šafárik in Košice

Institutional address: Faculty of Arts, Department of Psychology, Moyzesova 9, 040 01 Košice, Slovakia

E-mail address: ladislav.lovass@upjs.sk

Short biographical sketch: Ladislav Lovaš is Professor of Psychology and Head of Department of Psychology. His research is focused on processes of self-regulation and self-control in the context of goal attainment and aggression. He has published more than 80 articles, and book chapters, as well as several books, including *Aggression and Violence (Agresia a násilie)* (2010), *Personal and Situational Context of Self-Control* (2011).

L. Lovaš, & M. Bobková

Full name: Marcela Bobková

Institutional affiliation: University of Pavol Jozef Šafárik in Košice

Institutional address: Faculty of Arts, Department of Psychology, Moyzesova 9, 040 01 Košice, Slovakia

E-mail address: bobkova.marcela@gmail.com

Short biographical sketch: Marcela Bobková is a second-year internal Ph.D. student enrolled in study programme „Social Psychology and Psychology of Work“. Hers current research focuses on the relationship of activation and inhibition processes in the context of motivation and goal attainment. She is working under the supervision of professor Ladislav Lovaš. Marcela graduated from the University of Pavol Jozef Šafárik in Košice in 2016 and is interested in research centered on issues of goal characteristics, self-regulation and self-control.

Chapter #6

ON HEALTH AND APPEARANCE-ORIENTED EATING REGULATION GOALS: A LOOK AT PERSONAL AND VICARIOUS GOALS

Noémie Carbonneau¹, Marina Milyavskaya², & Geneviève Lavigne¹

¹Université du Québec à Trois-Rivières, Canada

²Carleton University, Canada

ABSTRACT

The regulation of eating behaviours is among the most common health goals among the general population (e.g., Milyavskaya & Nadolny, 2016). According to Self-Determination Theory (SDT), goals are often pursued in the service of broader life-goals, or aspirations (Kasser & Ryan, 1996), which can be categorized as extrinsic (such as aspirations for wealth, fame, and physical attractiveness) or intrinsic (such as aspirations for personal growth and community contribution). In accordance with SDT, it has been proposed that eating regulation goals can be pursued in order to reach a slender and physically attractive body or in order to have a more healthy and fit lifestyle (e.g., Verstuyf, Vansteenkiste, & Soenens, 2012). The main purpose of this chapter is to present a brief summary of the literature on health vs. appearance-oriented eating regulation goals. More specifically, we present studies that have examined how these two types of eating regulation goals are differently related to eating behaviours, well-being, and interpersonal styles with others. We also review our recent research (Carbonneau & Milyavskaya, 2017) showing that the health vs. appearance orientation not only applies to personal goals, but also to the goals that individuals have for their romantic partners.

Keywords: eating regulation goals, personal and vicarious goals, self-determination theory, health and appearance-oriented goals.

1. INTRODUCTION

Eating regulation plays a central role in the lives of many individuals as can be readily observed in the mass media with the multitude of weight lost TV shows and plethora of magazines focused on healthy eating and dieting. In fact, the regulation of eating behaviours is among the most common health goals among the general population (Milyavskaya & Nadolny, 2016). As some research suggests (e.g., Tucker & Anders, 2001), eating better and healthier is not only a goal that people personally pursue but also a goal that many women have for their romantic partners. According to Self-Determination Theory (SDT; Deci & Ryan, 1985, 1987), goals – including eating regulation goals – can be pursued in the service of intrinsic or extrinsic aspirations. Some people, then, attempt to regulate their eating behaviours in order to reach a slender and physically attractive body (extrinsic motivation) whereas other individuals are predominantly focused on becoming healthier (intrinsic motivation). In the present chapter, we first present the distinction between health and appearance-oriented eating regulation goals proposed by Verstuyf and colleagues (e.g., Verstuyf, Van Petegem, Vansteenkiste, Soenens, & Boone, 2014; Verstuyf, Vansteenkiste, & Soenens, 2012). Second, we present key research showing that these two ways of regulating eating behaviours are differently related to various outcomes

(e.g., eating patterns, psychological well-being). Third, we review our own research that focuses on eating regulation in the context of romantic relationships. More specifically, we present research showing that: (1) women's eating regulation goals are related to their interpersonal style toward their partners, and (2) the health vs. appearance distinction also applies to eating goals that women have for their partners. Finally, we propose some avenues that appear promising for future research.

2. BACKGROUND

According to SDT, individuals often pursue goals in order to reach broader life values or aspirations (Kasser & Ryan, 1996). In line with SDT, aspirations can be broadly categorized into two categories: intrinsic and extrinsic. The focus behind intrinsic aspirations is to develop one's personal interests and potential (Duriez, 2011). Intrinsic aspirations are believed to be inherently rewarding because they directly satisfy the three basic psychological needs of autonomy, competence, and relatedness (Sheldon, Ryan, Deci, & Kasser, 2004). Personal growth, emotional intimacy, and community contribution are examples of intrinsic aspirations (Kasser & Ryan, 1996). Extrinsic aspirations, in contrast, are not believed to directly satisfy individuals' basic psychological needs as they are directed toward external indicators of worth or external rewards. Extrinsic aspirations can be appealing for some individuals, who believe that they will lead to power, social approval or a sense of worth (Kasser, Ryan, Couchman, & Sheldon, 2004). Examples of extrinsic aspirations are physical appearance, popularity, fame, and wealth (Kasser & Ryan, 1996). Research has clearly shown that having a higher focus on intrinsic aspirations compared to extrinsic aspirations lead to higher satisfaction, self-actualization, vitality, and well-being (e.g., Hope, Milyavskaya, Holding, & Koestner, 2014; Kasser & Ryan, 1996; Ryan, et al., 1999; Schmuck, Kasser, & Ryan, 2000), while focusing on extrinsic aspirations leads to worse relationships (Kasser & Ryan, 2001).

3. HEALTH VS. APPEARANCE-ORIENTED EATING REGULATION GOALS

As with most other goals or behaviours, individuals can choose to regulate their eating behaviours in the service of broader values or aspirations. In line with SDT, Verstuyf and colleagues (Verstuyf et al., 2014; Verstuyf et al., 2012) proposed the distinction between health-focused and appearance-focused eating regulation. In other words, people may choose to regulate their eating behaviours because they want to improve or maintain their health (health aspirations) or because they have the desire to have a thinner, more physically attractive appearance (extrinsic aspirations). Verstuyf and colleagues (2012) created a measure, based on the Aspiration Index (Kasser & Ryan, 1996), to assess participants' goals for eating regulation. After reading the stem "I regulate my food intake because...", participants indicate how strongly they value each of the eating regulation goals using a Likert scale ranging from 1 (*not at all important*) to 7 (*very important*). Three items refer to health-focused eating regulation (e.g., "I want to be healthy") and three items refer to appearance-focused eating regulation (e.g., "others would find me more attractive"). The scale appears to have adequate psychometric properties (Verstuyf et al., 2012).

Verstuyf and colleagues (2012) examined body dissatisfaction as a motivating force driving one's effort to regulate one's eating behaviours using a sample of 244 female adolescents. Results of this research revealed that body dissatisfaction was strongly and

positively related to appearance-focused eating regulation but not significantly related with health-focused eating regulation. This indicates that adolescents who are dissatisfied with their body are more prone to regulate their eating behaviours to improve their physical appearance. Results of another study further reveal that appearance-focused eating regulation is positively related to a drive for thinness and to binge eating symptoms (Verstuyf, Vansteenkiste, Soetens, & Soenens, 2016). In contrast, health-focused eating regulation was found to be positively related to healthy eating behaviours (e.g., eating vegetables) while being negatively related to binge eating symptoms. In a sample of adult female dieters, Putterman and Linden (2004) found that women who were motivated to change their appearance were more likely to use drastic dieting strategies (such as fasting) and to report losing control over eating than individuals dieting out of health concerns. Eating regulation based on appearance reasons has also been found to be associated with the frustration of the three basic psychological needs posited by SDT (autonomy, competence, and relatedness; Verstuyf et al., 2012). In contrast, health-oriented goals were found to be either unrelated or negatively related to diet-specific need frustration. These findings suggest that regulating one's eating behaviours in the service of extrinsic aspirations comes with feelings of pressure, incompetence, and social tensions (Verstuyf et al., 2012).

4. HEALTH AND APPEARANCE-ORIENTED EATING REGULATION GOALS IN THE CONTEXT OF ROMANTIC RELATIONSHIPS

Romantic partners are likely to influence one other in different spheres of life, including the eating domain. Romantic partners take part in various activities related to eating (e.g., shopping for ingredients, cooking together and sharing mealtimes) that give rise to numerous occasions to interact and influence each other's attitudes, values, and behaviours toward food and eating (Bove & Sobal, 2006; Bove, Sobal, & Rauschenbach, 2003). Thus, it appears important to examine eating regulation goals in the context of romantic relationships as the romantic partner can play a significant role in promoting or hindering the development (or maintenance) of optimal regulation of eating behaviours (e.g., Carbonneau, Carbonneau, Cantin, & Gagnon-Girouard, 2015; Ng, Ntoumanis, Thøgersen-Ntoumani, Stott, & Hindle, 2013).

To examine how health and appearance-oriented eating regulation goals operate in the context of romantic relationships, we collected data from 131 couples (Carbonneau & Milyavskaya, 2016; Carbonneau & Milyavskaya, 2017). Heterosexual couples (mean age of 44.41 years, $SD = 13.08$ years) who were either married (63.2%), cohabiting (30.8%) or dating (6%) were recruited by a professional survey firm from the province of Quebec (Canada). Full details of the study procedures are outlined in Carbonneau and Milyavskaya (2017). In this data, we were interested in (1) whether the motivation underlying women's eating regulation goals differed as a function of their interpersonal style with their romantic partner (Carbonneau & Milyavskaya, 2016); (2) how women's personal and vicarious eating regulation goals relate to their partner's perceptions of support, well-being, and relationship quality (Carbonneau & Milyavskaya, 2017).

Past research (e.g., Tucker & Anders, 2001) suggests that a number of married women would like their spouse to adopt better eating habits. Based on SDT (e.g., Deci & Ryan, 1987), we posited that this desire can translate into women adopting an *autonomy-supportive* or a *controlling* interpersonal style with their spouse with regard to eating regulation. Autonomy-support refers to the active support of another person's capacity to be autonomous and self-initiating (e.g., Ryan, Deci, Grolnick, & La Guardia,

2006). In the romantic sphere, supporting the spouse's autonomy refers to providing him/her with choices, acknowledging his/her perspectives, and encouraging him/her to express oneself authentically rather than pressuring him/her to be or behave in a specific way (Deci, Eghrari, Patrick, & Leone, 1994; La Guardia & Ryan, 2007; Ryan & Deci, 2004). In contrast, a controlling interpersonal style is seen when one dismisses or invalidates the spouse's feelings and creates an environment in which love and acceptance are made contingent on the spouse's behaviours (Silk, Morris, Kanaya, & Steinberg, 2003). Past research has clearly demonstrated that autonomy support is more beneficial than interpersonal control in terms of psychological functioning, relationship quality, and general well-being (e.g., Deci, La Guardia, Moller, Scheiner, & Ryan, 2006; Deci, et al., 2001; Demir, Özdemir & Marum, 2011; Grolnick, Deci, & Ryan, 1997; Soenens et al., 2007; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005).

One purpose of our study was to investigate whether the motivation underlying the eating regulation goals of women who are perceived by their husband as autonomy-supportive is distinct from the motivation of those who are perceived as relatively more controlling. We hypothesized that autonomy-supportive women should report personally pursuing eating regulation goals for more health-oriented (intrinsic aspiration) and less appearance-oriented (extrinsic aspiration) reasons than controlling women. We also hypothesized that men who perceive their wife as autonomy-supportive (vs. controlling) with regard to eating regulation should report higher levels of psychological well-being and relationship quality.

These hypotheses were tested with the 81 married couples in the study. Two groups of participants were created based on whether the wife was perceived as having a relatively more autonomy-supportive ($n = 46$) or controlling ($n = 35$) interpersonal style toward their partner with regard to eating regulation. ANOVAs were conducted in order to examine the differences between the two groups (see Table 1 for all means and results). Results showed that autonomy-supportive women personally pursued more health-oriented eating regulation goals than controlling women, $F(1,80) = 5.06, p < .05, \eta^2 = 0.06$. Meanwhile, autonomy-supportive women did not significantly differ from controlling women in terms of appearance-oriented eating goals, $F(1,80) = 0.01, p = .92$. In addition, the husbands of autonomy-supportive women reported higher psychological well-being $F(1,80) = 4.66, p < .05, \eta^2 = 0.06$, as well as higher relationship quality, $F(1,80) = 12.65, p < .01, \eta^2 = 0.14$, than the husbands of controlling women. Overall, these results show that women perceived as autonomy-supportive by their husband are more likely to personally pursue health-based eating regulation goals than women who are perceived as controlling. It is possible that such an intrinsic orientation for one's own behaviour facilitates the ability to take another person's feelings and perspectives into consideration, therefore preventing individuals from pressuring others into thinking or acting a certain way. The results of this study also replicate previous findings that individuals derive significant benefits from having an autonomy-supportive relational partner (Carbonneau et al., 2015; Deci et al., 2006).

Table 1.
Results of the ANOVAs.

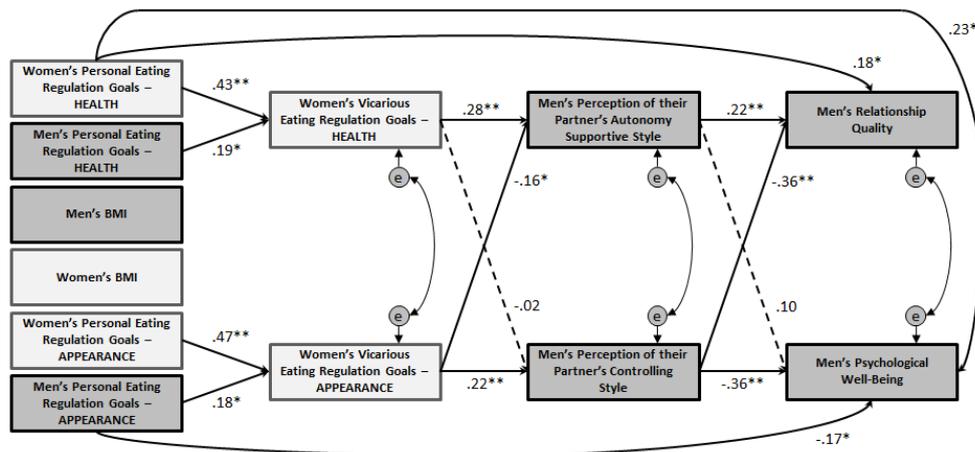
| Dependent Variable | Autonomy-supportive M (SD) | Controlling M (SD) | |
|--------------------------------------|----------------------------|--------------------|--|
| Health-oriented eating regulation | 6.56 (0.57) | 6.19 (0.93) | $F(1,80) = 5.06, p < .05, \eta^2 = 0.06.$ |
| Appearance-related eating regulation | 4.86 (1.64) | 4.82 (1.39) | $F(1,80) = 0.01, p = .92.$ |
| Husbands' well-being | 3.22 (0.59) | 2.92 (0.64) | $F(1,80) = 4.66, p < .05, \eta^2 = 0.06.$ |
| Husbands' relationship quality | 6.45 (0.59) | 5.87 (0.87) | $F(1,80) = 12.65, p < .01, \eta^2 = 0.14.$ |

In addition to pursuing personal goals, many people also have vicarious goals, that is, goals for their close others (Koestner, Powers, Carbonneau, Milyavskaya, & Chua, 2012, Study 3). Authors have traditionally focused on the vicarious goals parents have for their children. For instance, Mageau, Bureau, Ranger, Allen and Soenens (2016) have found that parents who have performance goals for their teenager are more controlling while parents with mastery goals for their teenager display more autonomy-supportive behaviours. Although vicarious goals are likely to be at play in hierarchical relationships (such as parent-child relationships), they can also manifest in more egalitarian relationships such as romantic partnerships (e.g., Koestner et al., 2012). Markey, Gomel and Markey (2008) have conducted research about eating regulation in the context of heterosexual romantic relationships. Their research suggests that women are more likely to attempt to regulate their partner's eating behaviours than the other way around. They however did not differentiate between the types of eating regulation goals each partner had for their spouse. In our study, we were interested in examining whether women who want their partner to regulate their eating behaviours for health reasons are more likely to regulate their own eating behaviours out of health concerns. In the same vein, we wanted to examine whether the appearance-based eating regulation goals that women have for their partner originate from their own extrinsically motivated eating regulation goals. Such health and appearance vicarious eating regulation goals that women have for their partner are likely to then relate to the interpersonal style (i.e., autonomy-supportive vs. controlling) adopted toward their partner and, ultimately, to the partner's well-being and relationship quality.

Our recent paper (Carbonneau & Milyavskaya, 2017) directly examined these questions. Based on previous literature, we posited that women who endorse health-oriented personal goals would also report having health-related vicarious goals for their partner and that women who endorse more appearance-oriented reasons for pursuing personal goals would also entertain appearance-oriented goals for their partner.

Furthermore, we hypothesized that women who have health-oriented vicarious goals for their partner would be perceived as more autonomy-supportive while women who have appearance-oriented vicarious goals for their partner would be perceived as more controlling. Finally, we hypothesized that men who perceive their partner as autonomy-supportive would report higher well-being and relationship quality while the contrary was expected for men who perceive their partner as controlling. Structural equation modelling analyses with the full sample of 131 couples were conducted to test these hypotheses (see Carbonneau & Milyavskaya, 2017, for full details). As results showed (see Figure 1), the health-oriented eating goals that women have for their partner were found to be rooted in their own personal health-oriented eating goals. Similarly, women’s appearance-oriented eating goals were found to reflect their own appearance-oriented eating goals. It was further found that women who have health-related eating regulation goals for their partner were perceived as more autonomy-supportive, which positively predicted the partner’s relationship quality. Conversely, women who have appearance-related eating regulation goals for their partner were perceived as more controlling, which was negatively associated with the partner’s well-being and relationship quality. Overall, the results of this study suggest that the type of goals that women pursue are not only related to more or less positive personal outcomes but also affect the relational and psychological well-being of their close others.

Figure 1.
Carbonneau and Milyavskaya’s (2017) Structural Equation Model Results.



Source: Springer *Motivation and Emotion*, “Your goals or mine? Women’s personal and vicarious eating regulation goals and their partners’ perceptions of support, well-being, and relationship quality”, 41, 2017, 465-477, Noémie Carbonneau & Marina Milyavskaya (© Springer Science+Business Media, LLC 2017). With permission of Springer.

Note. Results of the path analysis. Variables in dark gray were reported by men, variables in light gray were reported by women. For clarity concerns, covariances between exogenous variables do not appear in the figure. BMI = body mass index; $n = 131$ couples; * $p < 0.05$, ** $p < 0.01$

4. DISCUSSION

Many individuals attempt to regulate their eating behaviours but they are not all motivated by the same reasons. In this chapter, we have presented the distinction proposed by SDT (e.g., Verstuyf et al., 2014; Verstuyf et al., 2012) between eating goals that are pursued to accrue health benefits and those that are pursued in order to obtain or maintain a desirable physical appearance. Overall, research presented in this chapter shows that regulating one's eating behaviours out of concern for one's appearance is associated with less positive outcomes than focusing on health. For example, research has shown that appearance-motivated eating behaviour is related to body dissatisfaction, binge eating symptoms and unhealthy dieting strategies, which is not the case for health-focused goals for eating regulation (Putterman & Linden, 2004; Verstuyf et al., 2012). We have also presented our own research investigating how romantic partners attempt to regulate their own and one another's eating behaviours. Our research suggests that the type of eating goals that women pursue is related to how they behave with their romantic partner with regard to eating regulation (Carbonneau & Milyavskaya, 2016). More specifically, women who are perceived as autonomy-supportive (vs. controlling) by their husband are more likely to report that they personally regulate their eating behaviours out of health concerns. Interestingly, there was no difference in appearance-oriented goals among autonomy-supportive compared to controlling women. Although preliminary, these results suggest that more effort should be invested in promoting women's pursuit of health goals than in preventing them from pursuing appearance goals. Nevertheless, these findings need to be replicated in other studies and with different populations before any definitive recommendation could be made.

Our research also shows that the type of goals (i.e., health or appearance oriented) that women have for their partner are consistent with the goals they personally pursue (Carbonneau & Milyavskaya, 2017). In addition, as results suggest, men experience greater benefits in terms of psychological and relational well-being when their partner's personal and vicarious eating regulation goals are health-based rather than appearance-based. Overall, results of our research shed some light on how vicarious goals are set in romantic relationships (i.e., by paralleling one's own personal goals) and how they affect interpersonal behaviours, well-being, and relationship quality.

Research by Mageau and colleagues (2016) has shown that the type of achievement goals (i.e., performance vs. mastery oriented) that mothers have for their teenager predicts their tendency to adopt autonomy-supportive and controlling behaviours. Results of our research (Carbonneau & Milyavskaya, 2017) are in line with Mageau and al.'s (2016) findings as they show that the type of eating goals that women pursue predict whether they are perceived by their partner as autonomy-supportive or controlling. More specifically, our results suggest that endorsing health-related reasons for regulating eating may facilitate women's ability to take their romantic partner's feelings and perspective into consideration. In contrast, regulating eating behaviours in the service of extrinsic ends (i.e., to obtain/maintain an attractive physical appearance) may lead one to pressure others into thinking or acting a certain way. Overall, this research improves our understanding of the determinants of autonomy support and control in relationships.

5. FUTURE RESEARCH DIRECTIONS

Although other researchers have been interested in the distinction between health and appearance-oriented personal eating regulation for a few years, the study of vicarious eating regulation goals is new and still in the process of development. The focus of our research was on women's vicarious goals for their male partner, but men's vicarious goals for their partner should definitively be investigated in future research. Also, all couples in our study were heterosexual; replicating the present results with same-sex couples would be important. More research is also needed on how vicarious goals are set and pursued and how they impact on each partner's goal attainment. We believe that future research should also investigate the longitudinal impact of being successful vs. unsuccessful in the attainment of goals that romantic partners have for one another. For instance, would a wife's relationship satisfaction be affected if her husband failed to reach an important goal she has for him? More research is definitely needed in order to better understand the intricacies of vicarious goals in romantic relationships, and in other types of relationships as well.

6. CONCLUSION

The regulation of eating behaviours is among the most common goals that people pursue. However, how the goal pursuit process unfolds will likely depend on the type of eating regulation goals at play (i.e., health vs. appearance-based). Research presented in this chapter clearly shows that eating regulation is associated with more benefits (for oneself and also for close others) when the underlying motivation is to have a healthier lifestyle rather than trying to reach a more physically attractive body. Future research aimed at better understanding the mechanisms underlying personal and vicarious goals, especially in the realm of eating, appears promising.

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KEY TERMS & DEFINITIONS

Vicarious goals: goals for others

Intrinsic goals: aspirations that are inherently rewarding (e.g., personal growth, emotional intimacy, community contribution)

Extrinsic goals: aspirations that are directed toward external indicators of worth or external rewards (e.g., physical appearance, popularity, fame, wealth)

Autonomy support: active support of another person's capacity to be autonomous and self-initiating

AUTHORS INFORMATION

Full name: Noémie Carbonneau

Institutional affiliation: Department of Psychology, Université du Québec à Trois-Rivières

Institutional address: 3351 Boul. des Forges, Trois-Rivières, QC, G9A 5H7, Canada

Short biographical sketch: Noémie Carbonneau is a professor of social psychology at the Université du Québec à Trois-Rivières (UQTR; Canada). She completed her PhD at the Université du Québec à Montréal and a postdoctoral fellowship at McGill University before joining the faculty at UQTR. Her research focuses on three main areas: (1) interpersonal relationships (romantic couples, parent-child relationships, social support); (2) motivational processes (goals, autonomous/controlled motivation); and (3) health (eating behaviours, well-being). Her current research projects aim at examining the social, affective, and motivational factors involved in the regulation of eating behaviours.

Full name: Marina Milyavskaya

Institutional affiliation: Department of Psychology, Carleton University

Institutional address: 1125 Colonel By Drive, Ottawa, Ontario, K1S 5B6, Canada

Short biographical sketch: Dr. Marina Milyavskaya is an assistant professor of psychology at Carleton University in Ottawa (Canada). She completed her PhD at McGill University and a postdoctoral fellowship at the University of Toronto before joining the faculty at Carleton University. Marina's research focuses on how people set and pursue goals in a multitude of domains throughout their daily lives. Her multi-method approach to studying self-regulation includes experimental, prospective, and experience-sampling studies, as well as a focus on idiosyncratic personal goals.

Full name: Geneviève Lavigne

Institutional affiliation: Department of Psychology, Université du Québec à Trois-Rivières

Institutional address: 3351 Boul. des Forges, Trois-Rivières, QC, G9A 5H7, Canada

Short biographical sketch: Geneviève Lavigne holds a social psychology doctoral degree from the University du Québec à Montréal and she completed a post-doctoral fellowship at the McGill University Ingram school of nursing. She now works as a research professional for psychology and health related academic research groups.

Chapter #7

PREDICTING SOCIO-POLITICAL ATTITUDES: INSIGHTS FROM THE 2015 FEDERAL ELECTION IN CANADA

Derek J. Gaudet, Kathryn Flood, & Lisa A. Best¹

University of New Brunswick Saint John, Canada

¹ *PhD.*

ABSTRACT

The purpose of this study was to examine the role of personality and left-right wing affiliation in predicting attitudes on several socio-political topics (e.g. abortion, euthanasia). Participants completed a demographics questionnaire, a set of personality measures, and a contentious issues questionnaire (CIQ). Our final sample consisted of 267 participants. A total score on the CIQ was created and hierarchical linear regression found that left-right wing affiliation, openness, and private self-consciousness predicted higher total CIQ scores. Right wing affiliation predicted lower CIQ score. The results of this study suggest that that total CIQ score was measuring right-left wing attitudes on socio-political issues and could be a useful tool in predicting voting behaviour.

Keywords: political psychology, political attitudes, personality correlates, contentious social issues.

1. INTRODUCTION

Ideologies are sets of beliefs formed by groups of individuals to minimize in-group conflict by creating a consensus while conversely promoting superiority over another group (Sidanius, Pratto, Martin, & Stallworth, 1991). Political ideology, as studied in the field of psychology (Jost, 2006), is a social cognitive framework of ethical principles driven by individual needs and motivations. In turn, these cognitive frameworks of ethical principles likely drive attitudes on several socio-political topics, such as views on abortion, gun control, the legalization of marijuana, and the death penalty. It is unclear, however, whether attitudes about these specific issues are best explained by political party identification or whether other factors determine individual attitudes and opinions on the issues, which in turn, drives affiliation with a specific party. A meta-analysis on studies examining links between personality and political orientation demonstrated weak, but statistically significant, correlations between the personality traits of openness and conscientiousness and political conservatism (Sibley, Osborne, & Duckitt, 2012). This evidence seems to suggest that personality could offer an explanation as to why an individual might feel a certain way in regard to the specific contentious socio-political topics that often divide political ideologies. Additionally, researchers have suggested that an individual fulfills deeper psychological needs by adopting a specific political perspective that may, in turn, be influenced by their personalities. These models have recently been supported by twin studies suggesting that political beliefs may be inherited and related to primary human traits (Koenig & Bouchard, 2006; Ludeke, Johnson, & Bouchard, 2013).

Individual attitudes on socio-political topics are unlikely to be completely explained by personality. Identifying with a specific political party often means sharing many of the views and attitudes of that group. There is, however, a “chicken or the egg” problem. It is unclear whether individual beliefs and political attitudes lead to the adoption of a specific political party or whether political affiliation shapes beliefs and attitudes. Theories suggest that political party affiliation is influenced by deeply rooted beliefs and values that precede attitudes on socio-political issues (Gidengil, Nevitte, Blais, Everitt, & Fournier, 2012). In this respect, our political identity, or affiliation, to some extent, determines our attitudes on socio-political issues. For this reason, left-wing and right-wing political affiliation is another means to understand socio-political attitudes.

1.1. Liberalism and conservatism

Since the start of the French revolution in 1789, political beliefs have been viewed dimensionally as left-wing or right-wing within the majority of western cultures (Bobbio & Cameron, 1996). Political liberalism has become synonymous with left-wing views representing egalitarianism, social programming, and change (Jost, 2006). Contrarily, the right-wing or political conservatism is established on traditional values, supporting hierarchal institutions, authority, the status quo, and structure (Jost, 2006; Jost, Nosek, & Gosling, 2008). It has been suggested that conservatives tend to have a greater concern for their in-group and have a lower sense of security rationalizing their acceptance of social inequality, and resilient opposition to change (Jost, Glaser, Kruglanski, & Sulloway, 2003; Jost, Fitzsimons, & Kay, 2004; Landau et al., 2004; & Jost, et al., 2007). Both belief systems essentially emphasize one of two basic human needs: protection (conservatism) and provision (liberalism) (Janoff-Bulman, 2009). However, because there are a variety of different societal issues that frame and thus cloud an individual’s view of the two political dimensions they may be understood subjectively and should therefore be regarded as falling on a left-to-right-wing continuum.

Although Canada is a multi-party parliamentary system, there are three political parties that traditionally garner the majority of votes. These three parties are the New Democratic Party of Canada on the far left (NDP), the Liberal Party of Canada on the center-left, and the Conservative Party of Canada (PC) on the far right, respectively. In 1961, the NDP was founded as a socially democratic party and is typically viewed as the left-leaning “socialist” party. Although they have never been federally elected, they served as the official opposition to the PCs in the House of Commons in 2011 (Whitehorn, 2013). The Conservative and Liberal parties have been the only two parties in Canadian history to form the federal government. The Conservative party was the first political party to form government in Canada in 1867; traditionally they are viewed as right-wing economic stewards and military supporters (Harrison, 2011). Presently, the Liberals form government, the Liberal party usually forms a less socialist stance on issues than the NDP in the center-left, and the party’s success could perhaps be attributed to its ability to at least partially reside in the center (McCall & Clarkson, 2012).

1.2. Personality and correlates of political attitudes

Although research has examined relationships between political affiliation and personality, the association between personality and attitudes towards socio-political issues has not been extensively researched. Although, some studies have successfully applied the Five-factor model of personality (*e.g.*, Neuroticism, Agreeableness, Conscientiousness, Extraversion, and Openness to Experience) to political attitudes, the results of these studies have incorporated these traits into the traditional liberal and conservative systems. It is

unsurprising that liberals score significantly higher on openness to experience scales than conservatives and that conservatives score similarly high on conscientiousness scales (Carney, Jost, Gosling, & Potter, 2008). Given that the trait of conscientiousness is related to a disposition for stability and order, this relationship is not unexpected (McCrae & Costa, 1997). Using the Big Five Aspect Scales (DeYoung, Quilty, & Peterson, 2007), Hirsh, DeYoung, Xu, and Peterson (2009) reported that agreeableness (specifically, compassion) was associated with liberal attitudes and politeness was associated with the orderliness aspect of conscientiousness. In addition, these researchers reported that the relationship between personality and political ideology may be mediated by the importance that individuals placed on certain moral values; specifically, a high aspiration for order and a low need for equality may predict conservatism and a high aspiration for equality and a low need for order may predict liberal values.

Self-Consciousness plays a role in the public expression of personal beliefs (Scheier, 1980). It could, therefore, also play a role in determining our socio-political political attitudes. Self-Consciousness is theorized to exist in two forms. The first is Public Self-Consciousness. This form of self-consciousness is concerned with a preoccupation in thinking about how one's self is viewed by others. The second form of self-consciousness is Private self-consciousness. This form of self-consciousness refers to a tendency to attend to aspects of the self that are not readily available to others such as one's privately held beliefs, values, and feelings. Therefore, it seems likely that the personality trait of private self-consciousness would contribute to an individual's socio-political attitudes.

1.3. Purpose of the current study

Given the growing research interest in social cognitive models of ethical principles (or political ideologies) and personality, the purpose of this study was to provide a better understanding of the relationship between personality characteristics and attitudes on socio-political topics in Canada. Although individuals typically identify with one political party, they often show a heterogeneous mix of views when considering different socio-political issues. One purpose of this study was to examine how well political party affiliation and personality predicts attitudes on socio-political topics.

2. METHODS

2.1. Participants

In total, 267 participants completed an online questionnaire. The average age of participants was 29.25 years ($SD = 12.36$); there were 189 females ($M_{age}=27.56, SD=11.03$) and 78 males ($M_{age}=33.84, SD=14.57$). The majority of participants were Canadian (93.3%) who were born in Canada (90.7%). In terms of the political party that participants most identified with, 12% identified with the Conservative Party, 49.8% identified most with the Liberal Party, 16.7% identified most with the NDP party, and 20.8% indicated that they identified with at least two parties.

2.2. Materials

Demographics. The demographics questionnaire asked respondents to provide age, gender, nationality, language, and country of birth. Participants were also asked to indicate on a 1 (Not at all) to 7 (Completely) point Likert-scale the degree to which they identified with the three most impactful Canadian political parties (i.e., the New Democratic Party, Liberals, Progressive Conservative/Conservative).

Contentious Issues Questionnaire. The contentious issues questionnaire (CIQ) was originally developed by the authors to measure an individual's attitudes on several individual social issues in isolation. Several of the issues were identified from previous research measuring attitudes on contentious social issues. Issues that were emphasized during the Canadian 2015 federal election were also added to the list of contentious issues. The questionnaire requires respondents to indicate the degree to which they agree or disagree with 22 statements about socio-political issues (e.g. "abortion should be legal"). Responses are given on a 1 (strongly disagree) to 7 (strongly agree) point Likert scale. Respondents are also asked to indicate how important their opinion is to them on each issue on a similar 1 (very unimportant) to 7 (very important) point Likert-scale. This scale was originally designed to measure respondent attitudes on individual issues. However, in the present study, a method was developed such that a total score could be calculated in order to quantify the tendency towards left or right wing attitudes. Higher total scores on the CIQ indicated a tendency towards left-wing attitudes, whereas lower scores represented a tendency towards right-wing attitudes.

Big Five Inventory. The BFI consists of 44 characteristics (e.g. "Is inventive") that are rated on a 1 (disagree strongly) to 5 (Agree Strongly) point Likert-Scale. The BFI results in 5 scale scores: Extraversion, Neuroticism, Agreeableness, Openness, and Conscientiousness. Reliability alpha coefficients of the scales have been found range from .79 to .88, with an average reliability of .83 (John & Srivastava, 1999).

Eysenck Personality Questionnaire. The EPQ is comprised of 48 statements that may or may not be characteristic of the respondent. Each statement requires a "Yes" or "No" response. The EPQ results in 4 subscale scores: Extraversion, Neuroticism, Psychoticism, and a lie scale. Reliability alpha coefficients for the EPQ subscales have been found to range from .79 to .90 (Eysenck, Eysenck, & Barrett 1985).

Three Factor Self-Monitoring Scale. The Briggs, Cheek, and Buss Self-Monitoring Scale contains 20 questions requiring a response on a 1 (extremely uncharacteristic) to 5 (extremely characteristic) point Likert-Scale. It results in three subscale scores: "Extraversion", Other-directedness (e.g., a readiness to change to suit others), and Acting (e.g., skill and predilection for entertaining others in social settings). Reliability alpha coefficients for the subscales of the Three Factor Self Monitoring Scale range from .66 to .72 (Briggs, Cheek, & Buss, 1980).

Self Consciousness Scale. The Self Consciousness Scale (Fenigstein, Scheier, & Buss, 1975) has 23 items rated on a 1 (extremely uncharacteristic) to 4 (extremely characteristic) Likert-point scale. It contains three subscales measuring Public Self-Consciousness, Private Self-Consciousness, and Social Anxiety. The reliability alpha coefficients for the subscales of the SCS range from .69 to .71 (Scheier & Carver, 1985).

Balanced Inventory of Desirable Responding. The BIDR is a measure of desirable responding. It contains 40 statements requiring a response on a 1 (Not true) to 7 (Very True) point Likert-Scale. The BIDR results in two subscale scores: Self-deceptive enhancement and Impression management. Reliability of the BIDR subscales range from .68-.80 and .75-.86, respectively (Paulhus, 1991).

2.3. Procedure

This study received ethical approval through the University of New Brunswick's research ethics board. The study was advertised within the Psychology Department as well as through various social networking sites. All participants were provided with a link to complete the study using the online survey software, Qualtrics. If the participant was a student at the University of New Brunswick, they received one bonus mark towards their

class mark. Participants recruited through social media did not receive compensation for their participation. The questionnaire package took approximately 30 minutes to complete. The demographics and Contentious Issues Questionnaire always appeared first in the questionnaire package, but the order of the personality questionnaires were counterbalanced. After participants completed the study they were thanked for their time and debriefed.

3. RESULTS

3.1. Measuring socio-political attitudes

To measure tendencies towards left-right wing attitudes a total CIQ score was calculated by summing individual item scores. Initial analyses of the inter-item correlation matrices indicated that some of the variables on CIQ were not related to other items and, as a result, 8 items were dropped. Although the total number of participants was relatively small ($n=267$), the participant-variable ratio was quite high (26:1), and an exploratory factor analysis was conducted. To determine if factor analysis was appropriate for this data set, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted. The KMO = .834 and Bartlett's $\chi^2(45) = 549.89$, $p=.0001$, indicating that factor analysis was appropriate for this data set. Following Costello and Osborne (2005), a maximum likelihood analysis with an oblique rotation was used. Based on an examination of the initial factor loadings and factor correlations, an additional item was dropped from the factor analysis. As a result, a two factor structure best represented the data. Based on this solution, reliability analyses were conducted on the two subscales and the total scale score. The coefficient alpha of Factor 1 was $r = .701$, indicating adequate internal reliability. With all items included, the coefficient alpha of the Factor 2 was $r=.583$ but the internal reliability of both the Factor ($r=.75$) and the total scale score ($r=.783$) improved the reliability and thus an item was dropped. CIQ scores were constructed in such a way that higher scores represented a tendency towards traditionally left-wing attitudes and lower scores represented a tendency towards traditionally right-wing attitudes. To validate this interpretation of the total scores of the scale, differences in attitudes between primarily left wing and primarily right wing participants were examined. As both Liberal and NDP fall on the left-wing of the political spectrum, self-rated NDP and Liberal self-identification ratings were averaged together to create a left-wing affiliation score. To create a right-wing affiliation score, PC/Conservative scores were used. Participants were assigned to either left or right wing affiliation based on the scale in which they scored the highest. If they scored the same on both scales, then they were assigned to the "other" category. A multivariate analysis of variance was conducted with left or right wing political affiliation as the independent variable and agree-disagree Likert scale ratings on retained items within the CIQ as the dependent variable. The overall model was statistically significant (Roy's largest root= 0.312 , $F(10, 243) = 7.581$, $p<0.001$). The results of the one-way ANOVAS are presented in Table 1. Even using a conservative post hoc Scheffe test, statistically significant differences emerged on several of the issues. Left and right-wing respondents rated the extent to which they agreed or disagreed with CIQ items differently. In fact, only two of the retained issues from the CIQ did not demonstrate significant differences in agreement/disagreement. Left and right wing affiliates did not differ in terms of their attitudes towards the death penalty or vaccinations. Both groups appeared to disagree, to a similar extent, with the death penalty being legal and vaccinations being optional.

Table 1.
Mean Likert agree/disagree ratings of items on the contentious issues questionnaire.

| | Right-Wing | Left-Wing | Other | ANOVA | Post hoc |
|---|------------|-----------|-------|--------------------------|--------------------|
| FACTOR 1 | | | | | |
| Global warming is scientific fact. | 5.28 | 6.32 | 5.56 | 13.00 ($p < .0001$) | LW > RW & Other |
| We need to adopt stricter gun laws to ensure public safety. | 4.23 | 5.32 | 4.66 | 7.14 ($p = .001$) | LW > RW |
| Evolution should be taught in high school science class. | 5.33 | 5.98 | 5.33 | 5.34 ($p = .005$) | LW > RW |
| Addiction is a real disease. | 5.21 | 5.99 | 5.41 | 5.28 ($p = .006$) | LW > RW |
| The death penalty should be legal. | 3.70 | 3.30 | 3.33 | .70 ($p = .495$) | |
| Vaccinations should be optional. | 3.14 | 2.79 | 3.67 | 2.38 ($p = .095$) | |
| FACTOR 2 | | | | | |
| Abortion should be legal. | 4.48 | 6.03 | 5.04 | 13.95 ($p < .0001$) | LW > RW & Other |
| Assisted suicide (Euthanasia) should be legal. | 4.09 | 5.76 | 4.56 | 21.55 ($p < .0001$) | LW > RW & Other |
| Same-sex marriage should be legal. | 5.16 | 6.57 | 5.93 | 18.46 ($p < .0001$) | LW > RW |
| Using human embryos in stem cell research is unethical. | 3.77 | 2.92 | 3.89 | 6.87 ($p = .001$) | LW < RW & Other |

NOTE: *RW = right-wing affiliation, LW = left-wing affiliation

3.2. Personality correlates to political ideology

To examine potential predictors of left-right wing attitudes as measured by the CIQ, a hierarchical linear regression was conducted. Age, gender, and nationality were entered in Block 1, degree of affiliation with left or right wing political parties was entered in Block 2, and the personality variables were entered in Block 3. Preliminary analyses suggested multicollinearity between some of the subscales of the personality questionnaires. The most psychometrically sound subscales were retained for subsequent analyses (see Table 2). The overall model was statistically significant, $F(13,128)=9.15$, $p < .0001$, and explained 42.9% of the variability. The effects of age, gender, and nationality were not statistically significant. The political party in which the respondent most strongly identified (Block 2 variables), accounted for a large proportion of the variance, and was statistically significant. Self-reporting strong ties with right-wing parties was associated with lower CIQ scores and self-reporting stronger ties with left-wing parties was associated with higher CIQ scores. Block 3 personality variables were also statistically significant and, in this block, greater Private Self Consciousness (SCS) and Openness (BFI) was associated with higher CIQ Scores, which represent stronger left-wing attitudes.

Table 2.
Results of hierarchical multiple regression predicting CIQ scores.

| | <i>B</i> | <i>SE(B)</i> | β | <i>t</i> | ΔR^2 |
|----------------------------|----------|--------------|----------|----------|--------------|
| Step One | | | | | .03 |
| Age | 1.24 | .565 | .189 | 2.195 | |
| Gender | 19.42 | 15.462 | .108 | 1.256 | |
| Nationality | -5.295 | 12.320 | -.036 | -.430 | |
| Step Two | | | | | .30*** |
| Right-Wing Affiliation | -16.222 | 3.848 | -.333*** | -4.215 | |
| Left-Wing Affiliation | 18.501 | 4.603 | .322*** | 4.019 | |
| Step Three | | | | | .14*** |
| Other-Directedness | 1.215 | .951 | .089 | 1.277 | |
| Private Self-Consciousness | 2.769 | 1.330 | .1571*** | 2.08 | |
| Extraversion (BFI) | .823 | .920 | .065 | .895 | |
| Agreeableness | -.271 | 1.079 | -.018 | -.252 | |
| Conscientiousness | 1.381 | 1.053 | .094 | 1.312 | |
| Neuroticism | -.056 | .916 | -.005 | -.062 | |
| Openness | 3.553 | 1.017 | .264*** | 3.494 | |
| EPQ Lie | -4.465 | 2.370 | -.136 | -1.884 | |

Note: *** $p < .001$

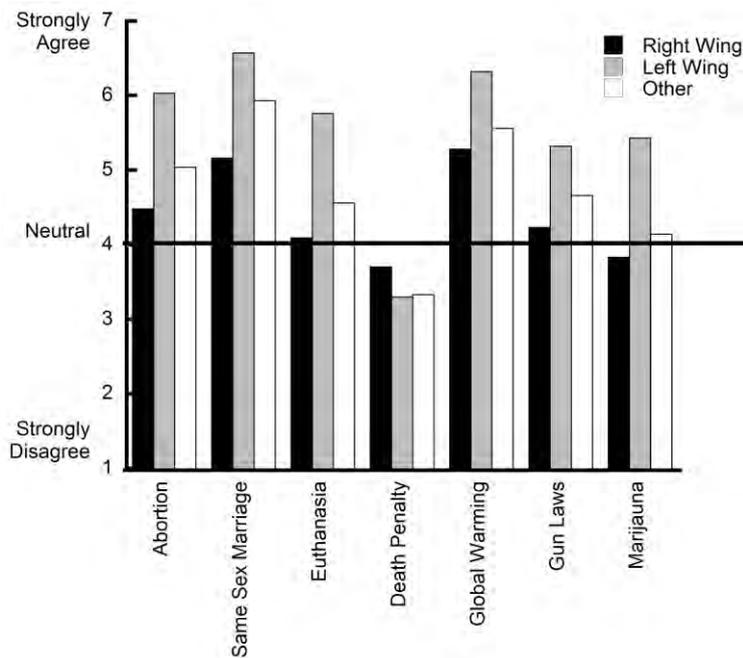
4. DISCUSSION

In this study, we examined the extent to which left-right wing affiliation and personality influenced views on controversial socio-political topics. We found that left and right-wing respondents differed in the extent to which they agreed with several statements on the CIQ (e.g. “abortion should be legal”, “Same-sex marriage should be legal”). Figure 1 illustrates the mean scores of all three political categories on some contentious issues that were relevant in the 2015 Canadian federal election. The graph demonstrates that although differences were found, there was a general consensus on these issues in this Canadian sample. For instance, everyone agreed that same-sex marriage should be legal, but left-wing

affiliates agreed more strongly. Some issues, such as the adopting stricter gun laws and having abortion and euthanasia as legal medical procedures placed right wing respondents closer to the neutral point of “neither agree nor disagree”, whereas left-wing respondents were clearly in favour of procedures. This may represent a desire to maintain the status-quo, which is characteristic of traditional right-wing views (Jost, 2006; Jost, Nosek, & Gosling, 2008). These findings are also likely to be a characteristic of Canadian socio-political attitudes in general. The right and left wing political parties in the United States, for example, are likely to show more division on some of these issues than are Canadians. In the United States, for example, there is a clear polarization in gun-control attitudes, whereas this particular issue is less commonly debated in Canada, where strict gun-control legislation exists.

Figure 1.

Bar graph depicting the Likert Scale rating (1-7; strongly disagree to strongly agree) of self-reported political values in Canada with their overall mean ratings on contentious issues.



Using a hierarchical linear regression we were able to predict a substantial proportion of the variance in CIQ scores. Beta values suggested that left-wing affiliation was associated with higher CIQ scores and right-wing affiliation was associated with lower CIQ scores. This is important as the individual items were designed in such a way that higher scores represented traditional left-wing attitudes and lower scores represented traditional right-wing attitudes. This evidence suggests that not only did the total CIQ score represented tendencies toward right or left-wing attitudes, but that respondents who self-identify with a particular party do, in fact, have a tendency towards those traditional attitudes. In terms of personality, Private self-consciousness and openness were both found

to predict higher CIQ scores (a tendency towards left-wing attitudes). Given that liberals have traditionally scored higher on measures of openness (Carney et al., 2008), it is unsurprising that this particular personality construct would predict more left-wing attitudes. In this study, identifying more strongly with left-wing political parties was positively correlated with private self-consciousness. Private self-consciousness represents the tendency to introspect and examine the inner self and personal feelings (Fenigstein, Scheier, & Buss, 1975). Past research has demonstrated that Liberals evaluate their position on the issues more closely than conservatives (Bizer et al., 2004). Although we did not examine differences in levels of personality traits between left and right-wing affiliates, this could perhaps represent a psychological manifestation of higher levels of private self-consciousness in liberals.

Although we used the degree of left-right wing affiliation to predict attitudes on several socio-political topics, it is equally plausible that an individual's political attitudes serve to predict their left-right wing affiliation. It has been theorized, however, that political party affiliation is influenced by deeply rooted beliefs and values, and that both of these precede attitudes on socio-political issues (Gidengil et al, 2012). Additionally, the personality traits have been linked to political identity (Carney et al., 2008). All this suggests a fair amount of stability in the prediction of an individual's political affiliation. Attitudes on socio-political topics are likely to be more malleable, depending on the social climate, evidence supporting or refuting a particular position on a particular issue, and the particular relevance of the issue to society at any particular time. In support of this, we found that although differences in attitudes on several socio-political topics between right-wing and left-wing affiliates emerged, there was general consensus on most issues. This suggests that left and right-wing affiliates maintain similar positions on each issue, despite common beliefs that the parties falling on each end of the continuum would maintain polar opposite attitudes on at least some of these issues.

The timing of this study afforded us an interesting opportunity. The data was collected during the 2015 Canadian federal election when Canadians would have been considering at least some of these socio-political issues. There are, however, some limitations in the present research. The majority of our sample identified most strongly with the Liberal party, followed by the NDP, and then by the Conservative party. About 10 percent of the sample were labelled as "Other" when left-wing and right-wing affiliation scores were created. These individuals had identical scores in both categories and could not be assigned to either. This resulted in unequal sample sizes between primarily right-wing and left-wing respondents when those groups were created. The large discrepancy in sample sizes could simply reflect the outcome of the 2015 Canadian Federal election, in which the conservative government was defeated by the liberal party. On examination of the results on the MANOVA, the "Other" category were similar to Right-wing respondents in that they differed from Left-wing respondents on CIQ items and shared similar CIQ total scores with right wing respondents. The evidence suggests that they embraced Right-wing attitudes on the CIQ and, therefore, may have been torn between two political parties.

Future research should examine the role of other factors in determining socio-political attitudes. It is possible that other personality characteristics would play a larger role in determining socio-political attitudes. In addition to this, it would be interesting to determine whether the CIQ, or other instruments like it, are capable of predicting actual voter behaviour during elections. Such a tool would provide some insight into just how important a politician's stance on various socio-political issues are in determining whether they are elected.

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AUTHORS INFORMATION

Full name: Derek J. Gaudet

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: Derek Gaudet is a PhD student in experimental psychology at the University of New Brunswick, Saint John. He received his BA and MA from the University of New Brunswick. His primary research interests focus on verbal and nonverbal cues that are used during deception and truth telling and he is currently conducting research to determine if specific implicit behavioural cues can indicate deception.

Full name: Kathryn E. Flood

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: Kathryn E. Flood is a Master of Arts candidate at the University of New Brunswick, Saint John. She received her BA with a major in psychology from St. Francis Xavier University, and completed her Honours thesis (psychology) at the University of New Brunswick. Currently, she is working on her MA thesis which focuses on individual differences, including personality, in executive functioning. Her primary research interests include: correlates of personality, well-being, higher order cognitive functions, attachment theory, and loneliness. She plans to pursue her PhD in Clinical Psychology.

Full name: Lisa A. Best

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: Lisa A. Best is a Professor in the Department of Psychology at the University of New Brunswick in Saint John, New Brunswick, Canada. She received her PhD in psychology from the University of Maine. She teaches courses in the history of psychology, research methods, cognitive neuroscience, individual differences, and statistical methods. Her current research interests include personality correlates of adaptive and maladaptive behaviours, graphical perception and cognition, history of scientific data analysis, and the scholarship of teaching and learning. She has co-authored refereed articles and book chapters and presents at national and international conferences in all of these areas.

Chapter #8

SOCIAL/EMOTIONAL DEVELOPMENT IN ADOLESCENTS PREVIOUSLY DIAGNOSED WITH SELECTIVE MUTISM: A NARRATIVE APPROACH TO UNDERSTANDING

Paschale McCarthy

The American University of Paris, France

Ph.D

ABSTRACT

Selective Mutism is a childhood anxiety disorder characterized by a total absence of speech in social contexts, despite the child being capable of speech and speaking typically in the home. Research on this intriguing disorder remains limited and a notable gap is the absence of research into the retrospective accounts of experiencing this disorder as a child; the child's perspective, and the child's voice is largely absent from the literature. This research seeks to fill this gap in the literature by affording previously mute children an opportunity to voice their subjective experience of the disorder. A narrative approach was employed to explore the experience of selective mutism in 12 previously diagnosed adolescents, and its effects on social/emotional development and identity during the critical period of adolescence. The research also explored how the selectively mute child made sense of their symptom and the years of self-imposed silence. A qualitative approach using thematic analysis of the narratives revealed commonalities across individual experiences in terms of identity construction, fear of change/difference, isolation from peers, and a move from self-protection to coping. Narrative accounts afford a unique perspective on selective mutism, and how it might affect early development and self-identification.

Keywords: selective mutism, anxiety disorder, social anxiety, identity construction, social/emotional development.

1. INTRODUCTION

Selective Mutism is a childhood anxiety disorder that is characterized by a total absence of speech in social contexts, despite the child being capable of speech and speaking typically in the home, with his/her family. The most recent edition of the Diagnostic Statistical Manual (DSM-V) removed the disorder from a placement in Other Disorder of Infancy, Childhood, and Adolescence and classified selective mutism among the Anxiety Disorders, due to the large similarities with social anxiety and social phobia. Indeed, as selective mutism is etiologically similar to anxiety disorders, it is often comorbid with social anxiety disorder, as children with social anxiety disorder and selective mutism often experience comorbid symptomatology, including but not limited to anxiety (APA, 2013). In common with social anxiety disorder, children with selective mutism typically demonstrate marked fear of scrutiny, humiliation and negative judgment but in the case of selective mutism, the fear seems to be largely crystallized around the act of speaking. A family history of social anxiety is frequently cited in the background (Chavira, Shipon-Blum, Hitchcock, Cohan, & Stein, 2007) and researchers recognize a familial trend of shyness and some anxiety in the parents of the selectively mute child (Black & Uhde, 1997). Traditionally, selective mutism has also been explored as a symptom of the specific anxiety

disorders of social phobia, separation anxiety, and posttraumatic stress disorder (Anstendig 1998). Selective mutism is now considered a distinct psychological disorder which manifests in childhood and typically «disappears» in early adolescence. Currently, a diagnosis of selective mutism is established according to the following 5 criteria on the DSM-V (APA 2013): Consistent failure to speak in specific social situations (in which there is an expectation for speaking, e.g. at school) despite speaking in other situations. The disturbance interferes with educational or occupational achievement or with social communication. The duration of the disturbance is at least one month (not limited to the first month of school as many children are reticent or timid initially) The failure to speak is not due to a lack of knowledge of the spoken language required in the social situation. The disturbance is not better accounted for by a communication disorder (e.g., stuttering) and does not occur along with autism spectrum disorder or related disorders.

2. BACKGROUND

To date, little research of quality exists on this unusual and debilitating childhood disorder, its course and its treatment, despite a renewed interest in the disorder since its reconversion to an anxiety disorder in 2013. Due to its relative rarity, most research involves case studies or small groups. A review of the more recent literature indicates that selective mutism is held to be a rare disorder that is reported in considerably less than 1% of the population; although recent research suggests that the prevalence is greater and is increasing. A school-based sample yielded a prevalence of .71% (Bergman, Piacentini, & McCracken, 2002, Elizur & Perednick, 2003). Research supports the fact that selective mutism will typically afflict more girls than boys with a gender ratio of 1.5: 1 to 2.1 (Black & Uhde, 1995; Kristensen, 2000, Viana, Biedel, & Rabian, 2009). The mean age of onset is 5, although this may be younger as children may go unremarked and undetected in the first or second year of school as many children take time to adapt to the socialization required at school. Researchers in selective mutism also note that co-morbidity is frequent (disorders such as communication disorder, encopresis, depression, oppositional-defiant behaviors have often been cited in cases) with this disorder (Kristensen 2002).

In reviewing findings on the developmental perspective of selective mutism, research suggests that selectively mute children are temperamentally inhibited from infancy (Chavira et al 2007) and the personality of the selectively mute child has been traditionally described as strong-willed and stubborn (Omdal, 2015). An interesting and consistent finding across research conducted in various countries is that selective mutism is more prevalent in bilingual and immigrant populations; this has been documented in France, Israel, Britain, Norway and the United States to name but a few (Moro, 2002, Toppelberg, Tabors, Coggins, Lum, & Burger, 2005, Elizur & Perednik, 2003, Omdal & Galloway 2007). Recently, research focus has been placed on treatment and behavioral management of the disorder, and less focus has been placed on conceptualizing and understanding the disorder. Because the etiology of selective mutism remains unclear, there is disagreement among researchers regarding the most effective treatment approaches but the literature does provide empirical support for individual behavioral intervention of selective mutism (Oerbeck, Johansen, Lundahl, & Kristensen, 2012). Indeed, early intervention is considered a necessity as, if selective mutism is left untreated, the academic, social, and emotional repercussions can be devastating for the individual in adult life Shipon-Blum (2007). In reviewing the literature, perhaps one of the most striking gaps in the current body of knowledge on selective mutism is the absence of research into the retrospective account of experiencing this disorder as a child, and as an extension, how the disorder affected the

child's self-perception as they reached the formative years of adolescence and young adulthood. In fact, Omdal (2015) notes that –with a few notable exceptions-the selectively mute child's own perspective and information from formerly selectively mute persons is largely absent from the literature. Omdal (2007) completed qualitative research on adult experience of childhood selective mutism through interviewing of six adults who had been selectively mute; the interviews focused on the childhood and adolescence period. Data analysis led to identification of five distinct themes that connected the subjects' experiences: origins in early experiences perceived as traumatic; maintenance of selective mutism as a clearly defined social role; characteristics of social anxiety, loneliness and determination; a conscious decision to change; mixed reports of psychosocial adjustment in adulthood (Omdal 2007). Walker and Tobell (2015) attempted to explore the after effects of selective mutism through the exploration of the adult experience of selective mutism using retrospective accounts and diary entries made by one of the subjects at the time of the mutism. Four adults previously diagnosed with selective mutism were interviewed using synchronous on-line interviewing techniques and the subsequent data were analyzed to allow the subject's individual voice to emerge; analysis of the themes elicited through interviews captured the experience of selective mutism as the imprisonment of a true identity behind silence. Further analysis explored the subjects' attempts to negotiate the unwanted identities and their move to adulthood (Walker & Tobell 2015). This current research seeks to attempt to fill this gap in the literature on psychosocial experiences in selective mutism by affording the previously mute child an opportunity to voice their unique, subjective experience of the disorder as they enter the crucial developmental stage of adolescence.

3. METHODS

The subjects of the research were children who had all been the subjects of previous research six years previously. All subjects were female, bilingual in English/French and had met all the criteria for diagnosis of Selective Mutism as defined by the DSM at the time of the original research (DSM-IV). Their ages had then ranged from 5 to 11 years and the symptom of mutism had been present from the outset and had lasted longer than 6 months before entering therapy. All children were entirely silent at school and in all social situations, but spoke freely in both languages at home. At that time, the main objective of the research was to examine the potential role of bilingualism in the etiology, prevalence, and expression of selective mutism (McCarthy, 2013). Other objectives included exploring the role of mother tongue in the construction of earliest identity and how a duality in language and identity construction could lead to vulnerability at critical periods in the child's development (such as entering school). The current research pursues the study of this select population and seeks to explore the subjective *experience* of mutism and its effects on social and emotional development at another critical period in a child's development- that of adolescence. As selectively mute children did not express their emotions about the disorder or its treatment during this period of their lives (Omdal & Galloway, 2007), the study also had as an objective to give voice to the symptomatology and how it was perceived by the child at the time-how they made sense of their own symptom and how they experienced the months or years of silence they had imposed upon themselves. The narrative approach was employed to allow for a more natural conversational type of interview in order to obtain detailed descriptions and reflections on their experiences in their own words, as well as to allow the interviewer the scope to pursue a promising line of inquiry.

The research employed a method of narrative interviewing (Chase 2003) which involved employing a number of semi-structured questions in the format to orient the interviewer, while the principle objective was to encourage the subject to reflect and explore their own experience as freely as possible. The subjects were female 12 adolescents (ages 12-16) previously diagnosed with selective mutism during the period of 2006-2010 when they had been part of an original study on bilingualism and selective mutism (McCarthy, 2013). All subjects had received therapy for selective mutism for differing periods of time within that period (ranging from a period of 5 months to a period of 2 years). The focus of the narrative interviewing was to give voice to the *experience* of selective mutism in terms of their subjective description of being mute in social situations, their social interactions, other people's reactions at that time in their childhood, their self-image, and their perception of their current adjustment as they navigated adolescence. All interviews were conducted by the researcher in one-to-one settings, with prior consent obtained from all subjects. Items were grouped under four headings:

- *How the selective mutism began*
- *How it affected relations with others at the time*
- *How it affected self-perception and identity at the time*
- *How they moved to coping*

4. THEMATIC ANALYSIS

The primary aims of the analysis of the data obtained from narrative interviews were to identify common themes across the individual narratives and to draw out the implications for understanding, conceptualizing and treating selective mutism. Further objectives included exploring the extent of social anxiety described by the subjects. As children with selective mutism have been shown to demonstrate substantially more social anxiety than a matched control group without selective mutism (Buzzella, Ehrenreich-May, & Pincus, 2011), the effects of the mute behavior on early socialization and early social identity were also targeted through the narrative interviews. The objective was the detailed analysis of the themes connecting the narratives of participant experiences in order to provide information on early social experiences for selectively mute children. To that end, a qualitative thematic analysis was used in analyzing the transcribed interviews and observational data. Thematic analysis had previously yielded useful information on the selective mutism experience in recent research conducted by Walker and Tobell on four retrospective adult accounts (2015), and this approach was deemed most pertinent in attempting to explore adolescent accounts. Analysis of the data taken from the 12 adolescent interviews elicited specific themes and allowed for the identification of four common themes that recurred with frequency in the 12 individual narratives:

IDENTITY AND IDENTITY CONSTRUCTION
FEAR OF CHANGE/DIFFERENCE
ISOLATION/ALIENATION
MOVE FROM SELF-PROTECTION TO COPING

4.1. Identity and identity construction

As the subjects were all approaching or in the period of adolescence, it is perhaps not surprising to find questions of identity central to the reflections of the subjects. Adolescence can be characterized by the need to construct a stable identity. All subjects interviewed recognized the strength of their early identity at school as being primarily for their silence. People are often fixed from outside themselves with labels that they must include or resist in their identity definition (Josselson & Harraway, 2012). This early label came to define the child's presence and their relationships to others in social contexts, and the children came to accept it. The fact that the children spoke freely, and often volubly, in their own home with their families may have contributed to the sense of a duality in identities- a public and a private identity. The narratives of the subjects frequently referred to the difficulty of moving from a recognized, early "identity" to an unknown identity. Omdal's (2007) research into the retrospective accounts of adults included twins who had not spoken outside the home all throughout their childhood; the adults were aware that the title of "the silent girls" had been conferred on them by the other children and they could not shed this title. This "mute identity" (Omdal 2015) may become a powerful screen for the child in social situations. In the case of the children in the current research, this "mute identity" may have allowed for a certain passivity but also a recognition and acceptance which was possibly comforting to the child. The following are some examples of the subjects' reflections on their identities and on the labels conferred on them at the time of their selective mutism.

« I was the silent girl in the class »

« I was the Shy One... »

« I don't know how it started but I was known as the girl who couldn't speak »

« I was considered « the baby » of the class and they had to speak for me »

« Even the kids in other classes knew who I was. Everyone called me « the mute » »

« I was just the girl who never spoke and that was that. »

« ...-they didn't think about it too much-just thought I was a mute. »

4.2. Fear of change/difference

The change in identity from the mute identity to a speaking –and therefore a more typical identity for a young child–was evoked in all of the narratives. Additionally, a strong desire for consistency, predictability and sameness was voiced in many of the narratives. This seemed more far-reaching than the early identity proffered by the mutism and spoke to the child's fears in general. Omdal (2014) noted that one of the children in a research study who seemed overtly willing to overcome her muteness and speak in social situations communicated a need for sameness through her writing as she observed that she did not want anything to be different, but wanted everything to stay as it was–she "wanted it like it was now" (Omdal, 2014, p. 120). Referring to the previous research on retrospective adult reflections, Omdal (2007) reported that the twins, known as the "silent twins" felt that they

could not start to speak, because if they did, then the other children would ‘win’. They found it difficult to be like everyone else, but demonstrated a retrospective awareness of this feeling of difference or otherness. The twins said that they feared changes, because they did not know how to cope with them. They did not feel comfortable about others expecting certain behaviors from them (Omdal 2007). This need for consistency and fear of change was evident in several of the narratives analyzed in the current research; 10 of the subjects interviewed reported strong desires for consistency and fear of change. The children wished to maintain their mutism and their mute identity within the classroom. Some reflections from the children’s narratives included:

« They got used to me being silent so I stayed that way. It was easier for everyone »

« It was just impossible to suddenly be like everyone else-I was used to being different »

« I was afraid of what would happen next -things were ok as they were »

« I guess I was scared...it was just- what would people think-how everyone would stare and judge- I’d never opened my mouth before »

« You can’t just go from the mute to a talker »

« I was terrified when I did talk I’d say the wrong thing »

« ...I think their view on me was that I was shy, speechless, and probably nice and I didn’t want to change that »

4.3. Isolation/alienation

Predictably, the narratives made frequent reference to feeling isolated from their peers. As the children were silent both in class and outside class (in the playground, at lunch, on class outings), they were often left to themselves. In this manner, they withdrew from the requirement to take part and thereby risk exposure. The inflicted –or desired-isolation became a part of their lives and may sometimes have felt safe. The symptom of mutism in a young child can provoke strong reactions in the people in their surroundings, and reactions may include avoidance. Omdal’s “silent twins” reported that during their childhood, they felt that everyone else was their enemy and it was “them against us” (Omdal 2007). These intense feelings and convictions of being alone and separate reinforced the need for silence for more than half of the 12 subjects interviewed. While there was little reference to feeling bullied or victimized in any way in the narratives of the current research, several narratives made reference to strong and recurring feelings of being outside the group. Such recounts included:

« ...mostly, they just ignored me and I hung out on my own-just walking around »

« When I think of it now I think it affected how I got along with the other kids-I was usually alone or to the side watching... »

« I took a book to school so I could read at lunch every day-they stopped trying to get me to talk and left me alone and I was fine with that »

“...I stayed alone and it was better that way”.

4.4. Move from self-protection to coping

Despite the obstacles, all of the children gradually began to speak in social situations. Typically, moving through a personal and gradual hierarchy of social situations and finding a means to cope with a build-up of social stress enabled them to move forward and cope more effectively in social situations. Overcoming barriers related to speech in more and more situations and towards more and more people, the child became motivated to give up the mute identity. In most cases, the decision to begin to speak was conscious and gradual; the children did not spontaneously begin to speak or suddenly feel comfortable within the group. Rather, change was effected slowly and cautiously. The motivation came from differing sources- new friends, a desire to play, a need to be part of the group-but the move to speech also came from a renewed sense of agency and efficacy. The child often began to see herself as someone not in need of such intense protection or preservation, but as an individual with a certain temperament that was acceptable and tolerable to the outside world. The fear of scrutiny, judgment and ridicule gradually became less intense as the child took the risk of speaking and being heard. This move to coping also affected how some of the subjects viewed their development in terms of personal maturity. Of note in several of the narratives, was the awareness that the feelings of fear and anxiety in social situations had not disappeared but had become manageable. Many of the subjects reported a need to make a concerted effort, to use their determination to push through social situations until the feelings had abated. Most subjects reported intense fear of being the center of attention and a reluctance to speak in public due to fear of being scrutinized and judged; the fear and anxiety related to the expectation, requirements and judgments involved in social interactions remained at a high level for all of the 12 subjects as they navigated their adolescent years. A high degree of self-control may be observed in their approach to change and in their continuing social interactions. Samples of narratives included:

« When I think of it now I think it affected how I got along with the other kids-I was usually alone or to the side watching and I got tired of it and wanted it to change so I knew I had to break through it »

« I still don't like new situations and meeting new people but now I remind myself not to think about me so much »

"I said to myself you have to push yourself now before it gets worse. I still have to push myself."

« I'm not sure how I started talking but I think it was gradual-it had to do with being so comfortable talking with someone that wasn't my parents or family ».

« I slowly started saying small things –like just a word- to my best friend and to my teacher and nothing changed drastically so I kept on going ».

« I'm still a little shy but I always do try to break through at the start because if not I will create a blockage for myself and it'll just get harder and harder »

« It got easier when I started talking and only thought about what I was saying and forgot the fact they could judge me »

5. CONCLUSION

The experience of selective mutism as a young child implies a variation in typical early social/emotional development as well as a different and unusual experience of school life and early socialization. In reviewing the narratives of the selectively mute, it would seem clear that this experience of selective mutism typically leaves a residual memory trace that is carried into the critical developmental period of adolescence and often later into adulthood (Omdal 2007). Identity construction is influenced and affected by the dramatic symptom of the mutism and the mute identity that it confers on the child; the mute « identity » itself in turn becomes a powerful obstacle to change and to development. Analysis of the individual narratives would suggest that the child may become trapped within this identity and may find it difficult to construct a more multiple and integrative self-construct or identity. The early, social « self » becomes defined by an absence, the absence of speech, and therefore of many typical forms of social bonding outside the home. A differentiation between a private self and a public self may develop; a private self that is open and free and verbal, and public or social self, which is governed by feelings of fear and shame and must be kept concealed. The selective mutism becomes a critical point of reference in self-identification and serves as a barrier for change. The child becomes imprisoned within this identity and their true identity is masked by the silence. Equally, the narratives reveal some commonalities of temperament and experience in that a desire for predictability and consistency is strongly expressed as well as a concomitant desire for lack of change. The narratives revealed a temperamental and behavioral inhibition frequently associated with anxiety, but the anxiety-provoking situation is the everyday possibility of judgment, ridicule or humiliation and the fear is of self-exposure. This leads to a developing sense of the self as requiring protection and preservation from the outer world-the world outside the security of the family-and, ultimately, a requirement to remain concealed and silent when exposed to the outer world. The need or necessity for silence in social situations may allow the situation to be endured, but the cost to the child in terms of isolation from peers and a sense of alienation from the world around them is great and the narratives indicate that this weighed heavily on the children as they went through this experience. The move to change is necessarily slow and gradual and requires sensitive guidance. Analysis of the narratives suggests the need to work slowly and gradually through different social situations is appreciated by the subjects and confidence in the self as a speaker and a communicator is gained little by little. In tandem, the acceptance of the self as a «shy» or inhibited individual in novel social settings is also gained gradually and a growing self-awareness is used as a means to support and encourage the self, rather than to inhibit and criticize the self. This, in turn, allowed for more openness and readiness in communication with others. The transition from a socially silent self to a socially communicative self was gradually negotiated.

Selective mutism remains a complex, intriguing and little understood disorder. The lack of quality research on this population may create misunderstandings and poor awareness of the disorder and its implications for children who experience it. Despite increasing numbers of children receiving this diagnosis, few studies to date have explored the personal understanding and subjective experience of the selectively mute and how the experience may affect later social/emotional development. By exploring the subjective narratives of those who have experienced the disorder first-hand, we may come closer to a deeper understanding of the many factors which may precipitate and maintain the disorder during the crucial years of early socialization, and how the withdrawal from social communication affects early social relations. While the population in this study is small, it

is larger than several of the previous studies in selective mutism and the qualitative analysis of the personal accounts of the subjects allows a unique perspective on what it feels like to be selectively mute, and how this experience might affect the child's development, self-concept, identity construction and self-identification in later years, especially as they encounter the challenges of adolescence. Equally, an understanding of the underlying themes may help to inform clinical practice and judgment in terms of treatment and management of selectively mute children. In spite of the inherent limitations of this research due to the size of the sample and the necessity for caution when interpreting retrospective accounts, these findings offer new insights into the experience of selective mutism, and on a broader level, the experience of pathology in childhood should be considered in the context of previous literature and implications and possible avenues for future research discussed. Future research should aim to further understand the underlying temperament, emotions, and contextual experiences that may give rise to the development and maintenance of selective mutism in young children.

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AUTHOR INFORMATION

Full name: Paschale McCarthy, PhD.

Institutional affiliation: Asst. Professor, Psychology Department, The American University of Paris,

Institutional address: 5 Ave de la Tour Maubourg, 75007 Paris, France

Email address: pmccarthy@aup.edu

Short biographical sketch: Dr. Paschale McCarthy holds a PhD. in Clinical Psychology. She has exercised as a clinical psychologist in Paris for over twenty years and has previously lectured at Paris VII (Denis-Diderot), Paris V (René Descartes, Sorbonne) and currently lectures in Clinical Psychology at the American University of Paris (AUP). She has published widely in French on the subjects of selective mutism, social anxiety, and identity construction within bilingualism. Her book, *Le Mutisme Sélectif Chez les Enfants Bilingues: Un Silence Eloquent* was published by MJW Fédition in 2013, and McCarthy most recently contributed a chapter to *Bilinguisme et Intelligence-don de soi-perte de soi* in 2017.

Chapter #9

GENDER, SOCIOECONOMIC AND PSYCHOLOGICAL FACTORS OF EMIGRATION INTENTIONS AMONG SLOVAK UNIVERSITY STUDENTS

Olga Orosova¹, Beata Gajdosova¹, & Marta Kulanova²

¹*Department of Educational Psychology and Health Psychology, Faculty of Arts, P.J. Šafárik University in Košice, Slovak Republic*

²*Department of Psychology, Faculty of Arts, P.J. Šafárik University in Košice, Slovak Republic*

ABSTRACT

The objectives of this study were to explore the associations between gender, socioeconomic factors, psychological factors and emigration intentions among Slovak university students as well as testing for the moderating effects of gender on the relationships between psychological factors and emigration intentions. The data were collected online from 375 students (75.5% females; M=22.9; SD=3.0). Students were asked to report their gender, their perception of Slovakia's economic future, perception of their financial situation, home/family satisfaction, desire to change their living environment and the importance of religion in their life. Multiple binary logistic regression models were used for data analyses. A lower level of home/family satisfaction and a higher level of desire to change their living environment were more likely to be reported by undecided students and students with emigration intentions (leavers) compared to students without emigration intentions (stayers). A lower level of the importance of religion was more likely to be reported only by students with emigration intentions (leavers) compared to students without emigration intentions (stayers). A moderating effect of gender on the relationships between the importance of religion and emigration intentions among Slovak university students was found. The results contribute to a better understanding of the psychological and socioeconomic predictors of emigration intentions.

Keywords: emigration intentions, desire to change, home/family satisfaction, religion, university students.

1. INTRODUCTION

The main research aim of this study was to identify the socioeconomic and psychological factors which are associated with the emigration intentions of university students. The main contribution of this study is the identification of factors which operate in the pre-departure stage of the emigration process among university students; a group with an important intellectual and psychosocial capability.

Firstly, the intentions to emigrate have generally been shown to be good predictors of future emigration (Van Dalen & Henkens, 2008). Gödri and Feleky (2014) argue that despite the inability to predict migration behaviour completely, studies of migration intentions and migration potential can provide valuable information about the motivations and characteristics of potential migrants as well as worthwhile data about their situation prior to migration. Other studies have claimed so as well (e.g. Kley, 2009).

Social, cultural, economic and political factors alone are not sufficient to fully account for emigration intentions and migrating behaviour (Seibokaite, Endriulaitiene, & Marksaityte, 2009). Groenewold, Bruijn and Bilsborrow (2006) have noted that these approaches rarely take into account decision-making but refer to behaviour that reveals individual preferences (gains and losses). However, they do not study the internal processes lying behind this behaviour and pay little attention to the psychological dimensions of migration. On the contrary, for example, the theory of migrant personality focuses on an individual's reactions to push and pull factors which are assumed to be the indicators of underlying migrant personality (Frieze, Hansen, & Boneva, 2006).

The Migration change model consists of four stages of the migration process: precontemplation (the individual has not given any serious consideration to moving abroad; this period often involves developing professional qualifications and skills), contemplation (an active examination of the possibilities of moving out of the country of origin), action (making a decision), acculturation (psychological adjustment and sociocultural adaptation) (Tabor & Milfont, 2011). Intrapersonal factors and social network factors were found to be an important part of understanding the precontemplation stage of the Migration Change Model of voluntary migration (Tabor & Milfont, 2011). The rootedness, i.e. the attachment to home or to a certain region can be an important predictor of emigration behaviour, in terms of staying at home or leaving home (McAndrew, 1998), i. e. it may cause a general unwillingness to move (migrate) irrespective of the circumstances.

One of the important research questions is why some people decide to stay while others leave albeit in the same adverse political or economic conditions (Boneva & Frieze, 2001). Various factors which could differentiate between those students with and those without emigration intentions have been considered such as work-orientation, achievement and power motivation, affiliation motivation, family centrality (Boneva & Frieze, 2001, Boneva, et al., 1998, Boneva, et al., 1997), openness to change, sensation seeking, neophilia, risk taking propensity, agreeableness, extraversion, conscientiousness, persistence (Tabor, Milfont, & Ward, 2015a, Li, Olson, & Frieze, 2013, Paulauskaitė, Šeibokaitė, & Endriulaitienė, 2010, Seibokaite, Endriulaitiene, & Marksaityte, 2009, Jokela, 2009, Camperio Ciani, Capiluppi, Veronese, & Sartori, 2007, Canache, Hayes, Mondak, & Wals, 2013) and attachment styles (Li, Frieze, & Cheong, 2014, Polek, Van Oudenhoven, & Berge, 2011). While religiosity has also been addressed, the existing research on the relationship between religiosity and emigration intentions has been scarce (Hoffman, Marsiglia, & Ayers, 2015). External and internal religiosity which has been studied in this context has found contradicting results and particularly so with respect to external religiosity. Interestingly, Myers (2000) has supported the importance of the location-specific religious capital effect on emigration intentions. On the other hand, further investigation of the effect of internal religiosity on emigration intentions may contribute to a deeper understanding of the psychological mechanism of this relationship. The importance of examining the impact of religion and religious identity on migratory intentions has also been proposed by Strielkowski, Bilan and Demkiv (2016).

A further important research question addressed in the context of emigration research is aimed at individual differences. This includes gender differences and especially the moderating effect of gender in the relationship between personality characteristics and emigration intentions. Previous research has shown that gender may be an important moderator in a number of relationships. In particular, it has been shown to moderate the relationship between emotional stability and intentions to migrate (Tabor, Milfont, & Ward, 2015a, Tabor, 2014), the relationship between sensation seeking and intention to migrate (Tabor, 2014) and the relationship between life satisfaction and migration preferences

(Mara & Landesmann, 2013). It has been found that personality traits have more predictive value than the emigration context for women. Therefore, the research of intrapersonal characteristics of both genders and their associations with emigration intentions are important for expanding the existing knowledge.

Finally, it is important to take into account the initial step in the decision process of migration which may be crucial for the final choice of whether or not to leave one's home country. Therefore, the investigation of this initial stage in the migration continuum (Tabor, Milfont, & Ward, 2015b) among highly educated young adults is an important source of information in socioeconomic and political decisions.

2. DESIGN

A cross-sectional design was used.

3. OBJECTIVES

The objectives of this study were to explore the associations between gender, socioeconomic factors, psychological factors and emigration intentions among Slovak university students. Furthermore, it was to test the moderating effects of gender in the relationships between psychological factors and emigration intentions.

4. METHODS

4.1. Participants and recruitment

All universities in Slovakia were invited to join the research project. A link to the survey website was provided to each participating institution. 51.4% of the universities, 18 universities from the total of 35, were interested in collaborating with the research group and advertised the letter invitation and the survey website link on their official web sites and/or through the Academic Information Systems, and/or through official Facebook sites of the universities. A total of 436 Slovak students accepted the invitation on a voluntary basis. The questionnaires were self-completed by 375 of them (a response rate of 86%), 75.5% females; mean age=22.9; SD=3.0.

4.2. Measures

Students were asked regarding gender, their perception of Slovakia's economic future (EF), perception of their financial situation (FS), their rootedness (home/family satisfaction (HFS), desire to change their living environment (D), the importance of religion in their life (IR) as well as emigration intentions (EI).

Slovakia's economic future: Students were asked to evaluate the following statement on a 4-point scale from very optimistic to very pessimistic: „What do you think about the development of Slovakia's economy over the next 10 years in context of your professional career and perspective of starting your own family?“

Perception of financial situation: Students were asked to evaluate the following statement on a 7-point scale from much better to much worse: “How would you rate your financial situation in comparison to other university students?“

The Rootedness scale: Rootedness was measured by the Rootedness Scale which is a short 10-item measure consisting of two subscales (McAndrew, 1998). The first subscale is called the Desire for Change and consists of 6 items addressing different aspects

contributing to the desire to change one’s living environment (e.g. not seeing the future for oneself where one lives now, not being happy with staying in the same place for the rest of one’s life, having strong social ties, preference of a specific natural environment). The second subscale is called the Home/Family Satisfaction and consists of 4 items capturing how much one is attached to his/her place as a home (e.g. childhood memories, long-lasting friendships or tight family ties). Both subscales were answered on a 5-point scale ranging from completely disagree to completely agree.

The importance of religion (faith) in one’s life: Students were asked to evaluate the following statement on a 7-point scale from fully disagree to fully agree: How much do you agree with the following statement: “My faith is important for my life?”

Emigration intentions: Students were asked to evaluate the statement „Do you plan to leave Slovakia after you finish university? Please select one from the possible answers: (1) No, I am not planning to leave, (2) I do not know, I have not thought about it, (3) I do not know, I have not decided yet, (4) I am planning to go abroad for six months, (5) I am planning to go abroad for six to twelve months, (6) I am planning to leave for more than a year, (7) I am planning to leave for more than five years, (8) I am planning to leave permanently“.

4.3 Statistical analyses

Multiple binary logistic regression models were used for the data analyses. Emigration intentions were included in the models as dependent variables. The question regarding emigration intentions (Table 1) was used to create the dependent variable with three categories – those who were not planning to leave if answered (1), i.e. stayers (n=88, 23.5%), those who were considering the possibility of leaving Slovakia after they finish university, but they have not decided yet if answered (3), i.e. undecided (n=139, 37.1%) and those who were planning to leave if answered from 6 to 8, i.e. leavers (n=87, 23.2%). These categories were used in the two separate binary logistic regressions to contrast the differences between the categories – Stayers vs Undecided and Stayers vs Leavers.

Table 1.
Descriptive characteristics of the explored variables.

| | | Females | Males | total |
|---|---|---------|--------|---------|
| Emigration intentions: “Do you plan to leave Slovakia after you finish university?” Please select one from the possible answers: | | | | |
| 1 | Stayers No, I am not planning to leave | 72 | 16 | 88 |
| | | 81.80% | % | 100.00% |
| 2 | I do not know, I have not thought about it | 14 | 4 | 18 |
| | | 77.80% | 22.20% | 100.00% |
| 3 | Undecided I do not know, I have not decided yet | 106 | 33 | 139 |
| | | 76.30% | 23.70% | 100.00% |

| | | | | |
|-----------|---|---------------|--------------|----------------|
| 4 | I am planning to go abroad for six months | 19 82.60% | 4 17.40% | 23 100.00% |
| 5 | I am planning to go abroad for six to twelve months | 15 75.00% | 5 25.00% | 20 100.00% |
| 6 | I am planning to leave for more than a year | 26 65.00% | 14 35.00% | 40 100.00% |
| 7 Leavers | I am planning to leave for more than five years | 14 60.90% | 9 39.10% | 23 100.00% |
| 8 | I am planning to leave permanently | 17 70.80% | 7 29.20% | 24 100.00% |
| Total | | 283 75.50% | 92 24.50% | 375 100.00% |

| Independent variables: | FS | EF | IR | HFS | D |
|------------------------|-----------------------|-------------|-------------|--------------|--------------|
| Stayers | Mean (SD) 3.87 (1.15) | 2.64 (0.66) | 3.68 (1.36) | 16.52 (2.30) | 17.33 (3.65) |
| Undecided | Mean (SD) 3.75 (1.15) | 2.74 (0.64) | 3.37 (1.33) | 15.48 (2.89) | 19.35 (3.55) |
| Leavers | Mean (SD) 4.03 (1.16) | 3.00 (0.75) | 2.59 (1.48) | 14.75 (2.58) | 22.34 (3.47) |
| Total | Mean (SD) 3.86 (1.15) | 2.78 (0.69) | 3.24 (1.44) | 15.57 (2.72) | 19.61 (4.02) |

FS=Financial situation, EF=Economic future, IR=Importance of religion, HFS=Home/family satisfaction, D=Desire to change one's living environment

The first model adjusted for gender and socioeconomic factors (Slovakia's economic future, Perception of financial situation), the second model adjusted for psychological variables (importance of religion, home/family satisfaction, desire to change one's living environment), and the third and the final model adjusted for the interaction of gender and psychological independent variables (importance of religion, home/family satisfaction, desire to change one's living environment).

5. RESULTS

37.1% of students (76.3% women) reported that they had considered the possibility of leaving Slovakia after finishing university but had not decided yet. The 1st model adjusted for gender and socioeconomic factors (Slovakia's economic future, Perception of financial situation) and explained only 2.3% of the variance in emigration intentions (Stayers vs Undecided). It showed that gender and socioeconomic factors did not make a statistically significant contribution to the model (Table 1). The 2nd model for psychological variables

(importance of religion, home/family satisfaction, desire to change one's living environment) explained 16% of the variance in emigration intentions among Stayers vs Undecided; home/family satisfaction, desire to change one's living environment made statistically significant contributions to the model (Table 2). A lower level of home/family satisfaction and a higher level of the desire to change one's living environment were more likely to be reported by undecided students compared to students without emigration intentions (Stayers). (Table 2). A moderating effect of gender in the relationship between psychological factors and emigration intentions (Stayers vs Undecided) was not found.

Table 2.
Factors of emigration intentions among Slovak university students (Stayers vs Undecided).

| | Model 1 | | Model 2 | | | |
|---------------------|---------|------------------------|---------|----------|------------------------|-------|
| | OR | 95% C.I. for EXP(B) | | OR | 95% C.I. for EXP(B) | |
| Gender ¹ | 1.420 | 0.724 | 2.787 | 1.450 | 0.709 | 2.966 |
| Economic future | 1.404 | 0.903 | 2.184 | 1.161 | 0.725 | 1.860 |
| Financial situation | 0.861 | 0.672 | 1.104 | 0.837 | 0.642 | 1.091 |
| IR | | | | 0.840 | 0.676 | 1.044 |
| HFS | | | | 0.874* | 0.781 | 0.979 |
| D | | | | 1.168*** | 1.076 | 1.267 |
| R ² | 0.023 | | | 0.161 | | |

¹women as reference category

IR=importance of religion, HFS= home/family satisfaction, D=desire to change one's living environment, *p<0.05, ***p<0.001

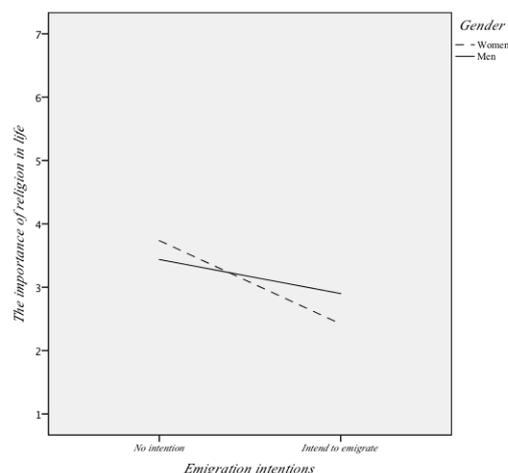
Nearly a quarter (23.2%) of surveyed Slovak university students reported having emigration intentions (44.2% women). The 1st model adjusted for gender and socioeconomic factors (Slovakia's economic future, Perception of financial situation) and explained only 12.1% of the variance in emigration intentions (Stayers vs Leavers). It showed that gender and Slovakia's economic future made a statistically significant contribution to the model. This result indicated that men were more likely to report emigration intentions than women and a higher level of negative evaluation of Slovakia's economic future was associated with emigration intentions (Table 3). The 2nd model for psychological variables (importance of religion, home/family satisfaction, desire to change one's living environment) explained 61% of the variance in emigration intentions; gender, importance of religion, home/family satisfaction, and desire to change one's living environment made statistically significant contributions to the model. A lower level of the importance of religion, as well as home/family satisfaction, and a higher level of desire to change one's living environment were more likely reported by students with emigration intentions (Leavers) compared to students without emigration intentions (Stayers) (Table 3). The final 3rd model adjusted for the interaction of gender and psychological independent variables and explained 63% of the variance in emigration intentions; importance of religion, home/family satisfaction, desire to change one's living environment and only one interaction of gender and the importance of religion made a statistically significant contribution to the model (Table 3, Figure 1). Females with emigration intentions (Leavers) reported lower levels of the importance of religion although females without emigration intentions (Stayers) reported higher levels of importance of religion when compared to males.

Table 3.
Factors of emigration intentions among Slovak university students (Stayers vs Leavers).

| | Model 1 | | | Model 2 | | | Model 3 | | |
|--------------------------|---------|---------------------|-------|----------|---------------------|--------|----------|---------------------|-------|
| | OR | 95% C.I. for EXP(B) | | OR | 95% C.I. for EXP(B) | | OR | 95% C.I. for EXP(B) | |
| Gender ¹ | 2.318* | 1.113 | 4.829 | 4.811** | 1.690 | 13.694 | 0.338 | 0.033 | 3.502 |
| Economic future | 2.048** | 1.302 | 3.22 | 1.491 | 0.815 | 2.726 | 1.629 | 0.867 | 3.061 |
| Financial situation | 1.055 | 0.795 | 1.401 | 0.882 | 0.595 | 1.308 | 0.885 | 0.598 | 1.311 |
| IR | | | | 0.592** | 0.436 | 0.803 | 0.481*** | 0.332 | 0.697 |
| HFS | | | | 0.779* | 0.639 | 0.950 | 0.759** | 0.617 | 0.993 |
| D | | | | 1.488*** | 1.302 | 1.699 | 1.523*** | 1.318 | 1.759 |
| ² Gender x IR | | | | | | | 2.244* | 1.047 | 4.410 |
| R ² | 0.12 | | | 0.61 | | | 0.63 | | |

¹ women as reference category, ² only significant interaction was included
IR=importance of religion, HFS= home/family satisfaction, D=desire to change one's living environment, *p<0.05, **p<0.01, ***p<0.001

Figure 1.
Interaction of gender and the importance of religion in life on emigration intention (Stayers vs Leavers).



6. FUTURE RESEARCH DIRECTIONS

Further research should focus on the psychological factors which may play a role in triggering emigration intentions and emigration itself. Moreover, further research is necessary in order to understand the process of how emigration intentions are formed on the level of an individual's decision making process. Studies which employ a longitudinal perspective with the implementation of The Migration Change model (Tabor, Milfont,

& Ward, 2015b) are especially needed for understanding the psychosocial mechanisms operating on the continuum of the overall emigration process. Qualitative analyses of emigration intentions in future psychological research could also bring about a deeper understanding of this phenomenon.

7. CONCLUSION/ DISCUSSION

Why do some students decide to leave their home country after they finish university? Why do some students plan to emigrate while so many other young adults plan to stay? This study has provided further validation for the role of intraindividual and social network factors in relation to emigration. It has been found that a lower level of the importance of religion, a lower level of home/family satisfaction and a higher level of desire to change one's living environment were associated with emigration intentions among Slovak university students. The moderating effects of gender in the relationships between the importance of religion and emigration intentions among Slovak university students has also been found.

These results are consistent with the findings of previous studies which have confirmed the associations between emigration intentions and family centrality, openness to change, sensation seeking, neophilia and risk-taking propensity (Urbonas, Venclovaitė, Urbonienė, & Kubilienė 2017, Tabor, Milfont, & Ward, 2015a, Gouda, et al., 2015, Li, Olson, & Frieze, 2013, Paulauskaitė, Šeibokaitė, & Endriulaitienė, 2010). The findings of this study further support the importance examining intrapersonal and familial factors of the pre-departure period as important for understanding the context of the migration experience as also reported by Tabor, Milfont, and Ward (2015b).

The second important topic addressed in this study, to some extent, has been religiosity. It is important to say that there has only been very limited research which has focused on the relationship between religiosity and emigration intentions (Hoffman, Marsiglia, & Ayers, 2015). Previous research, which has mainly addressed extrinsic religiosity in relation to migration, has led to contradictory findings. The investigation of intrinsic religiosity on emigration intentions could contribute to a deeper understanding of the psychological mechanism of this relationship (Hoffm, Marsiglia, & Ayers., 2015). This study did not distinguish between extrinsic and intrinsic religiosity although the personal value of religiosity was found to be among the personality factors associated with intentions to emigrate. This association among Slovak university students was moderated by gender. It is also important to address the limitations of this study. Most importantly, the investigation was conducted with a relatively small sample relying on self-reported data collected online.

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ACKNOWLEDGEMENT

This study was supported by APVV-0253-11 and APVV-15-0662 and the Grant Agency of the Ministry of Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences VEGA 1/0713/15.

ADDITIONAL READING

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KEY TERMS & DEFINITIONS

Emigration intention: an act of volition which constructs the future implementation of social behavior in other social and cultural reality.

Rootedness: an affective interpretation of place attachment.

AUTHORS INFORMATION

Full name: Prof. Olga Orosova, PhD.

Institutional affiliation: Department of Educational Psychology and Health Psychology, Faculty of Arts, P.J. Safarik University in Kosice

Institutional address: Moyzesova 9, Kosice 040 01, Slovak Republic

Short biographical sketch: Olga Orosova is a professor of Educational, Counseling, and School Psychology. She is a principal investigator of research projects focusing on the factors of risk behavior among adolescents and young adults and the effectiveness of drug use prevention programs. She is a member of the European Health Psychology Society, International School Psychology Association (ISPA), the European Society for Prevention Research (EUSPR), and ESFRI working group on Social & Cultural Innovation Strategy Working Group (SCI).

Full name: Beata Gajdosova, PhD.

Institutional affiliation: Department of Educational Psychology and Health Psychology, Faculty of Arts, PJ Safarik University in Kosice

Institutional address: Moyzesova 9, Kosice 040 01, Slovak Republic

Short biographical sketch: Beata Gajdošová is the head of the Department of Educational and Health Psychology. She also serves at the university as the coordinator for students with special needs. Her research is mainly focused on intrapersonal factors and their role in health related behaviours. She is active in psychological counselling work and psychotherapy based on working with clients in The Client-Centred counselling and psychotherapy. She is a member of the European Health Psychology Society, International School Psychology Association and of the Slovak Psychotherapeutic Society.

Full name: Marta Kulanova, MSc.

Institutional affiliation: Department of Psychology, Faculty of Arts, PJ Safarik University in Kosice

Institutional address: Moyzesova 9, Kosice 040 01, Slovak Republic

Short biographical sketch: Marta Kulanová is an internal PhD student in the study program of Social and work psychology. Her main research interest lies in studying intrapersonal and interpersonal factors of emigration intentions among university students. She is also active in drug use prevention training of university students.

Section 2
Clinical Psychology

Chapter #10

THE INFLUENCE OF PERSONALITY AND COPING STYLES ON FORGIVENESS

Samantha A. Fowler & Lilly E. Both

Department of Psychology, University of New Brunswick, 100 Tucker Park Road, Saint John, NB E2L 4L5, Canada

ABSTRACT

Three types of forgiveness have been identified: forgiveness of self; forgiveness of others; and forgiveness of situations (such as illness or natural disaster). Forgiveness is related to personality factors; however, there is scant research to date examining the relation between coping styles and forgiveness. We recruited 160 undergraduate students to complete questionnaires. There were significant correlations among personality, coping styles, and forgiveness. When personality factor scores were used hierarchical multiple regression analyses, forgiveness of self was predicted by lower scores on Neuroticism and emotion focused coping, and higher scores on problem focused coping. Forgiveness of situations was predicted by lower scores on Neuroticism and emotion focused coping, and higher scores on Openness, Agreeableness, and problem focused coping. Finally, forgiveness of others was predicted by higher Agreeableness scores; coping styles did not contribute additional variance in this model. Regressions were also conducted using the facet (subscale) scores. Forgiveness of self was predicted by lower scores on hostility, depression, and self-consciousness. Forgiveness of situations was predicted by lower vulnerability. Higher altruism drove the relation between Agreeableness and forgiveness of others. Finally, lower emotion focused coping scores and higher problem focused coping scores contributed unique variance in each of the facet models.

Keywords: forgiveness, personality, coping.

1. INTRODUCTION

Forgiveness has recently become a topic of interest to psychologists due to its therapeutic applications (Baskin & Enright, 2004; Wade, Worthington, & Meyer, 2005), and associations with positive physical health (Lawler et al., 2005; Svalina & Webb, 2012; Webb, Toussaint, Kalpakjian, & Tate, 2010; Wilson, Milosevic, Carroll, Hart, & Hibbard, 2008) and mental health outcomes (Riek & Mania, 2012; Webb, Colburn, Heisler, Call, & Chickering, 2008). In particular, measures of dispositional forgiveness (i.e., the inherent tendency of an individual to forgive regardless of circumstances), tend to correlate more strongly with these outcomes than measures of situational forgiveness (i.e., forgiveness of a specific transgression); thus, dispositional measures are especially effective for studying the factors that influence the act of forgiveness (McCullough & Witvliet, 2002).

From a holistic perspective, forgiveness is an important topic to investigate because of its implications for helping individuals in distress. The act of forgiving has been tied to greater life satisfaction, positive affect, optimism (Hill & Allemand, 2011) and feelings of hope (Wade, Hoyt, Kidwell, & Worthington, 2014). Furthermore, forgiveness reduces depression and anxiety (Wade et al., 2014). Individuals who forgive have fewer physical symptoms (e.g., back pain), sleep problems, and somatic complaints (Lawler et al., 2005).

Thus, from a wellness perspective it is important to identify the antecedents and consequences of forgiveness (see Riek & Mania, 2012 for a review).

A number of antecedents have been investigated in relation to forgiveness, such as religiosity, empathy, and rumination (Riek & Mania, 2012). Individuals are more likely to come to terms with forgiveness if they have a heightened sense of spirituality, have the ability to take the perspective of another, and do not dwell on the negative aspects of the transgression. Furthermore, demographic factors may also influence forgiveness. Specifically, older adults tend to be more forgiving than their younger counterparts (e.g., Allemand, 2008; Mullet & Girard, 2000; Toussaint, Williams, Musick, & Everson, 2001). In terms of gender differences, there is mixed evidence in the literature; however, meta-analytic findings suggest that females score slightly higher than males on forgiveness (Miller, Worthington, & McDaniel, 2008). As such, the present study investigated age and gender in relation to forgiveness.

Thompson and colleagues (2005) emphasized the importance of examining three types of forgiveness: forgiveness of self; forgiveness of others; and forgiveness of situations. During the development of a scale assessing these types (i.e., the Heartland Forgiveness Scale), these authors found that the propensity to forgive the self, others, and situations was negatively correlated with depression, anger, anxiety, and positively correlated with life satisfaction. As such, it is important to understand the factors which contribute to an individual's ability to forgive. One factor, that has been studied in this context is personality.

1.1. Personality

A number of studies have examined personality in relation to forgiveness. Personality is often conceptualized in terms of the "Big Five" model. The NEO-PI-R (McCrae & Costa, 2010) measures the personality factors of: Neuroticism; Extraversion; Openness; Agreeableness; and Conscientiousness. In addition, each of these personality factors contains six subscales known as facets.

Several studies have demonstrated that personality factors account for a small to moderate proportion of the variance in forgiveness, depending on how the latter is defined (Brose, Rye, Lutz-Zois, & Ross, 2005; Exline, Baumeister, Bushman, Campbell, & Finkel, 2004; Leach & Lark, 2004; Ross, Kendell, Wrobel, & Rye, 2004; Walker & Gorsuch, 2002). Agreeableness consistently displays a moderate correlation with forgiveness (Berry, Worthington, O'Connor, Parrott, & Wade, 2005; Brose et al., 2005; Brown & Phillips, 2005; Exline et al., 2004). Specifically, Agreeableness is reliably associated with forgiveness of others (e.g., Leach & Lark, 2004; Ross et al., 2004; Walker & Gorsuch, 2002), but inconsistently associated with forgiveness of self. In contrast, Neuroticism is negatively related to forgiveness (Berry et al., 2005; Brown & Phillips, 2005; Brose et al., 2005; Exline et al., 2004), especially forgiveness of self (Ross et al., 2004; Leach & Lark, 2004); however, its relation with forgiveness of others is ambiguous.

Meta-analytic findings suggest that there is a small, but significant, relation between Conscientiousness and forgiveness (Balliet, 2010); however, research relating Conscientiousness to the three types of forgiveness is conflicting. Furthermore, the vast majority of studies found no relation between Openness and forgiveness (Berry et al., 2005; Brose et al., 2005; Ross et al., 2004; Walker & Gorsuch, 2002; but see Exline et al., 2004 and Leach & Lark, 2004 for exceptions).

The evidence linking Extraversion with forgiveness is also mixed. The lack of consistent results may be due to discrepancies at the personality facet level. For instance, Brose and coworkers (2005) found no significant relation between the Extraversion factor

and the likelihood of forgiveness, yet two of its facets (warmth and positive emotions) were positively related. These inconsistencies could emerge due to differential relations with the forgiveness types, as Extraversion has displayed mixed relations with each of the three forgiveness types. Thus, it is important to examine both personality factor and facet scores in relation to forgiveness. These personality factors and their facets may exert their influence on forgiveness by affecting how the transgression is interpreted (McCullough et al., 1998), and may influence the type of strategies an individual adopts to cope with a stressor.

1.2. Coping styles

Individuals may cope with a stressor in a variety of ways, including: problem focused strategies (i.e., dealing the source of the stress); and emotion focused strategies (i.e., attempting to minimize emotional distress; Lazarus & Folkman, 1984; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985). Certain personality traits may predispose individuals to use certain strategies. For instance, individuals scoring high on neuroticism tend to use less adaptive coping behaviors than their emotionally stable counterparts (Gunthert, Cohen, & Armeli, 1999). Specifically, evidence suggests that Neuroticism is negatively correlated with problem focused coping strategies (Bouchard, Guillemette, & Landry-Leger, 2004; Connor-Smith & Flachsbart, 2007; Vickers, Kolar, & Hervig, 1989; Zhou, Li, Li, Wang, & Zhao, 2017) and positively correlated with emotion focused coping strategies (Connor-Smith & Flachsbart, 2007; Shewchuck, Elliot, MacNair-Semands, & Harkins, 1999; Zhou et al., 2017). In contrast, Extraversion and Conscientiousness are positively related to problem focused coping (Bouchard et al., 2004; Connor-Smith & Flachsbart, 2007; Vickers et al., 1989; Zhou et al., 2017). Other research focusing on the traits of Agreeableness and Openness has yielded mixed results; the effects these traits have on coping appears to be minimal, especially when controlling for the effects of the other personality factors (Vickers et al., 1989).

Given the relation between personality and coping styles, and between personality and forgiveness, it stands to reason that there should also be an association between coping styles and forgiveness. Indeed, several commonalities between the coping process and the forgiveness process have been identified (Strelan & Covic, 2006), leading some researchers to speculate that the act of forgiving is a means of coping with a stressor that reduces psychological distress (e.g., Strelan & Covic, 2006; Worthington & Scherer, 2004). Despite the theoretical association between these processes, there is limited empirical data examining the relation between forgiveness and coping (see Konstam, Holmes, & Levine, 2003; and Strelan & Wojtysiak, 2009 for exceptions).

1.3. Purpose of the present study

The purpose of the present was to extend the research on personality, coping, and forgiveness by determining if coping styles added unique variance, beyond that of personality, in predicting each of the three types of forgiveness. Given the positive outcomes associated with forgiveness, it is desirable to promote forgiveness in clinical settings. Thus, the present study aimed to determine if targetting coping styles is an effective intervention to promote forgiveness, irrespective of an individuals personality traits.

2. METHOD

One hundred and sixty students at a small university in Eastern Canada were recruited from introductory psychology courses to participate in a questionnaire study in exchange for course credit. The mean age of the sample was 20.62 years ($SD = 3.7$). The majority of participants were female (66.6%). Participants completed randomized questionnaire packages in supervised group sessions. All measures and procedures were approved by the university's Research Ethics Board prior to the commencement of the study.

2.1. Measures

2.1.1. Demographics

Participants completed a demographics measure that asked for age, gender, and marital status.

2.1.2. Heartland forgiveness scale

(HFS; Thompson et al., 2005). This scale consists of 18 items and measures forgiveness on a scale of 1 = *almost always false of me* to 7 = *almost always true of me*. In addition to a total score, three subscale scores are computed: forgiveness of self (e.g., *"I hold grudges against myself for negative things I have done"*); forgiveness of others (e.g., *"I continue to be hard on others who have hurt me"*); and forgiveness of situations (e.g., *"With time I can be understanding of bad circumstances in my life"*). The reliability of the three scales in the current study was .78, .64, and .76, respectively.

2.1.3. Ways of coping checklist

(WCL-42; Vitaliano et al., 1985). The WCL-42 is a 42-item scale designed to measure a number of coping styles. For the purpose of this study, we used the problem focused coping and emotion focused coping subscales. Participants recorded the degree to which they used each coping strategy on a 4-point Likert scale where 0 = *not used*, and 3 = *used a great deal*. Emotion focused coping and problem focused coping were found to have good internal reliability in this study ($\alpha = .91$ and $.79$, respectively).

2.1.4. The NEO-PI-R

(McCrae & Costa, 2010). The NEO-PI-R is a 240-item measure that was used to assess personality. The NEO-PI-R measures five factors and each of their facets (Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness). The NEO-PI-R is considered the "Gold Standard" for measuring personality and has good convergent and discriminant validity (see McCrae & Costa, 2010, for more details). The internal reliabilities were adequate in the present study: Neuroticism ($\alpha = .86$); Extraversion ($\alpha = .80$); Openness ($\alpha = .68$); Agreeableness ($\alpha = .71$); and Conscientiousness ($\alpha = .81$).

3. RESULTS

3.1. Gender differences

A series of independent samples *t*-tests revealed several gender differences in the current study. Females scored statistically significantly higher than males on the personality factors of Neuroticism ($M_{\text{females}} = 105.21$, $M_{\text{males}} = 96.95$) and Agreeableness

($M_{\text{females}} = 117.79$, $M_{\text{males}} = 109.13$). These results were also seen at the facet level, with females scoring higher than males on several facets, including anxiety ($M_{\text{females}} = 20.55$, $M_{\text{males}} = 17.40$), vulnerability ($M_{\text{females}} = 15.25$, $M_{\text{males}} = 12.78$), straightforwardness ($M_{\text{females}} = 19.16$, $M_{\text{males}} = 16.07$), altruism ($M_{\text{females}} = 23.27$, $M_{\text{males}} = 21.56$), modesty ($M_{\text{females}} = 20.25$, $M_{\text{males}} = 17.85$), and tendermindedness ($M_{\text{females}} = 20.99$, $M_{\text{males}} = 19.76$). In contrast, males scored higher than females on the Extraversion facet of excitement seeking ($M_{\text{females}} = 18.92$, $M_{\text{males}} = 21.18$). There were no gender differences in coping styles or forgiveness types (all p 's > .05).

3.2. Age differences

Correlational analyses between age and the study variables revealed that older individuals scored statistically significantly higher on Conscientiousness ($r = .20$, $p = .010$), problem focused coping ($r = .25$, $p = .002$), and forgiveness of self ($r = .16$, $p = .039$), than their younger counterparts.

3.3. Bivariate correlations

The correlations among forgiveness, personality, and coping are displayed in Table 1. As expected, personality was related to forgiveness. Specifically, lower levels of Neuroticism and higher Extraversion, Agreeableness, and Conscientiousness were associated with a greater propensity to forgive the self, others, and situations. No statistically significant correlations emerged between Openness and the forgiveness types. These results were generally replicated at the personality facet level (see Table 1).

Personality was also related to coping styles. Emotion focused coping styles were positively correlated with Neuroticism and negatively correlated with Extraversion, Agreeableness, and Conscientiousness. On the other hand, problem focused coping was positively correlated with Extraversion, Openness, Agreeableness, and Conscientiousness, and negatively correlated with Neuroticism. Consistent with the factor results, all Neuroticism facets were positively correlated with emotion focused coping strategies (see Table 1), whereas the majority of Extraversion, Agreeableness, and Conscientiousness facets were negatively correlated with emotion focused coping. In contrast, problem focus coping tended to be negatively related with Neuroticism facets and positively related to Extraversion, Openness, Agreeableness, and Conscientiousness facets.

In terms of the relations between forgiveness and coping styles, problem focused coping was positively correlated with forgiveness of self, others, and situations. The inverse was found to be true for emotion focused coping.

3.4. Hierarchical multiple regressions – factors

Three hierarchical regression analyses were conducted to determine if coping added unique variance beyond that of personality scores in the prediction of forgiveness of self, forgiveness of others, and forgiveness of situations. In each model, age and gender were entered on the first step to control for their effects, the personality factors of Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness were entered on the second step, and the third step included problem and emotion focused coping.

When predicting forgiveness of self, the overall model was statistically significant, accounting for 49% of the variance ($F_{(9, 147)} = 15.40$, $p < .001$, $R = .70$, adjusted $R^2 = .45$). A significant personality predictor was low Neuroticism ($\beta = -.57$). Problem focused coping ($\beta = .29$), and emotion focused coping ($\beta = -.30$) added unique variance to the model.

Table 1.
Correlations among Forgiveness, Coping, and Personality Factors and Facets.

| | Forgiveness | | | Coping Styles | |
|--------------------------|-------------|---------|------------|-----------------|-----------------|
| | Self | Others | Situations | Emotion Focused | Problem Focused |
| Neuroticism | -.61*** | -.27*** | -.60*** | .72*** | -.18* |
| anxiety | -.39*** | -.05 | -.36*** | .49*** | .03 |
| angry-hostility | -.48*** | -.39*** | -.49*** | .52*** | -.16* |
| depression | -.60*** | -.16* | -.51*** | .68*** | -.17* |
| self-conscientiousness | -.58*** | -.20** | -.49*** | .60*** | -.16* |
| impulsiveness | -.23** | -.13 | -.31*** | .43*** | -.05 |
| vulnerability | -.49*** | -.34*** | -.55*** | .53*** | -.27*** |
| Extraversion | .37*** | .34*** | .28*** | -.33*** | .30*** |
| warmth | .38*** | .35*** | .34*** | -.27*** | .30*** |
| gregariousness | .20** | .27*** | .15 | -.19* | .19* |
| assertiveness | .29*** | .10 | .19* | -.28*** | .24** |
| activity | .17* | .17* | .07 | -.28*** | .14 |
| excitement seeking | .11 | .17* | .03 | -.09 | .00 |
| positive emotions | .39*** | .36*** | .38*** | -.32*** | .37*** |
| Openness | .00 | .14 | .15 | .11 | .18* |
| fantasy | .07 | .05 | .09 | .20* | .06 |
| aesthetics | -.18* | -.07 | .03 | .15 | .10 |
| feelings | .10 | .23** | .12 | .08 | .17* |
| actions | .00 | .10 | .06 | -.09 | .18* |
| ideas | .02 | .07 | .15 | .02 | .19* |
| values | .07 | .25*** | .15 | -.01 | .01 |
| Agreeableness | .30*** | .50*** | .37*** | -.29*** | .17* |
| trust | .46*** | .32*** | .36*** | -.37*** | .18* |
| straightforwardness | .19* | .23** | .19* | -.24** | .08 |
| altruism | .31*** | .49*** | .38*** | -.29*** | .23** |
| compliance | .30*** | .37*** | .31*** | -.30*** | .08 |
| modesty | -.18* | .21** | .03 | .13 | -.10 |
| tendermindedness | .02 | .34*** | .15 | -.01 | .22** |
| Conscientiousness | .24** | .22** | .20* | -.36*** | .25*** |
| competence | .23** | .24** | .24** | -.29*** | .22** |
| order | .07 | .09 | .11 | -.13 | .13 |
| dutifulness | .17* | .23** | .12 | -.26*** | .23** |
| achievement striving | .18* | .10 | .05 | -.24** | .23** |
| self-discipline | .29*** | .21** | .22** | -.41*** | .19* |
| deliberation | .13 | .13 | .13 | -.23** | .13 |
| Coping Styles | | | | | |
| emotion focused | -.52*** | -.31*** | -.53*** | - | .13 |
| problem focused | .32*** | .16* | .26*** | .13 | - |

Note: $N = 158-160$; * $p < .05$; ** $p < .01$; *** $p < .001$

The model predicting forgiveness of situations was also statistically significant, accounting for 53% of the variance ($F_{(9, 145)} = 17.78, p < .001, R = .72, \text{adjusted } R^2 = .50$). Significant predictors were low Neuroticism ($\beta = -.66$), high Openness ($\beta = .20$), and high Agreeableness ($\beta = .21$). Furthermore, high problem focused coping ($\beta = .26$) and low emotion focused coping ($\beta = -.33$) were significant predictors.

The third hierarchical regression analysis, predicting forgiveness of others, was statistically significant accounting for 33% of the variance ($F_{(9, 146)} = 8.04, p < .001, R = .58, \text{adjusted } R^2 = .29$). Agreeableness ($\beta = .43$) was the lone significant predictor in the model; however, this result should be interpreted with caution given the lower reliability of the forgiveness of other subscale in the present study ($\alpha = .64$).

3.5. Hierarchical multiple regressions – facets

Three additional hierarchical regression analyses were conducted using the personality facet scores predicting each type of forgiveness. In these analyses, we substituted the subscale scores for the significant factor scores. At step one, age and gender were entered to control for their effects. In step two, the personality facets from the significant factors were added. Finally, coping styles were added in the third step, to determine if they increased the predictive capacity of the model.

The overall model predicting forgiveness of self was statistically significant, accounting for 52% of the variance ($F_{[10, 146]} = 15.50, p < .001, R = .72, \text{adjusted } R^2 = .48$). Significant personality predictors were low hostility ($\beta = -.20$), depression ($\beta = -.30$), and self-conscientiousness ($\beta = -.25$). In addition, high problem focused coping ($\beta = .27$) and low emotion focused coping ($\beta = -.25$) added unique variance beyond personality.

The overall model predicting forgiveness of situations significantly predicted 54% of its variance ($F_{[22, 132]} = 6.94, p < .001, R = .73, \text{adjusted } R^2 = .46$). The personality facet of low vulnerability ($\beta = -.31$) contributed significantly. In addition, low emotion focused coping ($\beta = -.33$), and high problem focused coping ($\beta = .25$) added unique variance to the model.

Finally, the overall model predicting forgiveness of others was also significant, predicting 36% of its variance ($F_{[10, 145]} = 8.03, p < .001, R = .60, \text{adjusted } R^2 = .31$). The personality facet of altruism ($\beta = .35$) was a significant predictor. Consistent with previous patterns, problem focused coping ($\beta = .16$), and emotion focused coping ($\beta = -.22$) contributed significantly to the model; however, this result should be interpreted with caution given the lower reliability of the forgiveness of others subscale.

4. DISCUSSION

The present study examined the relations among personality, coping, and forgiveness. Consistent with previous literature, at the bivariate level, older adults were more conscientious (Roberts, Walton, & Viechtbauer, 2006) and more likely to engage in problem focused coping strategies than their younger counterparts (De Minzi & Sacchi, 2005; Trouillet, Doan-Van-Hay, Launay, & Martin, 2011). Moreover, older individuals were more inclined to forgive themselves. It is important to note, however, that in the regression analyses age was not a statistically significant predictor of forgiveness.

The present study also replicated previous literature with respect to gender differences in personality. Specifically, at the bivariate level, females scored higher than males on neuroticism (including anxiety and vulnerability) and agreeableness (including straightforwardness, altruism, modesty, and tendermindedness), whereas males scored

higher on the extraversion facet of excitement seeking (Costa, Terracciano, & McCrae, 2001). However, in the regression analyses, the current study did not find gender differences in the forgiveness of self, others, or situations, validating previous studies with similar results (e.g., Brose et al., 2005; Brown & Phillips, 2005; Toussaint & Webb, 2005; Walker & Gorsuch, 2002). Taken together, age and gender did not significantly predict the forgiveness of self, others, and situations in our model. Thus, in the present study, the influence of demographic factors on forgiveness was minimal.

The correlational analyses found that individuals scoring higher on all three forgiveness types had lower neuroticism scores. Lower Neuroticism scores reflect emotional stability; these individuals are not anxious or depressed and are capable of dealing with their current situation. We also found positive correlations between Extraversion, Agreeableness, Conscientiousness, and the three forgiveness types. People who are more outgoing, easy to get along with, and rational are more likely to be able to forgive than those who are introverted, cynical, and undisciplined. Finally, in accordance with previous studies, no correlation was found between openness and forgiveness (Berry et al., 2005; Brose et al., 2005; Ross et al., 2004; Walker & Gorsuch, 2002).

Concerning personality and coping, the present research corroborated that of Connor-Smith and Flachsbart (2007) and Zhou and coworkers (2017) in that individuals who scored higher on Neuroticism were less likely to endorse problem focused coping strategies and more likely to use emotion focused coping strategies. Also, consistent with previous research (Bouchard et al., 2004; Connor-Smith & Flachsbart, 2007; Vickers et al., 1989; Zhou et al., 2017), our study found that the opposite pattern was true for extraverts and individuals high on conscientiousness – they were more likely to endorse problem focused coping strategies and less likely to use emotion focused strategies. Problem focused coping has implications for subjective well-being because these strategies deal directly with the stressor at hand, whereas emotion focused coping tries to minimize the emotions that are felt; in this case, the stressor can continue because it is not addressed.

This study also served to fill a gap in the literature as few empirical studies exist examining the relation between coping and forgiveness. The findings of this study indicate the emotion focused coping is negatively correlated with forgiveness of self, others, and situations. Alternatively, problem focused coping was found to be positively correlated with the three forgiveness types. Although Worthington and Scherer (2004) proposed a theoretical argument equating emotion focused coping with forgiveness, our empirical evidence suggests otherwise. The strength of these correlations were weak to moderate suggesting that although the two constructs are correlated, forgiveness is distinct from coping. Nevertheless, how an individual deals with a stressor (e.g., problem solving versus avoidance) contributes to the ability to move beyond the transgression and forgive.

The results of several hierarchical regression analyses found that personality and coping account for a significant amount of the variance in the prediction of forgiveness of self, others, and situations. Specifically, forgiveness of self was predicted by low Neuroticism and emotion focused coping, and high problem focused coping. Forgiveness of situations was also predicted by these factors, as well as high Agreeableness and Openness. Finally, forgiveness of others was predicted by high Agreeableness.

Subsequent analyses revealed that specific personality facets contributed to the predictive capacity to the forgiveness model. Specifically, low levels of hostility, depression, and self-consciousness contributed to the ability to forgive the self. According to McCrae and Costa (2010), individuals scoring high on angry-hostility are prone to experience anger. Furthermore, high scores on depression and self-consciousness reflect an individual who is disposed to feelings of guilt and shame (McCrae & Costa, 2010).

As such, these individuals may experience anger towards themselves for events that they perceive as guilt-inducing or shameful, resulting in an inability to forgive the self.

Interestingly, the only personality facet that independently predicted forgiveness of situations was low vulnerability. Individuals who score low on this facet tend to be calm in the face of stressful events, because they believe they are able to effectively manage the situation (McCrae & Costa, 2010). As a result, these individuals may be more likely to forgive situations, because they may not interpret the situation as stressful in the first place.

Finally, high altruism was predictive of forgiveness of others. Altruistic individuals are deeply considerate of those around them; that is, they have a high regard for others' feelings and circumstances (McCrae & Costa, 2010). This sensitivity may enable them to see a transgression from another's perspective, resulting in the ability of being more capable of forgiving others.

A unique contribution of this study was the influence of coping styles on forgiveness. At the facet level, higher scores on problem focused coping and lower scores on emotion focused coping significantly predicted each forgiveness type, beyond that of personality. Coping styles are amenable to invention, so these techniques should be taught in therapeutic sessions.

5. FUTURE RESEARCH DIRECTIONS

These results are applicable to clinicians and researchers alike. Given the associations between forgiveness and positive mental health outcomes (e.g., Riek & Mania, 2012; Webb et al., 2008) it may be desirable to promote forgiveness in therapeutic settings. Indeed, previous research has shown therapeutic interventions to be successful in promoting forgiveness, reducing depression and anxiety, and facilitating hope (Wade et al., 2014).

An individual's life circumstances might require him or her to forgive the self, others, or situations at any given time. This study demonstrated that these forgiveness types are predicted by different personality profiles. For instance, individuals who are hostile, depressed, and self-conscious may have a more difficult time coming to terms with forgiving the self, but not necessarily forgiving others or situations.

Besides personality profiles, our study demonstrated a unique contribution of coping styles in the forgiveness process. In order to forgive, an individual should acknowledge that a stressor or transgression occurred and face it directly. As such, promoting problem-focused coping strategies and reducing reliance on emotion focused coping strategies (e.g., avoidance and wishful thinking) may prove beneficial for all individuals, regardless of their personality profile.

Finally, personality and coping styles accounted for approximately half of the variance in forgiveness of self and situations, and a third in forgiveness of others. Although this amount is a significant proportion of the variance, there is still a substantial amount of variance unexplained. Therefore, attempts to explain forgiveness entirely in terms of a personality disposition or a coping strategy (e.g., Worthington & Scherer, 2004) are oversimplifications of this complex phenomenon, and future research should continue to search for additional predictors of forgiveness.

6. LIMITATIONS

This sample was drawn from a population of undergraduate students, and more females participated than did males. As such, caution should be exercised when generalizing these results to males and older adults. In addition, the suboptimal reliability of the forgiveness of others subscale could have led to a failure to detect meaningful relationships in the data analysis.

7. CONCLUSION

This study found that the three forgiveness types were differentially predicted by personality and coping styles. As such, it is important to tease apart forgiveness of self, forgiveness of others, and forgiveness of situations as each of these forgiveness types have different predictor models. In other words, for each type of forgiveness, different personality factors/facets and coping styles made unique contributions. Although personality factors and facets contributed the most variance in these models, coping styles are more amenable to change and can be taught in therapeutic interventions. To conclude, this study provided empirical support for relations among personality, coping styles, and forgiveness.

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AUTHORS INFORMATION

Full name: Samantha A. Fowler

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Road, Saint John, New Brunswick, E2L 4L5, Canada

Short biographical sketch: Samantha Fowler is a graduate student in the psychology department at the University of New Brunswick in Saint John, Canada. Her research focuses on positive psychology, including forgiveness, friendships, and life satisfaction. She is also interested in how these factors relate to personality. She has presented her research at numerous conferences and is a SSHRC scholar.

Full name: Lilly E. Both

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Road, Saint John, New Brunswick, E2L 4L5, Canada

Short biographical sketch: Lilly Both is a faculty member in the psychology department at the University of New Brunswick in Saint John, Canada. She is currently the Acting Associate Dean of Graduate Studies. Her research area is in developmental psychology across the lifespan. Specifically, she focuses on peer relationships, social skills, correlates of subjective well-being, and personality.

Chapter #11

NEGATIVE CONSEQUENCES OF HELPING AND THE LENGTH OF WORK EXPERIENCE

Miroslava Köverová, & Beáta Ráczová

Department of Psychology, Pavol Jozef Šafárik University in Košice, Slovak Republic

ABSTRACT

The research study presents the partial results of a broader study investigating the negative consequences of helping, their sources and prevention possibilities. The main aim of the research was to explore the differences in the level of burnout, perceived stress and compassion fatigue among helping professionals with different lengths of practice. It was hypothesized that less experienced helpers would report lower levels of burnout, perceived stress and compassion fatigue than more experienced helpers. Helping professionals who work in institutions providing social care in Slovakia participated (n = 748), and completed the Maslach burnout inventory (Maslach, Jackson, & Leiter, 1996), Perceived stress scale (Cohen, Kamarck, & Mermelstein, 1983) and Professional quality of life scale - Compassion fatigue subscale (Stamm, 2010). A one-way MANOVA showed that helping professionals with 10 or more years of experience reported higher levels of burnout (exhaustion) and compassion fatigue compared with their colleagues who were at the beginning of their careers (0-3 years of practice). These research findings suggest that the length of experience at work is an important factor in experiencing the negative consequences of helping. The results form a basis for the preparation of prevention and intervention programs for specific groups of helping professionals in Slovakia.

Keywords: burnout, perceived stress, compassion fatigue, helping professionals, length of work experience.

1. INTRODUCTION

The main purpose of helping professionals is to help or provide care to people. Helping professions include fields such as medicine, nursing, psychotherapy, psychological counselling, social work, education and other direct-service roles. These types of professions often involve regular and intense interpersonal interactions. Therefore, one of the most important aspects of helping professionals are the helper's daily and direct contact with his/her clients and the provision of physical, psychological and social care. Individuals in these work areas constantly extend themselves outward to the service of helping others. Helpers have to meet specific requirements for the performance of their professions, namely in terms of qualifications and personality. These types of work have many positive aspects in the context of personal and professional growth and can be a motivation for performing this job. On the other hand, helping professions are also considered to be demanding and risky (Deville, Wright, & Varker, 2009; Gorgievski-Duijvesteijn & Hobfoll, 2008; Hegney et al., 2014; Maslach, Schaufeli, & Leiter, 2001; Volpe et al., 2014). Providing help to others professionally can cause an overload and exhaustion to the internal and external resources of the helper (Lambert, Lambert, & Yamase, 2003; McVicar, 2003). Therefore, the prolonged impact of the negative effects of helping can threaten the physical and mental health of helping professionals.

The present study is mainly focused on the negative effects of helping that helping professionals deal with most often: burnout, perceived stress and compassion fatigue (Barnett & Cooper, 2009; Figley, 2002; Stamm, 2010). More specifically, the research deals with the differences in the negative consequences of helping among helping professionals with different lengths of experience in Slovakia. The findings of the present research are particularly important as a basis for the further preparation of evidence-based prevention and intervention programs for specific groups of helping professionals in Slovakia.

2. BACKGROUND

2.1. Burnout syndrome

One of the most common adverse effects of helping is burnout syndrome. According to Maslach, Jackson, and Leiter (1996), burnout is a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment. Emotional exhaustion, as a key component of burnout syndrome, refers to depletion of emotional resources where helpers "feel they are no longer able to give of themselves at a psychological level" (Maslach et al., 1996, p. 192). Depersonalization can be viewed as a mechanism by which helping professionals feel an emotional distance from their clients and develop negative emotions and attitudes towards them (Maslach et al., 1996). Reduced personal accomplishment refers to a helper's tendency to view work negatively, to experience a decline in feelings of work competence and success and to feel dissatisfied with his/her work achievements (Maslach et al., 1996). Exhaustion and depersonalization affect not only work satisfaction, but also personal satisfaction (Maslach et al., 1996; Maslach et al., 2001).

Burnout was previously conceptualized as the reaction to job stress generated by the demands of helping clients (Barnett & Cooper, 2009; Maslach et al., 1996). However, the current research (e.g. Jenkins & Baird, 2002) has provided clarification where burnout is considered as a defensive response to prolonged occupational exposure to demanding interpersonal situations that produce psychological strain. This concept describes a successive, pathological process and a unique emotional response through symptoms of emotional exhaustion, physical and cognitive fatigue. These can develop due to the psychological effort of working with multiple stressors and exposure to trauma which is considered as part of the daily work overstrain (Jenkins & Baird, 2002; Tosone, Nuttman-Shwartz, & Stephens, 2012).

Over the past 40 years of research, there has been an increased interest in burnout. This term is not limited to only working with clients but is also related to work settings (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Schaufeli & Taris, 2005). In the course of research into burnout, a new stream has emerged, in particular, the search for a positive counterpart of burnout syndrome. The combined efforts of several researchers (e.g. Leiter & Maslach, 2008; Schaufeli, Salanova, González-Romá, & Bakker, 2002) have come up with a positive burnout pole called engagement. Burnout syndrome, according to these authors, is based on an uncontrollable and unproductive relationship towards work while burning or liveliness (engagement) express the state of being full of energy, enthusiasm and deployment. While burnout can cause negative health consequences especially among helping professionals (Gabassi, Cervai, Rozborowsky, Semeraro, & Gregori, 2002; Havrdová & Šolcová, 2012), engagement is primarily related to the positive attitudes towards life and work (meaningfulness, endurance, responsibility, dedication, vigour) (e.g. Bosman, Rothmann, & Buitendach, 2005).

2.2. Perceived stress

One of the significant factors associated with the development of burnout syndrome is perceived stress. In the present study, perceived stress has been defined as experienced levels of stress, i.e. the degree to which situations in one's (work) life are appraised as stressful (Cohen, Kamarck, & Mermelstein, 1983).

Research has shown that prolonged exposure to high levels of work stress and a high workload are correlated with burnout (Maslach et al., 2001; Stamm, 2010; Volpe et al., 2014). According to Devilly et al. (2009), burnout is a significant predictor of affective distress (i.e. symptoms of depression, anxiety and tension/stress). Burnout syndrome arises as a result of the depletion of all means to manage chronic stress (Gabassi et al., 2002). Barnett and Cooper (2009) report that workers in helping professions are also very often threatened by undue stress.

Edwards et al. (2003) note that helping professionals deal with specific sources of stress and burnout such as the problems of their clients/patients, caring for their emotional needs, professional self-doubts, poor supervision, difficulties with time management, heavy workload, conflicts or personal stresses. These characteristics of helping professions can be the source of the negative consequences of helping. They can not only lead to a higher incidence of burnout and stress among helpers but also to a higher prevalence of compassion fatigue which is another negative effect of helping (Adams, Boscarino & Figley, 2006; Stamm, 2010; Edwards et al., 2003).

2.3. Compassion fatigue

Similar symptoms of burnout and stress are reflected in the concept of compassion fatigue which consists of secondary traumatic stress and burnout (Cunningham, 2003; Figley, 1995; Figley, 2002; Mann, 2004; Stamm, 1999; Stamm, 2005; Stamm, 2010). However, there are some differences in the conceptualization of the two elements of compassion fatigue in comparison to the concepts of burnout by Maslach et al. (1996) and perceived stress by Cohen et al. (1983). A key component of compassion fatigue is secondary traumatic stress which refers to the indirect (vicarious) traumatization of the helper as a result of his/her exposure to the trauma of his/her clients or patients (Figley, 2002; Stamm, 2010). Burnout as the second part of compassion fatigue mainly refers to the symptoms of emotional exhaustion and fatigue (Figley, 1995; Figley, 2002; Stamm, 2010). By using these similar concepts of burnout and stress, the current study has tried to capture a wider range of symptoms of the negative consequences of helping.

2.4. The length of work experience

The results of some research studies have shown that higher age and longer experience at work are connected with higher levels of burnout and perceived stress among helping professionals (Hricová, Nezkusilová, & Mesárošová, 2017; Śliwiński et al., 2014; Tuveson, Eklund, & Wann-Hansson, 2011). However, Edwards et al. (2006) found that younger mental health nurses experienced higher levels of burnout on the depersonalization subscale. On the contrary, Kebza (2005) has reported that negative consequences of helping usually occur after years of practice, when work is less exciting and the helper can experience stagnation, frustration and depression. Chrestman (1999) has indicated that increased work experience is related to increased secondary traumatic stress symptoms. Hayter (2000) has reported no relationship between burnout (emotional exhaustion, reduced personal accomplishment and depersonalization), age and length of time in practice among clinical nurses.

3. OBJECTIVES

Research into the relationship between the length of time in practice and negative consequences of helping in Slovakia has been scarce. Therefore, the purpose of the present research was to explore the differences in the level of burnout, perceived stress and compassion fatigue among helping professionals with different lengths of experience. Although the research findings in this area have been ambiguous, most studies have provided evidence for the positive relationship between the length of experience and negative consequences of helping (Chrestman, 1999; Hricová et al., 2017; Kebza, 2005; Śliwiński et al., 2014; Tuvešson et al., 2011). It was therefore hypothesized that less experienced helpers would demonstrate lower levels of burnout, perceived stress and compassion fatigue than more experienced helpers.

4. METHOD

4.1. Research sample and procedure

The present research is part of a national Slovak research project investigating the resources and the prevention possibilities of the negative consequences of helping. The project is focused on helping professionals working in institutions providing social care in Slovakia (i.e. social workers, psychologists, health professionals, educators). Up to date, 748 helping professionals in Slovakia have participated. The participation was voluntary and anonymous.

Among the participants, 88.4% were female, 10.8% were male, and 0.8% did not report their gender. The age of participants ranged from 20 to 65 ($M = 44.07$; $SD = 10.34$). The length of experience in helping professions ranged from 1 to 44 years ($M = 13.1$; $SD = 10.49$); eight participants did not report the length of their work experience.

4.2. Instruments

The helping professionals completed the following questionnaires:

The Maslach burnout inventory (MBI; Maslach et al., 1996), Slovak translation. The instrument consists of 22 items measuring the level of burnout syndrome, i.e. the level of emotional exhaustion (e.g. *"I feel emotionally drained from my work."*), depersonalization (e.g. *"I don't really care what happens to some recipients."*) and reduced personal accomplishment (reverse coded, e.g. *"I feel I'm positively influencing other people's lives through my work."*). Respondents indicate the frequency of experiencing work-related feelings using a 7-point scale (0 = never; 6 = every day). The internal consistency estimates (Cronbach alpha) for emotional exhaustion, depersonalization and personal accomplishment were .90, .79 and .71, respectively (Maslach et al., 1996). In the current research, the Cronbach alpha estimates were .878 for emotional exhaustion, .601 for depersonalization and .768 for personal accomplishment. The validation study of the Slovak translation of the instrument is in process.

The Perceived stress scale (PSS; Cohen et al., 1983). The Slovak translation of this 10-item measure was used to assess the level of perceived stress among helping professionals. Respondents are asked to indicate the frequency of their feelings and thoughts during the last month on a 5-point scale (1 = never; 5 = very often); e.g. *"In the last month, how often have you felt nervous and 'stressed'?"*. A higher score indicates a higher level of perceived stress. The Cronbach alpha estimates of the instrument were acceptable (Cohen et al., 1983). In this research, reliability (Cronbach alpha) of the perceived stress scale was .79. The validation of the Slovak version of the instrument is in process.

Professional quality of life scale (ProQOL; Stamm, 2010; Slovak adaptation Köverová, 2016). The professional quality of life scale consists of 30 items measuring the level of the positive effects of helping (compassion satisfaction - 10 items, e.g. "I get satisfaction from being able to help people.") and the level of the negative effects of helping (compassion fatigue consisting of burnout - 10 items, e.g. "I feel trapped by my job as a helper."; and secondary traumatic stress - 10 items, e.g. "I think that I might have been affected by the traumatic stress of those I help."). The answers are rated on a 5-point scale (1 = never; 5 = always). Higher scores indicate higher levels of compassion satisfaction and compassion fatigue (burnout and secondary traumatic stress). For the purposes of this study, only compassion fatigue subscales were used in the analyses. Stamm (2005) has reported adequate internal consistency estimates (Cronbach alpha) for burnout (.90) and secondary traumatic stress (.87). The Cronbach alpha estimates of compassion fatigue, burnout and secondary traumatic stress in the Slovak adaptation of the instrument were .785, .556, and .754, respectively (Köverová, 2016). In the present study, the Cronbach alpha estimates were .822 for compassion fatigue, .690 for burnout and .764 for secondary traumatic stress.

4.3. Data analysis

A one-way MANOVA was used to measure the differences in the level of burnout (total score, exhaustion, depersonalization, personal accomplishment), perceived stress and compassion fatigue (burnout and secondary traumatic stress) among four groups of helping professionals according to the length of their helping experience (*group 1* = 0-3 years of experience, $n = 154$; *group 2* = 3.1-9.9 years of experience, $n = 181$; *group 3* = 10-19.9 years of experience, $n = 190$; *group 4* = 20 or more years of experience, $n = 200$). IBM SPSS Statistics 21 software was used for the data analysis.

5. RESULTS

Descriptive statistics (means, standard deviations) and the results of the multivariate analysis of variance are presented in Table 1. The four groups of helping professionals reported low levels of burnout ($M = 1.495 - 1.734$), low to moderate levels of exhaustion ($M = 1.725 - 2.250$), low levels of depersonalization ($M = .816 - .869$), moderate to high levels of personal accomplishment ($M = 4.303 - 4.458$), moderate levels of perceived stress ($2.481 - 2.634$) and low to moderate levels of compassion fatigue ($M = 2.200 - 2.455$ for burnout; $M = 2.055 - 2.352$ for secondary traumatic stress).

A one-way MANOVA revealed that there were statistically significant differences in the levels of the negative consequences of helping among the four groups of helping professionals ($F_{(18, 2025)} = 3.487$, $p < .001$; Wilk's $\lambda = .917$, partial $\eta^2 = 0.028$). Tests of between-subject effects using the Bonferroni correction indicated significant differences ($p < .007$) among the four groups in exhaustion ($F_{(3,721)} = 7.164$, $p < .001$) and compassion fatigue subscales ($F_{(3,721)} = 10.076$, $p < .001$ for burnout; $F_{(3,721)} = 10.748$, $p < .001$ for secondary traumatic stress) (Table 1).

Scheffe post-hoc tests indicated differences in the mean exhaustion scores among Group 1, Group 3 and Group 4. The mean exhaustion score for Group 1 ($M = 1.725$, $SD = 1.079$) was significantly lower than Group 3 ($M = 2.249$, $SD = 1.223$, $p = .001$) and Group 4 ($M = 2.250$, $SD = 1.246$, $p = .001$). Helping professionals with longer experience reported higher levels of exhaustion than helping professionals at the beginning of their career.

For the compassion fatigue subscales, a Scheffe post-hoc test indicated that the mean burnout score for Group 1 ($M = 2.200$, $SD = .413$) was statistically significantly lower than Group 2 ($M = 2.387$, $SD = .436$, $p = .003$), Group 3 ($M = 2.407$, $SD = .461$, $p = .001$) and Group 4 ($M = 2.455$, $SD = .489$, $p < .001$). The mean secondary traumatic stress score for Group 1 ($M = 2.055$, $SD = .455$) was significantly lower than Group 2 ($M = 2.213$, $SD = .525$, $p = .042$), Group 3 ($M = 2.275$, $SD = .527$, $p = .001$) and Group 4 ($M = 2.352$, $SD = .485$, $p < .001$). The difference in the mean level of secondary traumatic stress between Group 2 and Group 4 was also statistically significant ($p = .042$). Helping professionals at the beginning of their career reported lower levels of compassion fatigue (burnout and secondary traumatic stress) than helping professionals with longer practice.

Table 1.
Differences in burnout (MBI), perceived stress (PSS) and compassion fatigue (ProQOL)
among helping professionals with different length of work experience.

| Group (n) | 1 (n = 154) | | 2 (n = 181) | | 3 (n = 190) | | 4 (n = 200) | | ANOVA | |
|------------|-------------|------|-------------|------|-------------|------|-------------|------|--------|------|
| | M | SD | M | SD | M | SD | M | SD | F | p |
| MBI_total | 1.49 | .72 | 1.62 | .76 | 1.73 | .79 | 1.66 | .77 | 2.860 | .036 |
| MBI_exh | 1.72 | 1.07 | 2.05 | 1.20 | 2.24 | 1.22 | 2.25 | 1.24 | 7.164 | .000 |
| MBI_dep | .84 | .96 | .85 | .85 | .86 | .90 | .81 | .85 | .130 | .942 |
| MBI_pa | 4.35 | .99 | 4.37 | .98 | 4.30 | .95 | 4.45 | .92 | .865 | .459 |
| PSS | 2.48 | .52 | 2.56 | .49 | 2.63 | .48 | 2.63 | .45 | 3.615 | .013 |
| ProQOL_B | 2.20 | .41 | 2.38 | .43 | 2.40 | .46 | 2.45 | .48 | 10.076 | .000 |
| ProQOL_STS | 2.05 | .45 | 2.21 | .52 | 2.27 | .52 | 2.35 | .48 | 10.748 | .000 |

Note: MBI_exh = exhaustion; MBI_dep = depersonalization; MBI_pa = personal accomplishment; ProQOL_B = burnout; ProQOL_STS = secondary traumatic stress

No significant differences in the levels of depersonalization and personal accomplishment were found among the four groups ($F_{(3,721)} = .130$, $p = .942$; $F_{(3,721)} = .865$, $p = .459$; respectively). Regardless of the length of work experience, helping professionals indicated low levels of depersonalization and high levels of personal accomplishment (Table 1).

Using the Bonferroni correction, the differences in overall MBI score and PSS score among the four groups were no longer significant ($F_{(3,721)} = 2.860$, $p = .036$ for overall MBI score; $F_{(3,721)} = 3.615$, $p = .013$ for perceived stress). However, according to the mean scores presented in Table 1, there is also a slight increase in the levels of burnout and perceived stress among more experienced helping professionals.

6. DISCUSSION

The present research findings are part of a national Slovak research project investigating the resources and the prevention possibilities of the negative consequences of helping. The aim of the research study was to explore the level of burnout, perceived stress and compassion fatigue (burnout and secondary traumatic stress) among helping professionals in Slovakia with regard to their length of practice. It was found that helping professionals with longer work experience (10 or more years) indicated higher levels of the

negative consequences of helping - burnout, perceived stress and compassion fatigue - than less experienced helpers (0-3 years of helping practice). These results are consistent with previous research studies which have indicated the role of age and length of practice in experiencing negative effects of helping (Śliwiński et al., 2014; Tuvešson et al., 2011). The current research is the first to address this issue among helping professionals in Slovakia and brings evidence that the length of work practice is an important factor for experiencing the negative consequences of helping - burnout, stress and compassion fatigue - also among professionals in Slovakia.

A higher incidence of the negative consequences of helping among more experienced helping professionals was expected. However, only differences in compassion fatigue (burnout and secondary traumatic stress) and burnout (exhaustion) were found to be significant with regard to the length of practice. The differences in perceived stress and burnout (total score and depersonalization) among the groups of helping professionals with different lengths of experience were insignificant. Nevertheless, the data revealed that there was a slight increase in the levels of total burnout score and perceived stress among helping professionals with longer work experience. Therefore, attention should also be paid to overall burnout and perceived stress among more experienced helping professionals.

As was explained in the theoretical background, burnout was measured using two instruments; the Maslach burnout inventory (MBI; Maslach et al., 1996) and Professional quality of life scale (ProQOL; Stamm, 2010). The two conceptualizations enabled the capturing of more symptoms of burnout. Maslach et al. (1996) view burnout as a syndrome of exhaustion, depersonalization and reduced personal accomplishment. Figley (1995; 2002) and Stamm (2010) identify burnout as part of compassion fatigue and operationalize it in terms of work exhaustion and dissatisfaction with life and work. Since significant differences among the groups of helping professionals with different length of experience were only found in the MBI exhaustion subscale and ProQOL burnout subscale, the results indicate that exhaustion (in its various forms) is the most relevant aspect of burnout among helping professionals when considering the length of practice.

The results indicate that the tenth year of experience in the helping professions can be important in relation to the increase of the negative consequences of helping. Helping professionals with 10 or more years of work experience are at higher risk of developing burnout, stress and compassion fatigue in comparison with their colleagues at the beginning of their career (0-3 years of experience with professional helping). However, some studies have provided evidence that burnout can also develop among early career helping professionals (Volpe et al., 2014) and even among students of helping professions (Michalec, Diefenbeck, & Mahoney, 2013). Therefore, the length of practice should be considered important, but not the only factor related to burnout, perceived stress and compassion fatigue among helping professionals.

There are several possible explanations for these findings. Helping professionals with longer practice can experience and report higher levels of burnout (exhaustion), perceived stress and compassion fatigue because their longer work experience in the helping profession is associated with longer experience with problems, pain or traumas of their clients or patients. Therefore, the more experienced the helping professional is, the more the negative consequences of helping (burnout, perceived stress, compassion fatigue) he/she can report. Helping professionals at the beginning of their career can report lower levels of the negative consequences of helping for the opposite reason; less experience at work is associated with less experience with problems or traumas of their clients/patients.

An increase in the level of the negative consequences of helping among more experienced helping professionals can also be a result of their empathy and engagement in

the early years of their career. Some research studies have suggested that higher levels of compassion fatigue are connected to the helper's empathy and his/her higher emotional connection with clients/patients (Figley, 2002; Thomas & Otis, 2010). Longitudinal studies have shown that the level of empathy is more or less stable over one's lifetime although cross-sectional analyses have indicated that younger adults are more empathetic than older adults (Grühn, Rebucal, Diehl, Lumley, & Labouvie-Vief, 2008). Therefore, it can be suggested that higher levels of empathy and engagement among early-career helping professionals can turn into burnout later when they become more experienced. This explanation is in line with the perspective of Schaufeli, Leiter, and Maslach (2009) who view burnout as an "erosion of engagement" (p. 216). However, further research is needed to examine this process and to identify the protective and risk factors of burnout, perceived stress and compassion fatigue among helping professionals throughout their career.

It is important to note that there was only a small increase in the reported levels of burnout, perceived stress and compassion fatigue among more experienced helping professionals, as compared with the helpers at the beginning of their career. Therefore, all four groups of helping professionals reported equal (low to moderate - moderate) levels of the negative consequences of helping. The study suggests that burnout, perceived stress and compassion fatigue do not increase rapidly among more experienced helpers because they have more professional skills and better strategies that help them cope with the negative aspects of their helping professions.

Other possible protective factor of developing burnout, stress and compassion fatigue among helping professionals can be the provision of self-care activities (Alkema, Linton, & Davies, 2008; Bloomquist, Wood, Friedmeyer-Trainor, & Kim, 2015; Killian, 2008; Köverová & Ráczová, 2017; Lawson & Myers, 2011). More experienced helping professionals can engage more in self-care activities that help them cope with the negative aspects of their professional life. Śliwiński et al. (2014) have argued that satisfaction with life, work and family can also prevent burnout among helping professionals. However, future research is needed to recognize other protective factors for developing the negative consequences of helping. It is also important to investigate the differences in coping strategies among helping professionals with different lengths of work experience and to explore the impact of coping on the level of burnout, perceived stress and compassion fatigue among helping professionals.

The results of the present study have also shown that helping professionals, regardless of the length of experience, reported higher levels of personal accomplishment and lower levels of exhaustion and depersonalization. Helping professionals in all four groups reported equal, moderate to high, levels of personal accomplishment. These findings suggest that helping professionals at any level of their career experience more personal accomplishment and less burnout, stress and compassion fatigue. Whereas personal accomplishment seems to be more stable over time, burnout (exhaustion), perceived stress and compassion fatigue can slightly increase. It is possible to assume that only a slight increase of the negative consequences of helping in time can be a result of the helper's stable positive attitudes towards helping work.

There are also some limitations to the study. The differences in burnout, perceived stress and compassion fatigue were analysed among the four groups of helping professionals according to the length of their experience, regardless of gender and the type of helping profession. More females than males participated in the research, reflecting the prevalence of women working in helping professions in Slovakia. Gender differences in the negative consequences of helping were not analysed due to the gender disproportion of the sample.

Regarding the type of helping profession, social workers, psychologists, health professionals and educators participated in the research. Nevertheless, all helping professionals worked in institutions providing social care in Slovakia and therefore worked with similar types of clients or patients. However, it is possible that some types of helping professions are at higher risk of developing burnout, stress and compassion fatigue. Further research is therefore needed to analyse the differences in experiencing the negative consequences of helping among helping professionals with regard to gender and the type of their profession. This is necessary to identify the groups of helping professionals that are most threatened by burnout, stress and compassion fatigue.

7. FUTURE RESEARCH DIRECTIONS

These findings form a basis for the further preparation of evidence-based prevention and intervention programs for specific groups of helping professionals in Slovakia with regard to the length of their experience. The prevention programs for helpers at the beginning of their career (0-3 years of experience) should be aimed at the prevention of burnout, stress and compassion fatigue. The intervention programs for helping professionals with longer work experience (10 or more years) should help them decrease the levels of negative effects of helping, and thus improve their professional quality of life, helping skills and competence. Further research is also required to test the effectiveness of the prevention and intervention programs for helping professionals in Slovakia.

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KEY TERMS & DEFINITIONS

Burnout: a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment (Maslach et al., 1996).

Compassion fatigue: a more user-friendly term for secondary traumatic stress disorder (Figley, 2002). Secondary traumatic stress refers to the consequent behaviours and emotions resulting from knowing about a traumatizing event experienced by a significant other – the stress resulting from helping or wanting to help a traumatized or suffering person (Figley, 1995).

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Depersonalization: a mechanism by which helping professionals feel an emotional distance from their clients and develop negative emotions and attitudes towards them (Maslach et al., 1996).

Emotional exhaustion: depletion of emotional resources where helpers "feel they are no longer able to give of themselves at a psychological level" (Maslach et al., 1996, p. 192).

Perceived stress: experienced levels of stress, i.e. the degree to which situations in one's (work) life are appraised as stressful (Cohen et al., 1983).

Reduced personal accomplishment: a helper's tendency to view work negatively, to experience a decline in feelings of work competence and success and to feel dissatisfied with his/her work achievements (Maslach et al., 1996).

ACKNOWLEDGEMENTS

This research was supported by the Slovak research and development agency under contract no. APVV-14-0921.

AUTHORS INFORMATION

Full name: Miroslava Köverová

Institutional affiliation: Department of Psychology, Pavol Jozef Šafárik University in Košice

Institutional address: Moyzesova 9, 040 59 Košice, Slovak Republic

Email address: miroslava.koverova@upjs.sk

Short biographical sketch: Miroslava Köverová is a researcher and lecturer at the Department of Psychology, Pavol Jozef Šafárik University in Košice, Slovakia. She teaches Personality psychology, Educational psychology and Psychopathology. Her research interests include compassion fatigue, self-care, optimism and interpersonal teacher behaviour.

Full name: Beáta Ráčzová

Institutional affiliation: Department of Psychology, Pavol Jozef Šafárik University in Košice

Institutional address: Moyzesova 9, 040 59 Košice, Slovak Republic

Email address: beata.raczova@upjs.sk

Short biographical sketch: Beáta Ráčzová is a senior lecturer at the Department of Psychology, Pavol Jozef Šafárik University in Košice, Slovakia. She teaches Developmental psychology, Family psychology and Counselling psychology for older adults and seniors. Her research interests include self-care and self-regulation.

Chapter #12

'SAFE-TOUCHES' SEXUAL ABUSE PREVENTION: A PILOT STUDY ON CHILDREN, TEACHERS AND PARENTS

Tinia Apergi¹, Eva-Manolia Syngelaki², & Chrysanthi Nega²

Psychology Department, The American College of Greece-Deree College & ELIZA-Society for the Prevention of Cruelty to Children (Greece)

¹ *Psy.D.*

² *Ph.D.*

ABSTRACT

In recent years, many school-based prevention programs have been developed in response to the worrying prevalence rates and serious consequences of child sexual abuse. In Greece one out of six children are victims of sexual abuse before the age of 18 years and schools do not offer abuse prevention programs. This study presents a three-folded prevention program addressing all stakeholders: children, teachers and parents. A sample of 467 primary school students in grades 1-3, participated in the Safe Touches program, a classroom based curriculum, and outcomes were assessed by the Children Knowledge of Abuse Questionnaire-RIII. Children in 2nd and 3rd grade attained significantly greater increases on the inappropriate touch knowledge from pre- to post-test than children in 1st grade. For teachers ($n=75$) and parents ($n=110$) a 2-hours training seminar was delivered. Concepts covered in the seminars were recognition of signs, psychological consequences, legislation and reporting procedures. Teachers and parents reported an increase in the knowledge, attitudes and practices of Child Sexual Abuse (CSA) concepts. Overall, the program proved effective in enhancing children's knowledge and prevention skills, as well as building awareness in parents and teachers. Future research should focus on behavior changes as an outcome measure, and examination of longer-term retention of knowledge gains.

Keywords: CSA prevention intervention, children, teachers, parents.

1. INTRODUCTION

Child sexual abuse (CSA) is a worldwide phenomenon that occurs across cultures, countries and social classes and continues to affect millions of children each year. Although reliable estimates are very difficult to obtain, retrospective studies indicate that a significant number of adults have been victimized as children (Pereda, Guilera, Forns, & Gomez-Benito, 2009). Moreover, despite large prevention efforts, international prevalence rates for CSA continue to be high ranging from 8% to 31% for women and 7% to 16% for men (Barth, Bermetz, Heim, Trelle, & Tonia, 2013). Finally, incidence studies in poor and developing countries around the world are either absent or very poorly designed making it difficult to estimate the number of victims and the extend of the phenomenon (Veneema, Thornton, & Corley, 2015). Literature suggests that the majority of sexual abuse incidents happen to children in the prepubertal age group (Finkelhor, Hotaling, Lewis, & Smith, 1990). Sexually abused children are at risk for developing a variety of disorders and the effects of CSA are both short- and long-term influencing the psychosocial and cognitive development of the individual and their interpersonal functioning as adults. Moreover, it increases the risk for future revictimization (Collin-Vézina, De La Sablonnière-Griffin, Palmer, & Milne, 2015; Dube et. al, 2005, van Roode, Dickson, Herbison, & Paul, 2009).

2. BACKGROUND

The incidence of sexual abuse and its related problems has prompted professionals to implement prevention and intervention programs to address CSA. Although programs on physical abuse and neglect have focused on identifying high-risk situations and working with victims and offenders, sexual abuse prevention programs are mostly psycho-educational and are designed to address all potential child victims (Daigneault, Vezina-Gagnon, Bourgeois, Esposito, & Hebert, 2017; Davis, & Gidycz, 2000; Geeraert, Van den Noortgate, Grietens, & Onghena, 2004).

Prevention programs employ a variety of strategies to disseminate information and train children to protect themselves and avoid becoming victims of sexual abuse. Prevention involves primary, secondary and tertiary community wide models. Primary models involve direct approaches of teaching children and indirect approaches of teaching others, with the goal to prevent problems from occurring in the first place. Secondary models target individuals at-risk, whereas tertiary models aim at reducing the effects of a problem that is already causing harm (Walker, & Shinn, 2002). Primary prevention programs are mostly designed for preschool and elementary school children with the goal of increasing knowledge and teaching them skills to protect themselves. The inclusion of teachers and parents in prevention efforts is essential so that they can acquire and deliver information about CSA and take an active role to prevent occurrences (Randolph, & Gold, 1994). Although parents' involvement is indicated as very important by most, participation rates tend to be very low and few programs offer concurrent workshops for parents and/or teachers while very few provide send-home material to engage parents (Plummer, 2001; Tutty, 1993; Wurtele, Moreno, & Kenny, 2008).

Primary and secondary efforts can reach a large number of people in a cost-effective way and are thus preferred as a CSA prevention model. Reviews of primary prevention programs have yielded mixed results with respect to changing children's behavior but have been overall effective in increasing knowledge about personal safety. In addition, there is very little data on the ability of children to retain information overtime and even less on resulting behavioral changes after being exposed to CSA prevention psychoeducation (Finkelhor, 2007; Gibson, & Leitenberg, 2000; Hebert, Lavoie, Piche, & Poitras, 2001; Kenny, 2010; Topping, & Barron, 2009). There have been fewer efforts to implement and evaluate prevention programs for parents and teachers. Results indicate an increase in knowledge about CSA but are again mixed with respect to changes in willingness to report an incident of suspected abuse. Studies report that parents focus more on general concepts, such as "stranger danger" and rely primarily on common myths about victim and perpetrator profiles. In addition, they lack knowledge of signs and symptoms as well as the psychological consequences of CSA. (Chen, & Chen, 2005; Chen, Dunne & Han, 2007; Finkelhor 1984; Pullins, & Jones, 2006; Tang, & Yan 2004; Tutty, 1993).

Child sexual abuse rates in Greece commensurate with worldwide prevalence trends. One out of six children is victim of at least one incident of sexual abuse during their childhood years (Petroulaki, Tsirigoti, Zarokosta, & Nikolaidis, 2013). However, attempts to raise public awareness in the country are limited. Furthermore, because of the wider economic crisis in Greece, there is a lack of appropriate services and the available resources have been dramatically reduced. Despite the progress made so far at an international level, Greece is lagging significantly in initiatives to prevent CSA. There is a lack of primary prevention programs regarding CSA in Greek elementary schools and there is no national registry for reporting and recording sexual abuse cases, making any intervention and prevention efforts difficult to materialize. The present study arose from the need to

implement and evaluate a primary prevention program for children aged 6-9, build awareness and provide a more comprehensive primary prevention program, where all key stakeholders were included: that is children, teachers and parents.

Primary prevention includes school-based sexual abuse prevention programs. The school is an area that offers the conditions favoring the development of skills and abilities to prevent sexual violence. School settings have been proven effective at teaching safety concepts and increasing sexual abuse disclosures in children (Finkelhor, 2007; Topping, & Barron, 2009). An additional advantage of school-based programs is the promotion of awareness among teachers and parents that could lead to an increase in their confidence in identification of incidents. Teachers, as key members of the school community, can play an important role in the prevention and treatment of the phenomenon of CSA. Moreover, as a training institution, school can help open a dialogue between parents and children (Zwi et al., 2007).

One of the school-based programs which has proven effective in teaching safety tools to children as young as kindergarten level is the 'Safe Touches' curriculum. This program was designed and implemented by the New York Society for the Prevention of Cruelty to Children (NYSPCC) and has had excellent results (Pulido et al., 2015). Based on its effectiveness and the population it addresses it was chosen to be implemented and evaluated in Greece. The purpose of the current study was threefold: implement a school based sexual abuse prevention program in children aged 6-9 years in a Greek population and education system, provide psychoeducational training for parents; and provide psychoeducational training for teachers.

3. METHODS

3.1. Participants

Four hundred sixty-seven elementary school-aged children from three grade levels (1st grade $n=159$, 2nd grade $n=149$, 3rd grade $n=149$) participated in the study. The sample consisted of 235 boys and 232 girls. The children were attending a private elementary school serving a largely middle-class population in a southern suburb of Athens. Only students with parental consent participated in the study. Students with diagnosed physical, emotional and / or cognitive difficulties were allowed to participate in the intervention, but the obtained measurements were not included in the data analysis.

Seventy nine teachers of the participating school attended a teachers' training seminar. The sample consisted of teachers from all grades of the school (1st through 6th grade) and completed a knowledge questionnaire before and after the seminar.

All parents of children were invited to a parent education seminar held in the school after the completion of the intervention on their children. A total of 110 parents attended the meeting and completed knowledge and attitudes questionnaires before and immediately after the seminar. The mean age of parents was 42.6 years ($SD.=5.33$); 23.6% were fathers and 76.4% were mothers.

3.2. Measures

Children: The effectiveness of the child prevention intervention was evaluated using the Greek version of the Children Knowledge for Abuse Questionnaire (CKAQ-RIII; Tutty, 1995). It is a reliable and valid tool that measures the level of children's knowledge on the concepts of sexual abuse and prevention skills. The CKAQ consists of 33 questions with response choices of "true", "false" or "do not know". One point was assigned for a correct

answer whereas no points were assigned for either incorrect or *I do not know* response. Higher scores reflect greater level of knowledge of the concept of sexual abuse. The questionnaire comprises of two subscales of Inappropriate and Appropriate Touch. Inappropriate Touch subscale (24 items) covers the major elements that most CSA programs are focused on, namely recognition of different touches, situations, strangers, and acquisition of self-protective skills. In CKAQ-RIII a 9-item subscale of Appropriate Touch was developed where identification of more complicated situations was introduced, like seeing a child's private parts in the context of a doctor's appointment, or in the case of the child to ask for help when lost. Psychometric properties exist only for the ITS which revealed strong internal consistency ($\alpha=.87$) and test-retest reliability ($\alpha=.88$).

The translation and cultural adaptation of the questionnaire was conducted in accordance with the international standards of the World Health Organization (WHO / Research Tools http://www.who.int/substance_abuse/research_tools/translation/en/). Specifically, the standard "forward-backward" two-phase procedure was applied to translate the questionnaire from English to Greek. Both translations were made independently by a scientific group of mental health professionals. The research team resolved and reach consensus on the discrepancies that resulted from the reverse translation. The final form of the CKAQ questionnaire was given to 10 children, aged 5-9 years old, which confirmed that the Greek version of the questionnaire is clear and comprehensible.

Teachers: A two-hour teacher training seminar was delivered to all teachers of the participating school. The training seminar included training concepts on child sexual abuse and prevention, appropriate sexual development, recognition of signs and symptoms, psychological consequences, as well as legislation and reporting procedures. A description of the "Safe Touches" program was also presented.

To assess teachers' knowledge about child sexual abuse, a 20 item "true-false" questionnaire was administered (Goldman, 2007). The questionnaire mainly measured teachers' knowledge and understanding on CSA concepts, as well as competency in reporting. Teachers completed the knowledge questionnaire before and after the training seminar.

Parents: A two-hour parent training seminar was delivered to parents of participating students in grades 1-3 of the school. Parents' presentation was developed based on the original NYSPCC material addressing concepts of child sexual abuse, appropriate sexual development, recognition of signs and symptoms, and talking to children about abuse. The questionnaires distributed to parents included general demographics, CSA prevention knowledge, CSA attitudes, and CSA indications.

Parents' perceptions about child sexual abuse myths and stereotypes were assessed with the CSA Myth Scale (Collings, 1997). The scale consisted of 10 items with a 3-point Likert-type format of "agree", "disagree" and "unsure" response options. The tool has acceptable internal consistency (Cronbach's $\alpha .764$) and test-retest reliability ($r=.874$), as well as good convergent and discriminant validity. Parents' attitudes towards CSA prevention education were measured using a 5 items scale where response choices were either "agree" or "disagree" (Chen, & Chen, 2005). The scale has a good Cronbach's α of .81. Finally, the Assessment of Sexual Abuse in Children was used to evaluate parents' ability to recognize symptoms and signs of sexual abuse in children (Salvagni, & Wagner, 2006). The scale consisted of 5 items in which correct responses were measured with a maximum score of 5. (Cronbach's $\alpha =.85$).

The aforementioned tools were administered to parents twice, before and after the training seminar, to evaluate changes in the scores of the assessment scales. To ensure confidentiality, all participants (children, parents, teachers) generated a unique identifier to match pretest and posttest questionnaires.

All scales distributed to parents and teachers were translated in Greek and translated back to English by independent translators, to ensure consistency in meaning. The research team made minor adjustments to the Greek versions of the parent and teacher questionnaires to make their meaning as clear as possible.

3.3. Intervention

“Safe Touches: Personal Safety Training for Children” is a school-based sexual abuse prevention program implemented in grades K-3. Safe Touches curriculum has been developed by the New York Society for the Prevention of Cruelty to Children (NYSPCC) since 2007 (Pulido et al., 2015). The curriculum has been adapted and translated to the Greek population and education system.

A 50-minute in-class interactive workshop was delivered to children in grades 1-3 with puppets employing role-play scenarios to assist children in learning and practicing concepts of body safety. During the workshop, children were guided to practice body safety language skills and list potential adults to tell in case of a not-safe touch. At the end of the workshop, children were also provided with an age-appropriate activity book that included exercises and reiteration of the material presented in class. Children were given the handbook to take home to work with their families.

The main concepts covered in the workshop included the parts of the body that are considered private, the difference between safe and not-safe touches, what to do if they do not feel safe and are confused. They were also taught that abuse is never the child's fault, that not safe touches can happen to girls and boys by someone they know and love, and were educated on who to tell if they receive a not safe touch.

The workshops were delivered by trained mental health professionals in collaboration with graduate counseling psychology students.

Students in grades 1-3 completed the Greek version of CKAQ before the intervention (pre-test) and one week later (post-test), immediately after the intervention. The administration of the questionnaire was delivered orally, either individually or in pairs of students and lasted approximately 15-20 minutes.

3.4. Ethical issues

The study was granted ethical approval by the Institutional Review Board of the American College of Greece. Informed written consent (and child oral assent) were obtained from school management, teachers and parents, according to guidelines of the American Psychological Association.

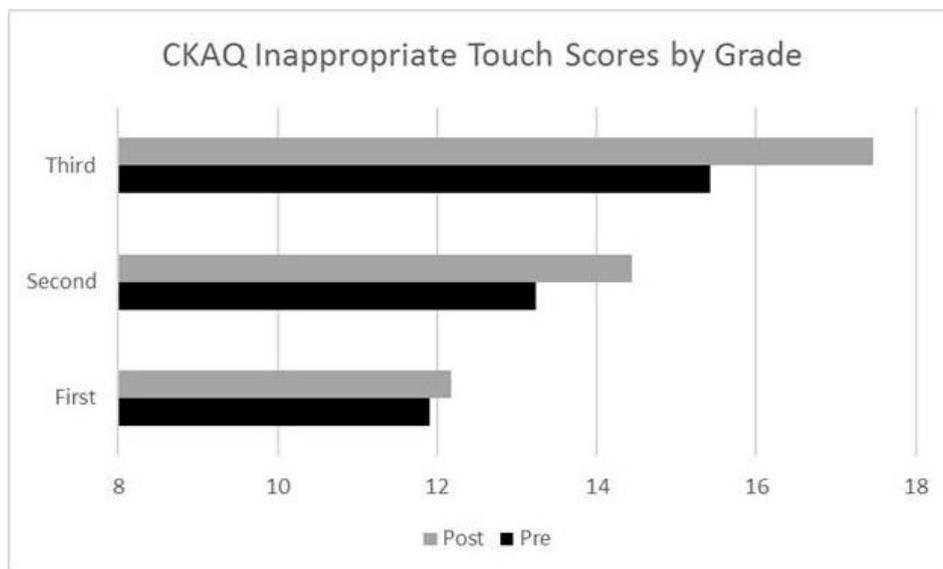
If during the delivery of the program an incident of abuse or neglect was suspected or disclosed, a standard protocol was initiated. A minimal facts interview with the child was conducted and the school principal was informed, following the Protocol Implementation Guide of Investigation, Diagnosis and Management of Child Abuse/Neglect for Professionals (http://www.0-18.gr/downloads/protokollo-eyretirio-kakopoiisis/Guide%20to%20Protocol%20use_ICH_6.2015.pdf).

4. RESULTS

Children: The internal consistency of the two subscales revealed strong Cronbach’s α for the ITS ($N=467$), ranging from .77 (post-testing) to .82 (pre-testing). However, the internal consistency on the 9-items of the ATS showed a rather weak Cronbach’s α , with .49 to .63 for post and pre-testing, respectively, following previous literature where psychometric properties of the ATS is either very weak or non-reported.

A 2 x 2 x 3 mixed ANOVA was conducted to investigate the effects of gender (male vs. female), grade level (1st vs. 2nd vs. 3rd) and intereventiveness (pre vs. post-test), the latter being the within participants variable, on the Inappropriate Touches Subscale scores. Analyses revealed a significant effect of grade level on the overall CKAQ scores, $F(2,427)=66.75$, $p<.001$, $\eta^2 =.24$, with third graders exhibiting greater knowledge levels of sexual abuse concepts ($M=16.45$, $SD = 3.77$) than second ($M=13.8$, $SD=3.59$) and first graders ($M=12.04$, $SD=3.71$). There was also a significant effect of intervention effectiveness, $F(1,427)=49.8$, $p<.001$, $\eta^2 = .104$, showing benefits in knowledge following intervention as evident by differences in scores before ($M=13.58$, $SD =3.75$) and after the intervention ($M=14.78$, $SD =4.49$). A significant interaction between intervention effectiveness and grade level, $F(2,427)=9.54$, $p<.001$, $\eta^2 = .043$, indicated that only the second and third grade students benefitted from the intervention and showed increase in the CSA knowledge and prevention skills. However, knowledge scores remained the same before and after the intervention for first graders. The effect of gender and the remaining interactions failed to reach statistical significance and thus are not reported in detail (see Figure 1).

Figure 1.
Mean Inappropriate Touch Subscale (ITS) scores at grades 1,2,3, before (pre) and after (post) the intervention.



A similar analysis was performed for the ATS and revealed only a significant interaction between intervention effectiveness and grade level, $F(2,427)=4.07$, $p=.018$, $\eta^2=.019$. Scores on the Appropriate Touches subscale were quite inconsistent with only third graders showing an increase in knowledge, whereas students of first and second grades exhibit a decrease in knowledge after the intervention. It must be noted that the intervention's effectiveness did not reach statistical significance, showing no knowledge gains before and after the intervention. This finding is consistent with previous research (Pulido et al., 2015). However, these results should be cautiously interpreted as the psychometric properties of the ATS were not that strong. One should also take into account that ATS questions were added to the questionnaire to avoid distorting children's concept of appropriate interactions, without measuring a specific construct (Tutty, 1995).

Teachers: Overall, teachers displayed an increase in knowledge as indicated by the difference in scores of the assessment scale delivered before ($M=11.41$, $SD=2.95$) and after ($M=16.08$, $SD=2.63$) the training seminar, $t(72)=12.4$, $p=.000$, $d=1.67$.

Parents: Overall, parents exhibited significant knowledge gains indicated by the differences in scores of the CSA Myth Scale before ($M=28.9$, $SD=1.14$) and after ($M=29.48$, $SD=1.58$) the seminar, $t(102)=3.27$, $p=.001$, $d=0.40$. Moreover, positive attitudes towards CSA school-based prevention programs were significantly increased following the training seminar, with post attitudes scores being higher ($M=4.62$, $SD=1.06$) than pre seminar scores ($M=4.19$, $SD=1.3$), $t(109)=2.72$, $p=.007$, $d=0.36$. On the other hand, parents' ability to recognize that a child has been sexually abused did not improve before ($M=4.19$, $SD=1.30$) and after the seminar ($M=4.62$, $SD=1.06$) shown by the scores obtained in the "Indications of CSA" questionnaire ($p>.05$). Separate paired-samples t-tests were also performed for each indication, but failed to reach statistical significance (see Table 1). Analyses of the demographic data revealed non-significant effects of gender of the parent, gender of the child and the level of education of the parent on perceptions and attitudes ($p>.05$), suggesting that independently of these factors, a training seminar can effectively educate parents on CSA concepts.

Table 1.
Indications of CSA.

| Signs and Symptoms | Correct responses N (%) | |
|--|-------------------------|-------------|
| | Pretesting | Posttesting |
| 1. Sudden withdraw behavior | 99 (91) | 107 (97) |
| 2. Unusual fear of being left alone | 108 (98) | 108 (98) |
| 3. Abnormal interest in or curiosity about sex or genitals | 106 (96) | 106 (96) |
| 4. Genital/anal injuries | 72 (66) | 97 (98) |
| 5. Reluctance to undress | 91 (83) | 98 (92) |

Note: Individual paired samples t-tests were not significant ($p>.05$).

5. FUTURE RESEARCH DIRECTIONS

The Safe Touches program, as well as the training seminars for parents and teachers, were successful in increasing knowledge and awareness, regardless of their brief duration. Due to lack of resources in Greece, cost-effective school based prevention programs might be an optimal solution where lack of resources does not allow more lengthy and time-consuming prevention initiatives to materialize.

To this end, future research should explore the long-term retention of knowledge and skills in children who received the Safe Touches curriculum. Previous research has shown that knowledge gains were retained from two to five months after intervention, whereas skill gains were maintained from two to three months (Topping, & Barron, 2009). Additionally, the delivery of the Safe Touches program to a representative national sample would increase the generalizability of the findings. Further work would focus on broadening the sample to include schools of various socioeconomic statuses and diverse ethnic backgrounds, a context that better describes the current Greek demographics. Future studies, should also include behavioral intentions as an outcome measure for children where knowledge and self-protection skills are assessed through potentially risky situations that address topics covered in the prevention program. Even though, behavioral intentions have been proven effective in measuring knowledge on self-protection practices (Müller, Röder, & Fingerle, 2014), a meta analytic study raised serious concerns on whether behavioral intentions lead to behavioral changes (Webb, & Sheeran, 2006). Alternatively, program effectiveness in the prevention of sexual victimization can be measured by the number of incidents reported, over time. Gibson and Leitenberg (2000) provided preliminary evidence and found an association between school-based CSA prevention programs and decreased occurrences of CSA. Moreover, there have been some attempts to measure effectiveness by evaluating long term retention of knowledge as well as behavioral changes in children exposed to CSA prevention training curricula (Fryer, Kraized & Miyoshi; 1987a; 1987b; Zhang, et. al., 2013).

Similarly, for parents and teachers, future research should focus on longer knowledge gains and attitudes changes. The long-term impact of training seminars can further be evaluated by monitoring the number of reports filed in the schools where the program was delivered. If the seminar was effective, then teachers' knowledge in recognizing CSA symptoms and in school's procedures would be immediately reflected in increased reporting of suspected abuse.

6. CONCLUSION/DISCUSSION

The present study described the implementation and evaluation of an elementary school based prevention program implemented on children, parents and teachers. It provides a comprehensive, cost-effective and practical solution against CSA, effective at teaching safety concepts, and promoting awareness among children, teachers and parents.

Although the research methodology differs from the original employed by NYSPCC for the delivery of Safe Touches, the overall trends of the data remain comparable and in the same direction. Specifically, Pulido et al.'s (2015) study design employed intervention and control groups of children, whereas all student participants of the present study took part in the program, and outcome measures were assessed before and after the delivery of the program. Children exposed to the prevention program increased their knowledge and ability to distinguish between a safe and not safe touch, which should place them in a position to react promptly and proactively to possible inappropriate conduct by adults and prevent their victimization (Pulido et al., 2015). The results of the current study showed a significant increase in knowledge in second and third graders as compared to first graders. Even though there are studies of child sexual abuse prevention programs finding increased knowledge across first to third graders (Hebert et al., 2001), there are also studies showing greater knowledge gains in older children as compared to younger children (Blakey, & Thigben, 2015; Wurtele, Saslawsky, Miller, Marrs, & Britcher, 1986). According to a review of research studies on child sexual abuse prevention (Berrick, & Barth, 1992), first

graders might be misinterpreting information presented to them, and second and third graders could be understanding better explicit concepts taught in the program. Furthermore, older children might be presenting with more advanced verbal skills, and could have had more exposure to the concepts taught (Wurtele et al., 1986).

Similarly, both parents and teachers after a 2-hour training seminar increased their awareness, knowledge and attitudes on CSA concepts. The results are consistent with previous research demonstrating that parental involvement in CSA prevention education is helpful in strengthening children's self-protection skills and parent child communication on issues of CSA (Wurtele, Gillispie, Currier, & Franklin, 1992; Wurtele et. al, 2008). In this sample, parents advanced their knowledge about definition of abuse, gender differences on the risk of abuse, type of perpetrators, and prevalence. Moreover, their attitudes towards school CSA prevention education were also altered, understanding the value of such practices in the prevention of CSA. Parents also exhibited preexisting knowledge in the recognition of CSA indications, partly explaining the non-significant results obtained. Specifically, findings showed that a high percentage of parents could correctly recognize a range of signs and symptoms of CSA, including behavioral changes. Consistent with previous evidence, a number of key issues arising from current findings is the misconceptions and myths that parents have about CSA (for complete review see Babatsikos, 2010). Parents should be actively engaged in the primary prevention of CSA to decrease the risk of incidents to their children. This study has provided a better understanding concerning the level of CSA knowledge, attitudes and recognition of signs that parents have in Greece, in order to develop more effective prevention programs for parents. Especially since all parents, independently of their education level, ethnic background and socioeconomic status, experience a difficulty discussing with their children the topic of CSA (Babatsikos, 2010; Wurtele et al., 2008).

Likewise, teachers participating in the program showed significant increases in their knowledge and understanding of CSA prevention concepts and the process of mandatory reporting. Teachers' participation in such programs is an integral part of effective prevention efforts, especially in counties like Greece where teachers do not undergo any training to the topic, either during their compulsory university education or during their professional teaching life (Goldman, & Grimbeek, 2011; Randolph, & Gold, 1994).

Overall, these results expand on previous findings (Chen, & Chen, 2005; Goldman, 2007) by not only measuring awareness, but also examining the effectiveness of a short-term informative training in parents and teachers. Additionally, the results of the prevention program supported the existing research literature that emphasizes the necessity of integration of such programs in health education programs in elementary schools. The current study provides a comprehensive approach in preventing sexual abuse in a school setting, involving individuals that can promote awareness and subsequently enhance intervention efforts.

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ACKNOWLEDGEMENTS

This study was funded by Stavros Niarchos Foundation and conducted under the auspices/support of the ELIZA – Society for the Prevention of Cruelty to Children. We thank the advisory team of ELIZA, Katerina Lambrou, Electra Koutsoukou, and Afroditi Stathi who provided support and advice throughout this research project. Special thanks to the team of volunteers that helped in the dissemination of the workshop and the collection of data (Eva Paikopoulou, Christina Gangos, Irene Melengovits, Ety Varouch, Evaggelia Tsigoti, Marios Akoumianakis, Andromachi Katsarou, Stavroula-Eleni Evaggelinou, Penny Damdimopoulou, Elia Panopoulou, Anastasia Galani, Niovi Stoupi, Edela Kolitsi, Petros Paraskevopoulos, Anna Kazamias, Niki Liaskou, Maria Skaltsa, Nina Vavassori, Eleonora Assarioti). Finally, we are very grateful to the children, parents and teachers for their participation and the insight they have provided.

Sole responsibility for study design, interpretation of data, writing and submission of the chapter lies with the authors.

AUTHORS INFORMATION

Full name: Dr. Tinia Apergi

Institutional affiliation: The American College of Greece, Deree College

Institutional address: 6 Gravias Street GR-153 42 Aghia Paraskevi Athens, Greece

Email address: tapergi@acg.edu

Short biographical sketch: Dr. Tinia Apergi is a senior clinical psychologist, who has worked as a clinical practitioner, professor and graduate training coordinator in the American College of Greece since 2004. Dr. Apergi joined the scientific board of ELIZA, Society for the Prevention of Cruelty to Children in 2015 bringing in her experience and expertise in family violence and child abuse and neglect assessment, treatment and prevention. Dr. Apergi works as a private practitioner with children, adolescents and adults, contributes as a consultant in school settings and presents workshops related to issues of domestic violence in various settings.

Full name: Dr. Chrysanthi Nega

Institutional affiliation: The American College of Greece, Deree College

Institutional address: 6 Gravias Street GR-153 42 Aghia Paraskevi Athens, Greece

Email address: cnega@acg.edu

Short biographical sketch: Dr. Nega is an assistant professor at the American College of Greece, graduate and undergraduate psychology programs, since 2002. Her strong research background in various methodologies has led her to a number of research opportunities and collaborations inside and outside of Greece. She has recently started to work on pedagogical research and has joint ELIZA as a senior research coordinator overseeing the research design and data analysis.

Full name: Dr. Eva-Manolia Syngelaki

Institutional affiliation: The American College of Greece, Deree College

Institutional address: 6 Gravias Street GR-153 42 Aghia Paraskevi Athens, Greece

Email address: esyngelaki@acg.edu

Short biographical sketch: Dr. Eva-Manolia Syngelaki is an adjunct professor at the American College of Greece, where she has been teaching at the undergraduate and graduate department since 2013. She has been extensively involved in the implementation of prevention programmes in school settings, where some of her primary duties were research, training and supervision of teachers. She has also considerable experience in conducting seminars and workshops for both mental health professionals and teachers. She has received certified psychotherapy training in Cognitive Behavioral Therapy and works as a private practitioner. She has jointed ELIZA as a scientific associate.

Chapter #13

CONSTRUCT AND INCREMENTAL VALIDITY OF THE SLOVAK VERSION OF TRAIT EMOTIONAL INTELLIGENCE QUESTIONNAIRE – ADOLESCENT'S SHORT FORM

Lada Kaliská & Eva Sollárová

Department of Psychology, Faculty of Education, Matej Bel University in Banská Bystrica, Slovakia

ABSTRACT

The study analyzes construct (convergent and discriminant) and incremental validity of trait emotional intelligence (EI) of the Slovak version of Trait Emotional Intelligence Questionnaire – Adolescent's Short Form (TEIQue-ASF) created by K.V. Petrides (2009) adapted to the Slovak conditions by Kaliská, Nábělková and Salbot (2015). The research sample consisted of 307 high school students (average age: 17.7 /SD=.46). The validation tools: Ten-Item Personality Inventory – TIPI (Gosling, Rentfrow, & Swann, 2003), Type D-personality – DS14 (Denollet, 2005), State-Trait Anxiety Inventory – STAI (adapted by Muller, Ruisel, & Farkaš, 1980), Rosenberg's Self-esteem Scale – RSS (Rosenberg, 1965), Scale of Emotional Habitual Subjective Well-being – SEHP (Džuka & Dalbert, 2002) were used to examine trait EI construct and incremental validity by correlation and regression analyses. The results proved that high trait EI is positively correlated to personality and affect-related variables of self-confidence, emotional stability and extraversion and positive emotional state of mind (convergent validity) and negatively correlated to trait anxiety, type D-personality, self-depreciation and negative emotional state of mind (discriminant validity). Trait EI significantly predicts 2.8% of unique variance in trait anxiety after controlling for three variables supporting convergent validity and 1.2% of unique variance in trait anxiety after controlling for the variables supporting discriminant validity of trait EI in a sample of the Slovak high school adolescents.

Keywords: trait emotional intelligence, construct validity, incremental validity, TEIQue-ASF, adolescents.

1. INTRODUCTION

The psychological construct of emotional intelligence (EI) has a short history (since 1990s). One of its predecessors can be seen in Gardner's theory of multiple intelligences (1993) and the other in Thorndike's social intelligence (1920). For the first time, the EI model was defined in relation to other constructs (intelligence and emotions) in 1990, in the study "*Emotional Intelligence*" by Salovey and Mayer. Since then there has been going on a constant debate referring to its scientific meaningfulness, for the term intelligence should be reserved only for cognitive abilities.

These controversies have contributed to the formation of 3 approaches to EI investigation. The first approach presents EI as ability measurable by maximum performance tests, with Mayer and Salovey as its main representatives. Criticism of the EI model as ability (e.g., Mathews, Zeidner, & Roberts, 2004; Petrides, 2011) is pointing at problems to assess subjective nature of emotional experience and intrapersonal elements, of its scoring objectivity and of psychometric properties adequacy. The second approach links

EI with personality traits and abilities (so-called mixed models of EI, such as, Neubauer's, Freudenthaler's, Bar-On's and Goleman's models). Afterwards the concept of trait EI is being formed as the third model, where EI can be assessed by self-report measures and is defined as a personality trait closely connected to one's emotional functioning showing how people perceive their own emotional abilities and emotional dispositions (Cooper's, Sawaf's, Weisinger's, Higg's and Dulewicz's models or Petrides' model).

Trait EI, analyzed in this study, is explained by its authors, K. V. Petrides and A. Furnham (2001, 2009) as a constellation of self-perceived abilities and behavioral dispositions linked to emotions, bringing along qualitatively various behavioral and experiencing styles (Petrides, Pita, & Kokkinaki, 2007). It is explained as emotion-related self-perceptions and dispositions located at the lower levels of personality hierarchies (Petrides & Furnham, 2001). The model is being also referred to as trait emotional self-efficacy (Petrides & Furnham, 2001) or emotional self-competence (Kaliská & Nábělková, 2015).

We have been interested in this comprehensive model of trait EI for more than seven years. It consists of 15 facets (13 of them forming 4 factors: emotionality, sociability, well-being and self-control and 2 independent facets /adaptability and self-motivation/ stand by themselves) forming the global level of trait EI (more detailed characteristics of the factors in Petrides & Furnham, 2001; Petrides, 2009; Kaliská & Nábělková, 2015). Petrides also created questionnaires to measure trait EI (*Trait Emotional Intelligence Questionnaire – TEIQue*) for three developmental stages (children, adolescents, and adults) of two forms (short and long form). In Slovakia, the satisfactory psychometric properties of full and short forms of Slovak *TEIQue* versions were evidenced (Nábělková, 2012; Kaliská & Nábělková, 2015; Kaliská, Nábělková, & Salbot, 2015, and others). For short forms of *TEIQue*, created from the original full versions, the author recommends to assess only the global level of trait EI.

Ever since the beginning of EI research studies, construct and incremental validity has been verified in numerous studies. The study on British adult population (e.g. Petrides, Pérez-González, & Furnham, 2007) has shown that trait EI is related to measures of rumination, life satisfaction, depression, dysfunctional attitudes, and coping ($N=166$; 354 ; $AM_{age}=22.17$, $/SD=4.27/$) and most relationships remained statistically significant ($p \leq .01$) even after controlling for Big Five variance. Trait EI is as well related to depression and nine distinct personality disorders ($N=212$) even after controlling for positive and negative affectivity (mood). Another study on French adult population ($N=740$ participants, $AM_{age}=25.5$, $/SD=11.31/$) proves that trait EI predicted depression, anxiety, and social support as well as future state affectivity and emotional reactivity in neutral and stressful situations (Mikolajczak, Luminet, Leroy, & Roy, 2007); and there was proved the incremental validity to predict emotional reactivity over and above social desirability, alexithymia, and the Five-factor model of personality. The study of Siegling, Vesely, Saklofske, Frederickson, & Petrides (2015) on Canadian university students ($N/1/=645$, $N/2/=444$; $AM_{age}=22.6$, $/SD=5.4/$) supports that trait EI predicts 7 construct-relevant criteria beyond the variance explained (from .8% to 3.8% in Sample 1 and 10.1% to 32.6% in Sample 2) by the Five-factor model and coping strategies.

A complex review and meta-analysis were conducted to examine the incremental validity of *TEIQue* by 24 articles reporting 114 incremental validity analyses (Andrei, Siegling, Aloe, Baldaro, & Petrides, 2016) proving that *TEIQue* explains incremental variance in criteria pertaining to different areas of functioning, beyond higher order personality dimensions and other emotion-related variables. The latest (Van der Linden et al., 2016) meta-analytical study (a total sample of $k=142$, data sources $/N=36,268/$)

analyzes the relationship between the general factor of personality and trait EI. The general factor of personality is explained as a substantive higher-order personality factor there. The study suggests that the general factor of personality viewed as a social effectiveness factor might be very similar ($r = .85$) because of their large overlap (Van der Linden et al., 2016). Our previous studies confirm satisfactory reliability and validity (construct /its convergent and discriminant character/, incremental, criterion) of the Slovak adult versions of the TEIQue long and short forms (e.g., Nábělková, 2012; Kaliská, Nábělková, & Salbot, 2015).

The investigation of the construct, criterion or incremental validity of self-report measures of trait EI, is usually based on the adult's forms. The adolescent's forms of trait EI (especially *Trait Emotional Intelligence Questionnaire – Adolescent's Short Form – TEIQue-ASF*) have been subject to relatively few researches comparing to its adult counterpart. TEIQue-ASF was assessed for incremental validity in two studies of preadolescents. In these studies, the incremental validity of TEIQue-ASF was used to explain variance in somatic complaints, controlling for depression in a Dutch sample (Mavroveli, Petrides, Rieffe, & Bakker, 2007), and in teacher-rated academic achievement, controlling for cognitive ability, personality, and self-concept in a Spanish sample (Ferrando et al., 2010). The construct validity of TEIQue-AF (adolescent's long form) in a Slovak adolescent's sample ($N=169$; $AM_{age} = 16.8$, $/SD=0.9/$) was proved in relation to social intelligence and general g-factor intelligence potential (Kaliská, 2015) and the short form of TEIQue-ASF in a Slovak adolescent sample ($N=216$, $AM_{age} = 17.2$, $/SD=1.1/$) in relation to Big Five factors (Kaliská & Kaliský, 2016). One of the latest studies by Siegling, Vesely, Saklofske, Frederickson and Petrides (2015) verified the incremental validity of TEIQue-ASF in all socioemotional criteria (depression, somatic complaints, and peer-rated social competence), controlling for seven coping strategies and demographics in a Dutch high school students sample ($N=282$) by reanalyzing data presented by Mavroveli et al. (2007) and in academic achievement, controlling for cognitive ability and gender ($N=357-491$) in a sample of British preadolescents using unpublished data from Frederickson, Petrides and Simmonds' (2012). It proved the additional criterion variance explained by the TEIQue-ASF ranged from 1.7% (somatic complaints) to 6.3% (depression). That is why a complex multidimensional verification of construct and incremental validity of the Slovak version of trait EI for adolescents has become the major empirical objective of this study.

2. OBJECTIVE

We concentrated on the investigation of construct (convergent and discriminant) and incremental validity of trait EI of the adolescent's short form in regard to trait anxiety, type D-personality as a distressed personality type consisting of negative affectivity (the tendency to experience negative emotions) and social inhibition (the tendency to inhibit self-expression in social interaction), self-esteem (consisting of self-confidence and self-depreciation), the emotional component of habitual subjective well-being (comprising four positive: pleasure, body vigour, joy and happiness and six negative emotional state of mind: anger, guilt, shame, fear, pain, and sadness) and Big Five personality factors (extraversion, agreeableness, conscientiousness, emotional stability, openness to experience).

Three hypotheses were stated: trait EI will be correlated positively to self-confidence, positive emotional state of mind, emotional stability and extraversion (H1); trait EI will be correlated negatively to trait anxiety, negative emotional state of mind, self-depreciation and type D-personality (H2); trait EI will predict trait anxiety over and above positive and negative personality and emotion-related variables also in the Slovak adolescent's trait emotional intelligence questionnaire – its short form (H3).

3. METHODS

3.1. Research sample

Our research was carried out by convenience sampling including 307 adolescents, high school students (2 grammar schools, 2 vocational high schools, 2 sport grammar schools) in the age 16 to 19 ($M_{age}=17.7$ / $SD=.46$) from central Slovak region. There were 199 (64.8%) girls and 108 (35.2%) boys. The research sample was obtained by targeted and occasional sampling as a part of professional orientation testing. Either the parental or individual (18-year-old ones do not need parental approval) informed consent was signed voluntarily two weeks before testing.

3.2. Research methods

Trait EI was assessed by the short Slovak version of the *TEIQue-ASF (Trait Emotional Intelligence Questionnaire-Adolescent's Short Form)* created by K.V. Petrides (2009) adapted by Kaliská, Nábělková and Salbot (2015) to the Slovak conditions. The instrument consists of 30 items answered by a seven-point Likert scale (1 – completely disagree to 7 – completely agree). Reliability estimate in the sense of inner consistency (for the whole sample: $\alpha=.83$; .83 for females; .81 for males) reaches highly acceptable values. To operationalize the trait EI validity we used *Ten-Item Personality Inventory (TIPI)*; Gosling, Rentfrow, & Swann, 2003; /for extraversion: $\alpha=.56$; for agreeableness: $\alpha=.60$; for conscientiousness: $\alpha=.57$; for emotional stability: $\alpha=.71$; for openness to experience: $\alpha=.47$ /), *The type D-personality (DS14)*; Denollet, 2005; /for the whole sample: $\alpha=.87$; .87 for females; .88 for males/), *Rosenberg's Self-esteem Scale (RSS)*; 1965 /for self-confidence: the whole sample: $\alpha=.76$; .79 for females; .69 for males; for self-depreciation: the whole sample: $\alpha=.69$; .68 for females; .72 for males /), *Scale of Emotional Habitual Subjective Well-being (SEHP)*; Džuka & Dalbert, 2002; /for positive emotional state of mind: the whole sample: $\alpha=.76$; .75 for females; .79 for males; for negative emotional state of mind: for the whole sample: $\alpha=.68$; .63 for females; .75 for males/ and *The State-Trait Anxiety Inventory* to measure trait anxiety (STAI, adapted in Slovakia by Muller et al., 1980; /for the whole sample: $\alpha=.89$; .90 for females; .88 for males/). The testing lasted up to 40 minutes.

3.3. Results

The basic descriptive indicators for global trait EI and its factors assessed by TEIQue-ASF questionnaire and for other validation variables of this research sample are presented in Table 1.

Table 1.
Descriptive indicators of all variables in a sample of the Slovak adolescents ($N=307$).

| | | Min | Max | AM | SD | Mdn | Skewness | Kurtosis |
|--------------------|-----------------|------|------|------|-----|------|----------|----------|
| TEIQue-ASF (N=307) | Global trait EI | 2.73 | 6.23 | 4.93 | .64 | 4.97 | -.512 | .325 |
| | Well-being | 2.33 | 7.00 | 5.32 | .98 | 5.50 | -.877 | .433 |
| | Emotionality | 1.63 | 6.63 | 5.07 | .78 | 5.13 | -.589 | .721 |
| | Self-control | 1.50 | 6.50 | 4.48 | .89 | 4.50 | -.569 | .326 |
| | Sociability | 2.00 | 6.83 | 4.83 | .95 | 4.83 | -.374 | -.144 |

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| | | | | | | | | |
|------------------------|------------------------|-------|-----------|-------|------|-------|-------|-------|
| STAI (N=264) | Trait anxiety | 24.00 | 74.0 0 | 43.77 | 9.49 | 43.00 | .496 | -.046 |
| DSIV (N=264) | Type D personality | 4.00 | 47.0 0 | 22.31 | 9.22 | 22.00 | .225 | -.299 |
| TJPI (N=254) | Extraversion | .00 | 6.00 | 3.24 | 1.23 | 3.50 | -.166 | -.299 |
| | Agreeableness | .00 | 6.00 | 3.86 | 1.10 | 4.00 | -.600 | .547 |
| | Conscientiousness | .00 | 6.00 | 4.02 | 1.24 | 4.00 | -.529 | .048 |
| | Emotional stability | .00 | 6.00 | 3.51 | 1.29 | 3.50 | -.527 | -.454 |
| | Openness to Experience | .50 | 6.00 | 4.17 | 1.06 | 4.50 | -.501 | -.125 |
| SEHP (N=304) | Positive state of mind | 1.25 | 6.00 | 4.29 | .80 | 4.38 | -.606 | .423 |
| | Negative state of mind | 1.33 | 5.17 | 2.80 | .62 | 2.67 | .708 | .967 |
| RSS (N=263) | Self-confidence | 7.00 | 24.0 0 | 18.50 | 3.06 | 19.00 | -.746 | .699 |
| | Self-depreciation | 4.00 | 16.0 0 | 10.01 | 2.77 | 10.00 | .098 | -.675 |

Min – minimum, Max – maximum, AM – mean, SD – standard deviation, Mdn – median

Referring to the Slovak percentile norms for the late adolescence (norm sample N = 387; AM_{age} = 16.6; /SD= 0.5/ in Kaliská, Nábělková, & Salbot, 2015, p. 49), it can be concluded that the global trait emotional intelligence level (AM=4.93) of this research sample is reaching the 63rd percentile.

Statistical analysis of skewness and kurtosis proves the normal distribution of the analyzed variables therefore the relation estimate was carried out using parametric correlation analysis. Pearson's correlation coefficient (r) enables to determine the direction and strength of relations between variables presented in Table 2 and Table 3.

*Table 2.
Correlation analysis between variables.*

| r | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------------|----------|----------|----------|---------|---------|----------|
| 1 Global trait EI | 1 | | | | | |
| 2 Trait anxiety | -.638*** | 1 | | | | |
| 3 Type D personality | -.665*** | .665*** | 1 | | | |
| 4 Extraversion | .385*** | -.212*** | -.491*** | 1 | | |
| 5 Agreeableness | .165** | -.091 | -.158* | -.057 | 1 | |
| 6 Conscientiousness | .282*** | -.281*** | -.173** | -.077 | .266*** | 1 |
| 7 Emotional stability | .415*** | -.630*** | -.391*** | .048 | .202*** | .241*** |
| 8 Openness to Experience | .193** | -.076 | -.272*** | .323*** | .032 | .013 |
| 9 Positive state of mind | .680*** | -.616*** | -.614*** | .401*** | .184** | .200*** |
| 10 Negative state of mind | -.538*** | .677*** | .513*** | -.067 | -.090 | -.255*** |
| 11 Self-confidence | .583*** | -.618*** | -.524*** | .131* | .161** | .287*** |
| 12 Self-depreciation | -.458*** | .563*** | .439*** | -.190** | .075 | -.109 |

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 3.
Correlation analysis between variables.

| r | 7 | 8 | 9 | 10 | 11 | 12 |
|---------------------------|----------|---------|----------|----------|-------|----|
| 1 Global trait EI | | | | | | |
| 2 Trait anxiety | | | | | | |
| 3 Type D personality | | | | | | |
| 4 Extraversion | | | | | | |
| 5 Agreeableness | | | | | | |
| 6 Conscientiousness | | | | | | |
| 7 Emotional stability | 1 | | | | | |
| 8 Openness to Experience | .003 | 1 | | | | |
| 9 Positive state of mind | .362*** | .168** | 1 | | | |
| 10 Negative state of mind | -.563*** | -.020 | -.454*** | 1 | | |
| 11 Self-confidence | .463*** | .217*** | .559*** | -.524*** | 1 | |
| 12 Self-depreciation | -.348*** | -.126 | -.382*** | .491*** | -.499 | 1 |

* $p < .05$, ** $p < .01$, *** $p < .001$

According to the correlation analysis it can be stated that global level of trait EI was negatively strongly correlated to negative emotional factors of personality (anxiety, type D-personality, negative emotional state of mind and self-depreciation) – supporting discriminant validity, and positively strongly correlated to positive emotional state of mind and self-confidence and moderately to emotional stability (in the original theory as neuroticism) and extraversion as personality factors of Big Five model – supporting the convergent validity.

In addition to the above correlational analyses, two hierarchical four-step regression analyses were conducted to determine if trait anxiety as dependent variable could be predicted by variables supporting convergent validity and separately by variables supporting discriminant validity.

The first hierarchical four-step regression analysis was conducted to determine if trait anxiety as dependent variable could be predicted by variables supporting convergent validity: positive emotional state of mind entered at the first step, then by self-confidence entered at the second step, personality factors (emotional stability, extraversion and conscientiousness) entered at the third step and then global level of trait EI on its own entered at the fourth step as presented in Table 4.

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Table 4.
Hierarchical Regression Analysis – Convergent Validity Variables.

| Trait anxiety | | | |
|---------------------------------|--|-----------------------------|----------------------|
| | Beta | t | Partial correlations |
| Step 1 | F(1,220)=143.403 ^{***} , R ² adj. =.393 | | |
| Step 2 | F _{change} (2,220)=58.872 ^{***} , R ² adj. =.520, R ² change =.128 | | |
| Step 3 | F _{change} (5,220)=72.051 ^{***} , R ² adj. =.618, R ² change =.102 | | |
| Step 4 | F _{change} (6,220)=67.450 ^{***} , R ² adj. =.644, R ² change =.028 | | |
| | Beta | t | Partial correlations |
| Positive state of mind (Step 1) | -.629 | -11.975 ^{***} | -.629 |
| Positive state of mind | -.390 | -6.946 ^{***} | -.426 |
| Self-confidence (Step 2) | -.431 | -7.673 ^{***} | -.461 |
| Positive state of mind | -.303 | -5.497 ^{***} | -.351 |
| Self-confidence | -.295 | -5.497 ^{***} | -.351 |
| Emotional stability | -.363 | -7.496 ^{***} | -.455 |
| Extraversion | -.039 | -.862 | -.059 |
| Conscientiousness (Step 3) | -.029 | -.640 | -.044 |
| Positive state of mind | -.204 | -3.511 ^{***} | -.233 |
| Self-confidence | -.233 | -4.330 ^{***} | -.284 |
| Emotional stability | -.326 | -6.874 ^{***} | -.425 |
| Extraversion | .012 | .270 | .018 |
| Conscientiousness | -.006 | -.132 | -.009 |
| Trait EI (Step 4) | -.254 | -4.152^{***} | -.273 |

* $p < .05$, ** $p < .01$, *** $p < .001$

A four-step hierarchical regression was performed to investigate incremental influence of trait EI on trait anxiety with variables supporting convergent validity of trait EI. The positive emotional state of mind was entered at step 1, self-confidence as a part of self-esteem together at step 2, significant personality factors of Big Five together added at step 3 and trait EI on its own at step 4. At step 1, the model was statistically significant and positive emotions referring to positive state of mind (such as pleasure, body vigour, joy and happiness) predicted almost 40% of the variance in trait anxiety, then at step 2, the overall model was also statistically significant ($F_{\text{change}(2,220)}=58.872$; *** $p < .001$) with 52% of the variance in trait anxiety. At step 3 the overall model proved again high statistical significance ($F_{\text{change}(5,220)}=72.051$; *** $p < .001$) with almost 62% of the variance in trait anxiety. The positive emotional state of mind and self-confidence together with personality factor of emotional stability (in the original theory as neuroticism) are negative predictors of trait anxiety. At the final step, trait EI, entered on its own, was again found to be a significant negative predictor of trait anxiety, over and above positive personality and emotion-related variables (as self-confidence, emotional stability and positive emotional state of mind). Trait EI predicted a significant 2.8% of unique variance in trait anxiety after

controlling for three variables supporting convergent validity of trait EI (self-confidence, personality factors of Big Five theory and experienced positive emotions reflecting positive state of mind) with remaining partial correlation of $r = -.273$.

Another hierarchical four-step regression analysis was conducted to determine if trait anxiety as dependent variable could be predicted by discriminant validity variables, as D-type personality entered at the first step, then by negative emotional state of mind entered at the second step, self-depreciation at the third step and then global level of trait EI on its own entered at the fourth step as presented in Table 5.

Table 5.
Hierarchical Regression Analysis – Discriminant Validity Variables.

| | Trait anxiety | | |
|---------------------------------|--|----------------------------|----------------------|
| | Beta | t | Partial correlations |
| Step 1 | F(1,259)=216.599 ^{***} , R ² adj. =.454 | | |
| Step 2 | F _{change} (2,259)=96.428 ^{***} , R ² adj. =.602, R ² change =.148 | | |
| Step 3 | F _{change} (3,259)=20.950 ^{***} , R ² adj. =.630, R ² change =.030 | | |
| Step 4 | F _{change} (4,259)=8.572 ^{**} , R ² adj. =.641, R ² change =.012 | | |
| Type D-personality (Step 1) | .676 | 14.717 ^{***} | .676 |
| Type D-personality | .446 | 9.772 ^{***} | .521 |
| Negative state of mind (Step 2) | .448 | 9.820 ^{***} | .522 |
| Type D-personality | .392 | 8.618 ^{***} | .474 |
| Negative state of mind | .375 | 7.997 ^{***} | .447 |
| Self-depreciation (Step 3) | .206 | 4.577 ^{***} | .275 |
| Type D-personality | .314 | 6.022 ^{***} | .353 |
| Negative state of mind | .340 | 7.124 ^{***} | .407 |
| Self-depreciation | .185 | 4.127 ^{***} | .250 |
| Trait EI (Step 4) | -.157 | -2.928^{**} | -.180 |

* $p < .05$, ** $p < .01$, *** $p < .001$

A four-step hierarchical regression was performed in order to investigate incremental influence of trait EI on trait anxiety with variables supporting discriminant validity of trait EI. Type D-personality was entered at step 1, negative emotional state of mind together at step 2, self-depreciation added at step 3 and trait EI on its own at step 4. At step 1, the model was statistically significant and type D-personality predicted 45% of the variance in trait anxiety, then at step 2, the overall model was also statistically significant ($F_{\text{change}(2,259)}=96.428$; $p < .001$) with 60% of the variance in trait anxiety. At step 3 the overall model proved again high statistical significance ($F_{\text{change}(3,259)}=20.950$; $p < .001$) with 63% of the variance in trait anxiety. All three variables supporting discriminant

validity of trait EI are positive predictors of trait anxiety. At the final step, trait EI was found to be a significant negative predictor of trait anxiety, over and above negative personality and emotion-related variables (type D-personality, self-depreciation and negative emotional state of mind). Trait EI predicted a significant 1.2% of unique variance in trait anxiety after controlling for type D-personality, self-depreciation from self-esteem concept and negative emotional state of mind (experiencing feelings of anger, guilt, shame, fear, pain, and sadness) with remaining partial correlation of $r = -.180$.

4. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

We are aware of several limitations of our research and while describing them we suggest directions for future inquiry. For instance, to operationalize the trait EI validity we used several non-standardized methods, e.g., *Ten-Item Personality Inventory* (TIPI; Gosling, Rentfrow, & Swann, 2003) not reaching quite acceptable inner consistency reliability, then *The type D-personality* (DS14; Denollet, 2005) and *Scale of Emotional Habitual Subjective Well-being* (SEHP; Džuka & Dalbert, 2002). We still emphasize the importance of the trait EI validity verification by other methods because validity is one of the most important procedures for referring the credibility or believability of the research. Another limitation is the research sample size representing just one of the Slovak regions.

Nevertheless, we decided to study validity of the only instrument to assess trait emotional aspects of adolescents in Slovakia, and to provide psychometrically valid and reliable instrument for professional, prevention or intervention purposes. That is why the merits of our research can be seen especially as the contribution to the validation of the trait emotional intelligence construct and its instruments. Some further methodological limitations of the research can be overcome only by follow-up research correcting and expanding the obtained research results.

5. CONCLUSION

The aim of this subsequent and more complex study was to examine the relationship between trait EI and trait anxiety, trait D-personality, personality factors of Big Five theory, self-esteem and emotional habitual subjective well-being variables supporting construct and incremental validity of trait EI in a sample of the Slovak adolescents by the Slovak version of TEIQue-ASF. All three hypotheses were borne out by our data analysis. As stated in the H1, high level of global trait EI corresponds to higher levels of emotional stability, extraversion and conscientiousness out of Big Five theory, self-confidence out of self-esteem construct and positive emotional state of mind proving the convergent validity of trait EI. The H2 was also supported where higher level of trait EI is negatively correlated to trait anxiety, type D-personality, self-depreciation out of self-esteem construct and negative emotional state of mind proving the discriminant validity of trait EI. Convergent and discriminant validity are both considered subcategories of construct validity. Although it is clear from previous studies that the TEIQue (long form) assessed in a sample of adults has good construct and incremental validity (Mikolajczak et al., 2007; Petrides et al., 2007; Nábělková, 2012; Andrei et al., 2016), relatively few have used the short forms and even fewer in a sample of adolescents. Referring to H3, trait EI predicts level of trait anxiety over and above positive and negative personality and affect-related variables showing clear evidence of incremental validity of trait EI also in a sample of the Slovak high school adolescents by the short form of TEIQue-ASF in the Slovak conditions.

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ACKNOWLEDGEMENTS

The research was supported by Scientific Grant Agency in Slovakia, grant project VEGA No. 1/0654/17.

AUTHORS INFORMATION

Full name: Lada Kaliská

Institutional affiliation: Department of Psychology, Faculty of Education, Matej Bel University in Banská Bystrica, Slovakia

Institutional address: Ruzova 13, Banska Bystrica, Slovakia

Short biographical sketch: Lada Kaliská is an Assistant professor of educational, school and counseling psychology at Matej Bel University in Banská Bystrica, Slovakia. She has been interested in educational setting and the factors influencing all-age children's success, performance and behavior at school. She had participated at several research projects of learning styles, moral intelligence, social intelligence and successful intelligence of R.J. Sternberg (as a principal research investigator /2010-2011/). Since 2010, she has been involved in the research projects aimed at trait emotional intelligence construct verification and adaptation of diagnostic instruments of trait EI in the Slovak conditions. Since 2017, she is a principal investigator of a project (VEGA 1/0654/17) aimed at emotional intelligence construct complex and profound verification. She works also as a part-time school psychologist at a high school, and tries to implement the research knowledge into real school setting.

Full name: Eva Sollarova

Institutional affiliation: Department of Psychology, Faculty of Education, Matej Bel University in Banská Bystrica, Slovakia

Institutional address: Ruzova 13, Banska Bystrica, Slovakia

Short biographical sketch: Eva Sollárová is a professor of educational psychology at Matej Bel University in Banská Bystrica, Slovakia. She has established and had been a dean of Faculty of Social Sciences and Health Care, Constantine the Philosopher University in Nitra for 10 years. Her research is in creativity, with an emphasis on creativity stimulating programs for children (from preschool to high-school age), also in academic and practical intelligence, with an emphasis on adapting diagnostic tools to Slovak conditions (as a principal research investigator of the research project on Academic and Practical Intelligence of the Slovak Roma children; APVV, 2006-2009). She has developed the applications of the Person-Centered Approach to management, leadership and coaching, verified by her own research and practical applications.

Chapter #14

EXPLORING BINGE EATING SYMPTOMATOLOGY IN A GENERAL POPULATION SAMPLE

Lynne M. Harris, & Jennifer McKenzie

School of Psychological Sciences, Australian College of Applied Psychology, Australia

ABSTRACT

Binge Eating Disorder (BED) is characterised by the consumption of large amounts of food in a relatively short period of time without compensatory behaviour, such as purging or compulsive exercise. Much of what is known about BED comes from studies of overweight or obese treatment seeking individuals, although around one third of those with BED are in the non-obese weight range. This study examined the predictors of BE symptomatology among those in the normal body mass index (BMI) range (n=223; 88.3% female; mean age 28.7 years) and the overweight / obese BMI range (n=179; 85.5% female; mean age 32.9 years). Participants completed an online questionnaire comprising self-report measures of physical and psychological health, demographics and height and weight. Hierarchical regression analysis indicated that the significant predictors of binge eating symptomatology for those in the normal weight range were age, sex, self esteem, shape concerns, and dietary restraint, accounting for about 71% of variance in the severity of BE symptomatology. For those in the overweight or obese BMI range, sex, emotional regulation, and shape concerns were the only significant predictors, accounting for around 68% of variance in the severity of BE symptomatology. The findings have implications for treatment of individuals with BE symptomatology.

Keywords: binge eating, body mass index, self esteem, restraint.

1. INTRODUCTION

Binge Eating Disorder (BED) was first recognized as a formal diagnostic category in the fifth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-5; American Psychiatric Association [APA], 2013). The diagnostic criteria for BED do not currently include overvaluation of weight and shape, considered transdiagnostic criteria for eating disorders by many (e.g., Fairburn, 2008). It is a common misconception that all of those with BED are overweight or obese, and the majority of research concerning BED has focused on samples that are overweight or obese, limiting the generalisability of findings to non-obese samples.

There is evidence for the usefulness of both cognitive behaviour therapy and pharmacotherapy interventions to treat BED however not all of those with BED respond to these interventions. Participants in published randomised-controlled treatment trials for BED are overwhelmingly female, with body mass indices (BMI) in the overweight or obese range, and selected for the absence of psychological or physical comorbidities (Brownley et al., 2016). This is concerning as this does not represent the characteristics of the majority of those with BED, who frequently have comorbid physical and psychological conditions, about one third of whom are in the underweight or normal weight range (Kessler et al., 2013), and where the lifetime prevalence of BED among males is closer to that of females than for other eating disorders (2.0% and 3.5% for males and females

respectively; Hudson, Hiripi, Pope & Kessler, 2007). Understanding the factors that contribute to the etiology and maintenance of BED in broader community samples is important for developing effective treatments for this disabling condition. The current study sought to examine the predictors of BE symptomatology separately among community samples in the normal weight BMI range and in the overweight / obese BMI range.

2. BACKGROUND

Although the fourth edition of the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV; American Psychiatric Association [APA], 1994) included research criteria for BED, the condition was not recognized as an eating disorder until the publication of the fifth edition of the DSM in 2013 (APA, 2013). The current diagnostic criteria for BED require that an individual has recurrent episodes of binge eating (BE), in which they consume an amount of food much larger than most people would eat in the same discrete time period, at least weekly for three months. The BE is associated with a perception of lack of control and distress, and is characterised by at least three of the following: rapid eating; eating until uncomfortably full; eating when not hungry; eating alone; and experiences of self-disgust, depression or guilt following the eating. Importantly, individuals with BED do not engage in the compensatory behaviours that characterise Bulimia Nervosa (BN; APA, 2013). Although transdiagnostic approaches to understanding the etiology, maintenance and treatment of eating disorders posit that overvaluation of shape and weight are transdiagnostic characteristics of all eating disorders (e.g., Fairburn, 2008), they are not included in the DSM-5 diagnostic criteria for BED (APA, 2013). However, accumulating evidence supports the inclusion of these diagnostic criteria for BED (e.g., Yiu, Murray, Arlt, Eneva, & Chen, 2017).

BED is the most common of the eating disorders with lifetime prevalence close to 2% compared to about 1% for BN (Kessler et al., 2013). Although the likelihood of having a BED diagnosis is two to three times higher for females than males, the prevalence of BED among males is much higher than other eating disorders (Kessler et al., 2013). Comorbidity of both psychological and physical conditions with BED is also very high. Based on analysis of a large international data set, Kessler et al. (2013) reported that almost four in five (79%) of those who met research criteria for BED also met criteria for another DSM-IV disorder and those with BED also had an increased risk of physical problems such as musculoskeletal conditions, diabetes, hypertension, ulcers, and chronic headache. Kessler, et al. (2014) reported that the presence of BED was associated with poorer work and family outcomes, and that these effects were eliminated when the presence of comorbid conditions was statistically controlled. Many of the conditions commonly comorbid with BED are associated with high body weight, and it is a common misconception that all of those with BED are overweight or obese (Fairburn, Cooper, Doll, Norman, & O'Connor, 2000).

There is substantial evidence that overvaluation of shape and weight are characteristic of BED (Goldschmidt et al., 2010; Mond, 2013; Wilson, 2011) and theoretical accounts of BE include overvaluation of shape and weight as important explanatory variables (e.g., Polivy & Herman, 1985; Fairburn, 2008). The dietary restraint model proposed that BE is a response to overvalued views concerning the importance of slimness that drives excessive dietary restraint which in turn leads to increased vulnerability to subsequent disinhibition and overeating. Dieting is therefore understood to be a risk factor for the development of BE symptomatology, and higher scores on measures of dietary restraint are associated with onset of BED (Stice, Presnell & Spangler, 2002). However, up to 65% of those with BED

do not have a history of dieting (Dingemans & van Furth, 2012) so that all cases of BED cannot be explained by a dietary restraint model.

It has been proposed that obesity is an inevitable consequence of BED, with differences in weight attributed to the duration of the illness or severity of symptoms (Dingemans, Bruna, & van Furth, 2002; Dakanalis, Riva, Serino, Colmegna & Clerici, 2017). However, Carrard, Van der Linden, and Golay (2012) recruited 74 treatment seeking women with BED from the community and compared those with BMI ≥ 30 (obese group; $n=30$; 40.5%) to those with BMI < 30 (non-obese group; $n=44$; 59.5%) and found that the groups did not differ in age or severity of symptoms but were significantly different on a measure of dietary restraint, with the non-obese group having a higher mean score than the obese group. Thus, dietary restraint appeared to be more important for those in the non-obese BMI range.

The emotion regulation theory of eating disorders proposes that eating disorders characterized by BE, such as BED, BN and AN (binge-purge subtype), are associated with greater difficulty regulating emotional arousal compared to eating disorders in which BE does not occur, such as AN (restricting subtype; McCurdy, 2010). Svaldi, Griepenstroh, Tuschen-Caffier and Ehring (2012) found that those with AN, BN, and BED had higher levels of emotional intensity, lower levels of acceptance of emotion and emotional awareness, and more dysfunctional emotional regulation strategies compared to a sample without eating disorders. In a study involving obese participants with BED, Gianini, White and Masheb (2013) found a significant relationship between problems with emotional regulation and emotional overeating and general eating pathology after controlling for negative affect. Gianni et al. argued that problems with emotional regulation might contribute to the maintenance of emotional overeating and eating behaviour.

Mason and Lewis (2014) examined the interaction between depressive symptoms, eating styles and BMI in predicting BE symptomatology in a large student sample and found that, although BMI was not correlated with BE symptomatology in the overall sample, the combination of high BMI, depression, and emotional or external eating was associated with greater BE symptomatology. For those with higher BMI and lower maladaptive eating style, depressive symptoms were less predictive in determining BE symptomatology.

Stice and Agras (1998) originally proposed a dual-pathway model whereby problems with dietary restraint and/or negative affect may trigger BE behaviour. Stice et al. (2001) identified sub-types defined by eating patterns and by shape and weight concerns in addition to psychopathology. The authors suggested that the mixed dietary restraint/negative affect sub-type was a more severe variant, with more psychopathology, increased impairment and poorer treatment response compared to the subtype characterised primarily by dietary restraint (Stice et al., 2001). Carrard, Crepin, Ceschi, Golay and Van der Linden (2012) examined a sample of 92 women with threshold and subthreshold BED to determine whether sub-types of BED distinguished by presence of dietary restraint or both dietary restraint and negative affect could be identified. Using cluster analysis these authors reported that about 70% of their sample were dietary restraint only, while the remainder had features of dietary restraint and negative affect and that those with negative affect had more severe symptoms, more frequent BE episodes, higher anxiety, greater impulsivity and were more likely to drop out of treatment. Carrard et al. (2012) argued that understanding the sub-types of BED has important implications for directing effective treatments. However, the majority of Carrard et al.'s (2012) participants were overweight or obese, with only 23% of the sample having a BMI in the normal range. More recently,

Mason and Lewis (2015) reported that the dual pathway model explained BE symptomatology equally well for males and females in a college student sample.

Whilst obesity is not a diagnostic criterion for BED, diagnosis of BED has been found to increase with level of obesity (Didie & Fitzgibbon, 2005; Napolitano & Himes, 2011; Stice, Cameron, Killen, Hayward & Taylor, 1999). BE symptomatology often precedes the onset of obesity, which suggests that BE may be a contributing factor for obesity (Dingemans & van Furth, 2012; Stice et al., 1999), and there is a high prevalence of BE among those seeking treatment for obesity (Dingemans et al., 2002; Riener, Schindler, & Ludvik, 2006). Further, many studies of BED have focused on obese samples that are primarily or exclusively female and treatment seeking, limiting the generalisability of findings to the broader population with BE symptomatology, who may be normal weight, non-treatment seeking and male. Thus, the current study sought to examine the predictors of BE symptomatology separately among community samples in the normal weight BMI range and in the overweight / obese BMI range.

3. METHOD

3.1. Design and procedure

The study was approved by the institutional Human Research Ethics Committee and employed a cross-sectional correlational design. Prospective participants followed a link to information about the study and a further link to an online questionnaire presented using Qualtrics software. Participants were informed that consent was indicated by completion and submission of the online questionnaire.

3.2. Participants

Participants were 18 years and over and were recruited from first year undergraduate psychology students (29.5%) and from the general community (70.5%). Those in the student sample received course credit for their participation and those in the community sample were offered an opportunity to enter a draw to win one of three \$100 store gift vouchers. Of 840 surveys commenced, 454 were submitted, a completion rate of 54%. Of the 454 completed surveys 27 were excluded due to multiple data entry errors ($n=9$), age below 18 years ($n=1$), survey completion time less than 10 minutes ($n=12$) or presence of outliers ($n=5$). The final sample ($N=427$; 87.8% female) had a mean age of 30.46 years ($SD=10.16$; range: 18 – 70 years). The majority (79%) had some post-secondary education. Participants were divided into two groups based on BMI: Normal (BMI 18.50 - 24.99; $n=223$), Overweight or Obese (BMI >25.00 ; $n=179$; Department of Health, 2013).

3.3. Measures

3.3.1. Background questions

Participants completed questions concerning age, sex, education level, diagnosed physical and mental illnesses, psychological treatment history, and self-reported health status.

3.3.2. Binge-Eating scale (BES; Gormally et al., 1982)

The BES is a 16-item measure designed to assess BE severity and was originally developed to measure BE in an obese population. The BES includes questions about behavioural and cognitive aspects of BE, where 14 questions have four alternatives and the remaining questions have three alternatives. Total scores on the BES range from 0 to 46,

with scores below 17 indicating low BE, scores 17 to 27 indicating moderate BE and scores above 27 indicating severe BE (Celio, Whilfley, Crow, Mitchell, & Walsh, 2004). The BES has been reported to have good test-retest reliability ($r = .87$; Timmerman, 1999). The internal consistency in the current sample was good (Cronbach Alpha = .95).

3.3.3. Eating disorders examination questionnaire (EDE-Q) (Fairburn & Beglin, 1994)

The EDE-Q comprises 28 questions about eating disorder symptomatology associated with binge eating, dietary restraint, compensatory behaviours, and shape and weight concerns along with questions concerning height, weight, and menstruation. The EDE-Q provides four subscale scores (Dietary Restraint, Eating Concerns, Weight Concerns, and Shape Concerns) and a Global score which is the average of the four sub-scales. The sub-scale questions are rated on likert scales that range from 0 to 6, where scores on each scale reflect averages across items and therefore also range from 0 to 6, and where higher scores indicate more severe symptomatology. The EDE-Q subscales have adequate internal consistency, with Cronbach Alpha coefficients for the subscales ranging from .57 to .77, with Cronbach Alpha for the EDE-Q Global scale of .79 (Mond, Hay, Rodgers, Owen, & Beumont, 2004). The EDE-Q has demonstrated validity in the assessment of BE in community samples (Mond et al., 2004). In the current sample, the reliability of the instrument was lower than in previous work with Cronbach Alphas of .67 for the EDE-Q Global scale and .65, .69, .71 and .56 for the EDE-Q Restraint, EDE-Q Eating Concerns, EDE-Q Shape Concerns and EDE-Q Weight Concerns subscales respectively.

3.3.4. Depression, anxiety & stress scale-21 (DASS-21) (Lovibond & Lovibond, 1995)

The DASS-21 is a 21-item questionnaire that measures symptoms of depression, anxiety and stress over the past seven days. The scale is comprised of three 7-item sub-scales (Depression, Anxiety and Stress) and all items are measured using a 4-point Likert scale that ranges from 0 to 3. Scores are summed to contribute to three subscales of seven items each, and scores on each sub-scale are doubled so that they range from 0 to 42 for comparison with norms from the original 42 item DASS. The Depression and Anxiety scales have been found to measure features that are unique to depression and anxiety, whilst the Stress scale measures features of both (Antony, Bieling, Cox, Enns, & Swinson, 1998). As such, only the DASS-21 Depression and DASS-21 Anxiety subscales were used for our analyses. The DASS-21 has high internal consistency with Cronbach Alphas for the Depression and Anxiety subscales of .94 and .87 respectively (Antony et al., 1998) and in the current sample internal consistency was high (.94 for the Depression subscale; .89 for the Anxiety subscale).

3.3.5. Satisfaction with life scale (SWLS) (Diener, Emmons, Larsen, & Griffin, 1985)

The SWLS is a 5-item measure of subjective well-being measured on a 7-point Likert scale so that total scores range from 5 to 35 with higher scores suggesting greater satisfaction with life. The SWLS has been found to have high internal consistency and test-retest reliability and scores correlate moderately to highly on other measures of subjective well-being (Diener et al., 1985). In the current sample, Cronbach Alpha was .93.

3.3.6. Rosenberg self esteem scale (RSES) (Rosenberg, 1965)

The RSES is a 10-item measure of self-esteem with scores ranging from 0 to 30 and higher scores reflecting greater self-esteem. Test-retest reliability is high, with correlations of .85 and .88 (Rosenberg, 1965). In the current sample, Cronbach Alpha was .94.

3.3.7. Difficulties in emotion regulation scale (DERS) (Gratz & Roemer, 2004)

The DERS is a 36-item measure that provides a total score and scores for subscales of non-acceptance of emotional responses, difficulties engaging in goal directed behaviour, impulse control difficulties, lack of emotional awareness, limited access to emotion regulation strategies, and lack of emotional clarity. The total score range is 36 to 180 with higher scores suggesting problems with emotional regulation. Gratz and Roemer (2004) reported intraclass correlation coefficients for test-retest reliability of .88 for the total DERS and in the current sample, Cronbach Alpha was .88 for the total DERS.

3.3.8. Body mass index (BMI)

BMI was calculated based on self-reported height in centimetres and weight in kilograms using the formula $BMI = \text{kg}/\text{m}^2$. The BMI is a reliable index of adiposity (Stice et al., 1999).

4. RESULTS

The data were analysed using the Statistical Package for Social Sciences (SPSS) Version 2. The characteristics of the sample are summarised in Table 1. There was a significant difference between the groups based on BMI in age, where those in the normal BMI range were significantly younger than those in the overweight or obese range. In terms of eating disorder symptomatology, those in the overweight or obese range had significantly higher scores than those in the normal range on EDE-Q shape concerns and EDE-Q weight concerns but significantly lower scores on EDE-Q eating concerns. Overall, there were no differences between the groups on the EDE-Q global score. There was a significant association between BMI group and self-assessed health, where fewer people in the overweight and obese group rated their health as very good or excellent (33.5%) compared to the normal BMI group (46.2%) and more rated their health as fair or poor (36.3%) compared to the normal BMI group (22.9%; see Table 1). There were no other significant differences between the groups based on BMI category.

Table 1.
 Characteristics of the Sample (N = 427).

| | Normal BMI range (n = 223) | Overweight or Obese BMI range (n = 179) | Total (N=427) |
|------------------------------|----------------------------------|--|------------------|
| Mean age in years (SD) | 28.7 (9.7) | 32.9 (10.6)** | 30.6 (10.3) |
| No. female (%) | 197 (88.3) | 153 (85.5) | 350 (87.1) |
| No. Physical diagnoses (%) | 94 (42.2) | 79 (44.1) | 173 (43.0) |
| No. Psych. diagnoses (%) | 126 (56.5) | 110 (61.5) | 236 (58.7) |
| No. self-assessed health (%) | | | |
| Excellent | 29 (13.0) | 14 (7.8)* | 43 (10.7) |
| Very Good | 74 (33.2) | 46 (25.7) | 120 (29.9) |
| Good | 69 (30.9) | 54 (30.2) | 123 (30.6) |
| Fair | 35 (15.7) | 50 (27.9) | 85 (21.1) |
| Poor | 16 (7.2) | 15 (8.4) | 31 (7.7) |
| BES Total | 17.8 (12.9) | 20.8 (12.3)* | 19.1 (12.7) |
| EDE-Q Total | 5.9 (.86) | 6.0 (.72) | 6.0 (.80) |
| EDE-Q Restraint | 6.0 (1.5) | 5.9 (1.3) | 5.9 (1.4) |
| EDE-Q Eating Concerns | 5.9 (1.5) | 5.6 (1.5)* | 5.7 (1.5) |
| EDE-Q Shape Concerns | 6.1 (1.4) | 6.5 (1.3)* | 6.3 (1.3) |
| EDE-Q Weight Concerns | 5.7 (1.7) | 6.2 (1.4)** | 5.9 (1.6) |
| DASS-21 Depression subscale | 13.8 (6.3) | 13.4 (5.7) | 13.6 (6.0) |
| DASS-21 Anxiety subscale | 12.2 (4.9) | 11.7 (4.8) | 12.0 (4.9) |
| SWLS | 21 (8.1) | 20.1 (8.1) | 20.6 (8.1) |
| RSES | 16.7 (7.6) | 16.9 (6.7) | 16.8 (7.2) |
| DERS | 101.3 (20.9) | 97.7 (18.8) | 99.7 (20.1) |

Note. BMI: Body Mass Index; No. Physical diagnoses: at least one of coronary heart disease, cancer, asthma, bronchitis, osteoporosis, diabetes, irritable bowel syndrome reported; No. Psychological diagnoses: at least one of depression, anxiety, schizophrenia, bipolar disorder reported. BESTotal: Binge Eating Scale Total score; EDE-Q: Eating Disorder Examination-Questionnaire; DASS-21: 21 item Depression, Anxiety and Stress Scale; SWLS: Satisfaction with Life Scale; RSES: Rosenberg Self-Esteem Scale; DERS: Difficulties in Emotional Regulation Scale. * p<.05; **p<.004

Hierarchical regression was used to examine predictors of BES Total in the two samples based on BMI. Data screening was conducted for all variables and univariate outliers were identified by calculating z-scores. Multivariate outliers were assessed by calculating the Mahalanobis distance with $p < .001$ and outliers were removed. The data were analysed using parametric tests robust to violations of the assumptions of skewness and kurtosis at sample sizes above $N > 50 + 8m$, where m is the number of predictor variables (Tabachnick & Fidell, 2013). Variables included in the hierarchical regression analysis had multicollinearity $< .70$, and all variables included in the analyses correlated significantly with BES Total. Only EDE-Q Shape Concerns, rather than both EDE-Q Shape Concerns and EDE-Q Weight Concerns, was included in the analyses because EDE-Q Shape Concerns and EDE-Q Weight Concerns were highly correlated ($r = .88$, $p < .001$) and because the internal consistency of EDE-Q Shape Concerns was higher (Cronbach Alpha = .71).

Tables 2 and 3 present the results of hierarchical regression analyses predicting BES Total from age and sex (Step 1), SWLS and RSES (Step 2), DERS and DASS-21 Depression (Step 3), and EDE-Q Restraint and EDE-Q Shape Concerns (Step 4) separately for those in the normal BMI range (Table 2) and those in the overweight and obese BMI range (Table 3). It is apparent that the eight variables account for a similar proportion of the variability in each sample (70.7% for those in the normal BMI range and 67.5% for those in the overweight and obese BMI range). It is also apparent that the significant predictors are somewhat different for the two samples. For those in the normal BMI range, at Step 4 the significant predictors of BES Total were age, sex, RSES, EDE-Q Restraint and EDE-Q Shape Concerns (see Table 2). For those in the overweight and obese BMI range, at Step 4 the significant predictors of BES Total were sex, DERS and EDE-Q Shape Concerns (see Table 3).

Table 2.
Hierarchical Regression Model predicting BES Total – Normal BMI range (N=223).

| Predictors | <i>R</i> | Adjusted <i>R</i> ² | <i>R</i> ² Change | <i>B</i> | SE | β | <i>t</i> |
|----------------------|----------|--------------------------------|------------------------------|----------|------|---------|----------|
| Step 1 | 0.48 | 0.22 | 0.23** | | | | |
| Age | | | | -.52 | .08 | -.39 | -6.56** |
| Sex | | | | 9.98 | 2.39 | .25 | 4.17** |
| Step 2 | 0.78 | 0.61 | 0.38** | | | | |
| Age | | | | -.18 | .06 | -.14 | -3.00* |
| Sex | | | | 6.04 | 1.74 | .15 | 3.46* |
| SWLS | | | | -.17 | .10 | -.11 | -1.74 |
| RSES | | | | -1.01 | .11 | -.59 | -8.95** |
| Step 3 | 0.79 | 0.71 | 0.01* | | | | |
| Age | | | | -.14 | .06 | -.11 | -2.23* |
| Sex | | | | 6.08 | 1.73 | .15 | 3.53* |
| SWLS | | | | -.03 | .12 | -.02 | -.27 |
| RSES | | | | -.84 | .13 | -.49 | -6.49** |
| DERS | | | | .04 | .04 | .06 | 1.03 |
| DASS-21 Depression | | | | .37 | .18 | .18 | 1.99* |
| Step 4 | 0.85 | 0.72 | 0.10** | | | | |
| Age | | | | -.13 | .06 | -.10 | -2.30* |
| Sex | | | | 4.21 | 1.53 | .11 | 2.75* |
| SWLS | | | | .04 | .10 | .02 | .39 |
| RSES | | | | -.55 | .12 | -.32 | -4.69** |
| DERS | | | | .05 | .03 | .08 | 1.45 |
| DASS-21 Depression | | | | .19 | .16 | .10 | 1.15 |
| EDE-Q Restraint | | | | -.74 | .34 | -.08 | -2.16* |
| EDE-Q Shape Concerns | | | | 3.79 | .45 | .40 | 8.39** |

* $p < 0.05$; ** $p < 0.001$; BES Total: Binge Eating Scale Total; EDE-Q: Eating Disorder Examination-Questionnaire; DASS-21: DASS-21: 21 item Depression, Anxiety and Stress Scale; SWLS: Satisfaction with Life Scale; RSES: Rosenberg Self-Esteem Scale; DERS: Difficulties in Emotional Regulation Scale

Table 3.
Hierarchical Regression Model predicting BES Total – Overweight or Obese BMI range
($N=179$).

| Predictors | R | Adjusted R^2 | R^2 Change | B | SE | β | t |
|----------------------------|------|----------------|--------------|-------|------|---------|---------|
| Step 1 | 0.43 | 0.19 | 0.19** | | | | |
| Age | | | | -.30 | .08 | -.26 | -3.79** |
| Sex | | | | 12.77 | 2.38 | .37 | 5.38** |
| Step 2 | 0.74 | 0.54 | 0.36** | | | | |
| Age | | | | -.10 | .06 | -.09 | -1.61 |
| Sex | | | | 7.90 | 1.84 | .23 | 4.29** |
| SWLS | | | | -.22 | .11 | -.14 | -2.01* |
| RSES | | | | -.98 | .14 | -.53 | -7.21** |
| Step 3 | 0.77 | 0.58 | 0.05** | | | | |
| Age | | | | -.07 | .06 | -.06 | -1.23 |
| Sex | | | | 7.38 | 1.76 | .21 | 4.19** |
| SWLS | | | | -.15 | .10 | -.10 | -1.42 |
| RSES | | | | -.61 | .16 | -.33 | -3.84** |
| DERS | | | | .13 | .05 | .19 | 2.76* |
| DASS-21 Depression | | | | .35 | .19 | .16 | 1.86 |
| Step 4 | 0.83 | 0.68 | 0.10** | | | | |
| Age | | | | -.10 | .05 | -.09 | -1.91 |
| Sex | | | | 4.48 | 1.60 | .13 | 2.81* |
| SWLS | | | | -.13 | .09 | -.09 | -1.45 |
| RSES | | | | -.20 | .15 | -.11 | -1.33 |
| DERS | | | | .10 | .04 | .15 | 2.52* |
| DASS-21 Depression | | | | .26 | .16 | .12 | 1.58 |
| EDE-Q Restraint | | | | .11 | .40 | .01 | 0.27 |
| EDE-Q Shape Concerns | | | | 4.25 | .58 | .44 | 7.33** |

* $p < 0.05$; ** $p < 0.001$; BES Total: Binge Eating Scale Total; EDE-Q: Eating Disorder Examination-Questionnaire; DASS-21: DASS-21: 21 item Depression, Anxiety and Stress Scale;; SWLS: Satisfaction with Life Scale; RSES: Rosenberg Self-Esteem Scale; DERS: Difficulties in Emotional Regulation Scale

5. DISCUSSION

This study sought to examine predictors of BE symptomatology in a general population sample divided into groups based on BMI. There were significant differences between the groups in age and several measures of eating symptomatology, with the overweight and obese group significantly older, with higher BES Total, EDE-Q Shape Concerns and EDE-Q Weight Concerns, although significantly lower EDE-Q Eating Concerns. There was also a significant association between BMI group and self-assessed health, where the normal BMI range group were more likely to report that their health was very good or excellent and less likely to report that it was fair or poor. This is consistent with extensive literature indicating that BMI in the overweight and obese range is associated with poorer health (e.g., Kessler et al., 2014).

The regression analyses showed that predictors of BE symptomatology varied with BMI, where younger age, female sex, lower self esteem, dietary restraint and shape concerns were significant predictors of higher BES score for those in the normal BMI range, while for those in the overweight and obese BMI range female sex, DERS score, and shape concerns were the only significant predictors. Importantly, low self esteem, considered a transdiagnostic indicator of eating disorder symptomatology (e.g., Le Marne & Harris, 2016), was a significant predictor of BE symptomatology only for those in the normal BMI group. Emotional regulation was independently associated with BE symptomatology only for those in the overweight and obese BMI range and symptoms of depression were not associated with BE symptoms in either group, which is inconsistent with Mason and Lewis' (2014) findings that for those with higher BMI, depressive symptoms were important predictors of BE symptomatology. However, Mason and Lewis (2014) did not measure emotional regulation, which was positively correlated with depression in the present sample ($r=.69$, $p<.001$), and when the present analysis was repeated excluding the DERS depression emerged as a significant independent predictor of BES Total. It is suggested that, consistent with emotional regulation theory, BE symptomatology is associated with difficulty regulating emotional arousal after controlling for negative affect, particularly for those in the overweight and Obese BMI range.

The findings provide support for the dual-pathway model. For those in the normal BMI range, bingeing was predicted by restraint, however, for those in the overweight/obese range difficulties with emotional regulation, but not restraint, predicted BE, which is somewhat consistent with the findings of earlier work (Dingemans & van Furth, 2012). Whilst not a key diagnostic marker for BED in terms of DSM-5 criteria, overvaluation of shape was a significant predictor of BE symptom severity in both BMI samples, and this is consistent with the transdiagnostic model of eating disorders (Fairburn, 2008; Goldschmidt et al., 2010; Mond, 2013; Wilson, 2011).

Limitations of the current study must be recognised. Whilst this study gathered information from a large community sample all data was self-report and there was no objective assessment of BMI. However, as the survey was anonymous, the motivation to misrepresent sensitive information in socially desirable ways may be expected to be low. However, replication incorporating objective and externally validated measures is warranted.

7. CONCLUSION

BED has been recognised since the publication of DSM-5 in 2013 as a distinct eating disorder and is associated with significant distress and disability. Developing effective treatments for BED requires that the expression of the condition is well understood. While much previous research on BED has focused on samples in the overweight or obese BMI range the present findings suggest that the predictors of BE are different for those in the normal BMI range. The findings are consistent with earlier work indicating that dietary restraint, shape and weight concerns, and emotional dysregulation are all strongly associated with BE, although the DSM-5 diagnostic criteria for BED do not recognise overvaluation of weight and shape as important contributors to BED. The findings of the present study imply that psychological interventions for BED should focus on dietary restraint for those in the normal BMI range and on improving emotional regulation for those in the overweight / obese BMI range.

6. FUTURE RESEARCH DIRECTIONS

Future research examining the predictors of BED symptomatology in clinical samples stratified by BMI will be important for validating these findings. Research examining the effectiveness of interventions targeted at the factors maintaining BE in those in the normal BMI range and those in the overweight and obese range is also warranted.

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AUTHORS INFORMATION

Full name: Lynne Maree Harris

Institutional affiliation: Australian College of Applied Psychology

Institutional address: 255 Elizabeth Street Sydney 2000

Short biographical sketch: Lynne Harris is a clinical psychologist and academic. She has worked as a psychologist in hospital, specialist university clinics and private practice settings. For almost twenty years she worked at the University of Sydney where she served as Associate Professor and Head of School, Associate Dean (Undergraduate Studies) and Associate Dean (Learning and Teaching). She is currently head of the School of Psychological Sciences at the Australian College of Applied Psychology. Her published psychological research has focused on depression, anxiety (specific phobia, social phobia, and obsessive compulsive disorder), work stress and responses to serious medical diagnoses, problem drinking, and eating disorder symptomatology.

Full name: Jennifer McKenzie

Institutional affiliation: Australian College of Applied Psychology

Institutional address: 255 Elizabeth Street Sydney 2000

Short biographical sketch: Jennifer McKenzie is a practicing psychologist with a background in corporate and clinical settings and in clinical research. She has a range of experience, including human resources, organisational psychology settings, psychiatric research and clinical psychology practice. Jennifer has worked in private and public hospitals providing workshops, group development and facilitation and individual treatment. She has previously worked at the University of Sydney Woolcock Institute of Medical Research and at the Brain and Mind Research Institute in the treatment and research of sleep and circadian disorders, neurodegenerative disorders, mood and anxiety disorders and neuropsychological functioning. She has also worked at the National Drug and Alcohol Research Centre at the University of NSW in the area of drug and alcohol treatment and research. She has a keen interest and extensive experience in co-morbid and complex mental health issues.

Chapter #15

PERSONALITY, GENDER AND ETHNIC DIFFERENCES IN ASSESSMENT OF CHRONIC PAIN SYNDROME (CPS)

Abraham Azari Argun

Argun Affiliated psychological Services (www.argunaps.com), Newport Beach, California, USA

ABSTRACT

Chronic pain syndrome (CPS), a multifaceted biopsychosocial phenomenon, is a great medical, quality of life and socioeconomic concern, leading up to many permanent total disabilities, drug overdose and deaths in USA. Multiple variables may be associated with this problem. Psychologically, certain patterns on MMPI-2 have been associated with CPS. This archival study examined a sample (N=275) of industrially injured patients with CPS for the effects of gender, ethnicity, marital status and personality disorders, psychometrically. First, P-3 & MBMD for the initial screening and if necessary, MMPI-2 and MCMI-III were administered. The sample was cleaned up by excluding the invalid protocols. Descriptive statistics and one-way analysis of variance were used to examine personality scales of the MCMI-III and clinical scales of the MMPI-2. Only a few scales measured significant effects for marital status, but significant gender and ethnicity effects were shown on several scales of MMPI-2, MCMI-III and MBMD at $^{**}p<.01$ and $^{*}p<.05$. MCMI-III severe personality disorders highly correlated with MMPI-2 pathologically disabling patterns. Certain personality types may be more susceptible to CPS. Limitations, lack of randomized sampling and control group, with implications to assessment, treatment and med/legal evaluations, will be discussed along with suggestions for future research.

Keywords: pain, personality, gender, ethnicity, MBMD, MCMI-III, MMPI-2.

1. INTRODUCTION

Response to and coping with chronic pain has been a serious subject of studies biopsychosocially for decades. Medical model and related policy making agencies in the United States are facing critically high rates of permanent total disabilities (PTD) and deaths due to chronic pain and overdose on opioids, many of which might have started with Motrin, Vicodin or Norco for pain management that progressively lead up to tolerance and dependency on Oxycontin and heroin for pain management, Xanax for anxiety and insomnia management. According Center for Disease Control and Prevention (CDC: December 30, 2016) 61% of 47055 drug overdose deaths involved an opioid in 2014. Unintentional opioid overdose deaths, driven by commonly prescribed opioids, heroin and synthetic opioids like Fentanyl have continued to increase so rapidly (more than 59000 deaths in 2016) that President Trump on October 26, 2017 directed the Department of Health and Human Services to declare the opioid crisis a public health emergency. In no professional or media discussions around this crisis, alternative and adjunctive assessment and treatment approaches, including, personality assessment based bio-psycho-social treatment approaches to chronic pain assessment, treatment and functional restoration have been brought up adequately yet.

Back in 2001 the writer initiated an interdisciplinary semi day treatment program, Team Power- for orthopedically injured patients suffering chronic pain with secondary symptoms of stress, anxiety, depression and insomnia. Every referral was screened by the team's main staff that included clinical psychologist, physical therapist and physiatrist. Knowing that chronic pain is a syndrome that may have multiple bio-psycho-social causal factors, this archival study has examined a possibility of certain personalities being more susceptible to developing chronic pain syndrome (CPS) and drug dependence.

Research in different areas of pain assessment, in recent years, has led us to new understandings of chronic pain and fibromyalgia syndrome (CPS). Neurochemistry and endocrinology of acute and chronic pain appear to be totally different, not only through out the peripheral and autonomic nervous systems but also in the central nervous system, perception of the injury and pain as a life changing traumatic and catastrophic, changes the neurochemistry of the central nervous system (Mailis-Gagnon, Granolas, Downer, & Kwan 2003; Nijis & Van Houdenhove, 2009). Not every acute injury and pain, regardless of the severity of the injury, becomes a CPS. This has raised interesting biopsychosocial questions.

There seems to be significant differences between localized acute pain and generalized chronic pain/ fibromyalgia syndrome, neuro- physiologically (Nijis & Van Hoodenhove, 2009) and psychologically/psychometrically (Gatchel, 1997; Turk & Gatchel, 2002; Gatchel, Kishino, & Robinson, 2006). In the process of pain becoming chronic and generalized, recent research has indicated central pain pathways getting over-sensitized. Functional MRI studies on patients with CPS also, have shown altered somatosensory – evoked responses in specific forebrain areas (Mailis-Gagnon et al, 2003).

Gatchel and his colleagues have found a psycho- pathologically disabling pattern on MMPI-2 to be associated with CPS. In his view, patients with borderline personality disorders are more likely to become disabled due to chronic pain (Gatchel, 1997 & 2006). Therefore many questions are raised about contributions of the personality traits and disorders to the development of CPS, drug dependence and temporary or permanent disabilities as results of CPS. Gatchel and others have already identified three distinct patterns on the MMPI-2 profiles of chronic pain patients: a. The Classic “conversion V” (MMPI-2 Scales 1&3>2, all three with T-Scores 65 or greater). b. The “Neurotic Triad” pattern in which the MMPI-2's scale 2 is significantly more elevated than the Scale 1 and 3. And c. The “pathologically disabling” pattern is one of the focuses of this study. This pattern on the MMPI-2 of the CPS patients has four or more clinical scales significantly elevated.

Common psychometric patterns of clinical psychopathology associated with CPS and disability were examined and presented at Society for Personality Assessment- 2008 convention in New Orleans, Louisiana. (Argun & Singleton, 2008), with the use of the MMPI-2(Hathaway et al., 1989), MCMI-III (Millon, Davis, & Millon, 1997), MBMD (Millon, Antoni, Millon, Meagher, & Grossman, 2001) and P-3 (Tollison & Langley 1995) as the objective measurements. A case study of one of these CPS patients with assessment, treatment and treatment outcome evaluation data was presented in 2013 (InPACT. Madrid, Spain. 2013). Current study has further focused on the personality, gender, ethnicity and marital status effects on the same archival sample. These effects are measured with the use of the same objective psychometric measures, P-3, MBMD, MCMI-III and MMPI-2 for a more individualized and evidence based treatment planning, diagnostic specificity, in differential diagnostic assessment of CPS patients.

This study examines the complimentary use of the MCMI-III with MMPI-2 for more diagnostic specificity and increased incremental validity in differential diagnostic assessment of CPS. Present study has also, looked into the gender, marital status and culture/ethnicity as differentiating variables. Several studies have looked into the effects of gender, age, ethnicity/race/genetics and culture on pain perception, coping with and adjustment to chronic pain and disability issues (Unruh, 1996), but mostly based on interviews and or self rated pain perception measurements or biological, genetic models. Most psychological research in this area have focused on the assessment (Gatchel, 2004), self efficacy, depression and disability (Amstein, Wells-Federman, & Caudill, 2001) and cognitive behavioral treatment and management of chronic pain (Jensen, Romano, Turner, Good, & Wald 1999).

2. DESIGN AND OBJECTIVES

The main objectives of this study were the complimentary relationship between the MCMI-III and MMPI-2 in identifying the three patterns of “conversion V”, the ‘neurotic Triad’ and the “pathologically disabling” patterns in this population. It has specifically looked into the ability of MCMI-III severe personality disorder scales in defining the significance of the MMPI-2 Patterns in this population. It was hypothesized that because of the promising construct validity of the MCMI-III, this test may be able to break down the MMPI-2 patterns into more specific personality traits or disorders. The study’s special interest was in the ability of the MCMI-III to detail further the ‘pathologically disabling’ patterns on the MMPI-2. The secondary objectives of this study were to also, look into the effects of independent variables (IVs) such as gender, ethnicity, and marital status, as measured by MMPI-2, MCMI-III, MBMD and P-3.

3. METHOD

3.1. Subjects

All patients (N=275) included in this study were non-cancer “chronic pain patients”, who had medical evidence of orthopedic and or psychological industrial injuries who had gone through exhaustive medical examinations and treatments, including but not limited to pain, anti-inflammatory, neuromuscular relaxation, sleep and anxiety medications, physical therapy, epidural injections and acupuncture. Many of these patients had, also, undergone through one or more “failed” orthopedic surgeries and fusions. There were 108 males and 167 females , 57% Caucasian American, 23% Hispanic American , 9% African American, 3% Asian American, and 7% others. Patients were first administered the P-3 and MBMD as parts of the initial screening and admission to a Biopsychosocial pain management program, Team Power. MMPI-2 and MCMI-III were administered only when multiple elevations were obtained on MBMD and P-3 scales (See Table1 below).

3.2. Instruments

Minnesota Multiphasic Personality Inventory (MMPI-2) (Hathaway et al., 1989), Millon Clinical Multiaxial Inventory (MCMI-III) (1997) The Millon Behavioral Medical Diagnostic (MBMD) (Millon et al., 2001, and Pain Patient Profile (P-3) (Tollison & Langley 1995) were used as the objective measures in this study. MMPI-2 is a well known psychometric test with 567 True-False items for personality assessment. It has the best reputation for clinical and forensic differential diagnosis and assessment of malingering.

MMPI-2 has been used clinically and forensically for multiple purposes including pain assessment for decades (Hathaway et al., 1989, Gatchel, 1997 & 2006).

Millon Clinical Multiaxial Inventory (MCMI-III) (1997) consists of 175 multiple choices, true-false items. It was used for its complimentary incremental validity purpose with MMPI-2 in this study. MCMI-III is a clinical and personality test, designed to differentiate Axis II traits and severe personality disorders from Axis I clinical syndromes. It is a base rate based instrument, constructed in early 1980s by Theodore Millon (Millon et al. 1997). In this study it was included in the battery for the purpose of ruling out pre-morbid personality traits/ disorders and cross validate on the clinical syndromes with MMPI-2.

The Millon Behavioral Medical Diagnostic (MBMD) (Millon et al., 2001) is a base rate based inventory of 165 True –False items, designed to provide important clinical psychological and psychophysiological information, often used in pre-surgical psychological clearance evaluations as well. MBMD was standardized on patients with physical/medical illnesses and chronic pain. The test is structured for adult patients, ages 18-85 with at least 8th grade level education, who are undergoing medical care or surgical evaluations with possible psycho-social problems impeding the medical procedures and recovery.

Pain Patient Profile (P-3) (Tollison et al., 1995) is a 44 item multiple-choice self-report instrument constructed to assess patients who may be experiencing emotional distress, secondary to pain. The instrument has three clinical scales of Somatization (Som), Anxiety (Anx) and Depression (Dep) with a Validity Index to assess the probability of random responding, exaggeration or comprehension difficulties. P-3 is standardized on both pain patients and samples from the community. P-3 can be administered in 15-20 minutes to 17 – 76 years old patients who have at least 8th-grade level reading and comprehension abilities.

3.3. Procedures

These patients were all involved in the initial screening including, clinical interview, mental status examination, medical records review and administration of a screening package that also included P-3 and MBMD. When the two profiles of the MBMD and P-3 were positive significantly for wide spread symptoms of psychopathology, the patient then was further assessed with administration of the MCMI-III and MMPI-2, to rule out premorbid and/or co morbid mental and/or personality disorders and malingering.

For this study, the original archive of 275 protocols was cleaned up. The invalid protocols were excluded from the sample. A total of 169 P-3 protocols (67 male and 102 females), 221 MBMD (84 males and 137 females), 185 MMPI-2 (76 males and 109 females) and 190 MCMI-III protocols (75 males & 115 females) were qualified for this study. The Analysis included both descriptive statistics and One-Way ANOVA. Three Variables were created for MCMI-III severe personality disorders scales of Schizotypal “S”, Borderline “C”, & paranoid “P” as: a. “Low” group with base rate score(BR) of 0-74; b. “Moderate” group with BR of 75-84; and c. “Elevated” group with BR of 85+.

The Analysis, also, included: a. Correlating the overall S, C, and P grouped scores with the MMPI-2 basic clinical scales, 1-0; b. ANOVAs that were run for the S, C, and P groups across all of the basic clinical scales of the MMPI-2; and c. Also,, graphically evaluated the MMPI-2 basic clinical scales as well as the Restructured Clinical Scales (RC) and PSY-5 Scales across the MCMI-III groups. The PSY-5 Scales were eventually excluded because of insignificant low scores across the board.

4. FINDINGS

4.1. Clinical and personality patterns

Total of 185 subjects (n=185) showed significant elevations (T-Scores > 65) on MMPI-2 scales of 3, 2, 1, 8, 7& RC1. There were no significant gender differences in the order of the severity on the MMPI-2 scales. Both men and women’s significant scores on the MMPI-2, from the most severe to the least, were on the scales 3, 1, 2 (Conversion Valley), RC1 (Som = Somatic Complaints), 8, &7(Cognitive and emotional problems).

Correlation analysis between the MMPI-2 basic clinical and MCMI-III severe personality disorder scales of Schizotypal (S), Borderline (C), and Paranoid (P) indicated the strongest correlations between the Scales 2 (D), 6(Pa), 8(Sc) & 0(Si) on the MMPI-2 and three scales of S, C, and P on the MCMI-III at ***p<.001. There was also a strong correlation between the scale 4 (Pd) of the MMPI-2 and the scale C of the MCMI-III at ***p<.001. The scales S and C of the MCMI-III also correlated strongly with the scale 7(Pt) of the MMPI-2 at ***p<.0001. Scale 9 (Ma) on MMPI-2, also, correlated strongly with the C scale of the MCMI-III at ***p<.0001. It should be noted that correlations .30 or below were not included in this analysis despite significant levels at **p<.01 and *p<.05. In putting the strongest correlations above in order, the Borderline personality disorder scale (C) correlated with seven of the MMPI-2 scales respectively, from high to low, with scales 8, 7,6,2,4, 9, &0. The schizotypal personality disorder scale (S) correlated highly with 5 of the MMPI-2 scales of 0, 9, 7, 6, &2. The Paranoid personality disorder scale (P) only correlated with 4 of the MMPI-2 scales 0, 6, 8, & 205 (Table1 below).

Table1.
Significant Correlations between MMPI-2 basic scales & MCMI-III severe personality scales.

| | <i>MCMI-II:Scale S</i> | <i>Scale C</i> | <i>Scale P</i> |
|-----------------------|------------------------|-----------------|-----------------|
| <i>MMPI-2 Scales:</i> | | | |
| <i>Scale2(D)</i> | <i>0.445***</i> | <i>0.465***</i> | <i>0.312***</i> |
| <i>Scale4 (Pd)</i> | <i>0.236**</i> | <i>0.456***</i> | <i>0.133</i> |
| <i>Scale6 (Pa)</i> | <i>0.446***</i> | <i>0.505***</i> | <i>0.326***</i> |
| <i>Scale7 (Pt)</i> | <i>0.466***</i> | <i>0.562***</i> | <i>0.270***</i> |
| <i>Scale8 (Sc)</i> | <i>0.514***</i> | <i>0.592***</i> | <i>0.323***</i> |
| <i>Scale9 (Ma)</i> | <i>0.165*</i> | <i>0.271***</i> | <i>0.193*</i> |
| <i>Scale0 (Si)</i> | <i>0.550***</i> | <i>0.439***</i> | <i>0.451***</i> |

Personality, Gender and Ethnic Differences in Assessment of Chronic Pain Syndrome (CPS)

The MCMI's Borderline personality disorder scale (C) had the highest correlation of .100 with the scale 8 (Sc), the psychotic triad of the MMPI-2. Both Schizotypal (S) and Paranoid (P) scales of the MCMI's highest correlations of .74 - .80 were with the scale 0 (Si) (social isolation) of the MMPI-2. RC1 (Somatic Complaints) of the MMPI-2 correlated highly and consistently with all three severity groups of Schizotypal (S), Borderline (C) and Paranoid (P). Other findings suggested the MCMI-III "Low" group associating with the MMPI-2 "Conversion V". The "Moderate" and "Elevated" groups of scores were not significantly different and correlated with both the neurotic triad and psycho-pathologically disabling patterns (Table2).

Table2.
Means, Standard Deviations, n, F ratio & eta squared for MCMI-III Scales S, C, & P (Low, Moderate and Elevated Groups) on MMPI-2 Basic Scales.

| MCMI-II: Scale S : Low: n=118 | | Moderate: n=2 | Elevated: n= 43 | | |
|-------------------------------|----------------|----------------|-----------------|--------|---|
| | M (SD) | M (SD) | M (SD) | F | P |
| r2 | | | | | |
| <i>MMPI-2 Scales:</i> | | | | | |
| Scale0 | 53.56(11.099) | 62.62 (12.147) | 57.84 (11.687) | 7.281 | |
| .001 | .074 | | | | |
| MCMI-II: Scale C: Low: 103 | | Moderate: n=21 | Elevated: n= 61 | | |
| <i>MMPI-2 Scales:</i> | | | | | |
| Scale8 (Sc) | 64.37 (15.100) | 78.76 (12.506) | 72.46 (17.384) | 10.057 | |
| .000 | .100 | | | | |
| Scale4 (Pd) | 59.50 (13.180) | 72.71 (14.360) | 65.61 (14.817) | 9.516 | |
| .000 | .095 | | | | |
| Scale0 (Si) | 52.60 (11.092) | 60.33 (11.935) | 59.41 (11.366) | 8.959 | |
| .000 | .090 | | | | |
| Scale6 (Pa) | 57.29 (13.657) | 65.67 (17.414) | 66.77 (19.035) | 7.492 | |
| .000 | .76 | | | | |
| Scale7 (Pt) | 64.07 (14.274) | 73.95 (18.459) | 70.97 (14.809) | 6.298 | |
| .002 | .065 | | | | |

| | | | | |
|---------------------|----------------------------|----------------|----------------|----------------|
| <i>Scale9 (Ma)</i> | 50.71 (10.371) | 59.05 (12.524) | 52.54 (8.793) | 5.923 |
| | .003 | .061 | | |
| | MCMII-II: Scale P: Low: 95 | | Moderate: n=41 | Elevated: n=49 |
| <i>Scale 0 (Si)</i> | 52.52 (11.772) | 58.95 (9.252) | 59.27 (12.034) | 7.877 |
| | .001 | .080 | | |
| <i>Scale9 (Ma)</i> | 50.47 (9.618) | 56.88 (12.129) | 51.86 (9.356) | 5.744 |
| | .004 | .059 | | |
| <i>Scale3 (Hy)</i> | 79.38 (14.672) | 72.44 (17.805) | 75.67 (14.207) | 3.492 |
| | .033 | .037 | | |

4.2. Gender effects

On P-3, only the Depression Scale showed significant gender effect at $*P<.05$, the males reporting more depressive symptoms than the females (53.06 v. 31.77). A One-Way Analysis of Variance for the effects of gender on MBMD indicated multiple scales being affected. The men scored significantly higher Means on MBMD scales, measuring Guardedness (52.72 v. 39.67), Introversion (70.92 v. 52.67), Nonconformity (50.62 v. 36.80), and Forcefulness (46.34 v. 31.90) at $**P<.01$. The men also scored much higher on MBMD scales, measuring, Inhibition (66.99 v. 52.64), Dejected (63.75 v. 46.39), Oppositional (64.15 v. 52.97), Social Isolation (62.41 v. 48.63), and Utilization excess (68.62 v. 56.23), significant at $*P<.05$, all with greater Means for the males v. the females.

On the gender issues MMPI 2 suggested significant differences between the male v. female patients. The men experienced and reported more symptoms, secondary to chronic pain, on scales, measuring, Disorderly and Disorganized Thinking (81.14 v. 66.39), Demoralization (70.34v. 57.49), Dysfunctional Negative Emotions (62.83 v. 49.20), Aberrant Experiences (64.07 v. 49.72), Hypomanic Activation (52.42v. 43.21) and Psychoticism (62.88 v. 50.98) at $**P<.01$. The men also, reported greater Psychopathy (69.33 v. 58.57), Paranoia (67.90 v. 58.04), Anxiety, Stress and Obsessive Thoughts (77.51 v. 66.39), Mania (57.11 v. 49.96), Somatic Complaints (79.02 v. 69.28), Antisocial Attitude (57.77 v. 47.97), Disconstraint (49.09 v. 43.07), and Negative Emotionality (64.34 v. 53.73).

On MCMI-III, several personality and clinical scales showed greater gender effects for the men except one. MCMI-III scale measuring Compulsive behaviors showed greater Mean for the women than men (63.51 v. 49.39 at $**P<.01$. MCMI-III scales, measuring Dysthymia and Thought disorder, also, showed the men with greater Means (respectively 72.21 v. 55.83, & 58.20 v. 45.91 at $**P<.01$. Significant differences were also measured at greater level for men versus woman on MCMI-III scales, measuring, Histrionic (74.21 v. 59.08), Antisocial (46.76 v. 38.51), Sadistic (60.37 v. 43.75), Schizotypal (54.37 v. 22.41), Borderline (52.88 v. 43.35), Anxiety (69.97 v. 59.26), Alcohol (48.37 v. 40.65), Drug (43.73 v. 36.08), and Posttraumatic stress symptoms (54.99 v. 46.98).

4.3. Ethnicity effects

The MBMD showed a statistical significance only on one scale, measuring “cognitive dysfunction” for African American v. Caucasian American patients (67.94 v. 47.95). For the effects of ethnicity/race, MMPI 2 suggested significant differences on only 2 scales, measuring, Abberant Experiences and Bizarre Mentation for the Asian, greater than the Caucasian greater than Hispanic American patients with respective Means of 71.73 < 52.90 < 49.83 on the first scale (Abberant Experiences and 74.33 < 52.93 < 52.26 on the second scale (Bizarre Mentation). On MCMI-III, several scales indicated significant ethnic differences. On a scale, measuring, Compulsive behaviors, , showed greater Means for African American v. Hispanic v. Caucasian v. Asian American patients with respectively Means of 65.00 > 62.78 > 57.56 > 43.14 at **P=.01. On the scale measuring, schizotypal traits, Asian American patients had Means greater than African Americans, Hispanic Americans and Caucasian Americans with respective Means of 66.86 > 59.38 > 45.60 > 42.68 at **P=.01. On the Anxiety scale of the MCMI-III, the Means were measured significantly greater for the Asian American patients v. African American v. Hispanic American v. Caucasian American patients with respective Means of 80.14 > 77.86 > 65.05 > 58.09. On MCMI III scale, measuring, problems with drug dependency or abuse, the analysis showed greater Means for the Asian v. Hispanic v. Caucasian v. African American patients with respective Means of 63.67 > 58.43 > 42.88 > 28.00. On the Delusional Disorder scale, the Asian patients obtained greater Means than the African American, Hispanic American and Caucasian American patients.

4.4. Marital status effects

Only two of MBMD scales, Drug and Sociable scales showed the singles with greater Mean than the married patients at **P.01. The divorced patients showed greater Mean than the married or widowed ones on the Sociable scale of the MBMD. On MMPI 2 only one scale was affected by the marital status. MMPI subscale of Somatic Complaints measured greater Mean for married v. Single patients, 80.54 > 69.79 at *P=.01. Only Schizotypal and Delusional Disorder scales of MCMI III measured significant Means for marital status effects. Single patients reported more disorderly and disorganized thinking problems than widowed patients (60.32 > 15.40 at **P=.01). Single patients also, reported more delusional symptoms than the widowed patients (55.18 > 15.80 at *P=.05).

5. CONCLUSION/DISCUSSION

The Findings in this study showed that the MCMI-III was a good compliment to the MMPI-2 in the assessment of patients suffering non-cancer chronic pain. Overall findings on the MMPI-2 were strongly supportive of and consistent with the earlier findings by Gatchel and others (1997 & 2006) with non-cancer chronic pain patients. MCMI-III and MMPI-2 together provided more clear data for differential diagnosis, individualized treatment planning, prognosis and evidence based clinical and industrial recommendations. MCMI-III showed no severe personality disorders associated with the first pattern, “conversion V” on MMPI-2. The “neurotic triad” and “psychiatrically disabling patterns” on MMPI-2, however, were associated with both moderate and severe degrees of borderline, schizotypal and paranoid personality disorders. Therefore the “psychiatrically disabling pattern”, on MMPI-2, was not just associated with MCMI-III Borderline Personality Disorder scale but also with Schizotypal and paranoid Personality Disorders

scales. MCMI-III and MMPI-2 with “Conversion V” profile, combined with clinical and historical data helped in differential diagnosis of chronic pain disorder from several other ICD-10 diagnoses (F45.1-45.9). These two tests together also differentiated the Neurotic triad and psychiatrically disabling patterns on MMPI-2 better, in specifying the personality contributions to the development of chronic pain syndrome and many cases to a diagnosis of fibromyalgia (CPS) (ICD-10:F45.42 and F54).

Not many authors have yet investigated the potential of the MCMI-III with pain population, except for Manchikanti and his team (Manchikanti, Fellows, & Singh, 2002) who found no significant differences in personality patterns of pain patients. In this study, although with relatively small and non-randomized sample, the MCMI’s promising constructive validity seems to be showing itself as relevant to pain assessments, in terms of differentiating the personality disorders and traits from the clinical syndromes. It is highly likely that the chronic stressors associated with the industrial injuries, failed surgeries, opioid and non-opioid medication side effects and slow process of medical care in workers compensation system in California and psycho-social and financial effects of the injury and disability may have activated, exacerbated or aggravated the pre-existing potentials for these personality traits and disorders. It appears therefore, that the MCMI’s severe personality disorders scales of Borderline (C), Schizotypal (S) and Paranoid types showed promising differential diagnostic value, complimenting the MMPI-2.

With the MCMI-III, many patients’ diagnosis and treatment planning became much clearer without misleading into a variety of other disorders such as schizophrenia, bipolar, or schizoaffective and others v. Borderline, Schizotypal, or paranoid personality disorders or traits. It looks highly likely that people with severe personality disorders, especially borderline and schizotypal personality disorders may be more susceptible to developing CPS and secondary psychological problems, including aggravation of pre-existing physical and psychological traumas. These preliminary findings following more studies may have great implications to these patients’ differential diagnosis, individualized treatment planning, ruling out exaggeration/malingering and the choice of treatment approaches and modalities (Gatchel, 2004, Argun, 2013). These findings may be also helpful in the med/legal evaluations of industrial or personal injuries, disability ratings, ruling out pre-existing personality disorders and apportionment.

Findings on the Paranoid Personality scale of the MCMI-III and scale “6” and “0” of MMPI-2 might have been affected or aggravated by the perception that some agents with cameras from their workers compensation insurance were after them to establish evidence against their industrial claims in order to deny the necessary treatments and benefits. Such perception might have also contributed to their higher scores on scales measuring social isolation and decrease in social and recreational activities. These associations do deserve more clinical, industrial, and organizational investigations and research. It is highly probable that policies and subculture in California may be back firing and significant negative effects on their patients’ levels of mistrust and paranoia, demoralization, social and emotional isolation, contributing to a significant number of permanent total disabilities which is not in the best interest of any parties.

The gender and ethnic variables were also interesting and overall were associated with significant differences, as measured by MMPI-2, MCMI-III and MBMD. Contrary to some of gender and pain perception studies, the men in the sample showed more vulnerability and more severe secondary psychosocial, emotional symptoms and dysfunctional personality traits than the women. Based on these limited findings, an overall, better prognosis is projected to women, in dealing with physical injuries; chronic pain, functional restoration and return back to work. This observation, of course needs more

research and investigation which may have to do with both nature and nurture effects. Women, as my psychophysiology and psychobiology professor, late Dr. M. Behzad (1913-2007) use to say, are, psych-biologically stronger with lower risk taking traits and higher stress management skills. Many of them also have had life experiences such as handling nine months of pregnancy and labor that may have made them stronger than men in handling pain and stress. Perhaps, the evolutionary process, social networking abilities and historically child rearing and responsibilities to keeping the family together, have also made them more resilient and hopeful. The findings on the gender factor were quite surprising with this population. Contrary to many socio-cultural stereotypes the women had milder reactions to the injury, in severity of pain sensitivity, depression, anxiety, insomnia, social and emotional alienation, and medication dependency rates. Many men probably perceived the physical industrial injury as a major trauma and as an injury to their masculinity and self image. Overall these limited findings are also consistent with some and contrary to other studies on gender, ethnicity, chronic pain, and disability in recent years. This finding supports Anita Unruh's (1996) concerns for and objection to some health providers' psychogenic attributions about women being more vulnerable than men to coping with chronic pain.

Race and ethnicity also seemed to play significant role in the patients' pain perception and coping with physical functional limitation, disability and chronic pain but with mixed results that defined some of the earlier studies. Ethnicity variable varied on different scales and measurements. African American patients tended to show more cognitive and thinking problems and compulsive behaviors in response to chronic pain, but less sensitive to and less dependent on pain, sleep, and anxiety medications. Asian American patients reported more traumatic, schizotypal, and overanxious symptoms in response to chronic pain. The Hispanic patients mostly scored somewhere in the middle between Asian and African American patients or Asian and Caucasian American patients. Asian American and Hispanic patients showed the highest sensitivity as measured on the Drug scale of the MCMI-III than the other two ethnic groups. This raises several serious clinical and research questions about ethno-pharmacological sensitivity of these two groups to opioid based medications. Some of their pseudo-psychotic and cognitive symptoms may be in reaction to some of these medications.

Among these tests, the MCMI-III showed and measured more gender and ethnic differences in coping with chronic pain than the other three tests. MMPI-2 was the least affected by ethnic effects except on two subscales of Abberant Experiences and Bizarre Mentation with Asian American patients scoring significantly higher than Caucasian and Hispanic American patients. MBMD was overall more sensitive to the gender factor in identifying the men with higher Mean scores than the women, on scales measuring, their coping styles, compliance with treatment and utilization excess. It is therefore safe to say that the individual's personality and defense mechanisms, perhaps the director/regulator of the immune system- plays significant roles, not only in psychosocial defense mechanisms in coping with perceived pain and stress associated with the perception of the injuries, and "failed" surgeries but also, perhaps in regulating the neurochemistry of the central nervous system (CNS) and consequently the peripheral nervous system (PNS) and autonomic nervous system (ANS). It is also safe to say that identifying more specific personality traits and disorders in the pain assessments, may open up, not only a better understanding of the CPS, but also, may contribute to a more evidenced based diagnosis, treatment, and med/legal evaluations and recommendations. Assessment of personality variables and inclusion of psycho-physiological and cognitive behavioral treatments, as early in process, as possible may be very relevant for greater success of the medical interventions adjunctively but also for the reduction in PTSDs, drug dependency and deaths due to overdosing on opioids.

6. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

The findings have many limitations. The most important findings were on the effects of personality disorders, ethnicity and gender as significant variables, possibly making the individual more susceptible to developing CPS and PTSD. Ethnicity and gender variables should be also examined more and considered in treatment planning, prognosis and med/legal evaluations and recommendations, in dealing with industrially injured patients with chronic pain.

Limited sample size clearly precluded more complex statistical analysis as well as the generalizability of the results. Future studies may look into many compounding variables, including but not limited to randomizing and stratifying the samples with comparison groups; increasing the sample size; looking into the correlations and correspondence between the MBMD, MMPI-2 and MCMI-III clinical scales as well; looking into the effects of medications, illicit drugs and alcohol use by these patients, especially the opioid drug dependency; looking into and comparing the groups with traditional medical model treatment approach v. comprehensive bio-psychosocial, interactive interdisciplinary treatment and functional restoration model; including longitudinal data such as types of injuries, surgeries, interventions, treatment outcomes, work/disability status, functional restoration and rate of return to work; roles and effects of prescription drug dependency on the rates of permanent total disabilities; and Relationship between the personality disorders and traits with prescription drug dependency, especially the opioids. Future studies should also, include additional demographic, medical, psychiatric, substance abuse history and socioeconomic variables, in order to further specify the predictive and prognostic patterns. Using larger samples with longitudinal data may also, help in exploring the predictive validity of the MMP-2, MBMD and MCMI-III in chronic pain patients.

It should be noted that this study by no means attributed all of the CPS effect on Personality traits or disorders. Future studies should look into trying to use multiple regression and other sophisticated statistical measurements/ analysis and variables to understand better the most primary factors of disabilities, due to industrial injuries and CPS. In my two decades of work with this population, invisible factors such as the patient's disillusionment about employment and workers compensation system in California, delays in authorization of treatment, surgeries and post-surgical care, may be playing significant roles in demoralization of these patients, in certain personality types more than the others. This issue is worth studying more systemically as well for the cost effectiveness of the care provided by the existing system.

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ACKNOWLEDGEMENTS

Shirin Singleton, Psy.D. is appreciated and acknowledged for her contributions to the statistical analysis.

Orthopedic Medical Group of Riverside, CA is acknowledged and appreciated for the clerical assistance and research equipments.

AUTHOR INFORMATION

Full Name: Abraham Azari Argun

Institutional address: Argun Affiliated Psychological Services (www.argunaps.com). 3300 Irvine Ave, Suite 111. Newport Beach, CA 92660 USA. Telephone number: (949) 873-8765. Cell: (714)876-3661. Fax and voice mail: (714)637-9660.

Email address: aaargun@gmail.com.

Short biographical sketch: Abraham Azari Argun is a licensed clinical forensic psychologist, in independent practice in Newport Beach and Riverside California with main focus on assessment and treatment of pain/medical patients. He is also a Qualified Medical Evaluator (QME) for the State of California, providing med/legal evaluations as an Agreed Medical Evaluator (AME) & Panel Qualified Medical Evaluator (PQME). Dr. Argun is also a Forensic Examiner for the Superior Court of California in Los Angeles County, California. His academic experiences include teaching neuro-psychological and forensic assessments, introduction to psycho-pharmacology, and assessment seminars at doctoral level.

At personal and family levels, Dr. Argun has been married to Nezzi (Nancy) Argun for 41 years with two adult children and three grand children. His oldest grand daughter, Alanna Renee Argun, is a sophomore in psychology at University of California-Irvine (UCI). Dr. Argun’s hobbies include poetry, history, theatre, traveling, gardening and nature.

Chapter #16

CONSTRUCT VALIDITY OF THE TCT- DP IN DIFFERENT SCHOOL LEVELS

Sara Ibérico Nogueira¹, Maria Leonor Almeida², & Tiago Souza Lima³

¹*Universidade Lusófona de Humanidades e Tecnologias, Portugal*

²*ISG- Business School, Portugal*

³*University of Fortaleza / Federal University of Ceará, Brazil*

ABSTRACT

The Test for Creative Thinking-Drawing Production (TCT-DP, Urban & Jellen, 1986) is one of the most used instruments for the assessment of creative potential. A previous study with undergraduate and postgraduate Portuguese students presented a two-factor model with good and acceptable indices of fit, suggesting the importance of both conventional and non-conventional thinking for the creative process. This study aims to test the factor structure of the TCT-DP in a sample of younger Portuguese students. The sample has 2263 students, mostly female (51.5%) and upper middle class (25,7%), from different school levels. A one-factor and two-factor models were tested for each school level. The results of the CFA analysis indicate a marginal fit for the two-factor solution. Indices of RMSEA and GFI are above the cut-off recommended in literature, although CFI is below the recommended values. However, the two-factor model has better fit-indices compared with the one-factor solution. The comparison of the models with one and two factors through $\Delta\chi^2$ index indicates significant differences between the two models. Although these results are contrasting, it suggests that the TCT-DP, for the first 12 school years, can be best represented by a two-factor structure.

Keywords: TCT-DP, factorial structure, school levels.

1. INTRODUCTION

Creativity can be considered the most valuable resource for the 21st century's economy, communities and companies (Florida, 2012). At the individual level, the sense of happiness and self-actualization can have significant psychological and physical health benefits (Runco, 2007). Therefore, the studying and fostering of creativity throughout children's education path and into adulthood can be highly advantageous.

The longitudinal studies of Torrance (1988), conducted since the 1950s, as well as the review studies on the predictive validity between the divergent thinking tests results and the creative performance at different levels of education (Barron & Harrington, 1981; Harrington, Block, & Block, 1983) or professional settings (Althuisen, Wierenga, & Rossiter, 2010), are quite encouraging. Some of the more ambitious review studies were those of Cramond, Matthews-Morgan, Bandalos, and Zuo (2005) and Runco, Millar, Acar, and Cramond (2014), respectively, with follow-up studies of 40 years and 50 years of participants in the Torrance study.

However, some reflections are needed. First, it is widely recognized that no measure of creative thinking can fully operationalize the whole construct of creativity (e.g. Runco, 2007). Second, we cannot ignore the discussion about the predictive power of creative thinking measures in adult creative performance. Torrance (1975) warns that high scores obtained through his tests cannot guarantee that a subject behaves creatively. According to

Baer (2011), the diversity of assessment measures, evaluation criteria, and scoring methods (namely global creativity score vs. multiple specific scores) should lead to caution. Most likely there is no single creativity score that can predict all types of creative performance in adult life. Furthermore, as Charles and Runco (2001) stated, we should look beyond cognitive ability to predict creative behaviour, looking into preferences, judgments and motivation.

From a developmental point of view, according to Piaget (1962), formal and abstract thinking leads to a more creative way of thinking through the access to combinatorial reasoning, the use of symbols and propositions, and the imagination of the possible beyond the observable. Some studies based on Piagetian theory, reveal that the reaching of the stages of concrete operations and formal operations each lead to higher levels of creative thinking (Katz & Thompson, 1993; Noppe, 1985); others show the importance of attending university (Kleibecker, De Dreu, & Crone, 2013; Nakano & Wechsler, 2006). However, the decrease in creativity levels in the first year and fourth year of schooling (Runco & Charles, 1995) or adolescence (Bahia & Ibérico Nogueira, 2006; Lowenfeld & Brittan, 1987) may be related to school requirements, the appeal to conformism and the need for integration in the peer group, all of which can inhibit creative expression.

In this context, schools can play a central role in promoting creativity development within their students in many ways, with the teachers playing a central part in this process.

Sali and Akyol (2015) show that teachers with higher levels of creativity use more flexible and elaborate styles of teaching, giving space for abstract thinking and fostering higher creativity levels in their students. With more developed competences, such as critical and divergent thinking skills, students seem to be better prepared for the job market and more able to adapt with flexibility to unexpected situations (Pishghadam, Nejad, & Shayesteh, 2012).

Only recently has creativity started to be valued in the training of teachers. Traditionally, teachers were not encouraged to be creative, sometimes not even being given opportunities to be so (Turner, 2013). Consequently, a strong focus on quantitative metrics (school performance measured in terms of grades) and the repression of students' creativity could be observed (Lee & Kemple, 2014). According to Sali and Akyol (2015), teachers directly and indirectly discriminated students for creative behaviour, on the grounds that they distracted and interrupted classrooms and classmates, and since creativity was not valued, teachers did not bother to learn methods to encourage creativity.

To be able to adequately promote creativity in schools, an assessment of students' creativity is a necessary step for which it is fundamental to have appropriate instruments. In this sense, the present study aims to contribute with the validity studies for the TCT- DP in different school levels in Portugal.

2. BACKGROUND

In this paper, creativity is conceptualized by the comprehensive model of Jellen and Urban (1986). This model draws attention to six components (three cognitive, three personal) that influence each other and are responsible for creative performance. The cognitive-type components are Divergent Thinking (elaboration, originality, flexibility, fluency, problem sensitivity), General Knowledge Base (evaluation, reasoning and logical thinking, analyzing and synthesizing thinking, memory network, broad perception), and Specific Knowledge Base and Specific Skills (acquisition and mastery of specific knowledge and skills for specific areas of creative thinking and acting). The personal-type components are Focusing/Task Commitment (topic/object/product focusing, selectivity,

steadfastness and persistence, concentration), Motives (need for novelty, playfulness, curiosity, drive for knowledge, communication, self-actualization, devotion, need for control), and Openness/Tolerance of Ambiguity (openness for experiences, readiness to take risks, adaptation and resistance, non-conformism, relaxation, humour).

The TCT-DP aims to assess divergent thinking, as well as more personal aspects. According to Urban and Jellen (1996), the definition of creativity implies the emergence of an original product/idea that is a response to a problem to which the individual is sensitive. This process involves exploration and extended perception of the information, an association and unusual combination of the information given and imagined, a synthesis, a global composition or holistic solution, which is presented and communicated to other individuals.

Guilford (1956) and Torrance (1988) characterized divergent thinking as multidimensional, whereas other authors suggest its unidimensionality (e.g. Clapham, 1998). In turn, Kim (2006) supported the two-dimensionality of divergent thinking based on the structural analysis of the Torrance Tests of Creative Thinking (TTCT) with Innovative and Adaptive factors. Guilford (1950, 1956) pointed out the creative thinking results as flowing from the interaction between divergent and convergent production, with particular relevance to the former. While the divergent production enables the development and production of new ideas, the convergent production is mostly useful to evaluate and select the most appropriate ideas, assuming a problem-solving logic type. It is assumed by several authors (e.g., Finke, Ward, & Smith, 1992; Guilford, 1950, 1956; Halpern, 2003; Jaarsveld, Lachmann, & Leeuwen, 2012; Shavinina, 2001) that divergent thinking leads to a functional and effective product if the convergent thinking pursues its function of analysis, evaluation, the appropriate selection of ideas and planning. Runco (2007) defines this dichotomy of divergent thinking/convergent thinking as a false one.

Urban and Jellen (1996) have referred several psychometric studies conducted by themselves or in collaboration with other authors who identified good internal consistency levels for the TCT-DP (Cronbach's alpha values greater than .87), high levels of interrater reliability (.95, on average, between trained raters), and parallel forms reliability (between .64 and .77). Other authors have found good internal consistency levels (.85, .75 and .74) in studies with adult Portuguese workers (Almeida & Ibérico Nogueira, 2009; Ibérico Nogueira & Almeida, 2010; Ibérico Nogueira, Almeida, & Rocha, 2012). In terms of discriminant validity, one can note the recent study of Karwowski and Gralewski (2013) that used the TCT-DP to evaluate creative abilities and the Raven's Progressive Matrices (RPM) to measure intelligence in a sample of 921 middle and high-school students, indicating a positive correlation (.24) in which creative abilities were predicted by the RPM score. Ibérico Nogueira, Almeida, and Ribeiro (2011) identified a moderate correlation (.56) between the results of the TCT-DP and the Raven's Coloured Progressive Matrices in a sample of 287 children with a mean age of 8 years.

With the objective of testing the factorial structure of the TCT-DP, Ibérico Nogueira, Almeida, and Lima (2017), through a confirmatory factor analysis, obtained a two-factor structure that showed the best suitability indices compared with an alternative model. This two-factor structure suggests the representativeness of two ways of thinking, i.e., conventional thinking and non-conventional thinking. The correlation between them suggests the need for both ways of thinking in the process of creative production. These two forms of thought seem to be inseparable and complementary, although they occur in different stages of the creative process (Finke, Ward, & Smith, 1992; Runco, 2007). This study, based on an adult sample, was the first to analyze the latent structure of the TCT-DP using a confirmatory factor analysis, strengthening its construct validity.

It was then of the utmost importance to do the factorial and construct validity analyses of the TCT-DP for different school levels. This study presents the first results of these analyses.

3. METHOD

3.1. Sample

This study considered a sample of 2263 students, mostly female (51.5%), belonging to upper class (15,6), upper middle class (25,7%), lower middle class (20,1) and worker and rural class (19,8), from different school levels: 1st level - 1st and 2nd grades (N=331; M=6.82; SD=0.57); 2nd level - 3rd and 4th grades (N=472; M=8.85; SD=0.71); 3rd level - 5th and 6th grades (N=454; M=11.02 SD=1.04); 4th level - 7th, 8th and 9th grades (N=550; M=13.4; SD=1.18); 5th level - 10th, 11th and 12th grades (N=456; M=16.7; DP=1.27).

3.2. Instruments

The participants were recruited according to a convenience method. The school directors and parents were contacted and signed informed consent forms. The instruments were a) a brief socio-demographic questionnaire about gender, age and school year; and b) the Test for Creative Thinking - Drawing Production (TCT-DP) of Urban and Jellen (1996), theoretically supported by the componential model of creativity (Urban, 2004). This instrument asks for an elaboration of a drawing from six fragments, and Cropley (2000) refers to it as one of the best tools for the assessment of the creative potential because it is based on a general theory of creativity, which surpasses the models exclusively based on divergent thinking or divergent production and takes into account personality variables.

The TCT-DP is widely regarded as being culture-fair and has a broad spectrum of potential applications while allowing the assessment of different age, gender, social and economic groups. Its authors present 14 key criteria for the TCT-DP: 1- Continuations (Cn), 2- Completions (Cm), 3- New Elements (Ne), 4- Connections with lines (Cl), 5- Connections that contribute to a theme (Cth), 6- Boundary-breaking being Fragment-dependent (Bfd), 7- Boundary-breaking being Fragment-independent (Bfi), 8- Perspective (Pe), 9- Humour, affectivity/emotionality/expressive power of the drawing (Hu), 10- Unconventionality A (Ua), 11- Unconventionality B (Ub), 12- Unconventionality C (Uc), 13- Unconventionality D (Ud), 14- Speed (Sp). In the present study, the criterion Speed (Sp) was not used because of the difficulty to systematically control this variable, as Sayed and Mohamed (2013) pointed out.

Furthermore, despite the existence of two Forms (Form A and B) for TCT-DP, this study opted for the exclusive use of Form A after some previous research suggesting there are no significant differences between the results of Forms A and B (Almeida, Ibérico Nogueira, Bahia, & Urban, 2007).

3.3. Statistical analysis

AMOS 18 software was used to perform confirmatory factor analyses aiming to test the construct validity of the scale. The estimation method used was the Maximum Likelihood Estimation (MLE) using the variance-covariance matrix, and the missing cases were replaced by the mean. First, we test a two-factor solution identified in previous study. Additionally, the fit of a one-factor solution was also tested. The following indices were used to test the general fit of the models. The ratio of chi-square to degrees of freedom (χ^2/df), with values between 2 and 3 indicating indicates an acceptable fit, the goodness of

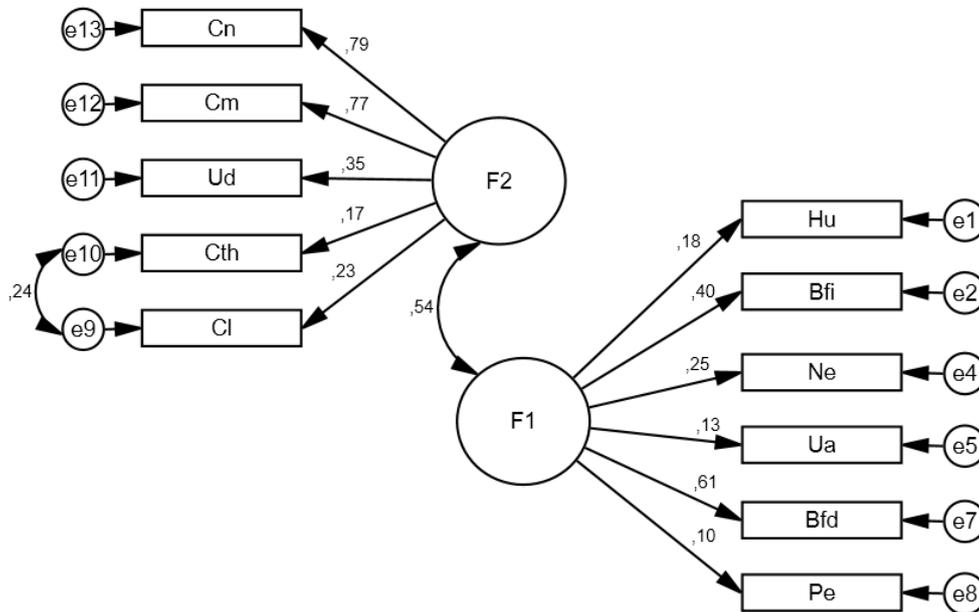
fit index (GFI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA), with values approximately .95, .95 and .06 or better, respectively, indicates a good fit (Byrne, 2010; Garson, 2013). Values greater than .90 for the GFI and CFI and lower than .08 for the RMSEA also indicate an acceptable fit. Additionally, the χ^2 difference ($\Delta\chi^2$) between the models and the expected cross-validation index (ECVI) were employed to assess significant improvement over competing models. Significant values of $\Delta\chi^2$ and lower ECVI values reflect the model with a better fit (Brown, 2006).

4. RESULTS

First, an initial analysis with the total sample was conducted, the fit indices for the two-factor solution were as follows: χ^2 (64) = 1438.2, $p < .001$, $\chi^2/df = 22.4$, $GFI = .90$, $CFI = .58$, RMSEA [CI 95%] = .097 [.093 - .102], ECVI = 0.66. However, two items (Uc and Ub) with non-significant regression weights in Factor 1 were excluded from the analysis. A second analysis was conducted with only 11 items. The fit indices for the two-factor solution were as follows: χ^2 (43) = 1,119.7, $p < .001$, $\chi^2/df = 26.04$, $GFI = .90$, $CFI = .64$, RMSEA [CI 95%] = .105 [.100 - .111], ECVI = 0.51. The model was re-specified after examining the modification indices, correlated errors between items 10 and 9 are added to the fit model. The fit indices were as follows: χ^2 (42) = 992.8, $p < .001$, $\chi^2/df = 23.6$, $GFI = .92$, $CFI = .68$, RMSEA [CI 95%] = .100 [.095 - .105], ECVI = 0.46. Fit indices showed that the re-specified model resulted in a significant improvement of fit, compared to the originally unmodified model, $\Delta\chi^2$ (1) = 126.9, $p < .001$, and the ECVI is smaller in the re-specified model. All factor loadings were statistically significant ($p < .001$). The factorial structure and the regression weights can be observed in Figure 1. The first factor includes the items related to the unconventional way of thinking, breaking of limits, new elements, perspective and humor (Ua, Bfi, Bfd, Ne, Pe, Hu) whereas the second factor includes more conventional items (Cn, Cm, Cl, Cth and Ud).

In function of the correlation between Factors 1 and 2 ($r = 0.54$), a one-factor solution was tested. The one-factor model had poor fit indices compared with the two factors solution: χ^2 (44) = 1265.7, $p < .001$, $\chi^2/df = 28.7$, $GFI = .89$, $CFI = .59$, RMSEA [CI 95%] = .111 [.106 - .116], ECVI = 0.58. Moreover, the comparison of the models with one and two factors thru $\Delta\chi^2$ index indicated that the two-factor model had a better fit, $\Delta\chi^2$ (1) = 272.9, $p < .001$.

Figure 1.
Factorial structure of the TCT-DP.



5. FUTURE RESEARCH DIRECTIONS

The factorial structure observed in a previous study with a sample of young adults (Ibérico Nogueira, Almeida, & Lima, 2017) does not seem to fit adequately to the sample of the present study. Therefore, a more detailed investigation should be carried out in future studies, testing for a more adequate factorial structure for this sample and assessing whether this structure is invariant throughout the different school levels.

Furthermore, future studies should analyse the factorial structure of the TCT-DP for each school year independently. More specifically, the importance of the items Unconventional b (Ub) and Unconventional c (Uc) (excluded from the present confirmatory factorial study) should be analysed, since they respectively represent the use of abstract, surrealistic or symbolic themes and the use of symbols, signs, words, numbers and cartoon-like elements. Like other abilities, these may follow a specific developmental path, having Piaget (1962) already highlighted the importance of imagination, use of symbols and abstract reasoning of the early adolescents.

The factorial structure of TCT-DP should also be analysed for each gender, considering the possible differential influence of skills and motivation (Baer & Kaufman, 2008) and of socio-cultural factors (Simonton, 2000) in creative, school and professional performances.

It would also be interesting to look into the relationship between creativity (conventional and unconventional thinking dimensions) and creative styles (innovation and adaption styles) in the Portuguese population, similarly to what other authors (Houtz et al., 2003; Kirton, 1976) have already started doing.

Regarding concurrent validity, it will be relevant to assess the relationship between the TCT-DP and other instruments to assess creative thinking. In what concerns the discriminant validity, there is an ongoing study about the relation between the TCT-DP and Wechsler Intelligence Scale for Children (WISC-III).

6. CONCLUSION/DISCUSSION

As initially stated, only a reliable instrument to assess creativity will allow for the understanding of the creativity levels and challenges in schools. The conclusions of such analyses would in turn become a good base where to start building creativity-fostering approaches and planning precise interventions.

After a previous study analysed the latent structure of the TCT-DP using a confirmatory factor analysis and strengthening its construct validity within undergraduate and postgraduate Portuguese students (Ibérico Nogueira et al., 2017), the current study now fills a considerable gap by encompassing every pre-university school level in a similar way.

The present results of the single-group CFA analysis suggest an acceptable fit for the two-factor solution. RMSEA and GFI are above the cut-off recommended in literature, although CFI is below the recommended values. Although these results are contrasting, they can indicate that the TCT-DP is best represented in this sample by a two-factor structure. Therefore, the TCT-DP enables both a global index of creativity and the two dimensions: conventional and unconventional thinking.

This conclusion is supported by Jaarsveld, Lachmann, and Leeuwen (2012), Kaufman (2003) and Mumford (2003), who have defended the importance of both convergent and divergent thinking, considering the effectiveness of a new idea beyond its originality.

However, the fact that the invariance between school levels was not tested constitutes a limitation of this study. It is possible that the lack of invariance may decrease the fit of the model to the data and does not allow the use of the TCT-DP to compare the groups studied here. In this scenario, one could consider that children and adolescents, along their development path, can develop some of the dimensions that are contemplated by TCT-DP. This would mean that this instrument cannot be expected to present the same factor structure throughout the 12 years of schooling.

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AUTHORS INFORMATION

Full name: Sara Maria Leitão Jorge Marques de Almeida de Ibérico Nogueira

Institutional affiliation: Escola de Psicologia e Ciências da Vida, Universidade Lusófona de Humanidades e Tecnologias (ULHT)

Institutional address: Campo Grande, 376, 1749-024 Lisboa

Short biographical sketch: PhD in Developmental Psychology by the University of Coimbra (2000), Associate Professor at the School of Psychology and Sciences of Life, ULHT, Guest Lecturer at Universidade Católica Portuguesa (FCH). Research and teaching interests involve the fields of developmental psychology, intelligence, giftedness, creativity and psychological assessment. Coordinated the CEPCA (Centre of Studies on Cognitive and Learning Psychology, R&D), funded by the FCT (Foundation for Science and Technology), between 2010-2013. Currently developing the research project "Criatividade - Uma Odisseia Frontal", funded by Azevedo Laboratories. Co-coordinates an intervention program for the gifted in Lisbon, working with children between 6 and 12 years old. Has had several peer-reviewed publications, book chapters and conference proceedings, both national or international.

Full name: Maria Leonor Santos Almeida

Institutional affiliation: Instituto Superior de Gestão ISG

Institutional address: Av. Mal. Craveiro Lopes 2, 1700-097 Lisboa

Short biographical sketch: PhD in Psychological Assessment (1997) by the Faculté de Psychologie et des Sciences de l'Éducation de l'Université de Liège, Belgium, Associate Professor at ISG Economics and Business School, Scientific Coordinator of the Master in Human Potential Management, Associate Professor at Universidade Católica Portuguesa (FCH).

Research and teaching interests involve the fields of Social and Organisational Psychology, Organisational Behaviour, Leadership and Negotiation and some areas of Human Resource Management. Currently developing research on creativity and values in the organisational context, measures for the evaluation of creativity and assessment of life values in adult workers and university students. Has had several peer-reviewed publications, book chapters and conference proceedings, both national and international.

Full name: Tiago Jessé Souza de Lima

Institutional affiliation: Universidade de Fortaleza

Institutional address: Av. Washington Soares, 1321, Edson Queiroz, 60.811-905, Fortaleza-CE, Brazil

Short biographical sketch: PhD in Social Psychology by the Federal University of Paraíba, Professor of the undergraduate program of Psychology and the Professional Master's Program in Business at *Universidade de Fortaleza*. Research and teaching interests involve the fields of Social Psychology (intergroup relations, social exclusion and psychosocial consequences, human values), Psychological Evaluation and the positive aspects of Psychosocial Development.

Section 3
Educational Psychology

Chapter #17

SCHOOL TRANSITION STRESS: GENDER AND AGE DIFFERENCES¹

Cynthia Cassoni¹, Marta Regina Gonçalves Correia-Zanini², Edna Maria Marturano³, & Anne Marie Fontaine⁴

¹ PhD candidate, University of São Paulo, Ribeirão Preto, Brazil and University of Porto, Portugal

² PhD, Professor of Psychology, University Center of Associated Schools of Education – UNIFAE, Brazil

³ PhD, Professor of Psychology, University of São Paulo, Ribeirão Preto, Brazil

⁴ PhD, Professor of Psychology, University of Porto, Portugal

ABSTRACT

Introduction: Transitional periods within compulsory education are capable of causing stress, which can compromise children's physical and psychosocial development. Method: A longitudinal study with data collection at three moments – first, fifth and sixth years. Objective: To monitor symptoms of stress during two transition periods (first and sixth year), focusing on changes in age and gender differences. The sample consisted of 25 boys and 27 girls, with a mean age of 6.8 years at the time of the first data collection. They responded to the Child Stress Scale (CSS). Results: They suggest that the year of school transition had a significant effect on stress symptoms. Higher values were found in the first series, and no significant differences were found between Grades 5 and 6. The girls had higher stress symptoms in the first and sixth years, while the boys presented higher stress symptoms only in the first grade. Conclusion: The results pointed to the presence of stress in periods of school transition, with girls and boys reacting differently according to age. More research is needed on gender and school transitions, as well as studies on the effectiveness of interventions aimed at reducing stress in childhood.

Keywords: school transition, children's stress, school development, gender, age.

1. INTRODUCTION

In the Brazilian school system, all children should study from four to 17 years of age. The education system is organized into three levels: infant education, lasting two years, elementary school, lasting nine years (subdivided into two cycles – elementary school I, for five years, and elementary school II, for four years), and high school, lasting three years. Thus, until compulsory education has been completed, children undergo three level changes, which involve substantial changes in school routine: these are characterized as school transitions (Law No. 9.394; Brazil, 1996). Due to the increased unpredictability and uncontrollability in children's daily lives, school transitions are seen as times when they are particularly vulnerable to stress (Elias, 1989; Lipp, Arantes, Buriti & Witzig, 2002; Marturano, 2008). Their entry into primary school, just as their passage to the second cycle of this level, or high school, are marked by various changes – among them, the transfer to a

¹ The research that originated the chapter was conducted by the first author and guided by the other authors. In the elaboration of the work, the first author performed the analysis of the data, wrote the sections of method and results and revised the version presented. The other authors contributed to the idealization of the article, bibliographic research, writing of the introduction and discussion of the results.

new school, affecting the social network formed among their classmates (Eccles, 1999; Prati & Eizirik, 2006), and a different teaching system, with new teachers and more demanding demands. The transition between the first and second cycles of primary education also involves an increase in the number and rates of teacher turnover. Taken together, these changes can be considered as sources of daily hassles (Byrne, Thomas, Burchell, Olive & Mirabito, 2011). There is evidence that school-related daily hassles are the precursors of psychosomatic complaints, expressed through symptoms such as nervousness, sleep problems, headaches or stomach pains (Eriksson, & Sellström, 2010; Hesketh, et al., 2010). These complaints have been recognized and evaluated as stress symptoms (Lipp & Lucarelli, 1998) and recurrent exposure of children to daily annoyance predicts anxiety, assessed up to two years later (Byrne et al., 2011). This chapter focuses on stress in elementary school children, at times of school transition, in the context of the Brazilian public school system.

2. BACKGROUND

Stress symptoms may be defined as a set of reactions by the body to exposure to any stimulus that irritates it, or that makes a person fearful or unhappy (Lipp & Lucarelli, 1998): that is to say, any stimulus that demands adaptation. Recent studies of stress reactions in children of school age have indicated association with factors of risk to development, such as an unhealthy lifestyle (Michels et al., 2015), symptoms of anxiety (Laurent, Gilliam, Wright, & Fisher, 2015) and poor peer relationships (Sbaraini & Schermann, 2008).

Individual differences related to sex have been investigated and there is no consensus in the literature concerning differences between boys and girls. Investigating a sample of over 8,000 Swedish schoolchildren from 11 to 15 years old, Eriksson and Sellström (2010) identified more subjective health complaints in girls (nervousness, sleep problems, headaches, or stomach aches). Two Brazilian studies with the Child Stress Scale (CSS) (Lipp & Lucarelli, 1998) obtained similar results in children in the age-range from six to 12 years (Lipp et al., 2002; Sbaraini & Schermann, 2008). However, using the same scale, Lemes et al. (2003), and Pacanaro and Nucci (2005), found no difference between the sexes in the same range. Correia-Zanini and Marturano (2015), observing children from six to eight years old, found differences only in the CSS psychophysiological reactions: boys presented higher levels of symptoms such as stuttering and finding it difficult to breathe when they were nervous.

There is also no consensus concerning the incidence of stress over the course of school years. Brazilian cross-sectional studies with the CSS presented divergent results. Lipp et al. (2002) found more symptoms of stress in schoolchildren in the first grade of primary school, in comparison with second- to fourth-grade schoolchildren. In contrast, the findings of Lemes et al. (2003) suggested that the level of stress increases from the first through to the fourth grade. Recently, a longitudinal study using CSS found a high level of stress intensity in first-graders, increasing in the second grade and falling in the third grade (Correia-Zanini, Marturano & Fontaine, 2016).

The disparity between the results can be attributed to several factors; however, it is necessary to take into account the moment of the school transition, because, theoretically, transition periods, such as Grades 1 and 6 of primary school, should be potentially more stressful (Marturano, 2008). Given that the school transitions involve an increase in demand, it could be asked whether and to what extent they differentially affect the manifestations of stress in boys and girls at different points in their school life (Chung, Elias & Schneider, 1998).

In an attempt to offer answers to these questions, a longitudinal study was conducted with the purpose of verifying the symptoms of stress in two transition periods in the Brazilian school system (first and sixth grade), with a focus on changes over the course of time, and differences between boys and girls. Four hypotheses were tested. The first was that children would report more stress in post-transition school years: that is, in the first and sixth grades. The second, derived from theoretical considerations about developmental trends, was that the stress levels in 6th grade would be lower than they were in the first grade, given the cognitive and socio-emotional development that could contribute to increasing children's capacity to deal with daily hassles. The other hypotheses, related to differences in sex at post-transition times, were derived from sparse empirical evidence. Thus, the third hypothesis was that in the first grade, the boys would report more stress symptoms (Correia-Zanini & Marturano, 2015), given that between six and eight years of age they present a larger number of externalizing behaviors in comparison with girls (Fanti & Henrik, 2010) and less developed social skills (Matthews, Kizzie, Rowley & Cortina 2010), with greater probability of involving themselves in adverse interpersonal situations, which are precursors of stress. The fourth hypothesis was that in the sixth grade, girls would report more stress symptoms. This hypothesis was based on the finding of Eriksson and Sellström (2010) that in the age-range from 11 to 15 years, girls were more susceptible to school stressors, and responded to these with more health complaints than boys did.

3. METHODS

3.1. Ethical considerations

This research involved the carrying out of two studies approved by the Research Ethics Committee of the School of Philosophy, Science and Literature of Ribeirão Preto, University of São Paulo, Brazil. The study complied with the rules and guidelines stated in Resolution No.196/96, of CONEP, and those in Resolution No. 016/2000 of the Federal Council of Psychology. Before starting data collection, one of the persons responsible for the participating child signed the Free and Informed Consent form and the participants gave their prior verbal consent.

3.2. Study design

The study had a longitudinal design, with three episodes of data collection when the participants were in the first grade (after the first school transition), the fifth grade (before the school transition) and the sixth grade (after the second school transition) of elementary school.

3.3. Participants

The sample was intentional, and was selected for convenience among participants in two longitudinal studies: one study which followed children from first to third grade and another which followed children in the sixth and sixth years, which included some children who participated in the previous study (from first to third grade). For the investigation, 62 children who participated in both studies were selected: 27 boys and 35 girls, with initial ages of from 5.8 years to 7.5 years, mean (M) = 6.8 years and standard deviation (SD) = 0.4. All the children attended the nine-year elementary school in municipal public schools in a city in the interior of the state of São Paulo, with approximately 111, 000 inhabitants.

3.4. Instrument

CSS – Developed and validated by Lipp and Lucarelli (1998). Its purpose is to identify the frequency with which children from six to 14 years of age experience stress symptoms, and at which stage they are found (without stress, warning stage, resistance stage, almost exhausted or exhaustion). This Likert-type scale is composed of 35 items that are grouped into four factors: physical reactions (nine items – for example, “I have stomach ache”); psychological reactions (nine items – for example, “Everything makes me nervous”); psychological reactions with a depressive component (nine items – for example, “I want to disappear from life”); and psychophysiological reactions (eight items – for example, “When I get nervous, I stutter”). The children were instructed to use colored pencils to color in a circle to show how often the event described in each question happens to them. If it never happens, they were asked not to color in the circle (0 point); if it happens a few times, they were asked to color in a part (1 point); if it happens sometimes, they were asked to color in two parts (2 points); if it almost always happens, they were asked to color in three parts (3 points); and if it always happens, they were asked to color in four parts of the circle (4 points). The sum of the points resulted in a gross CSS score.

3.5. Procedure

Data collection periods occurred in the second semester of the years 2010, 2014 and 2015, during school hours, and in spaces designated by the schools. In the first grade, the children responded to the CCS individually. In the fifth and sixth grades, the CCS was collectively applied, in a session that included other instruments not used in this investigation. In the collective applications, the children answered together with their classmates, the participants are the second project previously mentioned.

3.6. Analyses

The data analyses were processed in the SPSS Statistics program, version 22. For mixed repeated measures ANOVA was applied to verify the effects of time (first, sixth and sixth grades of elementary school), sex, and interaction between time and sex, on the dependent variable symptoms of stress. The presuppositions of this statistical method, namely the normality of distribution and the sphericity of the variance-covariance matrix, were verified by means of the Kolmogorov-Smirnov test with Lilliefors correction, and with the Mauchly test, as instructed by Marôco (2014). When the Mauchly test found violation of the presupposition of sphericity, Statistics F with the Greenhouse-Geisser correction was used. In all analyses, a level of significance of 0.05 was adopted. The differences between the means of the samples were found by means of the Bonferroni post hoc test. To evaluate the magnitude of differences, the effect was considered small when $\eta^2_p \leq 0,05$; medium, when η^2_p ranged from 0.051 to 0.25; elevated for η^2_p between 0.26 and 0.50; and very high when $\eta^2_p > 0.50$ (Cohen, 1992; Marôco, 2014). As the effect of the interaction between time and sex was significant, two additional analyses were conducted: repeated measures ANOVA separately for boys and girls; and the comparison between sexes, year by year, with the students²- t test.

3.7. Results

Repeated measures ANOVA showed that time had an effect of a medium magnitude on stress symptoms [$F(1.707, 102.406) = 4.258$; $p = 0.022$, $\eta^2_p = 0.066$]. Of the three time intervals compared, first grade showed a higher mean ($M = 46.40$; $SD = 21.3$); followed by sixth grade ($M = 42.34$; $SD = 20.9$) and fifth grade ($M = 38.48$; $SD = 19.9$). There were

significant differences between first grade and fifth grade. There was no significant difference between the first and sixth grades, and between the fifth and the sixth.

There was no effect of gender on stress symptoms [$F(1,60) = 1.004, p = 0.320, \eta^2_p = 0.016$], but significant effect was observed due to the interaction between time and gender, with medium magnitude [$F(1,707, 102,406) = 5.203; p = 0.010, \eta^2_p = 0.080$]. In the repeated measures analysis by gender, the authors observed that the girls presented a peak of stress symptoms in the first and sixth grades, with both measures differing significantly [$F(1, 34) = 282.291; p < 0.001, \eta^2_p = 0.893$] in comparison with the fifth grade; the boys showed significant reduction in stress symptoms [$F(1.508, 39.201) = 6.704; p = 0.003, \eta^2_p = 0.205$] in the fifth and sixth grades, in comparison with the first grade. The means are presented in Table 1, in which the results of the comparisons of sex year by year are also shown.

Table 1.
Stress symptoms reported by boys and girls in each school year.

| School year | Boys M (SD) | Girls M (SD) | <i>t</i> | <i>d</i> |
|-------------|----------------|-----------------|----------|----------|
| 1st Year | 49.33 (24.69) | 44.14 (18.48) | 0.947 | 0.237 |
| 5th Year | 36.52 (19.64) | 40.00 (20.29) | -0.679 | -0.174 |
| 6th Year | 34.59 (16.08) | 48.31 (22.42) | -2.689** | -0.703 |

Note Boys, $n = 27$ Girls, $n = 35$

4. CONCLUSION/DISCUSSION

The research reported in this chapter followed schoolchildren in the Brazilian public primary school system during the course of their schooling, at three points in time related to changes in cycle. Stress symptoms were evaluated in two post-transition points in time (first and sixth grades) and in one pre-transition point in time (fifth grade). Four hypotheses were tested.

The first hypothesis, that children would report more stress in the post-transition school grades, was partially confirmed. The authors found that the first school year was more stressful for all the children, corroborating the literature that pointed to this first year as a potentially more stressful transitional period (Correia-Zanini, 2013; Lipp et al., 2002; Marturano & Trivellato-Ferreira, 2016). Unfortunately, there was no data collection before the first school transition, which would have made these results more robust. Differently from that which was expected, the sixth grade – also characterized as a transition – presented a result similar to that for the fifth grade. The authors speculate that in the initial years, the children could not yet count on sufficient resources to deal with the stressful situation they experienced as a result of changes in the transition period: such resources were subsequently acquired throughout their development and in their day-to-day school experience. However, the second hypothesis, formulated on the basis of this reasoning, was not confirmed because the stress levels in the sixth grade were not lower than they were in the first grade. Nevertheless, the grading observed in the mean stress values was compatible with what was expected, considering that the highest mean value occurred in the first

transition and the lowest in the pre-transition year/grade. This gradient not only reaffirmed the stressor effect of school transitions, but suggested that the first transition, when the children were younger, would also have more of an impact.

Concerning the two hypotheses related to differences between the sexes, the authors note that in the comparisons between the sexes there was statistically significant difference only in the sixth grade, with an elevated effect size, when the girls presented a higher level of stress symptoms. On the other hand, although the absolute differences between boys and girls were not significant, as occurred in the studies of Lemes et al. (2003) and Pacanaro and Nucci (2005), the results suggested that the trajectory of stress differed for boys and girls. The boys presented more stress in the first grade and important reduction in the stress rates in the subsequent years: a result similar to that obtained by Lipp et al. (2002) in a cross-sectional study from the first to the fourth grades, which indicated a lower percentage of stress at the more advanced levels of schooling. However, regarding the girls' trajectory of stress, the authors observed more stress in the school transition periods, as hypothesized by Marturano (2008).

In addition to not confirming the hypothesis of greater vulnerability of boys in the first school transition, the results suggested a reduction in the boys' susceptibility over the years, which may be related to the developmental trend toward the reduction in externalizing behaviors (Fanti & Henrik, 2010), a source of stressors related to school. However, the girls continued to be susceptible to school stressors, increasing the symptoms at the times of transition, when there was a greater accumulation of academic and interpersonal demands. These findings are compatible with the observations of Eriksson and Sellström (2010) for adolescents from 11 to 15 years of age exposed to school stressors. They are also coherent with the findings regarding a higher number of internalizing symptoms in girls during the years of primary schooling (Fanti & Henrik, 2010).

Despite the limitations mentioned above, and the possibility of expanding the study of stress in the school trajectory, this research revealed the potentially stressful character of entry into elementary schooling in all children, as well as the differential impact of the transition periods in boys and girls, giving clues regarding possible interventions with children in the school context.

5. LIMITATIONS/FUTURE RESEARCH DIRECTIONS

The sample presented at least two limitations. The first was its composition. Within the universe of public (municipal or state) and private schools, only public schools are included in this study. Public schools are known to have different characteristics from those of private schools (school and class size, school infrastructure, teaching methods), and are more available to researches. The second limitation relative to the sample concerns the localization of the research. As the study occurred in a municipality in the interior of the state of São Paulo, the sample was not representative of Brazil, given the diversity among Brazilian states.

In addition to the limits of the sample, another limitation of the method was the use of information obtained by self-reporting, with children as the only source of information.

For future research, we suggest including private schools; replication in other cities or states, for better understanding of this even in order to represent Brazil; as well as extension of the data sources (parents or guardians and teachers), to obtain more accurate information about children. In addition to this triangular source of information, the type of school

transition must be taken into consideration. In Brazil, schoolchildren that conclude elementary school I (fifth grade) leave their school of reference – which is almost always municipal – and begin to attend a different school, generally at the state level, according to the manner in which the educational policy of the country is organized, thereby changing not only the form in which the content is organized, but also undergoing important changes within the school context. Different forms of school transition are present (change of school, or not; type of teaching establishment; localization and size of the school), in addition to different qualities of teaching institution that may be verified by means of the Elementary Education Development Index (EEDI). Other suggestions for future research include verifying the association of schoolchildren's stress symptoms with variables of the family context, such as mother's educational level and parental monitoring. Moreover, as a priority stage for elucidating stress in transition, it is recommended to amplify data collection to include years prior to and after school transitions, so that the effect of these transitions may be observed throughout the course of schooling.

With the inclusion of these data of the family and school context, future research could provide a broader understanding regarding which personal and family characteristics, and which characteristics within the school context, could be related to the symptoms of stress during school transition. Research with this type of information may favor the creation and application of programs of intervention to help parents, teachers and schoolchildren during school transition.

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ACKNOWLEDGEMENTS

The authors thank the “Coordenação de Aperfeiçoamento de Pessoal de Nível Superior” – CAPES (Coordination for the Improvement of Higher Education Personnel); “Conselho Nacional de Desenvolvimento Científico e Tecnológico” – CNPq (National Council for Scientific and Technological Development); and the “Fundação de Amparo à Pesquisa do Estado de São Paulo” – FAPESP (São Paulo State Research Support Foundation) for supporting the research.

AUTHORS INFORMATION

Full name: Cynthia Cassoni

Institutional affiliation: PhD student of the Psychology Department - FFCLRP- University of São Paulo, Ribeirão Preto, Brasil and in the Faculty of Psychology and Educational Sciences of the University of Porto, Portugal

Institutional address: Av. Bandeirantes, 3900 - CEP 14040-901 - Bairro Monte Alegre - Ribeirão Preto - SP -Brazil. E-mail: ccassoni@usp.br

Short biographical sketch: PhD student in the area of the Health and Development Psychology of the Faculty of Philosophy, Sciences and Letters of Ribeirão Preto - University of São Paulo - USP and the Faculty of Psychology and Education Science of the University of Porto with the work: School transition for children of the 5th and 6th grade of elementary school. Master in Psychology completed in 2013, with the dissertation Parenting Styles and Parental Educational Practices: Systematic Review and Critical Literature; She has experience in Psychology, with emphasis in Psychology of Teaching and Learning, working mainly in the following subjects: developmental psychology, social psychology, child care, recomposed family, parental practices.

Full name: Marta Regina Gonçalves Correia-Zanini

Institutional affiliation: PhD, Professor of Psychology, University Center of Associated Schools of Education – UNIFAE, Brazil/

Institutional address: Largo Engenheiro Paulo de Almeida Sandeville, 15 - Jd. Santo André, CEP: 13870-377, São João da Boa Vista - SP, Brazil. E-mail: psico_marta@yahoo.com.br

Short biographical sketch: Graduated in Psychology (Licenciatura and Formación) and Master in Psychology of Development and Learning (UNESP / Bauru) by UNESP / Bauru; PhD in Sciences, area of concentration: Psychology, Graduate Program of the Faculty of Philosophy Sciences and Letters of Ribeirão Preto (USP), with sandwich period at the Faculty of Psychology and Educational Sciences of the University of Porto - Portugal. Has experience in experimental psychology, development, school / educational and statistics applied to psychology. She is a professor in the Psychology course at the University Center of Associated Schools of Education - UNIFAE. He carried out research with a post doctoral scholarship by the Medical School of Ribeirão Preto (USP), with an internship at the University of Porto (Portugal) subsidized by FAPESP - Process 2014 / 01478-4. Investigates issues related to child development and relationships established in the school context.

Full name: Edna Maria Marturano

Institutional affiliation: PhD, Professor of Ribeirão Preto Medical School, University of São Paulo

Institutional address: Av. Bandeirantes, 3900 - CEP 14040-901 - Bairro Monte Alegre - Ribeirão Preto - SP -Brazil. E-mail: emmartur@fmrp.usp.br

Short biographical sketch: Graduated in Psychology - Ribeirão Preto from the University of São Paulo (1968), a master's degree in Experimental Psychology from the University of São Paulo (1971) and a PhD in Sciences (Psychology) from the University of São Paulo (1973). She is currently a full professor at the University of São Paulo at the Ribeirão Preto Medical School. She is an accredited counselor in the postgraduate program in Psychology of the Faculty of Philosophy, Sciences and Letters of Ribeirão Preto / USP. Has experience in the areas of Psychology of Development and Psychological Treatment and Prevention, acting mainly on the following topics: risk factors and protection to the development of the child; Promoting school development; Prevention of behavior problems in different contexts; Psychopedagogical support in learning difficulties; Family and school performance.

Full name: Anne Marie Fontaine

Institutional affiliation: PhD, Professor of Psychology, Center for Psychology at University of Porto, Faculty of Psychology and Education Sciences, University of Porto.

Institutional address: Universidade do Porto, Faculdade de Psicologia e de Ciências da Educação, Rua Alfredo Allen, Porto, Portugal 4200-135. E-mail: fontaine@fpece.up.pt

Short biographical sketch: PhD in Psychology from the University of Porto (1987). He is currently a full professor at the Faculty of Psychology and Educational Sciences. Has experience in Psychology, with emphasis on Differential Psychology.

Chapter #18

PARENTING PROGRAMMES: A TRANSPLANT MODEL IN PRACTICE

Katy Smart

Graduate School of Education, University of Bristol, UK

ABSTRACT

This mixed-methods research explored parents' and trainers' perceptions of the impact of parenting programmes by following 136 families through a total of 20 courses (*Triple-P*, *Incredible Years* and *PEEP*). The research questions investigated their views on the parenting programme process, parental behaviour changes taking place post-intervention and subsequent behavioural, developmental and/or educational impact on their children. A major theme that developed from the analysis of parents' data was the importance of the right learning environment, specifically one which promotes a Transplant as opposed to an Expert Model of parent-professional practice. Another notable finding was the significance of the family working together in order to avoid creating an imbalance in the parenting structure within the family.

Keywords: Parenting, transplant model, parenting programme.

1. INTRODUCTION

A number of parenting programmes have been developed, both internationally and in the UK, to meet the varying needs and approaches most suitable to parents. One of the key aims of many such programmes is to help parents develop positive parenting skills to support them in preventing or reducing challenging behaviour in children. Other aims integral to the philosophy of parenting programmes include strengthening the parent-child relationship, increasing children's social and emotional learning, promoting school readiness, promoting parents' awareness of children's development and the importance of maximising learning opportunities.

As part of a wider agenda, parenting programmes have had a greater emphasis placed on their value after the research findings of Desforges and Abouchaar (2003); this had a powerful influence on UK local authorities offering and delivering more parenting programmes. The existing research into parenting programmes has primarily focused on their impact on children's behaviour; this could be attributed to the primary aim of many parenting programmes being directed in this area. However, having a background in psychology and education my research focused on the impact that the programmes have on parental behaviour and the subsequent effects on children's development and attainment. Specifically, I was interested in the parents' perspectives; my research provided parents the opportunity to voice their views.

This study followed families as they each attended one of three parenting programmes and then beyond into the subsequent twelve months. My aim was not to advocate any particular parenting programme or indeed parenting programmes in general; rather my purpose was to explore parents' perspectives on whether they considered parenting programmes had an impact on their own behaviour and whether they considered this

subsequently had any impact on their child. The three parenting programmes my research focused on were *Triple-P*, Webster Stratton's *The Incredible Years* and *Peers Early Education Partnership (PEEP)*, three of the most popularly adopted programmes across the south-west of the UK at the time of starting my study (Triple-P, 2012; Incredible Years, 2012; PEEP, 2015). All three of these parenting programmes are run by trained and experienced practitioners and are standardised in how they are delivered with the expectation that parents attend all the sessions. The aims of these programmes include improving knowledge on child development and parenting skills, improving parent-child relationships and promoting appropriate behaviour.

By gaining the parents perspectives I aimed to establish how effective parenting programmes were in terms of being a vehicle to deliver advice and guidance. How well did they succeed in getting across information and new ideas? Did they ensure parents felt empowered by the programme rather than being made to feel inadequate? The prescriptive nature of many accredited structured parenting programmes means that they are not designed in a way that allows trainers the flexibility to respond or adapt the programme in acknowledgment of what a parent already knows, how they already interact with their child or even their cultural or religious background. This would place parenting programmes within the Expert classification of Cunningham and Davis (1985) Expert, Transplant and Consumer models: "Professionals use this model if they view themselves as having total expertise in relation to the parent. Here essentially professionals take total control and make all the decisions" (Cunningham & Davis, 1985, p.10). Some previous research has suggested that parenting programmes can disempower parents by making them feel inadequate (Cottam & Espie, 2014) and that trainers can view themselves as the expert and have a deficit view of the parents (Crozier, 1998). In my experience trainers often identify more with the Transplant model "where they view themselves as having expertise, but also recognize the advantage of the parent as a resource" (Cunningham & Davis, 1985, p.11) however the prescriptive nature of many programmes can make this difficult. By gaining the parents perspectives I hoped to explore whether these concerns were valid.

2. BACKGROUND

With the growing international recognition of the importance of the parents' role in their child's education, the UK Government commissioned Charles Desforges and Alberto Abouchar to examine research findings on the relationship between family education, parental support and parental engagement on the one hand and their child's achievement and adjustment in schools on the other. Desforges and Abouchar's (2003) review suggested that to improve the educational achievement of children and young people parents need to support their children; this goes beyond providing the basic needs such as housing, love, safety and nutrition and extends to include parent-child interaction, helping with school work and educational choices and communication with their child's educational setting.

The most important finding from Desforges and Abouchar's review (2003) was that parental engagement in their child's learning and development could have a notable positive impact on their child's attainment and achievement:

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In the primary age range the impact caused by different levels of parental involvement is much bigger than differences associated with variations in the quality of schools. The scale of the impact is evident across all social classes and all ethnic groups. (Desforges & Abouchaar, 2003, pp.4-5)

This suggests that parental engagement can have a greater impact on the child's achievement than the variations in teaching quality among schools. This is quite a remarkable finding.

Desforges and Abouchaar's (2003) review was a key factor that led to the UK Government initiatives aimed at promoting children's attainment through parental interaction with their children and their children's school. Particular emphasis was placed on local authorities' engagement with parenting with Government funding being made available to provide training for and delivery of parenting programmes. To access this funding, each authority was presented with five evidence-based parenting programmes to choose from. An expected outcome from this provision was the improvement of parental engagement with their child's education and a subsequent improvement in their child's educational attainment. Children's centres also received funding to ensure they provided similar support for parents whose children were not yet in school, including the delivery of parenting programmes.

In 2010 the UK Government commissioned Frank Field to conduct an independent review on life chances and poverty. Field's (2010) review also acknowledged the importance of the role of parents in preventing poor children becoming poor adults: "Nothing can be achieved without working with parents. All our recommendations are about enabling parents to achieve the aspirations that they have for their children." (Field, 2010, p.6)

Field's (2010) review highlighted the increasing number of parenting programmes being offered at the time of writing his report in support of disadvantaged families, particularly those with children in the early years, and the positive impact such programmes can have on parenting and the home learning environment. One of his recommendations was that all new parents should be encouraged by children's centres to take advantage of a parenting programme.

3. RESEARCH DESIGN

I recruited a total of 136 parents across 20 courses (Table 1) in the south-west of the UK to take part in my study, the majority of which had pre-school-aged children (0-4 years). I employed a mixed methods research approach utilising questionnaires, featuring both quantitative and qualitative questions, as well as semi-structured interviews.

Table 1.
Parents Recruited per Programme.

| Parenting Programme | Number of Parents | Number of Courses | Age Groups of Children |
|----------------------|-------------------|-------------------|--|
| Triple-P | 7 | 2 | One parent attended Primary Triple-P and had at least one child that attended primary school. Six parents attended Teen Triple-P and had at least one child attending a secondary school |
| The Incredible Years | 17 | 4 | Seven parents accessed the baby programme; four attended the preschool programme; six went to a primary programme |
| PEEP | 112 | 14 | All parents had at least one child under the age of four |
| TOTALS | 136 | 20 | |

Access to participants was through local authorities, schools, children's centres and parent programme facilitators. Through my work as both a teacher and local authority adviser I had already developed a number of contacts in each of these areas who were able to assist me in accessing parenting groups. Additionally I was able to use my knowledge of the local authority structure to contact advisers who were also able to help me access the parenting programmes that were included in my research.

I initially used questionnaires to record demographic data and to establish parental practices and expectations pre-intervention. This was then supplemented by a follow-up questionnaire at the end of the programme (referred to below as "Q-post") to explore parents' initial perspectives, having attended the course, regarding what they then did differently and what they thought they had gained from the course. Questions included: "How much time are you able to spend playing with your children?", "What activities do you share with your children?", "How do you support your children's nursery, pre-school or school?", "How confident are you in each of these areas?". Additionally I incorporated several qualitative questions to increase the availability of parental subjective views. To provide participants with maximum protection I devised a system where parents could remain anonymous to me whilst also ensuring that the trainers did not see their data. This system allowed me to directly compare pre- and post-programme responses from individual parents, while still respecting both the confidentiality of the questionnaire data and the parents' wishes to remain anonymous.

The findings from an analysis of the questionnaire responses were then used to direct a series of post-programme semi-structured interviews with parents (referred to below as "I-post"). I devised an interview schedule based on the questionnaire responses to examine parents' views on the parenting programme process, how it impacted their behaviour and how this subsequently affected their child. I selected a subset of eight parents (Table 2) for these interviews, allowing me to gain a deeper insight into their perspectives. The selection process was based on criteria derived from the information provided on the pre- and post-programme questionnaires and comprised four key factors:

- contactability of parents;
- parental confidence levels;
- representation from all three of the parenting programmes;
- representation from both local authority targeted groups (low socio-economic status, teenage parents, fathers) and non-targeted groups.

Table 2.
Parents Selected for Interview.

| Pseudonym | Relationship to child | Teenage parent? | Low socio-economic status? | Programme attended | Number of children |
|-----------|-----------------------|-----------------|----------------------------|----------------------|--------------------|
| Adelajda | Mother | | | PEEP | 2 |
| Ava | Grandmother | | | The Incredible Years | 4 |
| Emily | Mother | | | Triple P | 2 |
| Emma | Mother | Yes | Yes | PEEP | 2 |
| Isabella | Mother | | | Triple P | 2 |
| Jacob | Father | | Yes | PEEP | 2 |
| Olivia | Mother | | Yes | The Incredible Years | 4 |
| Sophia | Mother | | | PEEP | 1 |

The interviews were digitally recorded, transcribed and then analysed using a thematic approach based on Braun and Clarke's (2006) model. Prior to commencing the analysis, I created a provisional start list of thematic codes; the interviews were then analysed to extract further themes, moving from a deductive to an inductive paradigm. Using the NVivo software package I was able to go through each transcript in turn creating descriptive codes, or using the NVivo terminology "nodes", with each node corresponding to a short section of the transcript. This analysis drew upon a mixture of semantic coding, capturing the surface meaning of the data, and latent coding capturing deeper assumptions and interpretations. In all 388 nodes were created from three hours 49 minutes of post-programme interview recordings with the parents.

The next phase of analysing the data was to group together the nodes representing common areas. Some groupings had already been identified from my professional experience and the literature review (deductive), whilst others were generated solely from the data (inductive). Repeated hierarchical phases of this grouping procedure eventually resulted in a final set of six themes being created from the parents' interview data. It is important to note that the number of occurrences of a topic does not alone make it a theme; rather it is about whether the topic has captured something important that is related to the research question (Braun & Clarke, 2006).

My study explored the longitudinal perspective by revisiting the families one year after they had completed the programme with a third questionnaire ("Q-year") to examine the parents' perceptions of any lasting impact. The one-year-on questionnaire included both quantitative and qualitative questions that were asked on the pre- and post-programme questionnaires to establish whether there had been any lasting parental behaviour changes since attending the programme and whether there had been any longer-term impact on the child. I also carried out one-year-on interviews ("I-year") with the original interview participants following up on the themes which developed from the post-programme analysis.

To ensure a degree of triangulation and to promote trustworthiness in the data (Robson, 2002), I sought a secondary source to provide an alternative perspective to the parents' reports. To this end my research incorporated the views from the parent programme trainers – they saw the parents typically on a weekly basis, following them through the entirety of the course, and were well-placed to provide this additional viewpoint.

4. FINDINGS

This section presents findings from my study in terms of two key themes that I developed from the rigorous qualitative analysis of the interview transcripts. I illustrate these themes making use of quotations from parents' questionnaires, as completed by all 136 participants, and interviews with the sub-sample of eight parents. All names used here are pseudonyms.

4.1. Creating the right environment

A key theme that developed in response to my research question *What are the views of parents and trainers regarding the parenting programme?*, and a particularly noteworthy theme, was the parents' perception that the environment needs to be right to share parenting experiences with other parents. This theme developed from seven of the parents' interviews making this an especially important aspect of my findings. The "right" environment includes a number of factors such as friendly, approachable and helpful staff; a clean and safe place for children to play; the structure and calmness of group; and being able to spend quality time with their child.

A key element in creating the right atmosphere where parents felt comfortable and safe to share their experiences was the staff. One parent wrote on her post-programme questionnaire:

"The staff have been amazing and the structure has been really good" (Q-post)

A year after the first interview Jacob, a PEEP parent, still remembered the value of being able to talk to other parents:

"I think you can kind of just exchange ideas and just be comforted to know that everybody's just got the same problems" (I-year)

This was a common theme that was evident both in the questionnaires and during the interviews. For some parents having the right environment gave them somewhere to go where they could meet other parents:

"PEEP was hugely beneficial to both Lily and me. Always stimulating and friendly. Much of Lily's childcare has always fallen to me due to my wife's severe illnesses since Lily's birth. Organised groups were fun in themselves and also gave me good contact with other parents" (Q-year)

For some parents these sessions could become a lifeline to help them through some very difficult times:

"Making friends as I suffered from postnatal depression" (Q-post)

"..that I am not the only one with dealing with sharing and tantrums" (Q-post)

"Sometimes I thought I was not good with my children" (Q-post)

Emma, a young mother of two, found that by talking to other parents she added to her toolkit of strategies in managing her children's behaviour:

“...for me speaking to other adults has helped me as well because I have learnt like different ways to manage their behaviour and stuff, and obviously at that age like to put rules down and I learnt and feel more confident.” (I-post)

An analysis of the data suggests that without groups where they can get together to share experiences and ideas, many parents could feel isolated, as if they are the only one who is experiencing these difficulties and in some cases even doubt their abilities to be a good parent.

Jacob home tutors his sons and looks after the main household chores. He shared that if it was not for attending the children’s centre he “*wouldn’t see anybody during the day*”. Jacob went on to say that the *PEEP* group was a “*calmer group, there’s more opportunity to talk to each other*” and for Jacob this was one of the key themes that developed from his interview, being able to share and talk to other parents:

“... but at this group the people talk to each other more so I think that’s an important thing about coming to these groups as well, for the parents to get out and talk to each other as well as children” (I-post)

For Adelajda she found talking to other parents especially valuable; having come from Eastern Europe she did not have any family nearby so turned to these sessions to extend her knowledge around child development and also the English school system. As a primary school teacher, I have found parents who have moved to England often find our school system very different from that in their own countries and their own childhood experience; unless a relationship between the parent and educational setting is developed this can be overlooked.

Having the right environment to share information with other parents was a recurring theme across all three parenting programmes. The data suggest one of the most important benefits of attending a parenting programme is the meeting, sharing, talking and learning from other parents. Seven out of the eight parents’ data had this as a developing theme, despite there being no questions specifically asking whether parental interaction was an important aspect of the parenting programme. The one exception was Ava, a grandmother who attended the programme with her daughter Olivia; although this theme did not develop from the analysis of Ava’s interview, she did however comment that she would have welcomed the opportunity to have attended a parenting programme when her own children were young.

It is interesting to note that this theme, the importance of other parents on the programme, was not found to diminish the role of the parenting programme trainer. The parents recognised the role of the trainer in “setting the scene” and supporting them through challenging times in addition to providing general parenting advice and information. However the findings do reflect the importance of creating the right environment for parents to get together and share their experiences.

From the interviews and questionnaires, we can conclude that parents value parenting programmes as an opportunity for them to meet and share information with other parents at least as much as they appreciate them for their intrinsic educational value. For some parents, particularly those with pre-school children, it might be the only opportunity they get to interact with other parents and indeed get out of the house. For *The Incredible Years* and *Triple-P* programme, parents usually attend because they have concerns around their child’s behaviour; by the end they have developed a toolkit of strategies to support them. For *PEEP* parents, the suggestion is it is more about going to a toddler group to meet other parents, play with their child and for their child to socialise. However from talking to parents and analysing the data it seems that they come away with much more; they have learnt about child development, the importance of sharing stories and rhymes, healthy eating and a myriad of other topics that are covered in the programme.

4.2. Whole family engagement

A second key theme that developed from the parents' interviews was how some of the parents considered that whole family engagement was an important element in ensuring the success of parenting programmes; this was particularly evident in the responses from parents attending *The Incredible Years* and *Triple-P* programmes. Although there was no explicit question asking whether the parents felt it important or necessary that there was whole family engagement in the parenting programme, three out of the eight parents spontaneously referred to this topic, commenting on the importance of both parents being engaged in the programme. Isabella, a mother of teenage boys who attended a *Triple-P* Teens programme, felt particularly strongly that it would be beneficial:

"This is where I think you need something where you do as a family" (I-post)

One benefit she considered of involving the whole family was:

"...you know if different members of the family are not remembering the right strategy someone else can say 'mum go away and sit down'." (I-post)

Isabella identifies here one important aspect of family engagement; that is the recognition that sometimes you can forget to use the strategies and may need the occasional prompt. This was something that Emily, who attended the *Triple-P* Primary programme, also brought up at her one-year-on interview:

"When I forget it's more chaotic because they haven't got any expectations of what they're supposed to be doing when you go somewhere." (I-year)

Strategies which Emily had previously found to be effective, but had not used for several months, were now forgotten. Had her partner attended then maybe these would not be lost.

Olivia, a mother of four who attended *The Incredible Years* parenting programme, also commented that:

"It would be beneficial for partners [to attend the programme]" (I-post)

Emily, a mother of two young sons suggested at her post-programme interview that:

"I think it's helpful if you both go 'cause it's harder for one parent to tell the other parent what to do" (I-post)

Emily went on to share that she had a very different parenting style to her partner, however for her it would always be her partner's position that would be enforced.

Different styles of parenting could become a contentious issue and put further pressures on a family who may already be experiencing difficulties, as parents disagree or even argue in front of the children, displaying a fractured unit – one that the children could play upon. The lack of family consistency was certainly a contentious issue for Isabella and one which she thought the course could help address:

"Um I realise now when he starting to get tired, that's a flash, that's a real anger flash point when he's starting to get tired. So because he had a very sporty day yesterday, I tried to get him to bed early; I say early I mean eight o'clock. And at quarter to nine I'm telling his dad off because they've been up there playing games" (I-post)

Olivia's husband, at the time of this interview, was working with the trainer on a one-to-one basis on the strategies taught on *The Incredible Years* programme. For Olivia this:

"...was absolutely brilliant, 'cause all these changes were happening and I felt I was equipped but he wasn't, and it's a very difficult time to tell your husband ... it can be a bit condescending" (I-post)

From talking to one of the other mothers on this programme, it became evident that her husband was also going to be working with the same trainer on a one-to-one basis. Having both parents taking part in the programme and adopting the same positive strategies would certainly promote continuity and consistency in their parenting.

5. FUTURE RESEARCH DIRECTIONS

I would like to elaborate on two specific areas which I feel would benefit from further study. Firstly, is there a place for parenting programmes within the school curriculum? Secondly, what is the impact of parenting programmes on child attainment in school?

A question on the post-programme questionnaire (Q-post) asked “When would you have liked to start learning about children and parenting?”: 14 (23%) of the 62 parents who answered this question considered that it would be beneficial to start learning about parenting while still at school. This is an important outcome as it could suggest that there is a place for parenting programmes within the school curriculum; further research is needed to explore the possibility and value of such an approach.

One of the original aims of my study was to investigate the impact of parenting programmes on the child’s attainment in school however due to the low number of participants who had school age children, I was unable to pursue the line of research. This area is important, and so is suggested here as an opportunity for further research, as it is associated more directly with the impact of parenting programmes on a child’s educational development.

6. DISCUSSION AND CONCLUSION

6.1. Creating the right environment

A key finding from this research is how parents valued the role of the trainers in creating the right environment, where they could share their parenting experiences and support each other within the structure of a parenting group. Importantly, although the perspectives and experiences of other parents were viewed as a critical element of the programme, this was not found to diminish the role of the parenting programme trainer. Seven out of the eight parents interviewed recognised the role of the trainer in setting the scene and supporting them through challenging times in addition to providing general parenting advice and information. The parents spoke positively of their experience of attending a parenting programme and considered that they worked in partnership with the trainers rather than being explicitly instructed and directed. I would like to emphasise this point because it suggests trainers are not adopting the role of an expert, as in Cunningham and Davis’ *Expert* model, but rather are working together with parents as in their *Transplant* model (Cunningham and Davis, 1985). This is important because it suggests that parents are being empowered by the approaches to learning being adopted by the trainers, rather than disempowered by being made to feel inadequate as suggested could be the case (Cottam & Espie, 2014). This also indicates that the concerns raised by Crozier (1998), whereby trainers view themselves as the expert and have a deficit view of the parents, may have been successfully overcome – at least on the programmes which formed part of my research.

6.2. Whole family engagement

From both the literature review and my own professional experience, it was expected that certain themes would probably develop from the analysis of the questionnaire and interview data as they had been the focus of previous research: themes such as an improvement in children’s behaviour (Barlow & Parsons, 2005; Hutchings et al., 2007; Furlong et al., 2012) or parents adopting positive parenting strategies (Coren & Barlow, 2009; Lindsay & Cullen, 2011; Furlong et al., 2012). However what was interesting from

the interviews with *Triple-P* and *The Incredible Years* parents was the emphasis that they placed on whole family engagement in the programme. This is important because it is about providing continuity and consistency in parenting and reducing family conflict, and was identified by the parents as being more likely to take place if both parents adopted the same positive parenting strategies. For one parent to be perceived as the expert, telling the other how they should be parenting, could place a strain on their relationship or possibly make the other parent feel disempowered. It seems the concerns raised in the literature around Cunningham and Davis (1985) *Expert* model could apply more to the inter-parent relationship rather than the parent-trainer relationship.

6.3. Parenting programme availability

Parents and trainers both raised concerns around the reduction in the availability of parenting programmes and how the remaining programmes are largely only available for targeted groups of parents; for example fathers, teenaged parents and those from areas of socio-economic deprivation. I fear this could promote the return of the perception that parenting programmes and children's centres are a place where only "failing" or "disadvantaged" parents go. Although there is a need to encourage targeted parents to attend, I believe that parenting programmes should be offered universally, with every parent invited and encouraged to join a parenting group with their child. The groups should be structured such that they offer opportunities for both parents to attend, including the case where one or both are in work. Additionally there needs to be improved access to and greater availability of parenting programmes which support parents of school-age children; new challenges face parents as children get older. This is important because the stigma around parenting programmes, especially for those who attend with older children, could be reduced with greater emphasis placed on availability to all parents.

6.4. Conclusion

The parenting programmes that formed part of my study can be seen to be adopting a Transplant Model of parent-professional practice. Parents commented on the importance of creating a learning environment in which their pre-existing knowledge was recognised and that this need was being satisfied by the parenting programme they attended. Further, parents reported that having become an "expert" through attending the programme, they subsequently found that this could lead to an imbalance and inconsistency in the home parenting environment. They noted that it was important to include the whole family in at least part of the transplant of parenting skills.

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AUTHOR INFORMATION

Full name: Katy Smart, MEd, PhD, MBPsS

Institutional affiliation: University of Bristol

Institutional address: School of Education, 35 Berkeley Square, Bristol BS8 1JA, UK

Short biographical sketch: Katy Smart is a post-graduate researcher, university lecturer and primary school teacher with an extensive experience in all aspects of education from early years to further and higher education. She has previously been a local authority adviser on schools and children's centres in the south-west of the UK as well as the lead on the Parent Support Adviser initiative. She is also the editor of the *Psychology of Education Review*, the journal of the Psychology of Education Section of the British Psychological Society.

Chapter #19

PARENTING STRESS AND ITS INFLUENCING FACTORS AMONG KOSOVAR MOTHERS

Zamira Hyseni Duraku

Prof. Ass. PhD, Department of Psychology, University of Prishtina, Hasan Prishtina, Kosovo

ABSTRACT

Parenting behaviors are considered to be influenced by certain stressors, deriving from situational, contextual, or parental or child domains. The main goal of this study was to examine the interplay of children's age, number of children and gender with parenting stress level among Kosovar mothers. The Parenting Stress Scale (PSS; Berry & Jones, 1995) was used to assess parenting-related stress among Kosovar mothers. The measuring instrument consisted of an online survey distributed to a sample of (N=226) Kosovar mothers. Evaluation of the individual predictors indicated that number of children, child age, and child gender were all significantly associated with high levels of parenting stress, all having $ps < .05$. Parents of more than one child were over 8 times more likely to have high levels of parent stress ($OR = 8.120$). Conversely, parents of children younger than school age had decreased odds of high parenting stress ($OR = .083$). Similarly, those who had only female children were less likely to experience high parenting stress ($OR = .346$) compared to those with children of mixed genders. The Kosovar mothers' parenting stress indicators are in line with the existing parenting stress triggers found within other population groups, since number of children, child age, and child gender were all significantly associated with high levels of parenting stress.

Keywords: parenting stress, mothers, children's age, number of children, child gender.

1. INTRODUCTION

The term 'stress' has gained increasing popularity in the behavioral and health sciences over the past five decades (Krohne, 2002). The point in the life cycle in which people tend to experience increased levels of stress is considered to be when they become parents; a time also deemed most demanding in terms of adult life responsibilities. While becoming a parent is recognized as one of the most powerful human experiences, as it is often accompanied by celebratory and relieved emotions, occasionally it is also a time of anxiety and stress (Lawoko & Soares, 2002, as cited in, Sumpter, 2009).

Certain stressors, deriving from parental or child situational or contextual domains influence parenting stress, which also encompasses difficulties in adjusting to the parenting role (Garbarski, 2014). Parenting stress is also defined as a cognitive and emotional reaction to childrearing demands, which are experiences that can be taxing or overwhelming to a parent's resources (Lazarus & Folkman 1984; as cited in Krohne, 2002).

According to research findings, a significant level of parenting stress has been found in both mothers and fathers (Lavee, Sharlin & Katz, 1996). However, in the overwhelming majority of instances, women are considered the primary caregivers (Sheppard, 2003), and thus, frequent research studies have focused on identifying the effects and factors related to parenting stress among mothers specifically.

Though some stress is considered a normal and inevitable part of the parenting process, high parenting stress can affect both the mother and the child (Deater-Deckard & Scarr, 1996). Parents who experience parenting stress are more likely to practice poor parenting behavior such as using harsh discipline methods (Sturge-Apple, Sour & Skiho, 2014), being less involved with their children and having a negative view of their role as a parent, thereby influencing the child's development (Abidin Jenkins & McGaughey, 1992). The presence of children in a family is found to also affect or lower marital happiness, increase conflict between husbands and wives (Carlson 2007), add to the psychological distress of the parents (Wolf, Noh, Fisman & Speechley, 1989) and lower their life satisfaction (Milgram & Atzil, 1988).

Most current research findings pertaining to the interplay of the influence of child characteristics on parenting stress are related to child developmental disabilities or child behaviors and the availability of social support of social support for parents (Baker, 1994; Dumas, Wolf, Fisman, & Culligan, 1991; Kobe & Hammer, 1994; Krauss, 1993; as cited in Lavee, Sharlin & Katz, 1996). However, though parenting stress has been found to be higher in delayed condition families (Baker, Blacher, Crnic & Edelbrock 2002), there is also evidence that the level of parenting stress among parents of children with disabilities and non-disabilities does not differ (Baker, et al., 2003).

Few research studies conducted to date associate the impact of child characteristics, age, gender, and the number of children to the mother's parenting stress. Nevertheless, according to the existing research in the field, mothers of sons reported more stress than did mothers of daughters (Scher & Sharabany, 2005). Furthermore, other study findings also indicate that a higher number of children has a direct impact on the level of parenting stress and the parental role (Lavee, Sharlin & Katz 1996).

Child growth and development is considered to be an indicator of parenting stress as well. At early ages, parental behaviors, stress and depression have been found to be associated with the health and well-being of their children (England, Sim & NRC, 2009). According to other research findings, for mothers of children under the age of eight, parental stress is believed to be linked to problems related to functioning in essential and routine roles, failing to help the child achieve self-regulation, anger and irritability, enmeshing dependency or both, less consistency in mother-child relationships over time and escalating negative qualities of interaction over time (Radke-Yarrow & Brown, 1993).

In regards to child development and age, research studies from the field also indicate that the parenting stress among parents tends to either remain relatively constant (Lenderger & Golbach, 2002; Ostberg, Hagekull, & Hagelin, 2007, as cited in Goldberg & Garcia, 2015), or decline in early childhood ages (Chang & Fine, 2007; Williford, Calkins, & Keane, 2007, as cited in Goldberg & Garcia, 2015). Other studies document the same stability as well. Their findings indicate that the daily hassles of parenting and major life stress are relatively stable across the preschool period (Crnic Gaze & Hoffman, 2005). However, according to these findings, the effect of stress on parenting has been found to be subject to social support. Mothers with high social support were found to be more positive, and the social support was found to moderate the effect on stress and parental behaviors (Crnic & Booth, 1991). The support from family members, fathers and grandmothers specifically, has also been found to be associated with lower stress among mothers (Burchinal, Follmer & Bryant, 1996).

Though there exists plenty of evidence worldwide documenting that parenting stress is linked to numerous stressors, there is not yet any evidence that these factors interact with the parenting stress among Kosovar mothers. Therefore, the main goal of this study was to examine the interplay of children's age, number of children and gender with the parenting stress level among the Kosovar population.

Even though there is a lack of previously conducted studies within the field of parenting stress among the Kosovo population, there is evidence that the long-lasting postwar effects within the families of the current children in Kosovo, which have resulted in higher rates of the postwar prevalence of mental disorders, are still present among the Kosovar population as well (Priebe et al., 2010). Moreover, taking into consideration that the level of parenting stress differs within different contexts and that geographical location, socio-economic status, race, and ethnicity can and do impact the level of stress and threaten the physical and mental health of parents (Beeber, et al., 2014; Epel & Lithgow, 2014; Berger & Guidroz, 2009, as cited in Cronin, Becher, Schmiesing, Maher & Dobb, 2015), a relevant study analyzing the interplay between the age, gender and number of children should be carried out in another context, such as in Kosovo.

Lastly, previous studies worldwide have documented that women are often the main caretaker responsible for the children, and this is true in the Kosovar society as well. However, with the lack of social support services, which is influenced by numerous cultural and contextual factors, the majority of mothers, even still, are prone to domestic violence, neglect in the private sphere and are considered “morally” correct only if they adhere to their reproductive roles (Qosaj-Mustafa, 2011).

2. METHOD

2.1. Participants/sample

A summary of the sample descriptive statistics are outlined in Table 1. A total of (N=226) Kosovar mothers participated in this study. Participants ranged in age from 20 to 54 years old, with an average of 30.58 years ($SD = 4.48$). Further descriptive are shown.

Table 1.
Summary of Demographics.

| | n | % |
|--------------------|-------|------|
| Gender (Children) | | |
| Girl(s) | 79 | 35.0 |
| Boy(s) | 90 | 39.8 |
| Boys and Girls | 57 | 25.2 |
| Child Age | | |
| Infant | 49 | 21.7 |
| Toddler | 73 | 32.3 |
| Preschooler | 9 | 4.0 |
| School Age | 15 | 6.6 |
| Adolescents | 1 | 0.4 |
| Mixed Ages | 79 | 35.0 |
| Age | | |
| Mean | 30.58 | |
| Standard Deviation | 4.48 | |
| Min | 20 | |
| Max | 54 | |
| Number of Children | | |
| Mean | 1.49 | |
| Standard Deviation | .68 | |
| Min | 1 | |
| Max | 5 | |

2.2. Procedure

Participants in the current study were recruited from a series of parenting groups for Kosovar mothers. Prior to completing the survey, potential participants were informed of the purpose of the study, the time demands, and potential risks and benefits. They were further informed that their responses would remain confidential and that their participation may be revoked at any time. The time required to complete the survey was approximately 15-20 minutes.

The Parenting Stress Scale (PSS; Berry & Jones, 1995) was used to assess parenting-related stress among Kosovar mothers. The PSS is an 18-item self-report scale that assesses both positive and negative themes of parenthood. Positive themes include emotional benefits and personal development, while negative themes include demands on resources and restrictions. Items are presented on a 5-point scale ranging from Strongly Disagree to Strongly Agree. Lower scores indicate lower levels of stress, whereas higher scores are indicative of higher stress. For the present study, the scale was forward translated to Albanian, from the original English version (Berry & Jones, 1995). The internal consistency of the scale in the current sample was acceptable ($\alpha = .811$).

2.3. Data analysis

Prior to conducting primary analyses, preliminary and exploratory analyses were conducted to assess the quality of the obtained data. In particular, missing data were evaluated along with the assumptions of statistical testing. To predict the levels of parenting stress, total parenting stress scores were collapsed into High and Low groups based on the central value (mean and median = ~ 63). A central tendency-based classification was used to account for the significant skewness in the data. Using this classification, binary logistic regressions were used to predict the likelihood of having high levels of parenting stress. All analyses were conducted in SPSS v. 24. Significance was determined at the .05 level. The measure of effect size used for the omnibus regression model was Nagelkerke R^2 , with higher numbers indicating a greater amount of the variance explained by the model overall. Odds ratios were utilized for measuring the effect size for each individual predictor. Odds ratios greater than 1 can be interpreted as the amount of times that the positive outcome is more likely to occur, and odds ratios less than 1 can be interpreted as a lower likelihood of the positive outcome occurring.

3. RESULTS

Prior to conducting the primary regression analyses, preliminary analyses were conducted to assess the bivariate, or simple, relationships between all variables obtained and the parenting stress scores. The relationships between categorical variables were assessed using cross tabulations with chi square tests, and continuous variables were assessed by the levels of parenting stress: using tests of difference (i.e., t -tests, analysis of variance [ANOVA]). The predictors used in the final regression were based on the significant findings of the preliminary analyses, as well as those that were theoretically hypothesized to be related to high levels of parenting stress.

A summary of the primary analyses is shown in Table 2. As indicated, the overall model predicting high levels of parenting stress was significant, $\chi^2(5) = 16.21$, $p = .006$; Nagelkerke $R^2 = .092$. The evaluation of the individual predictors indicated that number of children, child age, and child gender were all significantly associated with high levels of parenting stress, all having $ps < .05$. Parents of more than one child were over 8 times more likely to have high levels of parenting stress ($OR = 8.120$). Conversely, parents

of children younger than school age, had decreased odds of high parenting stress ($OR = .083$). Similarly, those who had only female children were less likely to experience high parenting stress ($OR = .346$) compared to those with children of mixed genders.

Table 2.
Binary Logistic Regression Predicting High Levels of Parenting Stress.

| | β | SE | Wald | OR |
|--|---------|------|------|---------|
| Parent Age | .05 | .04 | 1.83 | 1.049 |
| Multiple Children | 2.09 | 1.09 | 3.66 | 8.120 * |
| Child Age (Compared to School Age or Higher) | -2.48 | 1.10 | 5.06 | .083 * |
| Gender | | | 6.83 | |
| Girls (Compared to Mixed Gender) | -1.06 | .48 | 4.96 | .346 * |
| Boys (Compared to Mixed Gender) | -.36 | .45 | .63 | .699 |

Note. Model summary: $\chi^2(5) = 16.21, p = .006$; Nagelkerke $R^2 = .092$; $OR = Odds Ratio$; * $p < .05$

4. DISCUSSION AND CONCLUSION

The Kosovar mothers' parenting stress indicators are in line with the existing parenting stress triggers found within other population groups, since number of children, child age, and child gender were all significantly associated with high levels of parenting stress. According to the research results, parents of more than one child were 8 times more likely to have higher levels of parenting stress, which was also found in a study conducted by Lavee, Sharlin & Katz (1996), which revealed that higher numbers of children have a direct impact on the level of parenting stress and on their parental role. The current study results show a correlation with the existing literature from which it is known that mothers of sons reported more stress than did mothers of daughters (Scher & Sharabany, 2005). Additionally, the current finding, which shows that parents of children younger than school age had decreased odds of high parenting stress, is in line with other research findings as well; these indicate that the parenting stress among parents tends to remain relatively constant (Lenderger & Golbach, 2002; Ostberg, Hagekull, & Hagelin, 2007, as cited in Goldberg & Garcia, 2015), or decline for early childhood ages (Chang & Fine, 2007; Williford, Calkins, & Keane, 2007, as cited in Goldberg & Garcia, 2015).

5. FUTURE DIRECTIONS

Building upon the current research, future research may be needed to better understand the outcomes of parenting stress on both child and parental functioning outcomes, such as mental health and behavioral functioning. Furthermore, additional research may be needed to further assess potential buffers (i.e., moderators) that may negate some of the risk factors already identified in this study. Such protective factors may include geographical location, socio-economic status, ethnicity (Beeber, et al., 2014; Epel & Lithgow, 2014; Berger & Guidroz, 2009, as cited in Cronin, Becher, Schmiesing, Maher & Dibb, 2015), and other family and contextual factors, such as family dynamics, spouse/partner support, level of education, employment, child development, and social support from others, which has also been found to be associated with lower stress levels among mothers (Burchinal, Follmer & Bryant, 1996). Accordingly, once buffers and protective factors have been identified, it may be helpful to design and test interventions to examine the efficacy of improving areas in which change is possible.

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AUTHOR INFORMATION

Full name: Prof. Ass. Zamira Hyseni Duraku, Phd

Institutional affiliation: Department of Psychology, University of Prishtina, Hasan Prishtina

Institutional address: Mother Teresa Street, n.n. 10 000, Prishtinë, Kosovo

Short biographical sketch: Zamira Hyseni-Duraku is a Professor Assistant in the Psychology Department of the University of Prishtina, Hasan Prishtina, in Kosovo. She lectures on Child Psychology and Development, Clinical Psychology, Learning and Motivation, Client Clinical Interview and Evaluation, and Education Structures and Management. She has a PhD in Psychology from Tirana University, and a Masters in Clinical Psychology from the Union Institute and the University of Vermont College, VT, United States of America. Her research spans a range of subjects in developmental, clinical and education psychology. Her most recent work is related to research regarding the influential factors on mental health distress among children, the impact of educational leadership on teachers' motivation and student academic performance, parenting stress factors among Kosovar mothers, the interplay of factors influencing academic and emotional wellbeing, as well as test anxiety among Kosovar students. Her research has been published in numerous international peer reviewed scientific journals. Zamira also has a decade of experience working on mental health related subjects, and works as a consultant in efforts to advance education for children and adults.

Chapter #20

IMPLEMENTATION OF SOCIAL-EMOTIONAL LEARNING PROGRAMS IN JAPANESE SCHOOLS: SCHOOL TEACHERS' PERCEPTION OF ANCHOR POINTS IN EDUCATIONAL PRACTICE

Reizo Koizumi

University of Teacher Education Fukuoka, Japan

ABSTRACT

The present study examined which factors school teachers perceive as anchor points (bases or elements for constructing and developing a system) to implement and sustain social and emotional learning (SEL) programs. The most suitable subject area and aims of SEL were also surveyed. The participants were 111 school teachers in Japan where schools are strongly controlled under national curriculum standards. A factor analysis of the responses to a questionnaire of anchor points revealed the following four factors: (1) Procedures for Conducting a Program (e.g., trials at one class or one grade level), (2) Necessary Contents and Items for Implementation (e.g., teaching plans, teaching material), (3) Partnership with Families and Local Community (e.g., having partnership with local community), and (4) Leadership in Conducting a Program (e.g., leadership by the chief teacher in practical research). Among these four, factors 2 and 4 were more highly perceived as anchor points for incorporating SEL programs. As a proper curriculum area for SEL programs, Special Activities (e.g., class meetings, class activities, student council, and school events) were given the highest evaluation scores among the major curriculum areas. The programs' main aim was to improve the communication competency and interpersonal relationship ability of Japanese children.

Keywords: social-emotional learning program, school teachers, anchor point, implementation, sustainability.

1. INTRODUCTION

1.1. Implementation of SEL programs

Social and emotional learning (SEL) is explained as the processes through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. (Collaborative for Academic, Social, and Emotional Learning, 2012, p.4).

Because relationships and emotional processes with peers affect not only students' learning, but also their attitudes and behaviors in school, numerous SEL programs for children have been developed.

The positive effects of SEL programs on children's behavior and academic achievement have been previously reported in review articles (e.g., Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). Both the positive impacts immediately following intervention using SEL programs, and their long-term effects, have been found in a meta-analysis (Taylor, Oberle, Durlak, & Weissberg, 2017). However, in spite of the

evidence-based analyses of the effects of SEL programs, implementing them efficiently and sustaining them in regular school settings has proved to be a difficult issue (Askill-Williams, Dix, Lawson, & Slee, 2013). From the ecological perspective, both SEL programs and school environments need to be considered, because SEL lessons will not produce satisfactory effects without the creation of meaningful real-life opportunities to use the skills obtained (Weissberg, Caplan, & Harwood, 1991). This study looked at the issue from the perspective of teachers as well, by examining how they currently work in the Japanese school system, and determining what facilitators are required to enable their implementation in ordinary Japanese schools.

Roughly speaking, there are two types of SEL programming in terms of program structure. The first is “firmly structured SEL programming” in which the program structure is solid and robust. The sessions in a program are fixed in number and order as well as in contents. The second type is “segment-based SEL programming”. In this form of programming only the contents of program sessions are provided, and each school must constitute its own SEL curriculum with those program segments. The number of sessions and their order differ from one school to another, and the framework depends on each school’s policy and purpose. Most evidence-based SEL programs are categorized as including “firmly structured SEL programming”. If they are implemented according to procedure we can expect positive effects, because their program structures are solid and there is little space for adjusting them for on-demand requests. In these circumstances implementers require fidelity for successful implementation (Domitrovich et al., 2011). On the other hand, “segment-based SEL programming” prevails in Japan, because of the characteristics of the Japanese school system.

1.2. Japanese school system and SEL programs

National curriculum standards have been firmly established in Japan. They are found in the Education Ministry’s Curriculum Guideline (Ministry of Education, Culture, Sports, Science and Technology (MEXT), 2008), and their aim is to provide fundamental standards for kindergarten to high school education all over Japan. They include educational objectives, goals, curriculum structures, number of educational weeks, and course subjects, and have been revised approximately every 10 years since the 1950s. The greatest advantage of the curriculum guidelines is that children can get standardized education anywhere in Japan (DeCoker & Bjork, 2013), but one of the demerits is that schools have little freedom to take in new curriculums or learning areas into the present curricula structure.

In fact, SEL is not included in the national curriculum standards, it is only suggested in the Student Guidance Outline (MEXT, 2010). Some learning methods in SEL, such as social skills training, and some categories of SEL, such as peer support activities, are suggested as useful “techniques” in school counseling. SEL is not regarded as an area for students’ learning. Therefore, Japan may be one of the countries in a preliminary stage in terms of SEL. In fact, SEL programs for “firmly structured programming,” comprised of structured sequential sessions of definite numbers are not prevalent at all in Japanese schools. Most SEL programs are offered in the form of segment-based SEL programming in Japan, and a few motivated schools create their own SEL curricula with those program segments.

Furthermore, those curricula cannot be regarded as independent learning areas, and have to be emerged into the present curriculum structure so that they meet the criteria in the MEXT Curriculum Guidelines. Possible areas for the SEL curriculum are Special Activities (e. g., classroom meetings, class activities, student council, and school events), Moral

Education, Integrated Study Class (learning through project method), and extra curriculum time (morning meetings and end-of-the-day meetings). In the “emerging” process, each school is required to meet the Curriculum Guidelines, because the whole curriculum structure, the contents of all school subjects, and even the total number of classes for each school subject in a whole school year are specified precisely.

Besides selecting the area for the SEL curriculum, the aim of SEL programing is also to cover crucial issues such as the variety of independent valuables that include social and emotional skills, attitudes, behavior, and academic performance through review articles (Durlak et al., 2011). This means SEL programing allows for a wide range of outcomes, and schools and teachers have to set their clear aims when conducting SEL programs.

One example of “segment-based SEL programming” in a Japanese school is reported in Kagawa & Koizumi (2015). The selected program was the Social and Emotional Learning of Eight Abilities at School program (SEL-8S: Koizumi, 2011) that provided 54 sessions (teaching plans and materials) for elementary schools (1st through 6th grades), and 36 sessions for junior high schools (7th through 9th grades), according to students’ development levels. One public elementary school constituted its own SEL curriculum within those sessions and emerged it into the Special Activities in Education Curriculum Guidelines from MEXT. They aimed to promote children’s interpersonal abilities and academic performance with this learning program. The first year implementation of the curriculum resulted in a significant increase in children’s social and emotional competencies and basic academic performance (Japanese language Kanji and arithmetic) in most grades, compared with the results from an elementary school control group.

1.3. The anchor point planting approach

In evaluating the Japanese school system the author focused on Anchor Point Planting Approach for SEL program implementation. An anchor point is originally defined from the ecological and developmental perspective as an element of the person-in-environment system that facilitates transaction between the person and the environment (Koizumi, 2000). From a system-construction viewpoint an anchor point means a base or an element for constructing and developing a system. If a proper anchor point is introduced and placed in a given system, it is expected to facilitate the construction of the system based on internal resources and those around it. The Anchor Point Planting Approach is a method to find and settle effective anchor points in a system to promote the construction of the system in the desired direction (Koizumi, 2000).

In SEL program implementation in a school-wide setting, for example, 10 anchor points are proposed: the introduction procedure (a top-down style or a bottom-up style), school principal’s leadership, the SEL coordinator (teacher), selecting a proper SEL program (segments/ sessions), a trial in one class or one grade level, SEL curriculum construction, the committee of teachers in charge of SEL, training workshops, classroom and school environment (e.g., posters, slogans), and coordination with parents (Koizumi, 2016). If these anchor points are introduced and planted properly, SEL programming is expected to be successfully incorporated into standard educational practice.

In particular, “segment-based SEL programming” requires each school to customize program sessions or contents into its own SEL curriculum through its own efforts. From the ecological view point both SEL programs and school environments need to be considered (Weissberg et al., 1991), the school teacher’s role is more influential in this programming than in “firmly structured SEL programming.” However, the perception by teachers of anchor points for the implementation of SEL programs has not yet been examined.

1.4. Objectives

The aim of this study was to examine Japanese school teachers' perception of anchor points for implementing and sustaining SEL programs in Japanese schools, their evaluation of curriculum areas for these programs, and their understanding of the program's aims. It was hoped that the results obtained will contribute to the success of SEL program implementation in Japanese schools.

2. METHODS

2.1. Participants and procedure

Participants were recruited at some seminars on teaching license renewal during a summer vacation period. A total of 111 (38 males and 73 females) of the 143 attendees responded to the study questionnaire voluntarily in several of their recess periods. This group was made up of 64 elementary school teachers, 33 junior high school teachers, 10 high school teachers, and 4 special school teachers. For elementary school to junior high school teachers (N=97; 30 males and 67 females), the average years of teaching experience was 14.9: Thirty seven of these teachers had less than 10 years teaching experience, 31 had 11 to 20 years, and 29 had more than 21 years. No principals or vice principals were included. All the participants knew or had observed more than one SEL program being conducted in schools, however their actual experience of implementing an SEL program had not been surveyed.

At the beginning of the first recess period in each seminar it was explained that participation was voluntary and they were not required to write down their names. It was also noted that responses had nothing to do with the evaluation of their seminar credits.

2.2. Material

The questionnaire was composed of three parts: Perception of Anchor Points, Curriculum Areas for SEL Programs, and the Aims of SEL Programs. Perception of Anchor Points was measured with 19 candidates as anchor points. These anchor points were based on Koizumi's (2016) explanation of the Anchor Point Planting Approach for SEL program implementation. The question was as follows: how much do you think these items are needed to implement social and emotional learning programs in a school-wide setting? Participants rated each item on an 11-point scale (ranging from 0 = does not need at all to 10 = need very much).

The Curriculum Areas for SEL Programs part was evaluated in five areas: Special Activities (class meetings, class activities, student council, and school events), Moral Education, Integrated Study Class (learning by a kind of project method), a Specifically Settled Subject, and Extra Curriculum Time (morning meetings and end-of-the-day meetings). The question was as follows: which curriculum areas do you think are appropriate for social and emotional learning in the school curriculum? Participants rated each item on an 11-point scale (ranging from 0 = not proper at all to 10 = very proper).

The Aims of SEL Programs part was composed of 5 items: Improving Academic Achievement, Human Rights Education, Career Education, Improving Communication Competence, and Interpersonal Abilities. The question was as follows: what do you think are the appropriate aims for SEL? Participants rated each item on an 11-point scale (ranging from 0 = not proper at all to 10 = very proper).

3. RESULTS

3.1. Factor analysis of the perception of anchor points

The responses to the Perception of Anchor Points questions were analyzed via a factor analysis (maximum likelihood estimation, followed by promax rotation). A four-factor resolution was adopted based on Cattell's scree test (eigenvalues: 4.39, 1.87, 1.34, 1.24, 0.80, 0.64 in this order). The results of the confirmatory factor analysis (Table 1) showed satisfactory adoptive indexes ($\chi^2=36.04$, $df=32$, CFI=.986, RMSEA= 0.044, AIC=130.83). The four factors were named: (1) Procedures for Conducting a Program (e.g., trials at one class or one grade level); (2) Necessary Contents and Items for Implementation (e.g., teaching plans, teaching material); (3) Partnerships with Families and Local Community (e.g., having a partnership with a local community); and (4) Leadership in Conducting a SEL Program (e.g., leadership of a teacher in charge of practical research in the school), respectively.

Cronbach's alpha tests of the four subscales produced the values of .74, .73, .78 and .77, respectively. The four subscale scores were calculated by averaging the responses to each item.

Table 1.
Results of a factor analysis.

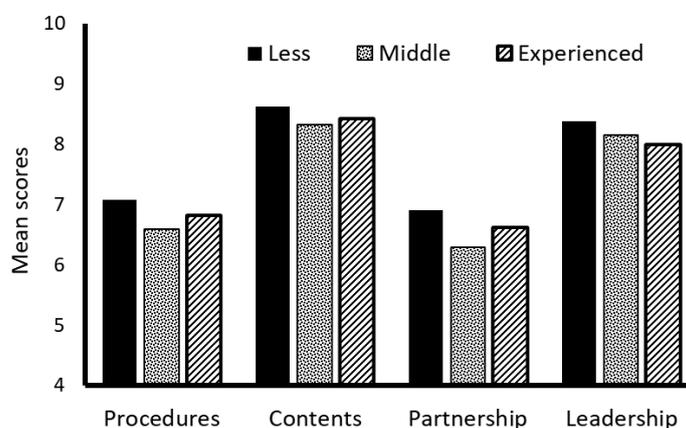
| Factor and item | F1 | F2 | F3 | F4 | Communarity |
|---|-------------|-------------|-------------|-------------|-------------|
| F1. Procedures for Conducting a Program | | | | | |
| Trials at one class or one grade level | .813 | -.169 | -.034 | .022 | .530 |
| Section in charge of SEL in a school | .775 | .059 | .037 | -.196 | .611 |
| Being selected as a pioneer model school | .566 | .058 | -.019 | -.060 | .327 |
| Middle-aged leaders playing a role model for implementation | .501 | .166 | -.031 | .196 | .475 |
| F2. Necessary Contents and Items for Implementation | | | | | |
| Teaching plans and teaching material | -.069 | .769 | -.046 | -.028 | .504 |
| Selecting a proper and teacher-friendly SEL program | -.049 | .686 | .087 | .004 | .490 |
| Scheduled training workshops for teachers | .215 | .593 | -.051 | .054 | .536 |
| F3. Partnership with Parents and Local Community | | | | | |
| Partnership with local community | .110 | -.217 | .923 | .080 | .850 |
| Partnership with parents | -.158 | .213 | .868 | -.092 | .777 |
| Model schools in the near areas | .233 | .166 | .332 | .105 | .404 |
| F4. Leadership in Conducting a Program | | | | | |
| Leadership of the chief teacher in practical research section | -.009 | .032 | -.108 | .933 | .858 |
| Leadership of the chief teacher in curriculum management | -.111 | .012 | -.015 | .655 | .396 |
| Leadership of the chief teacher in each grade | .010 | -.048 | .179 | .636 | .460 |
| Others | | | | | |
| Decision making and lead of education boards | | | | | |
| Leadership of the principal | | | | | |
| Leadership of the vice principal | | | | | |
| One or two teachers who can start SEL in the school | | | | | |
| Teachers with experience of instructing SEL programs in other schools | | | | | |
| Constructing and emerging SEL programs into the present curriculum | | | | | |
| Factor contribution | 3.062 | 2.767 | 2.573 | 2.306 | |
| Correlations between factors | | .538 | .470 | .327 | |
| | | | .396 | .378 | |
| | | | | .199 | |

3.2. ANOVAs of perception and estimation

A three (Experience: teaching experience period) x four (Factor) factorial analysis of variance was computed from the Perception of Anchor Points data to examine what kind of factors school teachers perceive as effective anchor points, and how these are different among groups with different experience periods. Figure 1 shows the mean subscale scores by Experience group and Factor. The Factor main effect was significant ($F(3, 312) = 46.83, p < .01, \eta_p^2 = .311$). A multiple comparison with Bonferroni correction ($p < .05$) showed that the scores of Necessary Contents and Items for Implementation and those of Leadership in Conducting a Program were higher than those of the other two factors. The other main effect and its interactions were not significant.

A two (School) x five (Area) factorial analysis of variance was computed using the Curriculum Areas for SEL Programs data. This was done to examine which areas school teachers estimate as appropriate area(s) in implementing a SEL program, and how this is different between elementary school teachers and junior high school teachers. High school teachers and special education school teachers were not included because the number of participants in these groups was not large enough for this analysis. Figure 2 shows the mean subscale scores by School and Area. The Area main effect was significant ($F(4, 364) = 16.21, p < .01, \eta_p^2 = .151$), and the School x Area interaction was marginally significant ($F(4, 364) = 2.04, p < .10, \eta_p^2 = .022$). Analyses of the simple main effects and the multiple comparison with Bonferroni correction ($p < .05$) showed that Special Activities scores had a tendency to be higher than the other four areas among elementary school teachers, but that these scores were only marginally higher than specifically settled subjects and extra curriculum time (morning meetings and end-of-the-day meetings) for junior high school teachers.

Figure 1.
Perceived Anchor Points.



Procedures: Procedures for Conducting a Program
 Contents: Necessary Contents and Items for Implementation
 Partnership: Partnership with Families and Local Community
 Leadership: Leadership in Conducting a Program
 Less: Teaching experience less than 10 years
 Middle: Teaching experience from 11 to 20 years
 Experienced : Teaching experience more than 20 years

A two (School) x five (Aim) factorial analysis of variance was computed for the Aims of SEL Programs. This was to examine which aims school teachers perceive as appropriate in implementing a SEL program, and how this is different between elementary school teachers and junior high school teachers. Again high school and special education school teachers were not included. The main effect for Aim was significant ($F(4, 364) = 79.31, p < .01, \eta_p^2 = .452$). Figure 3 shows the mean scores by Aim. Multiple comparison with Bonferroni correction ($p < .05$) showed that the scores were different from each other except for those between Human Rights Education and Career Education, and between Improving Communication Competence and Interpersonal Relationship Abilities. The other main effect and interactions were not significant.

Figure 2.
Curriculum Areas for SEL.

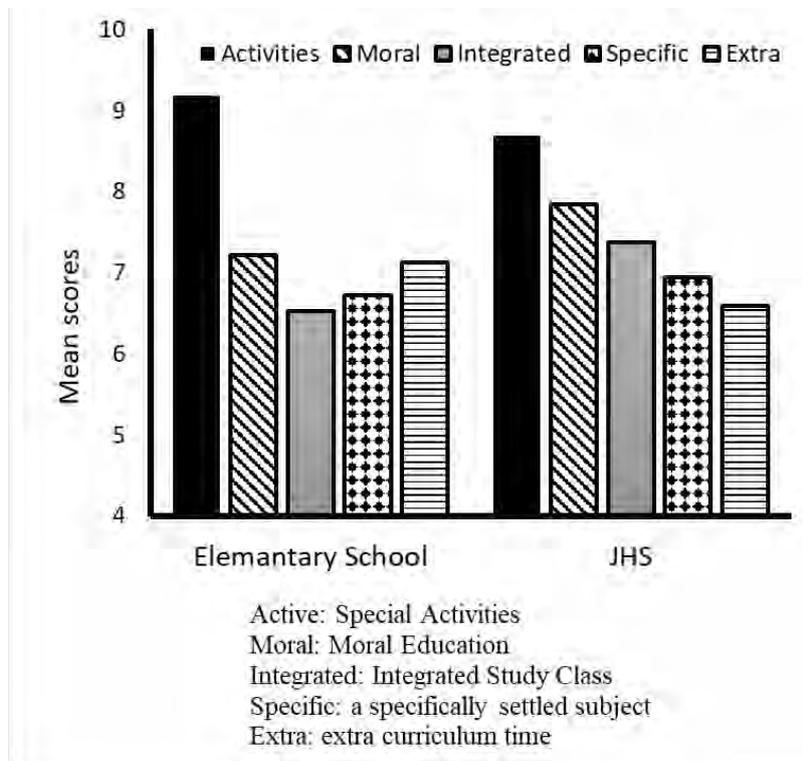
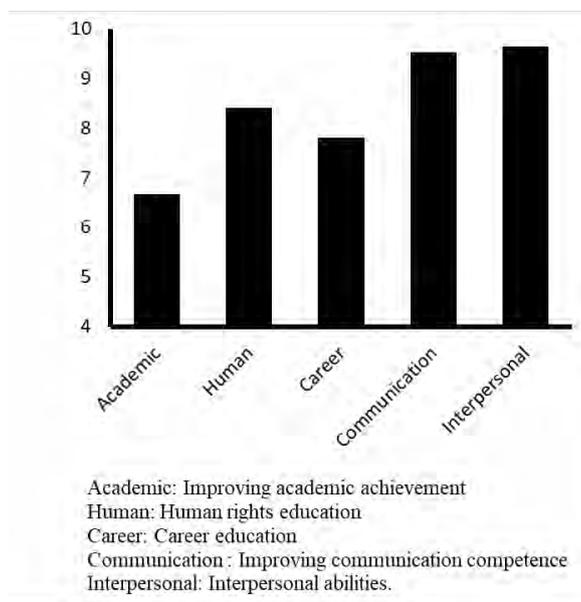


Figure 3.
Aims of SEL.



4. DISCUSSION

The results of the factor analysis indicated that school teachers' perception of the anchor points for SEL program implementation can be roughly categorized into four groups: (1) management (Procedures for Conducting a Program); (2) practicing (Necessary Contents and Items for Implementation); (3) family & local community (Partnership with Families and Local Community); and (4) leadership (Leadership in Conducting a SEL Program). Items concerning school management such as leadership from a board of education, school principal leadership, and curriculum construction were not extracted in any factor. These three items are however included in the 10 proposed anchor points for SEL program implementation in Japanese schools (Koizumi, 2016): introduction procedures (a top-down style or a bottom-up style), school principal leadership, and SEL curriculum construction. That our data shows a different pattern is probably because administrative persons were not included in the participants, and that teachers pay more attention to everyday educational practice in classes and schools.

For successful SEL program implementation some key practices were recommended in previous studies: e.g., SAFE ("sequenced" activities to develop skills, "active" forms of learning, including one or more "focused" components, and "explicit" targeting skills) (Durlak et al., 2011). In the case of "segment-based SEL programming", other facets become additional key issues, such as teaching plans and teaching material (in the Necessary Contents and Items for Implementation factor). These are supplied usually by program inventors or consultative organizations in the case of "structured sequential SEL programming". Schools and teachers need more time to customize teaching plans and prepare teaching materials by themselves in "segment-based SEL programming". Leadership of a chief teacher in curriculum management (Leadership in Conducting a SEL

Program factor) is also important in “segment-based SEL programming”, because the question of how to tailor SEL program segments to the real state of affairs of the school (Weare, 2010), and to merge the SEL program into the current curriculum requires this type of effort.

Among the four factors, (2) practicing and (4) leadership were evaluated more highly than the other two factors ((1) management, (3) family & local community) as anchor points in the questionnaire. This result may reflect the fact that most participants were classroom teachers and their perceived anchor points are based on their everyday teaching activities. School administrators have to recognize the importance of these four anchor points in implementing and sustaining SEL programs.

The most suitable curriculum area for SEL appeared to be Special Activities, and the aim of SEL was seen to be the improving students’ communication competence and interpersonal relationship abilities. This perception is consistent with the MEXT Curriculum Guideline in which Special Activities must involve class meetings, class activities, student council, and school events. These activities and events will not go smoothly without communication skills and the ability to have effective relationships with peers and sometimes students in different grades. However, the guideline does not include SEL-related aims or contents.

Concerning the evaluation of curriculum areas for SEL programs and the aims of the programs, no differences were found between elementary school teachers and junior high school teachers, or among the teacher’s groups that had different teaching experiences. Thus, irrespective of the kinds of school or degree of teaching experience, school teachers may have similar perceptions and estimates about SEL program implementation in the present preliminary stage of this program in Japan.

5. CONCLUSION

In the successful implementation and sustainability of SEL programs, the factors of Necessary Contents and Items for Implementation (e.g., teaching plans, teaching material) and Leadership in Conducting a SEL Program (e.g., leadership of a teacher in charge of practical research in the school) play an important role as anchor points from the perspective of teachers in Japanese schools. School teachers estimate that SEL is more properly conducted in the Special Activities area in relation to the present Japanese national curriculum standards, and its main aims are improving communication competence and interpersonal relationship abilities. Administrative persons can promote the implementation and sustainability of SEL programs in schools by focusing on and “planting” effectively the types of anchor points revealed in this study. Just suggesting or proposing to introduce SEL programs is not enough to enhance student adaptation to schools without paying attention to teachers’ viewpoints.

6. FUTURE RESEARCH DIRECTIONS

“Segment-based SEL programming” is suitable in the school curricula structure that is strongly controlled by governments, such as in Japan. In this type of programming, schools have a wider range of freedom in conducting SEL programs, and this means that we need not only evidence-based SEL programs themselves but also effective delivery methods. Future research with a larger number of participants should examine each anchor point factor in more detail using multiple regression analyses whose independent variables should

be factor, school, aim, teachers' sex and experience period. This would give more elaborated results for actual implementation at each school. Without this kind of effort we cannot provide policy makers with sufficient empirical evidence to ensure that SEL programing will be included in the national curriculum standards in the future.

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R. Koizumi

AUTHOR INFORMATION

Full name: Reizo Koizumi

Institutional affiliation: Division of Professional Practice in Education, University of Teacher Education Fukuoka

Institutional address: 1-1 Akamabunjomachi Munakata, Fukuoka, Japan

Short biographical sketch: Reizo Koizumi has been a Full Professor in the Graduate School of Education, University of Teacher Education Fukuoka since 2009. He obtained his Ph.D. in psychology from Hiroshima University in 1995. His longstanding interest has been students' adaptation to the school environment from the viewpoints of educational and school psychology. Dr. Koizumi and his colleague have published a three-volume book series on a social and emotional learning (SEL) program for students (Social and Emotional Learning of Eight Abilities at School: SEL-8S), and a book on the SEL program for teachers (Social and Emotional Learning of Eight Abilities for Teachers: SEL-8T).

Chapter #21

PUTTING THE PAST IN ITS PLACE

Assessing students' perceptions of their early experiences and self-awareness as explored in a counselling programme

Suzie Savvidou, & Petros Kefalas

The University of Sheffield International Faculty, City College, Thessaloniki, Greece

ABSTRACT

Assessment in higher education is constantly driving new research, centered on forms of testing based on real-life situations and self-reflection. Within the field of counselling, self-reflection needs to start with the trainees' self-identity — essential part of which is influenced by their past experiences. Past experiences have a major impact on thinking and feeling patterns, which in turn affect the trainees' personal and professional development. We present a reflective learning and assessment procedure through a project completed in our postgraduate programme in Counselling Psychology. The project is part of a Personal & Professional Development module, with a theoretical part on personality development and a practical part with reflective activities. We aim to “put the past in place” by exploring past experiences that have shaped aspects of the trainees' personalities. Analysis of assessment indicates a number of main themes rooted in early experiences. Such patterns may affect the feeling and thinking patterns adopted by trainees; e.g. feeling guilty when not behaving upon others' expectations or developing “faulty” ideas about an “ideal parent”, as well as the possibility of transforming these patterns into more functional ones, within this learning experience.

Keywords: higher education, assessment, reflective practice.

1. INTRODUCTION

In the last few decades, the relationship between learning and assessment has been re-evaluated. The growing demand for lifelong learning and reflective practice triggered the development of new types of assessment, many of which focus on the use of self-reflection. These alternative types of assessment are attracting considerable attention, both within the relevant theory as well as research; it is often argued that traditional testing techniques are not adequate anymore. Instead, assessment should not be separated from students' experiences but should be conducted within the context of the student being seen as responsible and active person who reflects, collaborates and contributes to maintaining a continuous dialogue with the teacher.

Within the Higher Education (HE) context, there has also been an increasing focus on developing more transparent learning, teaching and assessment (LTA) strategies. There is a growing emphasis on curricula designs, focusing on skills acquired via experiential learning. These developments have pictured a paradigm shift from a teaching - focused to a learning-focused approach; thus, students are now more aware of their need to reflect on their own learning. The development of reflective practice as an essential ingredient of professional development has led to the formation of particular models. Although a wide variety of models exist, we will review the most relevant ones for the purposes of this work. Our fundamental assumption rests on the notion that any high quality HE programme needs to synthesize two distinct elements: experiential learning and reflective practice (Bourner,

2003). In this chapter, we describe how our postgraduate students are encouraged to engage in experiential learning based on a “reflection, development and empowerment” model. We present the context within which students engage in experiential work exploring past experiences and the effect they have had on their character. We discuss the work they submit which provides evidence of how they became aware of their personality aspects that will be influential in their future profession, but also in their personal development.

2. BACKGROUND

2.1. Assessment in higher education

For several years, HE aimed at producing learners within a narrow specific domain. However, the increasing acquisition of new knowledge and also the use of new communication technologies have demanded personalized and problem-based learning, stressing the importance of authentic learning, i.e. learning in real-life settings (Birenbaum, 1996). Authentic learning requires honest self-reflection and self-reflection can be mediated by the students’ need to perform well in their studies. As a consequence, self-reflection not only needs to be assessed, but it also needs to be fostered through real-life situations (Hargreaves, 2004). Students’ progress is monitored far better and more accurately by assessing a variety of real-life tasks through their education. There are several benefits arising through this approach, such as development of cognitive competencies (e.g. critical thinking, improved oral and written expression), social competencies (e.g. leading discussions, persuading and co-operating), affective dispositions (e.g. perseverance, flexibility, coping with frustrating situations) (Dochy, Segers, & Sluijsmans, 1999).

It is still not very clear whether these changes can be attributed to the changes within HE solely or whether they are the result of the labour market exercising some pressure on education. However, it is certain that HE now aims at creating practitioners who can reflect on their own practice (Dochy et al., 1999). For the purposes of this work, we focus on students’ *reflective skills* and the way they are exercised through exploring the effect of their early experiences on their personal/professional development.

2.2. Reflection as a means for learning

Without reflective thinking, practice itself is not adequate to develop students’ competence just as “being in a healthcare environment does not guarantee learning” (Levett-Jones, 2007, p. 113). As an additional claim, within the clinical context, reflective practice is not new as a term; in 1933, Dewey argued that clinical practice cannot lead to learning unless it is followed by reflective thinking. Reflective thinking is therefore an essential part of the clinical practice: it equips the trainee with meaningful learning, although at times might be painful (Levett-Jones, 2007). In this framework, reflective practice can both constitute a part of the process and a follow up stage to it.

Within the wider scope of the HE context, there has also been an increasing focus on developing more transparent LTA strategies. For instance, the UK Quality Assurance Agency suggests that assessment is often a weak dimension of education, lacking clarity and consistency of design and practice (Hargreaves, 2004). In addition, the HE Funding Council recommends development of LTA strategies through funded activities, specifically related to assessment. Such activities are supported also outside the UK too, through funded projects on innovative methods of LTA. The literature reveals a major debate on the definition, assessment and the implications of reflective practice. There is so much variation in what reflective practice means (e.g. action research, professional development,

teacher empowerment, etc), that usually students find it hard to develop reflective skills, particularly when they are let alone to decide what to include in their reflections.

Apart from the above research gap, there is also an associated concern in how reflective practice should be assessed (Hargreaves, 2004). These problems are interconnected with a crisis of confidence in the professions and the consequent skepticism about the professional effectiveness of practitioners. In addition, practitioners usually know more than they could say and they tend to use this knowledge in order to cope with the challenges of their practice. This skepticism pointed by Schon (1983) is what has triggered the relevant interest and the associated research in the reflective practice area. Despite the lack in providing particular solutions to assessing reflective practice reliably, related research has greatly influenced the development of various models in professional education (Hargreaves, 2004).

2.3. Models of reflective practice

Within HE practices, there are three particular models that involve conceptualizations of reflection: the “*reflection-in-action*”, “*reflection-on-action*” and the “*reflection, development and empowerment*” model (Morrison, 1996). In the first model, the practitioners acquire knowledge immediately and spontaneously as the practical situation is unfolded to them. This model has been characterized as incomplete because it does not leave enough space for the practitioners to fully reflect on their practice due to its short term character. The “*reflection-on-action*” model has been characterized as more appropriate in giving the practitioner the opportunity to understand and interpret meanings, intentions and actions through the synthesis of theoretical knowledge with personal development, keeping them as a point of reference. Unlike the “*reflection-in-action*” model, the “*reflection-on-action*” approach takes place once the event has occurred and not simultaneously.

Although there are some advantages of the “*reflection-on-action*” model—regarding the cognitive gain that the practitioner acquires—the “*reflection, development and empowerment*” model features the essential space for changes. This model has been suggested as allowing the practitioners to use their potential for individual and social empowerment, by restructuring first their own perceptual styles and contribute also to changing the unhelpful perceptual styles of their fellow trainees. This can be achieved through critique and rational reconstruction with regards to future actions that will be taken for personal and professional development. It has been suggested that this model facilitates practitioners to reshape their distorted views of their lives and adopt healthier thinking, feeling and behavioural patterns. Some of the first proponents (e.g. Habermas, 1974; as cited in Morrison, 1996) of this model have used the Freudian approach to support their claims about its potential, not only in an educational setting but also within a therapeutic context. Apparently, a “*patient*” can engage in self-reflection with emancipatory power, as the model drives them to bring the repressed forces causing dysfunctional distortions, to a conscious level. This process makes the “*patient*” regain the control over their lives.

2.4. Self awareness and the impact of early experiences

Although self-awareness should not relate to particular schools or paradigms (Pietersea, Leeb, Ritmeesterb & Collins, 2013), its significance is more explicit in Gestalt therapy. It refers to the individual's ability to be in touch with their own thoughts, feelings and behaviors (Day, 2004). Self-awareness originated from “*awareness*”, which for Fritz Perls is the state of the consciousness when the organism “*attends to whatever becomes foreground*” (Harman, 1974; p. 180). Perls believed that the client needs to become aware

of their self and the world, focusing on how and what they avoid in life (Harman, 1974). Becoming aware of one's self, results in self-awareness, which is about intentionally bringing to consciousness what is understood at an unconscious level. Self-awareness too can at times be painful, (Rawlinson, 1990), but it needs to be emphasized at least as much as knowledge and practice are emphasized (Pietersea, et al. 2013).

In becoming aware of one's self, exploration of early experiences is crucial. There have been several noteworthy arguments regarding the impact of the early experiences on people's lives. Such arguments around the notion that early experiences are influential, have been growing until nowadays: alternative models have been formed to either support the enduring impact that these experiences have on someone's life, or to reject their long lasting effect. We address the above issues in the way we assess students' perceptions of their self-awareness, through some of our counselling units delivered in the first semester of the programme. The sections below describe the practical activities run by the trainees and the assessment used on their perceptions.

3. METHOD AND DESIGN

There is a well known dilemma in counselling regarding whether an efficient counsellor is born or trained. This dilemma has raised questions on the programme curricula, entry requirements, interview tactics and several other factors that are critical in designing and running a counselling programme. We have elsewhere addressed these questions in the way we have integrated LTA procedures in our counselling programme (Savvidou, Kefalas & Gassi, 2016). We presented the framework within which we ensure high quality standards in LTA and at the same time we offer our trainees the opportunity to practice their acquired counselling skills in our community counselling center. Here, we present some indicators of how students actually achieve some of the learning outcomes set in the programme.

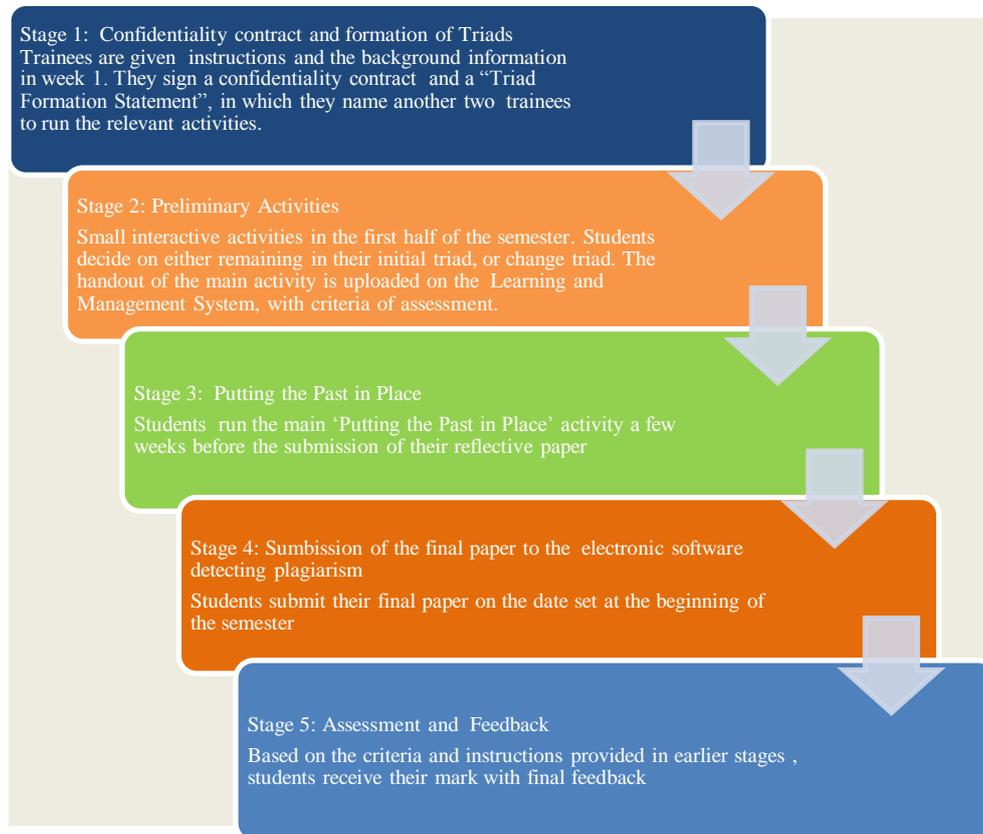
Within the context of our postgraduate programme in Counselling Psychology, students (trainees) are required to undertake a module which is entitled "Personal & Professional Development". This is offered at the beginning of their studies during the autumn semester. The module is assessed by a "Putting the Past in Place" reflective project (contributes 90% in the total mark) and willingness to participate in class activities (contributes 10%). This module introduces the main issues and theory regarding personality development and focuses on: (a) how our earlier experiences can make us develop the capacity to aid or hinder our further development and to provide the basis of how we perceive ourselves (Cross & Papadopoulos, 2001), and (b) examples of how aspects of personality can affect the practitioners' functionality in both their personal as well as professional level. The reflective project is divided in five stages as shown in Figure 1.

During the "Putting the Past in Place" project, students are divided into triads and they are prompted to think about the three experiences they are going to share. The experiences should be selected on the basis that: (a) students feel they were significant enough to have shaped strong or weak aspects of their character as individuals, and (b) students identify aspects of their professional development that are potentially going to be affected by those experiences. Normally they choose from the three developmental stages: childhood, adolescence and adulthood. Before submitting their final paper, trainees are asked to complete the following tasks:

Putting the Past in its Place. Assessing students' perceptions of their early experiences and self-awareness as explored in a counselling programme

- identify the three experiences and the way they have affected their development;
- consider whether these had any effects on other members of their family or close environment;
- compare their perception of the event to the perceptions of their triad members and identify similarities and difference in coping; and
- describe the influence that these experiences had on their explanatory style.

Figure 1.
Five stages of the 'Putting the Past in Place' project.



Assessment of the final paper is based on how well trainees understand their past experiences, in relation to their personal and professional development. Feedback is also provided both before and after students officially submit their paper. Preliminary feedback is based on observations during the activity that the students perform, and the kind of exchanges they have with their triad members. At points where these exchanges become oversensitive, the instructor asks trainees to indicate whether they would prefer to be left alone with their triad, in which case she returns later on for providing feedback on selected parts of the activity. Disclosing the whole content of exchanges among triad members to the instructor or the paper is not a prerequisite. However, it is made explicit to trainees that the text in the paper should identify how comparisons of thinking and feeling patterns were made with fellow trainees. Within this stage, trainees are asked to focus on those

interpretations they give to their past experiences that trigger negative thoughts, feelings and behaviours and explore alternative views that would activate more positive patterns. The goal of the other triad members is to take part in exploring such alternative ways of interpreting the event/situation, which would be more functional for a person's personal and professional development by making use/references to own similar experiences and interpretations/explanations. Summative feedback further elaborates on how well exchanges between triad members were used in the final paper.

Out of fifteen trainees who were all attending the same class, five gave us their consent to analyse their reflective papers and present our findings in the present chapter. The length of each paper was approximately 2,500 words. Selection was based on the trainees' covering a wider age range (23-46) and variability of academic origins within the programme (psychology or non-psychology degree background), as well as the quantity and quality of their self-awareness indicators, as displayed in their writings and verified through the internal double marking process and the external examiner. As a methodology, the grounded theory approach was used to analyse the data collected from this activity. The aim was to gain a better understanding of students' reflection on their past experiences and to also explore the themes that arise regarding their self-awareness and its influence on current and future personal and professional aspects. The approach was used in a way that different perspectives (personal and professional) arising from reflection on thoughts, feelings and behaviours could be presented. It also facilitated the discovery of feelings and behaviours rooted in those past experiences and their effect on the trainees' perceptual and explanatory style. Data including oversensitive information were automatically excluded from this analysis.

4. OUTCOMES AND IMPACT

There have been previous studies focusing on the assessment of students' professional development (Hensley, Smith & Thompson, 2003) and some others centred around reflective learning (Henderson & Johnson, 2002) through clinical practice. However, assessment of both personal and professional development issues and reflective learning has not been explicitly researched within the theoretical part of a counselling programme. Such investigation consists the novelty of our work. We aim to provide some indications of what themes emerge within such context, before trainees start exercising their practice. This allows us to identify fitness to practice issues in the initial stages of training and deal with them more efficiently (e.g. suggest the trainee undertakes personal therapy). Table 1 below summarises how core concepts and sub-themes emerged from the data.

*Table 1.
Personal and Professional Development core and sub-themes.*

| <i>Core Category Themes</i> | <i>Developing Self-Awareness</i> | | | |
|---------------------------------|---|--|---|---|
| <i>Personal Development</i> | Self-disclosure difficulties | Explaining current self, based on past experiences | Identifying dysfunctional traits | |
| <i>Professional Development</i> | Parental patterns affecting work related patterns | Sharing with colleagues facilitates emotion regulation | Sharing with colleagues changes perception of self positively | Considering a career change after this course |

4.1. Personal development

Self-disclosure difficulties—The willingness to disclose personal issues was not described as apparent through the different stages of this learning experience. But the development of trust was explained as the result of the exchange of thoughts and feelings on each trainee's past events and the acknowledgment of different perspectives from which it could be seen.

Explaining current self— Several aspects of the trainees' current self were explained as the result of the past experiences they shared. Some examples are: being the first born child in the family was seen as the reason why they **developed a sense of responsibility** over younger siblings, despite the **burden** felt primarily from the relevant situation. Having been raised in a female dominated family, which was primarily the result of a painful situation such as a significant loss, created **gender related self-confidence**. Having parents using the child as a way to get revenge for their own relationship problems, created **feelings of "being small and helpless"**. Being "forced" to make life choices that were in a way an expansion of parents unmet desires or having one or both parents making the person develop a feeling of being **unable to have control over their life** or created a tendency of **feeling guilty** when meeting own desires.

Identifying dysfunctional traits — A major concept attributed to past experiences was the tendency to feel guilty every time one's needs were put first, which participants identified as a "weak" aspect realised through this experience, which needs also to be worked on in the future. Although this guilt was not always attributed to positive situations, it appeared as an explicitly dysfunctional pattern acquired through past events. Lack of trust in intimate relationships and uneasiness to open up were pointed as the result of having parents whose relationship was not functional and therefore "taught" them dysfunctional patterns.

4.2. Professional development

Parental patterns affecting work related patterns—A repeatedly brought up realisation was that different parental behaviours causing stress in childhood triggered liking or disliking patterns at work related contexts. A dominating mother, for instance, created the tendency to like better female figures at work and a distrustful father triggered suspicious patterns for male employers. A judgmental father was perceived as the cause of lacking self-confidence as an employee, although this was later transformed into the ability to receive criticism better than others. Workaholic fathers were seen as having caused a "faulty" idea of what an ideal father is like.

Sharing with colleagues facilitates emotion regulation—All participants described some relief arising through the exchange of thoughts and feelings with the other triad members. This was seen as an indication that in order to adopt a healthier explanatory style, negative thoughts and feelings need to be challenged through sharing them with other colleagues and not with anyone outside the particular context who would not necessarily be able to present a more positive explanation of the event or situation. It was also referred to as a mechanism for developing a more positive view of oneself, not only at personal, but also at a professional level.

Considering a career change after this course — The psychological effect of having been involved in the whole procedure exchanging interpretations and feelings about the past experiences, triggered the need to consider a career change or career focus. This is apparent in cases where the programme was seen as an additional qualification which would enrich the trainee's background and not necessarily as a tool for developing skills

that would be exercised in the counselling profession path i.e. trainees from professions others than psychology who had decided to undertake this programme in order to use embedded counselling within their professions.

5. DISCUSSION

Fostering development of self-awareness in counselling trainees admittedly is a challenging task. This task may have several dimensions which cannot be all developed or assessed within the context of a module in a HE postgraduate programme. In applied fields such as counselling, traditional ways of learning can make the students aware of some relevant issues. However, they are not adequate for helping them develop the level of self-awareness that is necessary for a complete picture of strengths and weaknesses on a personal and professional level. Although practice in general is encouraged in applied fields within an academic programme, assessment of its quality cannot guarantee that the trainee actually developed the profession related skills. Reflection usually is not incorporated in the assessment part of a learning experience, particularly when it is about the psychological effect of past experiences on the future counsellor's practice.

Assessing reflection is challenging too. Although trainees are expected to self-reflect, the lack of accepted definition and other research related issues, make this task even more complex. Despite its validity, the reflective practice remains a concept that is still difficult to define and consequently difficult to assess. We use the reflective practice to assess trainees' perceptions of their self-awareness in relation to aspects of their personality and to help them realise and deal with the psychological effect of these past experiences from a positive perspective. For instance, a trainee knowing what is the effect of having been raised with particular parental patterns, will be more likely to empathise better with a client having developed under similar circumstances. Using assessment procedures to identify such skills, indicates more accurately how well-prepared the trainee is for the practical part of the course (e.g. clinical placement) and how reflective practice can be used on an ongoing basis to identify the needs for future personal and professional development.

The data used for this work come from a selected sample of a particular cohort of students who developed very positive group dynamics within their programme of study and that may pose some limitations. This sample is not representative of how adequate our approach would be with larger samples of students. However, it is a good approximation of how exercise of basic skills in reflective practice can be facilitated within similar courses. It is also a good example of how such material can be assessed in order to explore and estimate students' readiness for their future practice in counselling. The same applies to any other profession in which self-awareness is also very critical.

6. FUTURE RESEARCH DIRECTIONS

The assessment we presented in this chapter aims at facilitating and measuring students' self-awareness of their personality, as well as determining how it has been shaped by past experiences. It is completed within the framework of a taught unit, undertaken by counselling students as they enter the programme, but it does not point to a continuous development and assessment of self-awareness during the whole course.

Future research could focus on how development of self-awareness is exercised and spread throughout a two years programme, from the beginning of the taught part through the completion of the trainee's practice with their real clients. It could link the effect of past experiences with how this effect can be reflected on the way trainees deal with particular

clients or particular problems, as well as how they accept feedback in supervision i.e. whether particular patterns are displayed in the way they accept feedback due to past experiences etc.

Additionally, for a more complete picture of how self-awareness is emphasized through the programme and how accurately it is measured, more data from other contexts too can be used in future analyses. For example, in the “Current Paradigms in Counselling and Psychotherapy” and “Applied Counselling Psychology” modules, students submit reflective papers referring to their personality aspects that make them suitable for using particular counselling models than others. This too could be used to measure self-awareness, particularly if during the later stages of their training was correlated with some evaluation of their counselling skills as performed by their clients. On a long term basis, it would be worth monitoring particular aspects of trainees' self-awareness by the time they start the programme and compare it with how it was developed by the time they graduate, using both self-reports and reflective practice, as well as relevant assessment reports from supervisors and clients. Finally, future work could draw conclusions on a wider sample of trainees coming from several cohorts with different group dynamics between them.

7. CONCLUSION

We emphasize the importance of developing professionals that are able to reflect on their work continuously and exercise their reflective skills for a stable personal and professional development in the future. Within this context we demonstrated that reflective practice can help a trainee identify strong and weak aspects of their personality that would have a great impact on their future work. We help students make better use of the explanations they give on their past experiences, exchanging their views with their colleagues' views and adopting a healthier explanatory style for themselves and consequently for others. Through this approach our students can point to the dysfunctional thinking and feeling patterns that affect the way they interact with others as persons and as professionals, and can point to any “weaknesses” in these thinking or feeling patterns that do not help them have a functional perceptual style.

We believe that reflecting on past experiences within a group activity is a more balanced way of exercising and assessing self-awareness skills in the particular discipline. The assessment of reflective practice can be used in other disciplines too and can help educators prepare efficient practitioners with an accurate estimation of their capabilities. It can also foster further development of critical thinking skills, particularly in fields where the critical analysis may be a key factor for students' progress.

Finally, we suggest that if students' perception of their own capabilities seems to be in accordance with the relevant assessment outcomes, this indicates the efficiency of the particular programme — which is essential in programmes involving a practical component promising to equip trainees with the necessary professional skills. The material used in this chapter can be the basis upon which future work will demonstrate whether similar outcomes can be produced from larger and/or diverse samples of such reflective learning activities with deeper analyses of functional and dysfunctional patterns identified through such activities.

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AUTHORS INFORMATION

Full name: Suzie Savvidou

Institutional affiliation: *The University of Sheffield International Faculty, City College*

Institutional address: 24, Prox. Koromila st, CITY College, 54622 Greece

Short biographical sketch: Dr Savvidou is the Director of Undergraduate Studies in Psychology and Clinical Placement, of the Psychology Department in the International Faculty of the University of Sheffield. She holds an MSc in Psychology and Health from the University of Stirling in Scotland and a PhD in Cognitive Experimental Psychology from Queen's University of Belfast in Northern Ireland. She is involved in research on emotion and its applications in counselling, clinical and educational psychology. She is also one of the main supervisors of the clinical practice of the Department and is responsible for the counselling services of the International Faculty. Her teaching focuses on emotion and counselling. She has been trained in person-centred and psychodynamic counselling.

Putting the Past in its Place. Assessing students' perceptions of their early experiences and self-awareness as explored in a counselling programme

Full name: Petros Kefalas

Institutional affiliation: *The University of Sheffield International Faculty, City College*

Institutional address: 24, Prox. Koromila st, CITY College, 54622 Greece

Short biographical sketch: Professor Petros Kefalas is the University of Sheffield International Faculty Director for Learning & Teaching. He holds an MSc in Artificial Intelligence and a PhD in Computer Science, from the University of Essex, UK. He conducts research in Parallel Logic Programming, Artificial Intelligence, Formal Methods and Multi-Agent Systems. He has published over a 100 papers in journal and peer reviewed conference proceedings. He co-authored a Greek textbook in Artificial Intelligence. He is currently involved in investigating the applicability of formal methods for modelling emotional multi-agent systems, as well as simulation of biology-inspired systems. He has worked as a reviewer of the Commission of the European Union on Research & Development Projects. He is a member of BCS, ACM, IEEE, ALP and the Greek Computer Society (EPY) in which he served as deputy chairman. He received the Senate Award for Leadership in Learning & Teaching.

Section 4
Cognitive Experimental Psychology

Chapter #22

MISSING TARGETS IN MULTIPLE-TARGET SEARCH

Margit Höfler^{1,2}, & Birgit Hübner¹

¹University of Graz, Department of Psychology, Austria

²Danube University Krems, Department for Clinical Neurosciences and Preventive Medicine, Austria

ABSTRACT

When searching for more than one target object in the visual environment, a subsequent target is often overlooked once a first target has been found. Here we were interested in whether subsequent search misses (SSMs) are caused by a semantic set bias. According to this bias, a target that is different from the semantic category of the first target should be missed more often than a target of the same category. We asked 26 participants to search for drawings of none, one, or two targets (dangerous objects) within a set of 18 – 20 everyday objects presented on a computer display. If there were two targets in the display, they could have been from either the same category (two guns or two thrust weapons), or from different categories (one gun, one thrust weapon). The findings showed that the search lasted longer when only one target was present, as compared to when two or no targets were present. However, search accuracy did not differ in regards to the target category (same or different). We also did not observe an effect of SSMs. This suggests that there is, at least with the current set of stimuli, no semantic set bias in multiple-target search.

Keywords: attention, visual search, multiple-target search, subsequent search miss error.

1. INTRODUCTION

We are regularly required to search for one or more objects (so-called targets) in our visual environment. For instance, when we search for a pen on our desk or two of our friends in the crowd, we perform a visual search. Regardless of whether it is one target (single-target search) or more targets (multiple-target search) that we are searching for, visual search is not only an everyday behavior, but also one of the most valuable cognitive tasks that is used to investigate the deployment and allocation of attention (e.g., Wolfe, 1998). That is, if we are searching for a target in a complex environment, we are moving our eyes from one object to the next and rejecting all non-targets (distractors), and in doing so, needing to shift our attention.

In the current experiment we were interested in determining why we miss some of the targets that we search for. In particular, we investigated a very specific type of error that occurs during searches when it is necessary to search for more than one target. As compared to single-target searches, in multiple-target searches research has consistently shown that a subsequent (second) target is missed with a higher probability once a first target has been found (e.g., Cain, Adamo, & Mitroff, 2013). Such subsequent search misses (SSMs) were demonstrated in the field of radiology (Tuddenham, 1962), in airport security (cf. Biggs & Mitroff, 2014) and in laboratory settings (Fleck, Samei, & Mitroff, 2010). In the current research, we tested whether these type of errors are affected by the conceptual/semantic relationship of the target items.

2. BACKGROUND

Previous research has indicated that several factors (i.e., object color and object orientation) guide our attention during visual search (see Wolfe & Horowitz, 2017, for a recent review). For instance, when the pen we are searching for is red, our attention is guided towards all red objects; if we search for a ruler, we will most likely attend to longer objects on the desk. Visual search is also guided by (short-term) memory processes (e.g., Kristjánsson, 2000; Peterson, Kramer, Wang, Irwin, & McCarley, 2001). For example, previous research has indicated that a target can be found faster when it had been recently inspected (as a distractor) in a previous search (Höfler, Gilchrist, & Körner, 2014, 2015; Körner & Gilchrist, 2007). Furthermore, long-term memory is also involved during search. There is evidence that knowledge about an object and its visual environment is used to guide a search (e.g., Vö & Wolfe, 2013). Because of this knowledge we search at those locations in the environment where the target object is most likely located (i.e., we would search for a bottle not on the wall or on the ceiling but perhaps on a table or on a shelf).

When participants are asked to perform a visual search in the laboratory, they typically have to search for one target object among a varying number of distractor objects (e.g., to search for a T among Ls) on a computer display, and have to decide whether this target is absent or present. Typically, a new search display is presented in each trial, and response times are measured in order to investigate search performance. The standard (and not very surprising) result of such searches is that the search time increases with the number of distractors in the display and that it takes longer to complete a search when the target is absent as compared to when it is present (e.g., Wolfe, 1998). The latter finding is due to the fact that, when the target is absent, participants are required to search through all objects in the display in order to come to a definite conclusion. However, if there is only one target in the display (and participants are aware of this fact), the search can be terminated once this target has been found. In dual- or multiple-target searches, the search process becomes more complex. When participants are required to decide whether there is one or two target(s) in the display, the search does not terminate when one target is found but continues until either the second target is found or all other objects in the display have been inspected. In this case, the search can be completed faster if two targets are present in the display as compared when only one target is present (e.g., Gibson, Li, Skow, Brown, & Cooke, 2000; Körner & Gilchrist, 2008); this is due to the fact that participants can stop searching immediately after they have found the second target whereas they have to continue searching through all remaining objects if the second target is absent.

In addition to response times, search accuracy is also an important measure of search efficiency. The most frequent errors are missed targets. These errors can have serious consequences. For instance, there can be severe implications if medical personnel miss an abnormality in a scan or airport security staff misses a dangerous object in a passenger's hand luggage. In spite of the consequences, these types of search errors occur quite frequently. Drew, Vö, and Wolfe (2013) had radiologists and novices search for lung nodules on a scan and found that most of the radiologists (and all 25 non-expert observers) missed a small picture of an unexpected object (a gorilla) that was pasted into the scan. This was in spite of the fact that the size of picture was about four times larger than a lung nodule. Furthermore, Potchen (2006) found that about 60% of the radiologists did not notice that the collarbone had been removed from chest x-rays. Finally, and of crucial importance for the current experiment, Tuddenham (1962) had three radiologists scan more than 200 x-rays and found that these experts often missed additional anomalies in x-rays, after one anomaly had already been detected. Tuddenham (1962) suggested that the experts

may have stopped searching the x-ray after finding one anomaly, because they may have been “satisfied” with the search result. Smith (1967) named this phenomenon of missing a further target after one target had been found, the “satisfaction of search” effect (SOS-effect).

This SOS-effect has also been demonstrated in other areas, such as in airport security (i.e., a dangerous object is missed after one dangerous object had been found; Biggs, Adamo, Dowd, & Mitroff, 2015) or in the laboratory, using abstract stimuli (e.g., Ts and, Ls; Fleck, et al. 2010; Höfler, Faßbender, & Ischebeck, 2016). However, it has also been repeatedly demonstrated that it is not simply the case that a further target is missed only because a search was already successful (see Cain, et al. 2013, for an overview): if one is satisfied with his or her search, this does not necessarily imply that a search is stopped immediately afterwards. Rather, the search is usually continued, but there is just a higher probability that a further target will be missed. This finding also led to a change in the terminology from the “satisfaction of search”-effect to the more neutral term “subsequent search misses” (SSMs; see Cain et al. 2013).

Berbaum, Franklin, Caldwell and Schartz (2010) suggested that a second target is detected more easily if it looks similar to the initial target (perceptual-set bias; see also Cain et al., 2013). Furthermore, it has been indicated that SSMs are dependent upon the type of the conceptual (or semantic) category of the second target (semantic set bias). This is illustrated in the study by Biggs et al. (2015) who asked online gamers to play a mobile “Airport Scanner App” (KedlinCo, <https://www.airportscannergame.com>), in which airport luggage inspection was simulated. The gamers’ task was to search for (zero, one, two or three) dangerous objects in a bag. The dangerous objects were divided into two categories: gun-related objects or explosives-related objects. It was shown that the second target was found less often when it was drawn from a different category than the first object which had already been found; in other words, once an explosives-related target was detected, a further explosives-related target was found with a higher probability than a gun-related target (and vice versa).

In the present experiment we wanted to replicate and extend the findings of Biggs et al. (2015), while examining the semantic set bias in a more controlled setting. Our participants were required to search in a display that consisted of 20 drawings of everyday objects. The displays could contain 0, 1, or 2 “dangerous” target objects. Participants were asked to find all dangerous target objects and to mark them via a mouse click. Critically, when two target objects were present in the display, these targets were either two guns or two thrust weapons (i.e., were from the same category of dangerous weapons), or one gun and one thrust weapon (i.e., from different categories). We expected longer search times when only one target was present, as compared to when two or no targets were present. However, we did not expect that the search times would differ for the types of targets (i.e., thrust weapons should be found as fast as guns). Furthermore, we expected to find an effect of SSMs such that a second target should be missed more often after a first target had already been found, as compared to when only one target was present. Most critically, if a semantic set bias exists, we expected that SSMs would depend upon the semantic relationship between the two targets. We expected that a second target would be found with higher probability when it was from the same category as the first target, and with lower probability when it was from the other category.

3. METHODS

3.1. Participants

In total, 26 participants (students of the University of Graz, five male, 21 female; $M = 22.3$ years, $SD = 4.3$ years) with normal or corrected-to-normal vision took part in this experiment. Most of the participants received class-credit for their participation. The experiment was approved by the ethics committee of the University of Graz. All of the participants gave informed consent.

3.2. Design & material

Participants searched in different search displays for dangerous objects from two different categories (guns or thrust weapons) within other everyday objects (see Figure 1). All items were simplified black and white line drawings of everyday objects taken from the database thenounproject.com. Each display consisted of 20 objects in total. From these 20 objects, 0, 1, or 2 objects could be targets. All objects were randomly selected from the total of 50 everyday distractor objects and 20 target objects (guns or thrust weapons), respectively. To familiarize the participants with the objects (particularly with the target objects) they received a preview of all objects before the experiment started. In 50% of the trials, no target was presented (absent search). In the remaining 50% of trials, either one target (single-target search) or two targets (dual-target search) were presented. In single-target searches, this target was either a gun or a thrust weapon on respectively half of the trials. Accordingly, in dual-target searches, both targets were, on half of the trials, from the same category (i.e., either were both guns or both thrust weapons), whereas on the other half, they were from different categories (i.e., one target was a gun and the other a thrust weapon). The combination of target number (0, 1, 2) and target conditions/categories (type of weapons and same/different category) resulted in four search conditions which were randomized within the block: 60 single-target searches (gun or thrust weapon), 60 two-targets/same-category searches (two guns or two thrust weapons), 60 two-target/different-category searches (one gun, one thrust weapon) and 180 absent searches. We measured the manual response times (i.e., the time from display onset to the time of the manual mouse click on the target) and the search accuracy (i.e., the detection rate for the targets depending on the condition).

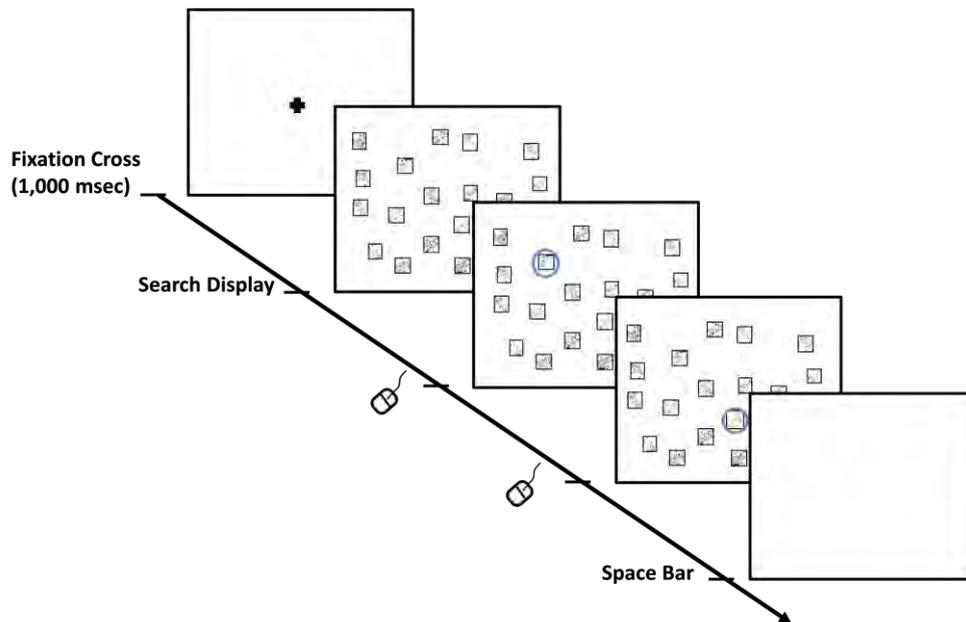
The stimuli were presented in black on a white background on a 21'' monitor with a resolution of $1,280 \times 1,024$ px and a refresh rate of 85 Hz. All items were surrounded by a square that extended $0.9^\circ \times 0.9^\circ$ of visual angle. In each trial, the 20 items were randomly arranged on the display within an invisible 7×7 grid, encompassing an area of about $20.3^\circ \times 20.3^\circ$ of visual angle. The orientation of each item in the display was rotated randomly, either 90° , 180° , 270° or 360° . Stimuli were presented using SR Research Experiment Builder (version 1.10.1241). A chin rest was used to prevent head movements.

3.3. Procedure

Each trial started with the presentation of a fixation cross at the center of the screen for 1,000 msec (see Figure 1). After that, the search display was presented. The participants sat at a distance of about 63 cm in front of the computer monitor and were instructed to search for all dangerous weapons in the display and to select these targets via a mouse click. With the mouse click, the selected item became marked with a blue-colored circle. Participants were told that there were up to two targets in the display. They could end the search by pressing the space bar with their left hand, after which the display was cleared

and a new trial started. The display was also cleared when the search was not terminated within 15 seconds. Each participant completed two blocks of 180 searches each in a single session that lasted about 90 minutes.

Figure 1.
Schematic example of a dual-target trial (Stimuli are not drawn to scale).



4. RESULTS

We defined a target as being correctly selected when the mouse click was detected within a ± 30 pixel area around the target's center. All trials in which this criterion was not met and all trials in which participants did not complete the search within the time limit of 15 sec were excluded from the analysis. Using these criteria, 3.2 % of the trials were excluded.

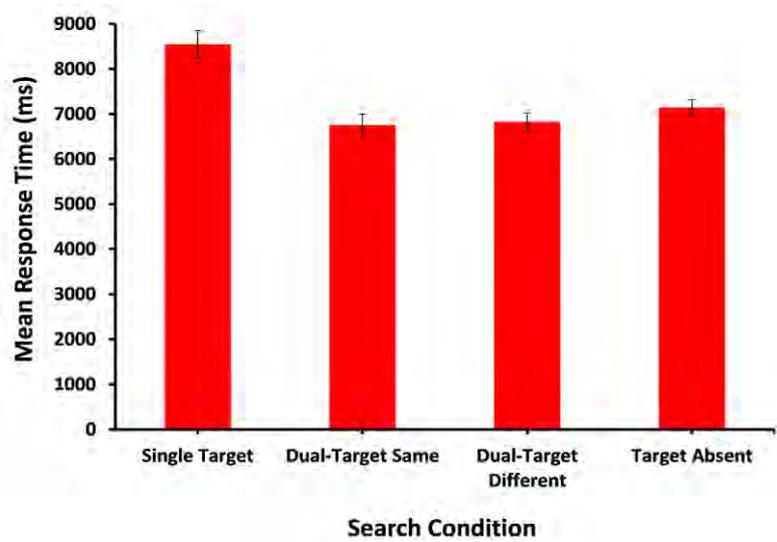
4.1. Response times

Averaged across participants, the search lasted 8,544 ms ($SD = 1,467$ ms) when one target was present (see Figure 2). If two targets were present, the search time was 6,751 ms ($SD = 975$ ms) when they were from the same category, and 6,830 ms ($SD = 864$ ms) when the two targets were from different categories. Finally, target-absent searches lasted 7,143 ms ($SD = 1,161$ ms). In order to test for differences in the search times across the search conditions, we conducted a one-way ANOVA for repeated measures. The ANOVA revealed a statistically significant effect of search condition, $F(1.34, 33.47) = 36.75$, $p < .001$, $\eta_p^2 = 0.595$ (Greenhouse-Geisser corrected). Post-hoc comparisons (with Bonferroni corrected alphas) showed that single-target searches took reliably longer than dual-target searches (independent of whether the targets were from the same category or

from different categories) and absent searches (all $ps < .001$). No other differences were found (all $ps > .05$). That is, participants needed longer to complete a search when only one target was present as compared to searches in which two or no targets were present. This result is in line with previous findings on multiple-target searches (e.g., Gibson et al., 2000; Körner & Gilchrist, 2008).

Figure 2.

Mean response times for the target conditions. Error bars represent the 95% confidence intervals (Cosineau, 2005; Morey, 2008).



4.2. Overall search accuracy

On average, in single-target searches, participants correctly identified the target on 91.2 % of the trials ($SD = 8.1$ %). There was no difference in the search accuracy depending on whether the target was a gun (91.4 %, $SD = 8.6$ %) or a thrust weapon (91.0 %, $SD = 9.3$), $t(25) = 0.25$, $p = .805$. In dual-target/same category searches, participants found both targets correctly on 91.2 % of the trials ($SD = 6.1$ %). Again, there was also no difference with regard to the type of category (two guns: 91.5 %, $SD = 8.7$ %; two thrust weapons: 90.8 %, $SD = 5.5$, $t(25) = 0.49$, $p = .627$). Finally, in dual-target/different category searches, participants correctly found both targets on 89.6 % of the trials ($SD = 9.1$ %). Together, the findings suggest that the search accuracy did not differ for guns and thrust weapons in both single- and dual-target searches (all $ps > .05$). Hence, possible SSMS and a semantic set bias were not driven by the category of the target (i.e., gun or thrust weapon).

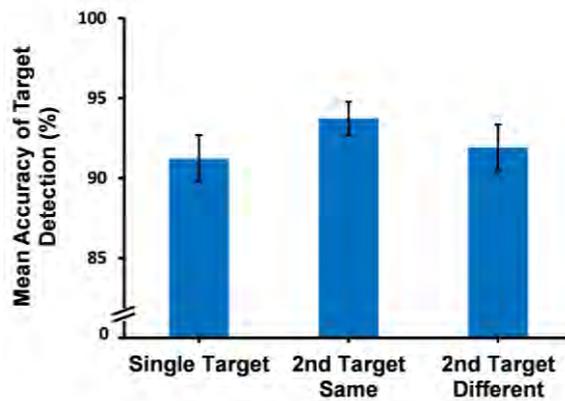
4.3. SSMS and semantic set bias

We first investigated the presence of SSMS and then whether they depended on the category of the second target (i.e., same or different category). In particular, we compared the probability to detect the target in single-target trials with the probability to detect a second target in dual-target trials (see Biggs et al., 2015). If there was an overall effect of SSMS, the probability of finding a single target would be higher than the probability of detecting a second target in a dual-target search (given the first target is found

successfully). Furthermore, we expected that the probability of finding the second target in the dual-target/same-category searches would be higher than the probability of finding the second target in the dual-target/different-category searches (semantic set bias).

As stated above, participants correctly identified a single-target on 91.2% of the trials. Furthermore, they found the second target in a dual-target search with slightly higher probability when it was from the same category ($M = 93.7\%$, $SD = 1.1\%$) than when it was from the other category ($M = 91.9\%$, $SD = 1.1\%$; see Figure 3). A one-way repeated measures ANOVA with target condition (single target, second-target same category, second-target different category) revealed that the difference was statistically not reliable, $F(2, 50) = 2.32$, $p = .11$. This finding suggests that participants neither showed SSMs nor a semantic set bias while searching for the second target.

Figure 3.
Percentage of targets found for single-target searches and for correctly identified second targets in dual-target searches. Error bars represent the 95% confidence intervals (Cosineau, 2005; Morey, 2008).



5. DISCUSSION

Previous research has repeatedly demonstrated that subsequent-search misses (SSMs) affect search accuracy when searching for multiple targets (e.g., Fleck et al., 2010). SSMs refer to a situation in which a further target is missed with a higher probability after a first target has already been found in a display. In this study, we were interested in whether SSMs were also modulated by a semantic set bias. That is, we tested whether a further target in a display was missed more often when it was from a different category than the first target. To this end, we had participants search a computer display of everyday objects in order to find one or two dangerous objects (a gun and/or a thrust weapon). If two dangerous objects were present in the display, they were either from the same category (i.e., two guns or two thrust weapons) or from different categories (one gun, one thrust weapon).

Our findings with regard to the search performance (i.e., the time needed to complete the search) are in line with previous research on multiple-target search (e.g., Gibson et al., 2000; Körner & Gilchrist, 2008). Search times were significantly longer when there was

only one target in the display, as compared to displays with no or two targets. This finding was independent of the type of target object (gun or thrust weapon); however, there was no evidence for SSMs or a semantic set bias in our data. Participants did not find a second target less often when there were two targets in the display and they had already found one target, as compared to trials with only one target. Furthermore, the probability of finding the second target did not depend on the category of the second target (same or different as the first target).

One reason for this apparent lack of SSMs could be an expectation bias such that, as there were two targets in the display on most of the trials, participants might have expected the presence of the second target and, thus, continued to search. Such an expectation bias was reported by Fleck et al. (2010, Exp. 9 and 10) when the ratio between trials with one target and trials with two targets was varied. Fleck et al. (2010) only found SSMs when trials with one target were four times more likely than trials with two targets. This suggests that SSMs are affected by the expectation of how many targets will be present in a search display. One reason for the absence of a semantic set bias could be the stimuli we used. We used two categories of dangerous objects: guns and thrust weapons. It is possible that this distinction was insufficient. Participants might have seen both “types” of targets as belonging to a single category (i.e., dangerous weapons). If this were the case, one would not expect any difference in finding a second target from either the same, or a different, category. We therefore cannot reject a possible semantic set bias per se in multiple-target search.

6. FUTURE RESEARCH DIRECTIONS

A promising starting point for future research could be to investigate how expecting the presence of a target influences the search behavior. For instance, Wolfe, Horowitz and Kenner (2005) used a baggage screening task in which the prevalence of the (single) target was either 1%, 10% or 50%. (That is for instance, in the 1%-prevalence condition, the target was present in only 20 out of 2,000 trials.) Whereas in the 50%-prevalence condition the error rate was about 7%, the error rate drastically increased to 16% in the 10%-prevalence condition and to about 30% in the 1%-prevalence condition. That is, even in single-target trials, the target is missed more often as prevalence decreases. When transferring this finding to the fields of radiology or airport security, in which the prevalence of a target (e.g., a lung nodule or a dangerous object) is typically also very low, the detection rate of a single target may actually be exceedingly low. Hence it is unclear, how this prevalence of a single target might affect the detection of a further target. Another aspect to consider in our experiment is that we measured response times only in order to investigate the search behavior. Tracking eye movements during the search would also be a valuable measurement, in order to test which strategy participants pursue during search and how such a strategy might differ with regard to the prevalence of the targets.

7. CONCLUSION

Our findings revealed that, at least with the current stimuli, there were neither SSMs nor a semantic set bias when searching for multiple targets from the same or different categories in a display. We have addressed some points that might have influenced the current findings. These points might provide a starting point for future research on the factors influencing the prevalence of SSMs and on how they can be avoided.

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ACKNOWLEDGEMENTS

This work was supported by a grant from the Austrian Science Fund (FWF): P 28546 to M.H. We are grateful to Trent Haigh, Katrin Liebergesell and Paul Pürcher for their support during the preparation of the manuscript.

AUTHORS INFORMATION

Full name: Margit Höfler

Institutional affiliations: University of Graz; Danube University Krems

Institutional addresses: University of Graz: Universitätspl. 2/III, 8010 Graz, Austria; Danube University Krems: Dr.-Karl-Dorrek-Straße 30, 3500 Krems an der Donau

Email addresses: ma.hoefler@uni-graz.at; margit.hoefler@donau-uni.ac.at

Short biographical sketch: Margit Höfler received her doctoral degree in Experimental Psychology from the University of Graz, Austria in 2010. She was a Post-Doc researcher at Graz University of Technology in the area of technology-enhanced learning from 2010 to 2011 and university assistant (lecturer) at University of Graz from 2011 to 2017. Now she is senior researcher at Danube University Krems. Her main research interests are memory and inhibition processes during visual search, using advanced eye-tracking techniques (e.g., gaze-contingent paradigms).

Full name: Birgit Hübeler

Institutional affiliation: University of Graz

Institutional address: Universitätspl. 2/III, 8010 Graz, Austria

Email address: birgit.huebel@edu.uni-graz.at

Short biographical sketch: Birgit Hübeler received her bachelor degree in Health Management in Tourism in 2011 and her master's degree in Psychology in 2016. At the current time she works as a Clinical Psychologist in Graz.

Chapter #23

USING PERSONALITY TESTS IN RESEARCH: ARE LONGER TESTS NECESSARILY BETTER?

David Freeze¹, Tracy A. Freeze², Lisa A. Best¹, & Kathryn E. Flood¹

¹*Department of Psychology, University of New Brunswick, Canada*

²*Department of Psychology, Crandall University, Canada*

ABSTRACT

According to the Five Factor Model, the five dimensions of personality are Neuroticism, Extraversion, Agreeableness, Openness to Experience, and Conscientiousness. Although the Neuroticism, Extraversion, Openness Personality Inventory (NEO-PI-R) is the gold standard of personality testing, it is time-consuming, sometimes cumbersome, and provides detailed analysis that is not always necessary. Our purpose was to compare longer (NEO-PI-R; 240 items), medium (Big Five Inventory; 44 items) and shorter (Ten Item Personality Inventory; 10 items) tests. Further, because we were interested if a single item could be used to measure each of the five factors, we asked participants to rate five sets of trait descriptors. Participants were recruited from university samples and completed a series of personality inventories. Results indicated moderate/strong correlations between the tests, including between the single item and established tests. For each test, the dominant trait was defined as the trait associated with the highest absolute factor z -score. There was significant test concordance, particularly for Extraversion and Conscientiousness. Thus, participants had a general sense of their personality suggesting that a single item may have some indication of specific traits. Although facet level measurement is sometimes preferable, shorter tests can be used when time is a factor or to provide a quick measure of personality.

Keywords: big five personality traits, neuroticism, extraversion, openness, personality inventory revised (NEO-PI-R), big five inventory (BFI), ten item personality inventory (TIPI).

1. INTRODUCTION

The labelling and categorization of individual traits and characteristics has preoccupied humans for centuries (Kardas, 2013). Long before formal empirical studies were conducted, people used self-awareness and curiosity to make inferences about each other. The measurement of personality has evolved from pseudoscientific approaches (i.e., phrenology) to the early twentieth century brass instrument approach of physical measurements (Kardas, 2013) to modern computer analyses. In spite of this focus, there is still no definitive language or process universally accepted to describe human behaviour. The formal beginnings of personality research began in the 1930's with the work of Gordon Allport, who provided theoretical basis for the inclusion of personality as a subfield of psychology (Barenbaum, 2000). Allport (1921) emphasized differences between personality and character, linking character to societal norms and moral behaviour and personality to individual characteristics. Modern theoretically driven models of personality focus on specific factors that define these individual characteristics or traits.

2. BACKGROUND

Present and past personality research has led to applications beyond experimental psychology; personality differences are recognized as relevant in education, health, business, and pop culture (Credé, Harms, Niehorster, & Gaye-Valentine, 2012). Given the wide applicability, it is important to consider the utility of different types of personality tests. The optimum test styles and average completion times are situation dependent and should be driven by the goals of the test administrator. Other considerations include the media in which the test is presented, the cognitive abilities of participants, and the intended end user of the data. The choice of the most appropriate test determines the full participation of the individual being tested and ultimately the accuracy of the results (Credé et al., 2012).

In the Five Factor Model (FFM) of Personality (Costa & McCrae, 1992) personality is conceptualized as being comprised of five broad factors: Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness. Neuroticism is defined by increased levels of psychological distress and other unpleasant feelings and emotions. Extraversion is associated with higher levels of friendliness, activity, and the experience of positive emotions. Openness to experience is characterized by an intellectual curiosity, flexibility in thoughts and behaviours, and a readiness to adjust in different situations. Agreeableness is related to feelings of sympathy, cooperation, and trustworthiness, whereas; lower scores indicate feelings of distrust and pessimism. Finally, Conscientiousness is associated with an increased propensity for both organization and diligence (Costa & McCrae, 1992). These factors are considered to represent wholly unique aspects of personality that have been identified across different cultures (McCrae & Terracciano, 2005), are similarly described across languages (Goldberg, 1990), and appear to be a part of an individual's biological make-up (Jang, McCrae, Angleitner, Reimann & Livesley, 1998).

According to Costa and McCrae (1992), the FFM is a tiered system with each domain containing six facets representing specific aspects of personality. The secondary facets may vary in individuals who have similar factor scores (McCrae & John, 1992; Matthews, Deary, & Whiteman, 2003). For instance, individuals scoring high on factor Neuroticism may vary on specific sources of emotional instability, which can be determined by examining individual facet scores (Anxiety, Angry Hostility, Depression, Self-Consciousness, Impulsiveness, Vulnerability; Costa & McCrae, 1992). The NEO-PI-R is used extensively in personality research and is the most validated measure of the FFM (Fazeli, 2012).

John, Naumann, and Soto (2008) analyzed papers published before 1998 and found general consensus on the five factors. Given this consensus, it is important to examine the convergent validity of widely available tests. To date, the FFM model is measured using personality inventories of varying lengths, which can limit the detailed facet level analysis provided by the NEO-PI-R. For example, John and colleagues used the five domains to develop the Big Five Inventory (BFI; John & Srivastava, 1999), a freely available, 44-item test that satisfied the prototype definitions for each domain. These authors reported that the five traits of the BFI are comparable to the NEO-PI-R but are restricted in the measurement of the facets. The Ten Item Personality Index (TIPI; Gosling, Rentfrow, & Swann, 2003) is a scale that uses the same five factors as the FFM (McCrae & Costa, 2008) but only includes two items to measure each factor. Gosling et al. (2003) found that the TIPI was reasonably valid in comparison with longer scales. Although the brevity of the BFI and the TIPI prevent a detailed, facet level analysis of personality, the length of the test could benefit testers and participants, especially in research in which personality is of secondary

interest. Further, the BFI and TIPI are available free of charge, which makes them attractive to many researchers. These considerations often drive the choice of a test and may explain the popularity of the BFI and TIPI as alternatives for researchers who are interested in measuring the Five Factors.

3. PURPOSE

There are a multitude of different personality measures and individual researchers must decide which test (and theoretical model) best suits their needs. Shorter tests, such as the TIPI, include fewer items and, thus, provide only a crude measure of personality factors. Despite their lack of detail, shorter tests are useful in specific situations. Researchers sometimes include shorter tests to measure a secondary variable or to control for the effects of broad aspects of personality. For example, researchers commonly include personality when measuring other variables, including life satisfaction (Campbell, Converse, & Rodgers, 1976), cultural/ethnic identity (Benet-Martínez, Leu, Lee, & Morris, 2002) and self-esteem (Robins, Tracy, Trzesniewski, Potter, & Gosling, (2001). In addition, shorter tests may be better suited to specific populations (e.g. individuals with a brain injury, the elderly). In an assessment of different personality tests, Burisch (1984) found that a short nine-item scale for depression was as valid as a complete 50-item scale ($r = .54$ vs $r = .51$). Longer tests may be preferable to researchers who are interested in how specific outcome variables are directly related to personality characteristics. Using a more extensive test such as the NEO-PI-R can help to reduce error due to random measurement (Credé et al., 2012). Several items are used to assess the same construct and the answers can be averaged to get a more accurate analysis. Further, short tests are not adequate for a detailed, facet level analysis (Credé et al., 2012).

The overall goal of this research was to inform the selection of specific personality tests. In the current study we compared established personality inventories with an inventory developed for this study. The NEO-PI-R (Costa & McCrae, 1992), Big Five Inventory (BFI; John et al., 2008), Ten Item Personality Inventory (TIPI; Gosling et al., 2003) and the Individual Item Index of Personality (III-P), were administered. The III-P contained a single item designed to measure each of the FFM factors. The III-P included a list of trait descriptors and participants indicated which descriptors they thought represented their personality factors (see Cattell, Cattell, & Cattell, 1993). Our goals were to (1) determine the relation between the personality inventories, (2) to determine if simply asking participants to select trait descriptors could provide a reliable measure of personality, and. (3) to provide information to researchers about the applicability of different tests to specific research paradigms.

4. METHODS

4.1. Participants

In total, 192 (149 females) participants completed the study. Most participants were enrolled in Introductory Psychology ($M_{\text{age}} = 20.35$ years, $SD = 4.95$), Caucasian (88%), and Canadian (89%).

4.2. Materials

4.2.1. Neuroticism, extroversion, openness personality inventory revised (NEO-PI-R; Costa & McCrae, 1992)

The NEO-PI-R is a 240-item self-report inventory that provides factor scores for Neuroticism, Extraversion, Openness, Agreeableness and Conscientiousness and facet scores for each of the six facets underlying each factor. Participants respond using a five point Likert scale that ranges from 1 “strongly disagree” to 5 “strongly agree”. The Cronbach’s Alpha measures of reliability are for factor scores are high, ranging from $r = .86$ to $.92$ and good for facet scores, $r = .58$ to $.80$ for facet scores (Costa & McCrae, 2010).

4.2.2. Big five inventory (BFI; John & Srivastava, 1999)

The BFI is a 44-item measure that assesses the five factors of personality. Participants rate items on a on a five point Likert scale ranging from 1 “Disagree strongly” to 5 “Agree strongly.” The BFI shows good convergence with the NEO-PI-R and a mean Cronbach’s alpha of $.83$ (John & Srivastava, 1999). In the current study, the coefficient alphas for the individual factors ranged from $.74$ to $.85$, with a mean alpha of $.80$.

4.2.3. Ten item personality inventory (TIPI; Gosling et al., 2003)

The TIPI is a 10-item measure of personality that uses paired descriptors assessed on a seven-point scale ranging from 1 “disagree strongly” to 7 “agree strongly.” Although the mean coefficient alpha is lower ($.51$), the scale has good convergence validity with the NEO-PI-R (Gosling et al., 2003). In the current study, the mean coefficient alpha was $.46$, which is similar to those reported previously.

4.2.4. Individual item index of personality (III-P)

The III-P is a five-item measure that uses two groups of descriptors placed at opposite ends of a five-point scale. The single item designed to measure each of the FFM factors. For example, as a measure of Introversion-Extroversion, participants were presented with a 5-point scale with quiet, serious, shy, self reliant (Introversion) on one end of the continuum and warm, lively, bold, group oriented (Extroversion) at the other end. Participants indicated the level that best described their personality (see Cattell et al., 1993). After participants selected the trait descriptors that best describe them, they are asked which set of descriptors they thought was the best determinant of their personality (for example, an individual who pays attention to detail may select the Conscientious descriptors as their dominant trait). In selecting their dominant trait, participants were not asked which end of the continuum they were considering, thus, the dominant trait represents strength but not direction.

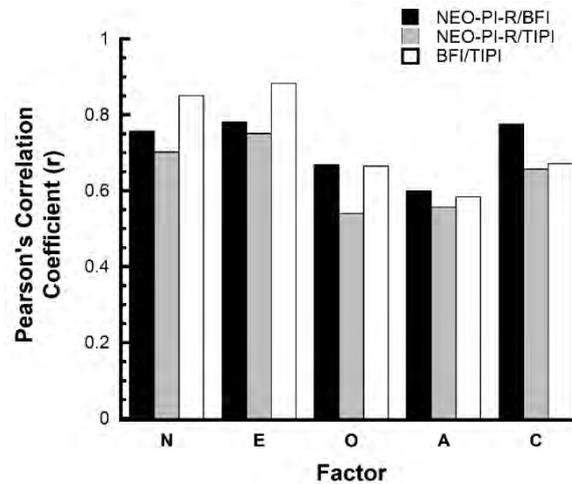
4.3. Procedure

Participants were given a consent form to read and sign followed by a demographics form. The remainder of the questionnaires were counterbalanced to control for order effects. Filling out the questionnaire packet took approximately 60 minutes. Participants were thanked and made aware that the results will be posted on the respective research bulletin boards.

5. RESULTS

Correlation coefficients were used to determine the relation between the five factors as measured by the different scales (see Figure 1). All correlations between the NEO-PI-R and BFI Factors were statistically significant at $p < .0001$ and ranged from strong-moderate ($r = .60$) to strong ($r = .78$), with an average correlation of $r = .72$. Correlations between the NEO-PI-R and the TIPI factors ranged from $r = .54$ to $r = .75$ with an average correlation of $r = .64$. Correlations between the BFI and the TIPI ranged from $r = .66$ to $r = .88$ with an average correlation of $r = .73$.

Figure 1.
Absolute correlations between the NEO-PI-R, BFI, and TIPI.



In addition, the III-P factor scores were correlated with the factor scores from the BFI, TIPI, and NEO-PI-R (see Table 1). In all cases, Neuroticism and Extraversion produced the highest correlation coefficients, suggesting higher convergent validity for those factors.

Table 1.
Compilation of III-P Factor correlations between the personality inventories.

| | III-P Factor | | | | |
|----------|--------------|-------|-------|-------|-------|
| | N | E | O | A | C |
| TIPI | -.50** | .76** | .44** | .29** | .32** |
| BFI | .51** | .76** | .34** | .35** | .37** |
| NEO-PI-R | .44** | .70** | .40** | .38** | .37** |

Note. ** $p = .001$. The negative correlation coefficient between III-P Neuroticism and TIPI Emotional Stability is due to reverse coding of the TIPI factor.

To determine which specific aspects of personality the III-P measured, five hierarchical regressions were conducted. In each regression, the III-P factor score was added as the criterion variables and the corresponding five NEO-PI-R facets were entered as predictors. In each case, a statistically significant proportion of the variability in the III-P factor was accounted for: Neuroticism $R^2 = .59$; Extraversion $R^2 = .49$; Openness $R^2 = .38$; Agreeableness $R^2 = .40$; Conscientiousness $R^2 = .47$. All tests were statistically significant at $p < .001$. Table 2 presents the NEO-PI-R facets that significantly predicted the III-P factor scores. With the exception of agreeableness, the III-P scores were predicted by two or three factors, suggesting that III-P scores are based on more narrow definitions than the corresponding NEO-PI-R factors.

Table 2.
NEO-PI-R facets that were statistically significant predictors of III-P factor scores.

| III-P Factor | | | | |
|-----------------|----------------|------------|-------------|-----------------|
| N | E | O | A | C |
| Anxiety | Gregariousness | Aesthetics | Trust | Order |
| Angry Hostility | Assertiveness | Values | Morality | Self-Discipline |
| Depression | | | Altruism | Cautiousness |
| | | | Cooperation | |
| | | | Modesty | |
| | | | Sympathy | |

Although the BFI only allows for the comparison of 10 facets (Soto & John, 2009), our analyses indicated positive correlations between corresponding facets. Furthermore, Table 3 demonstrates that there were statistically significant (and generally moderate) correlations at the facet level. Further, although the correlations between the III-P and the NEO-PI-R facets were generally lower (with the exception of facets measuring extraversion), the correlations were statistically significant, lending some validity to the idea that a single-item can measure specific aspects of personality.

Table 3.
Correlation between BFI Facets and NEO-PI-R Facets as well as III-P Factor Scores.

| BFI Facet | Correlation (r) | |
|----------------------|-----------------|--------------|
| | NEO-PI-R Facet | III-P Factor |
| Assertiveness (E3) | .50** | .71** |
| Activity (E4) | .44** | .54** |
| Altruism (A3) | .46** | .23** |
| Compliance (A4) | .51** | .36** |
| Order (C2) | .55** | .41** |
| Self-Discipline (C5) | .61** | .27** |
| Anxiety (N1) | .74** | .43** |
| Depression (N3) | .65** | .47** |
| Aesthetics (O2) | .61** | .20** |
| Ideas (O5) | .49** | .32** |

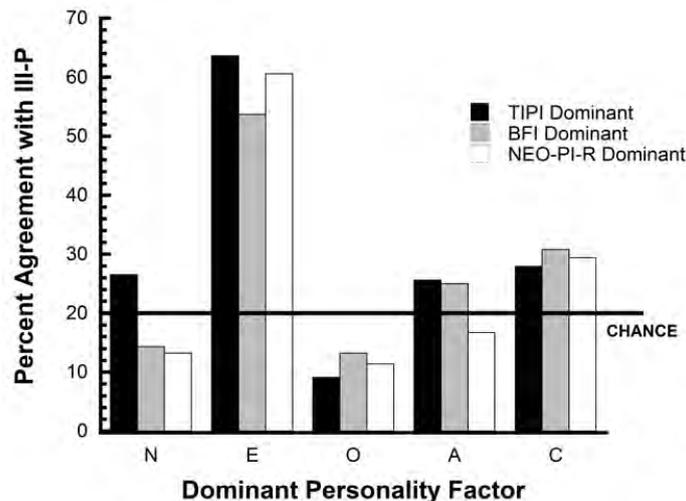
Note. ** $p < .001$.

5.1. Dominant personality factor

Based on the factor z -scores for each test, participants were assigned a “dominant” personality trait, defined as the factor with the largest absolute z -score; for example, if a participant had a NEO-PI-R Neuroticism score that was -2.99 and this factor had the largest absolute value, their dominant personality factor would be Neuroticism. With this coding, each participant had a single dominant personality trait for each of the personality scales. Figure 2 shows the percent agreement between the III-P dominant traits and the dominant traits based on the TIPI, BFI, and NEO-PI-R.

Figure 2.

Percent agreement between the dominant traits of the III-P and the TIPI, BFI, NEO-PI-R.



Additionally, Chi-Square analyses and Cramer’s V degrees of association were calculated to determine the specific relation between dominant traits. There were statistically significant associations between the III-P and the NEO-PI-R ($\chi^2(16) = 32.70$, $p = .036$; Cramer’s V = .21, $p = .036$), the III-P and the TIPI ($\chi^2(16) = 41.91$, $p < .001$; Cramer’s V = .23, $p < .001$) and BFI ($\chi^2(16) = 29.69$, $p = .02$; Cramer’s V = .20, $p = .02$) dominant traits.

6. DISCUSSION

As hypothesized, the correlations between the five factors of personality, as measured by the NEO-PI-R, BFI, and the TIPI were quite high and supported the aforementioned work by John et al. (2008). Gosling et al. (2003) examined the validity of the TIPI in comparison to longer scales and found it to be acceptable. John and his colleagues developed the BFI as a compromise between the length of the test and the ability to measure separate facets. The reduction of items from 240 in the NEO-PI-R to 44 in the BFI produced a mean alpha of .83 (John & Srivastava, 1999) and reducing the items further to 10 items reduced the coefficient mean values to .51 (Gosling et al., 2003), showing lower overall reliabilities.

To assess whether the III-P provided an accurate classification of dominant personality type, the III-P factors with the largest *z*-scores were compared to the corresponding factors on each of the tests. Across all of the tests, Extraversion produced the most stable correlations and associations. In general, there were high correlations between each of the tests and high concordance between the dominant scores as well as between the highest and lowest factor scores. Given that, the terms *Introversion* and *Extraversion* are commonly used, these results make sense. Participants are familiar with these concepts and have likely already associated themselves as being Introverted or Extroverted.

Personality formation is thought to include elements of experience, environment and some portion of genetics (Liebert & Liebert, 1998). Research with identical twins has attempted to reduce variables so differences in personality can be studied (Plomin, Willerman, & Loehlin, 1976). Plomin et al. (1976) argued that at least some portion of personality was inherited and due to biology. Further, Hans Eysenck felt that personality was stable and enduring over time (Liebert & Liebert, 1998). McCrae and Costa (2008) felt that personality underwent change and development in adolescence but stabilized in early adulthood. The desire to determine personality types helps society answer the questions of “What am I *really* like?” and “What is the other person *really* like?” (Liebert & Liebert, 1998, p. 4).

Overall, the current results suggest that the use of the III-P may be useful in areas where a brief add-on questionnaire could provide some initial insight without the challenge of extensive testing. If personality is the primary variable of interest longer tests with more items (i.e., NEO-PI-R) may be preferable. In clinical settings, testing may be used to determine treatment options and, thus, it may be critical to be able to differentiate between Neuroticism facets, such as Depression and Angry Hostility to choose the appropriate course of treatment (Costa & McCrae, 1992). In cases such as these, the increased administration times are necessary and worthwhile. When measuring a specific relationship between personality and other research variables (i.e., attachment, life satisfaction), researchers must carefully consider which measures are most appropriate. If specific relationships between personality facets and other variables are of interest, we would recommend using the scale that had a specific relationship with the facets of interest. For example, if researchers are interested in the Big Five factors of personality, the BFI is likely appropriate but if they are interested in specific nuances of personality, the NEO-PI-R is likely the optimal test.

7. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

In this study, participants completed a series of personality inventories and although the inventories were counterbalanced, the questions in each inventory were designed to measure specific traits and, thus, participants were likely aware that some of the questions were similar. The specific traits included in the III-P were selected because we felt that they best described each personality factor. To prevent participants from forming negative associations between the descriptors and the factors, we avoided words such as neuroticism. If a single item questionnaire were to be more fully developed, the use of specific trait descriptors would have to be validated to inform the selection of individual descriptors.

An interesting extension of this research would be to include 5 items that ask participants to rate FFM traits on a Likert scale. For example, participants could be asked, “On a five-point scale, how Agreeable are you?”. A collaboration among a group of researchers interested in personality either as a primary or secondary variable could easily collect data to allow comparisons between a single item (either FFM labels or III-P trait

descriptors) to evaluate the single item against a wide range of personality tests. Such collaboration would allow researchers to assess if participants have a sense of their own personality characteristics. Studies such as these would provide researchers with a broader range of participant diversity and increase the generalizability of results. In order to establish generalizability, community samples that include more diversity are necessary.

8. CONCLUSIONS

Overall, there was moderate to strong correlations between each of the tests. The III-P performed well against the other tests, suggesting that single items can be used as a crude measure of the Big Five personality factors. We would suggest that these results may help researchers and clinicians select appropriate tests. In both experimental and applied settings, if the variables of interest include the Big Five personality factors, it may be advisable to use a shorter measure of personality, such as the BFI. On the other hand, when measuring specific nuances of personality, a longer test that measures specific facets of personality may be more appropriate.

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KEY TERMS AND DEFINITIONS

Five Factor Model: This trait approach proposes that personality is comprised of five major personality dimensions, including Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism.

NEO-PI-R: Costa and MacCrae formulated the Neuroticism Extraversion Openness Personality Inventory Revised as a measure of the FFM. This measure is longer (240 items) and provides both broad factor and more nuanced facet level scores.

Big Five Inventory (BFI): The Big Five Inventory (BFI) is a self-report inventory designed to measure the Big Five dimensions. This inventory is a quite brief (60 items) measure of the FFM.

Ten Item Personality Measure (TIPI): The Ten Item Personality *Measure* (TIPI) is a 10-item measure of the Big Five (or Five-Factor Model) dimensions.

Neuroticism: Also referred to as emotional stability. This trait measures the tendency to easily express negative emotions (i.e., anxiety, depression). People who are emotionally stable (low Neuroticism scores) have good impulse control and are able to control their emotions.

Extroversion: Extroversion is associated with high levels of energy and activity. Extroverted individuals are sociable and tend to seek out situations that involve being with other people. Conversely, individuals who have low scores (labelled Introversion) are more reserved and self-reflexive.

Agreeableness: High scores on this factor are associated with higher levels of compassion, and cooperativeness. Individuals with lower scores are generally more suspicious, less cooperative, and more competitive.

Conscientiousness: This trait is associated with dependability, self-discipline, and organization. Lower scores are suggestive of sloppiness and unreliability.

Openness to Experience: This trait is reflective of intellectual curiosity and high scores are indicative of an appreciation for art, adventure, and new experiences. Very Low scores are associated with more pragmatism and dogmatism.

ACKNOWLEDGEMENTS

We thank the Departments of Psychology at both the University of New Brunswick and Crandall University for facilitating the use of undergraduate research participants. Additionally, we would like to acknowledge the efforts of Dr. Steven Turnbull (supervisory committee member) and Dr. Lilly Both (Director of the Honours Program). Without their comments on very early drafts, this project would not have been feasible.

AUTHORS INFORMATION

Full name: David Freeze

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: David Freeze completed his Bachelor of Science (BioPsychology) from the University of New Brunswick, Saint John (Canada). The purpose of his undergraduate was to determine the feasibility of using single question descriptors as a measure of the five factor model of personality. He is currently enrolled in the Bachelor of Social Work program at St. Thomas University and will complete his degree in 2018. He plans to pursue a career in social work.

Full name: Tracy A. Freeze

Institutional affiliation: Crandall University

Institutional address: 333 Gorge Rd, Moncton, NB E1G 3H9, Canada

Short biographical sketch: Tracy A. Freeze is an Assistant Professor at Crandall University in Moncton, New Brunswick, Canada. She completed her PhD at the University of New Brunswick. She teaches courses in attachment theory, personality, psychology of religion and spirituality, psychological testing, and research methods. Her research is mainly focused on attachment, religion and spirituality, and personality. Her recent publications include research on attachment to God, attachment to church congregation, and well-being.

Full name: Lisa A. Best

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: Lisa A. Best is a Professor in the Department of Psychology at the University of New Brunswick in Saint John, New Brunswick, Canada. She received her PhD in psychology from the University of Maine. She teaches courses in the history of psychology, research methods, cognitive neuroscience, individual differences, and statistical methods. Her current research interests include personality correlates of adaptive and maladaptive behaviours, graphical perception and cognition, history of scientific data analysis, and the scholarship of teaching and learning. She has co-authored refereed articles and book chapters and presents at national and international conferences in all of these areas.

Full name: Kathryn E. Flood

Institutional affiliation: University of New Brunswick

Institutional address: 100 Tucker Park Rd, Saint John, NB, E2L 4L5, Canada

Short biographical sketch: Kathryn E. Flood is a Master of Arts candidate at the University of New Brunswick, Saint John. She received her BA with a major in psychology from St. Francis Xavier University, and completed her Honours thesis (psychology) at the University of New Brunswick. Currently, she is working on her MA thesis which focuses on individual differences, including personality, in executive functioning. Her primary research interests include: correlates of personality, well-being, higher order cognitive functions, attachment theory, and loneliness. She plans to pursue her PhD in Clinical Psychology.

Section 5
Psychoanalytical Psychotherapy

Chapter #24

A THERAPIST'S STRUGGLE TO ESTABLISH THE PSYCHOANALYTIC FRAME

Sevilay Sitrava

University of Exeter, United Kingdom

ABSTRACT

This paper concerns two aspects of my psychoanalytic psychotherapy work with D, who was 20 years old. I saw him once a week for two years. During the first year, we tried to establish a framework for the therapy. In the second year of the psychotherapy, we were able to establish the psychoanalytic frame, and D had progressed to associate freely during the sessions. This had led the psychotherapy process to a more efficient point. I will focus on two of the material settings of this frame; fixed session day and time; and the psychic element of free association. My main focus on this paper is on D's acting-out towards the time elements of the frame, and free association. I will explain how they were, or were not worked through, and what I encountered as an inexperienced therapist.

Keywords: psychoanalytic frame, frame, acting-out, psychoanalytic psychotherapy, free association.

1. INTRODUCTION

This paper concerns two aspects of my psychoanalytic psychotherapy work with D, who was 20 years old when I started working with him at the very beginning of my clinical practice. I continued seeing him once a week with for two years until the psychotherapy ended prematurely. During the first year, we tried to establish a framework for the therapy. I will focus on two of the material settings of this frame; fixed session day and time; and the psychic element of free association. Specifically, I will focus on D's acting-out towards the time elements of the frame, and the free association. I will explain how these difficulties were addressed, or in some instances not addressed, and what I encountered as an inexperienced therapist. Furthermore, I will comment on the effectiveness of writing a single case research paper about a patient and therapist.

2. BACKGROUND

D was one of the first five patients that I worked with at the very beginning of my master's degree studies in Clinical Psychology, which was a decade ago. He was 20 years old, but seemed younger at first sight because of his physical appearance. He applied for psychotherapy because he had been suffering from Obsession Compulsion and Body Dysmorphic Disorders for over three years. As a result of these disorders, he spent considerable time thinking about himself, his relationships with others, and his physical appearance. Moreover, he lacked self-confidence and self-esteem. He described himself as lonely and anxious, unable to make new friends at university or develop a romantic relationship. According to D, the reason for the lack of a romantic relationship was his physical appearance. This belief led him to have a rhinoplasty operation three months before he applied for psychotherapy. After the surgery, he had expected his life to change

for the better, but it did not. So, he decided to visit a psychotherapist to 'learn' the appropriate behaviours he should display towards women in order to establish a romantic relationship.

D was an only child. His mother was an accountant and his father was a literature teacher. He described his mother as dominant; she always wanted him to do everything in the way that she wanted. Nevertheless, he portrayed his relationship with his mother as very intimate, explaining that his mother knew everything about his life. Although they sometimes argued about D's choice of romantic partners, D told me that he valued his mother's opinions because she was older and more experienced than he was. Occasionally, however, this relationship with his mother bothered him, because he felt a lack of freedom. For instance, one evening, he was lying on his bed in his bedroom with the door shut, suddenly his mother entered the room without knocking, and tried to make D get up and talk to her about his problems, but he was sleepy and found this conversation boring and intrusive. He explained that although his mother lacked certain boundaries, he loved her very much and considered her to be his life coach. D was his mother's narcissistic extension and he was trying to behave in the way she desired. This had an impact on any potential romantic relationship; D explained that he felt paralysed when he met women, because his 'life coach' was not with him to give him instruction. Therefore, he needed to 'learn' the appropriate behaviours towards women for when he was apart from his mother. As his therapist, he expected me to teach him these behaviours.

While D had a lot to say about his mother, he said very little about his father. He told me that his father was an introverted, calm, and quiet person and they had a shallow relationship. His father was like an invisible man. They did not share anything except watching and talking about the football matches. His father had little interest in D's life, therefore when D had problems; his mother was the only person from whom he could seek help.

3. ISSUES RELATED TO THE FRAME

There are various concepts that contribute to the psychoanalytic state such as: free association; transference; frequency of sessions; and setting. The psychoanalytic frame is the basis, which allows for, and facilitates the functions of psychoanalytic work (Quinodoz, 2006). Winnicott (1955) describes the setting as the totality of all the details regarding the management of the therapeutic process. The psychoanalytic frame is essential for the existence of psychoanalysis and/or psychoanalytic therapy and its effectiveness. This frame provides for the patient the environment in which they can freely verbalize their inner conflicts and emotional disturbances, which can then be understood and worked through with the therapist within the boundaries (Bleger, 1967; Viderman, 1979; Quinodoz, 1992). Through the establishment and maintenance of the frame, boundaries are set within which transference occurs. These boundaries provide an environment in which the patient is free to talk about everything, rather than displaying them non-verbally. Freud (1911) discussed the boundary between thought and action from the point of view of the differences between the pleasure principle and the principle of reality. The frame distinguishes the verbal and nonverbal materials. Within the established frame, the boundaries between thoughts and actions are important. The therapist interprets the emotions and thoughts of the patient through verbalization, and the patient is expected to work through these therapeutic materials within the frame. If patients cannot manage to verbalize their disturbances, they may show their feelings by acting out towards the frame.

From the beginning of my clinical practice, I had a clear idea about establishing and maintaining the psychoanalytic frame. My clinical practice and my own psychoanalysis process taught me that the frame was one of the main factors in psychoanalytic psychotherapy. Therefore, I easily internalized the frame and worked in accordance with it but for D, the rules of the therapist constituted the frame and these should be followed, but could also be violated. He was used to obeying the rules within the relationship with his mother. His mother had strict rules for D, and for him to attain the feeling of being cared for and loved, he had only one resource; his mother. Thus, he could not disobey his mother's rules. Although he sometimes complained about his mother's behaviour, D was used to having no boundaries within his intimate relationship with his mother; thus, when he faced a boundary, for example, with a woman, he felt rejected and unloved.

In the consulting room, this situation occurred since D considered the frame to be my rules. He was partially compliant with the frame but another side of him violated these rules, as in the way he had behaved with his mother. For example, two months after the psychotherapy process began, D asked for a change in the frequency of the sessions. The frame regarding the frequency of the sessions was once a week, yet D wanted to come to sessions every two weeks. When he verbalized this desire, I tried to maintain the weekly sessions, and understand the request of D in a therapeutic way. Yet, he was never satisfied with this, and he responded by not appearing at the next weekly session. I assumed that he was experiencing strong feelings such as refusal, abandonment, and anger; just as he underwent with his mother. This behavioural pattern occurred from time to time during the first year of therapy. In one session, he requested a change in the frame of the therapy, without working on this desire; he did not attend the next session or sometimes two consecutive sessions. After these missed sessions, he would arrive on time or earlier, and explain his reasons for his absence. Typically, he blamed his absences on being sick or unable to talk. In another example, he said that he had a guest and he could not inform me because his phone was out of service. When I tried to work through the reasons for his absence, he resisted discussing them. He insisted that he had not been able to attend the session for the given reasons. Although I tried to work through his absences with the frame, I did not succeed.

As an inexperienced clinician, I had strong feelings regarding the irregularity of my sessions with D. I felt I was unable to establish the frame, and, consequently, could not work through this material in an adequate and effective way. Subsequently, I realized that D's behaviour was a maternal projection on me. As described earlier, D's mother suddenly entered his room intrusively without knocking the door and she insisted on convincing D to tell her his troubles in life. Yet, D could not argue with his mother regarding his issues because of his mother's intrusive attitudes. The same pattern occurred in the consulting room. He projected onto me of the mother who does not respect his boundaries and who invades his bedroom-mind without warning, demanding to know about his troubles. D's relationship with his mother was sufficiently symbiotic to be able to create boundaries for D and mother. If he felt a boundary within the relationship with his mother, his obsessions rose, resulting in strong feelings. The same pattern occurred in the therapy process. D gave being sick as the reason for not coming to his sessions and this sounded like an excuse a young child would give. He was not grown up enough to take responsibility for the contract he had agreed with his therapist. His request for a different frequency of sessions was refused and the therapist's 'rule' was valid. Therefore, he experienced the boundaries in the relationship within which he was free to verbalize his thoughts, feelings, desires, fantasies, and dreams. To combine free association and boundaries was too difficult for him.

4. ISSUES RELATED TO FREE ASSOCIATION

D was unsuccessful at free association in the psychotherapy process. While talking to me, D spent much of his time thinking about what to say. He was aware of this and also told me that he was very cautious about the words he used. He had two reasons for this: first, he did not want me to misunderstand him; second, he was trying to find the 'correct' responses. His way of speaking did not allow him to regress and associate freely. Moreover, his extreme self-control did not permit his unconscious representations to emerge. Since D's mother was the one who created a set of rules in her relationship with D, he did not feel free to talk about anything, only what his mother wanted him to. Sometimes, it seemed that he was struck by strong feelings, and could not escape. For example, towards the eighth month of the psychotherapy process, D was talking about his old friends and his high school years. Suddenly he directly asked me the name of my high school. While I was trying to understand the meaning this question had for him, he insisted on asking the same question again and again. I did not answer him, and he became furious with me. His voice grew louder, and he complained about our one-sided relationship. He complained that he always talked about himself, but I said nothing about myself and he needed to hear something from me. He wondered if I experienced similar kinds of issues at his age. He was interested in what was happening to others, to me, rather than himself; thus, it was too difficult for him to regress and associate freely. His demand for me to name my school seemed like a role reversal in which D projected onto me his experience of being on the receiving end of the mother's intrusive demands and he enacted the role, suddenly intruding into my bedroom-mind. Furthermore, since D was suffering from the lack of a romantic relationship, he asked me questions regarding women because I was a woman. He directly asked questions which stood for trying to understand the women via his psychotherapist, me. Moreover, he was used to getting clues from his mother in any kinds of topics, especially romantic relationships. He tried to have a same kind of relationship with me, as his psychotherapist. When I did not answer his direct questions, but rather tried to understand the reasons for asking these kinds of questions and interpreting his attitudes, he was not able to tune in the process and try to understand what was going on in his internal world. Rather, he insisted on being angry with me, and he felt under nurtured. He thought I, his psychotherapist, had the answers to his questions, but I did not 'give' them to him because I did not want to nurture him with my experiences and knowledge. Instead, according to him, I left him alone with his problems, and was not helpful to him. For this reason, he stopped talking to me about his romantic relationships for a long time. He did not feel that he was being nurtured by me, and I did not 'give' him the specific clues he sought. Therefore, he did not want to 'give' me his thoughts, feelings and/or experiences with women neither.

He wanted to be close to me and mutually share problems; otherwise, he would be afraid of being weak and engulfed. Since I did not tell him about myself, he became very angry with me. Instead of explaining his strong feelings, he demonstrated them by missing the next session. His anger resonated with me in relation to the frame in terms of the element of payment for the sessions. The rules of the university determined that patients did not pay for the therapy sessions held in Psychological Counselling Centre of the university. This was a contradiction with the ideal components of psychoanalytic frame. As Bleger (1967) commented the psychoanalytic frame consists of constants and variables, such as the role of the psychoanalyst, time elements, setting, and money. One of the other variables of the psychoanalytic frame is the psychoanalytic contract, agreed with the therapist and patient. This agreement should be based on mutual exchange of money and time

(Grinberg, Langer, Liberman, & De Rodrigué, 1967). Yet, in this case, parts of the agreement had been determined by another authority and caused a problematic situation. I found myself feeling anger towards the university authority since in addition to my rules; there were those of another authority in that consulting room. Thus, I found my feelings paralleled D's feelings when he requested a change in frame. While I was writing this paper, I realized that I partially held the university authority responsible for not being able to work with D properly. I found myself thinking that if the patient had even made a small payment this would have imposed a sanction on him. This may show my identification with the feelings D projected onto me about the rules. He was angry with me, and he projected onto me being the intrusive mother, not allowing him to have a private zone. Regarding fees, I was angry with the university authority and projected onto authority being intrusive, and not allowing me to do my job properly. Since these projected feelings were too difficult to handle, I might have projected these feelings onto the university authority.

5. PROGRESSION OF THE PSYCHOTHERAPY

In the first ten months of the therapeutic process with D, he did not often engage in physical exercise. While we were working through his irregularity in attending the sessions and his unwillingness to engage in free association, he began thinking about his gym attendance. Going to gym was a concrete example for him, and therefore he was able to find the way to verbalize his feelings. When he exercised, he felt relaxed, more comfortable, and self-confident; thus, in the sessions we could work through his inner conflicts with the help of his interest in sport. At the end of the first year of therapy, he had internalized the time elements of the frame being punctual and rarely missing sessions. If he needed to cancel a session, he obeyed the rules of cancellation. Although he still had some problems regarding free association, but was slowly managing to do it. He became better able to discuss his problems, thoughts, feelings freely and he was able to talk about and discuss his dreams. He had started to talk about his girlfriends and the way that he communicated with the girls, without searching the wrong and right sides in my point of view. He had started to talk about his sexual life. He had experienced his first sexual intercourse while he was in the psychotherapy, which was an indication of the fact that he was psychologically 'growing up' and he was not seeking another person to help him decide what to do and what not to do.

Regarding his dreams, he became able to focus on what was happening in his internal world and what he was experiencing in his life, as opposed to what I gave him as the psychotherapist. He did not look to me for responses or to lead him in life. Instead, he had become autonomous and experienced the life accordingly. These changes and progresses in D's life were invaluable and inevitable for him, and for me, as his psychotherapist. He could have had a different lens for himself; these progresses were enough to start a change in his life. Nevertheless, he needed to work on these issues more.

The premature end of the sessions with D was because I had completed my master's degree, and my work in the university psychological counselling centre had ended. I told D my last day of work in the university six months before leaving, thus providing time to work through the related issues. I suggested D that I could continue to work together in private practice. Although he very much wanted to continue working with me, he did not accept because he would not pay for the therapy. He did not want to 'give' more things.

6. REFLECTIONS

These strong feelings, which emerged in both the patient and myself made the psychotherapy process with D difficult. Since I was an inexperienced clinician and the frame was already internalized with me, I considered D to be a rebellious patient with his difficult questions and trying to drive me into a corner. He questioned my working style, which made me feel angry and trapped. Although he complained that we did not share anything, we did share some strong feelings but could not verbalize these to each other. In the process of writing about this case for this paper, I realized many more things regarding the patient and myself. For me, the frame was one of the accepted aspects of the therapy and there was no need to argue about it. Yet, with this paper, I recognized that there was not just one frame. As Bleger (1967) noted, psychoanalysts, and I would add psychotherapists, have an inner frame, but they cannot ignore the patient's frame that they unconsciously bring with them to the first session. The psychoanalytic contract should be undertaken with the frames of both parties. If not, as in my case reported here, the frame becomes a particular and difficult issue, which influences the first year of the therapy process. Nonetheless, these negative situations have become a valuable experience about which I was able to write a paper many years later.

In terms of writing a single case research paper, I, as a clinical psychologist, psychoanalytic psychotherapist encountered some of the important points of the methodology of single case research. During the sessions, I had an idea about the progress and prognosis of the patient, but at some points I had failed. This situation paralleled the "negative capability and psychoanalysis" (Taylor, 2010, p. 405). Taylor (2010) argued that as a researcher we try to obtain the results that we expect, and accordingly we ask the appropriate research questions and thereby set the design. If there are results, which contradict our previous assumptions, then it becomes confusing. This negative capability parallels the work with patients in the consulting room. In the formative sessions with clients, psychoanalysts formulate opinions of the patient and in the light of this formulation assume that we will receive the responses from the patients that support our predetermined perspective. We expect to hear issues from the patient in the way we have assumed; thus, we diagnose the patient in the way we have formulated them. Accordingly, we anticipate that the patient will bring into the session the kinds of therapeutic issues as we expected. If something strange happens, which we did not anticipate hearing according to our formulation and way of thinking about the patient, we may find ourselves in a position which estranges us from the patient. We would get lost in the details given by the patient without understanding them. The same pattern can be experienced as a researcher. The research techniques, in the forefront, may appeal to the researcher in the process of choosing the appropriate methodology design. This would steer the researcher away from the important hypotheses, which should lead the research, and instead the methodological design of the study could become prominent. This is related with the ability of including or not including the negative events related to a clinical event or in academic research (Taylor, 2010).

Combining the psychoanalytic psychotherapy and research in this paper allowed me to go through the methodological and psychoanalytic issues at the same time. Holding the third position as a researcher and a more experienced psychoanalytic psychotherapist offers me plenty of theoretical and methodological materials and sources of research were conducted for a very long period of time. This experience allowed me to overcome the negative capability issues outlined by Taylor (2010).

7. CONCLUSION

In this paper, I discussed the difficulties that I had encountered when I was an inexperienced therapist. Although a psychotherapy process includes a dyad, therapist and the client, the dynamics of the psychotherapy would be constituted according to these two persons. Additionally, the personal dynamics of the therapist, being aware of these dynamics, owning an appropriate lens as a therapist and being aware of the transference and counter-transference issues come to the forefront. Although these features depend on the unique dyad, this paper may give ideas regarding the psychotherapeutic process with a patient who had inner conflicts and had been resistant to deal with his inner world.

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AUTHOR INFORMATION

Full name: Sevilay Sitrava

Institutional affiliation: Department of Psychology, University of Exeter

Institutional address: Washington Singer Building, Perry Road, Exeter EX4 4QG United Kingdom

Email address: ss708@exeter.ac.uk

Short biographical sketch: Sitrava is a postgraduate researcher in the programme of Doctorate of Clinical Practice in University of Exeter. She is a clinical psychologist and working with adults, couples, and families. She is currently conducting her dissertation, which is about adult attachment in romantic relationships, and which is a mixed-methods study, combining quantitative and qualitative methodologies. Her interests of areas are adult attachment, psychoanalysis and qualitative methodology.

Section 6
Legal Psychology

Chapter #25

THE ROLE OF PREVOLUTIONAL PROCESSES IN VIDEO GAME PLAYING

A Test of the Theory of Planned Behavior and the Extended Model of Goal-directed Behavior applied to video game playing

Bibiána Kováčová Holevová

Pavol Jozef Šafárik University, Faculty of Arts, Department of Psychology, Košice, Slovakia

ABSTRACT

The aim of the current study is to investigate the relationship between prevolitional processes and video game playing. In the study, models of attitude, the Theory of Planned Behavior (TPB) and the Extended Model of Goal-directed Behavior (EMGB) are tested with structural equation models to analyze the process that leads to video game playing. In addition, the role of the goal underlying video game playing within the EMGB is examined. The participants were 210 video game players who completed measures of Goal Desire, Attitude, Subjective Norms, Perceived Behavioral Control, Behavioral Desire, Anticipated Emotions, Intention to play and Playing Behavior (intensity of video game playing). The results showed that the TPB achieved a perfect fit although the predictive power of this model was weak. The EMGB demonstrated an unsatisfactory fit and the model had to be revised. Goal Desire was found to contribute to Behavioral Desire, but also to Playing Behavior. The consequence of this direct effect can be habitual or automatic processes which should not be omitted when considering prevolitional processes that lead to video game playing. The potential explanations for this are explored.

Keywords: video games, prevolitional processes, the theory of planned behavior, the extended model of goal-directed behavior.

1. INTRODUCTION

The aim of this study is to investigate the relationship between prevolitional processes and video game playing. Two models of attitude, the Theory of Planned Behavior (TPB, Ajzen, 1991; 2002) and the Extended Model of Goal-directed Behavior (EMGB, Perugini & Bagozzi, 2004) were tested with structural equation models to analyze the process that leads to playing behavior. The EMGB was used to specifically examine the role of the goal underlying video game playing.

2. BACKGROUND

Playing video games is a very popular activity among young people. In a survey conducted in Slovakia by Kováčová Holevová (2011), only 13% of respondents had never played video games. Furthermore, 26% of boys and 8% of girls indicated that they played video games every day. Therefore, it is important to examine the prevolitional processes that lead to video game playing. The aim of this study is therefore to examine which variables play a role in the process of developing and maintaining game behavior.

Playing video games may result from both deliberative and automatic processes. For example, habit strength (especially the automatic processes that are behind habitual past playing) and its direct effect on media use, is emphasized in the Model of Media Attendance proposed by LaRose and Eastin (2004). This study focuses on the deliberative path and examines video game playing as a planned behavior. This approach allows us to benefit from some of the insights from the models of attitude that consider behavior as planned and largely determined by the intention to perform it. The study tests two theoretical models in the context of playing behavior in order to identify which factors contribute to video game playing; The Extended Model of Goal - directed Behavior (EMGB) proposed by Perugini and Bagozzi (2004) and its predecessor; the Theory of Planned Behavior (TPB) proposed by Ajzen (1991; 2002).

2.1. The theory of planned behavior (TPB) and video game playing

The Theory of Planned Behavior (TPB) (Ajzen, 1991; 2002) is among the most known and widely adopted model of attitudes. Besides Intention, there are three fundamental constructs in the TPB: (1) the Attitude toward the behavior that corresponds to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question; (2) Subjective Norms (SN) which involve the perceived social pressure to perform or not to perform the behavior and (3) Perceived Behavioral Control (PBC), defined as the perceived ease or difficulty of performing the behavior. According to the TPB, people act in accordance with their intentions and perceptions of control over the behavior, whereas intentions in turn are influenced by attitudes toward the behavior, SN, and PBC. Armitage and Conner (2001) examined 185 empirical tests of the TPB and found that the TPB accounted for 39% of the variance in intention and 27% of the variance in behavior.

However, little research has been devoted to the application of this model to the attitude toward video games playing. Haagsma, King, Pieterse, & Peters (2012) tested the utility of the TPB model in gaming activity among Dutch young people. The results showed that the TPB variables only explained 9% of the variance in intention. While attitude and PBC emerged as predictors, SN was not found to account for any of the variance in intention. Despite the fact that the TPB model obtained statistical significance, the authors admitted that the total variance explained by this model was relatively low. Indeed, the TPB does not take into account some prevolitional processes and is one of the reasons why Perugini and Bagozzi (2001; 2004) proposed other models of attitude.

2.2. The extended model of goal-directed behavior (EMGB) – broadening and deepening the TPB

The Model of Goal-directed Behavior (MGB) and its extension, the Extended Model of Goal-directed Behavior (EMGB, Perugini & Bagozzi, 2001; 2004) expanded the TPB by incorporating affective, motivational and automatic processes. It also proposed a different flow among the constructs. In the EMGB, the intention to perform a behavior is primarily motivated by the desire to perform the behavior (Behavioral Desire, BD). This is defined as the personal motivation or wish to perform the action. For example, an individual could experience a strong desire to play but not really intend to engage in that behavior. BD relies on reasons that make the behavior desirable and is assumed to reflect the effects of attitude, SN, PBC, anticipated emotions (i.e., anticipated affective reactions to the failure and success of performing the action) and Goal Desire (GD) and mediates their influence on intention. The inclusion of GD in the EMGB is based on the assumption that the desire to

achieve a certain goal influences the desire to perform a certain behavior that is subjectively felt to be instrumental for goal attainment. As a result, BD will be the proximal determinant of the intention to perform the behavior in question while GD will have an indirect effect on intention through BD (Perugini & Bagozzi, 2004). These models (the MGB and the EMGB) also include past behavior in order to incorporate the influence of automatic and habitual processes in decision making. However, the role of past behavior will not be considered as a predictor of behavior in this contribution for two reasons. Firstly, the theoretical status of past behavior as a predictor of behavior has been the subject of much controversy (cf. Ajzen, 2004). Secondly, this study focuses on the deliberative processes involved in playing behavior.

Perugini and Bagozzi (2004) have confirmed that the MGB and in particular the EMGB has had better predictive power than the TPB. This better predictive power has also been demonstrated for different behaviors in various domains (e.g. Leone, Perugini, & Ercolani, 2004; Perugini & Bagozzi, 2001). Yet, there has been no research concerning the use of these models in explaining playing behavior.

Although the study is interested in applying the TPB and the EMGB to video games playing, it is not being suggested that the TPB or the EMGB provide a general model or theory of playing behavior. The TPB and the EMGB are general models that focus on decision making processes and can be applied to a variety of behaviors. These models provide much more detail about cognitive and emotional processes in deliberative action. The EMGB also incorporates the mechanisms and the processes through which the goal and the desire to achieve this goal influence behavior.

3. OBJECTIVES

The TPB and the EMGB were applied as a means of examining the relationship between prevolitional processes and video game playing. It was hypothesized that the EMGB would have better predictive power than the TPB (H1). It was also hypothesized that the goal underlying video game playing within the EMGB would not influence playing behavior directly. Rather it would influence it indirectly by increasing the desire toward the behavior that in turn influences the intention that determines the behavior. As a consequence, GD would not be a direct predictor of Behavior (H2) although in the EMGB, it would be a significant predictor of BD (H3).

4. PARTICIPANTS AND PROCEDURE

210 participants who were Slovak video game players aged from 14 to 35 years old (181 men, 29 women; Mean Age 20.1, Standard Deviation 5.7) completed measures of goal desire, attitude, subjective norms, perceived behavioral control, behavioral desire, anticipated emotions (PAE and NAE), intention to play and actual intensity of video games playing (playing behavior).

51% of the participants were secondary school students, 18.6% were university students and 30.5% were employees. Almost 32% of them were Counter Strike players, 19.5% were World of Warcraft players, 10.5% were League of Legends players, 6.2% were EVE online players and 4.3% were Overwatch players. The participants were obtained through occasional and snowball selection.

5. MEASURES

With the exception of playing behavior, all the responses were on 5-point scales with 5 indicating a higher score on the construct. The measures were adopted from other research which had investigated behavior within the TPB and the EMGB models (e.g., Leone et al., 2004, Richetin, Richardson, & Boykin, 2011, Perugini & Bagozzi, 2001; 2004).

Playing Behavior was measured by the question "Approximately how many hours over the week do you play video games?" Participants also completed the question about what kind of video game they played the most often.

Intention was assessed by three items ("I will play video games," "How likely is it that you will play video games?" and "I intend to play video games"). The reliability of this measure was satisfactory. The Cronbach Alpha was .789.

Attitude. Participants were presented with the stem "I think that for me video game playing is..." followed by nine bipolar scales (bad-good, negative-positive, unpleasant-pleasant, punishing-rewarding, unenjoyable-enjoyable, unsatisfying-satisfying, uncool-cool, useless-useful, harmful-harmless). This achieved very good reliability. The Cronbach Alpha was .812.

Subjective Norms (SN) were assessed by three items ("People who are important to me think I should play video games," "People who are important to me would approve of my video games playing," and "People who are important to me would be very happy if I play video games"). The Cronbach Alpha was .829.

Perceived Behavioral Control (PBC) was assessed with five items ("How much control do you have over video games playing?," "Whether I play video games or not is completely up to me," "For me to play video games is easy," "For me to play video games is difficult," (scored as reversed) and "If I wanted to, it would be easy for me to play video games"). The reliability of this measure was not satisfactory (the Cronbach Alpha was .467). The last item in the above list was not related to the others and was subsequently eliminated. The Cronbach Alpha for the remaining items was 0.600. The reliability of the adjusted measure was at the edge of acceptability and therefore was not excluded from the measures tested in the models.

Behavioral Desire (BD) was measured by three items ("How strongly would you characterize your desire to play video games" "I desire to play video games," and "Video games playing is something that I desire to do"). The reliability of this measure was high. The Cronbach Alpha was .855.

Anticipated Emotions. Positive Anticipated Emotions (PAE) were measured with five items. Participants indicated how delighted, proud, happy, pleased and satisfied they would feel if they succeeded in playing video games. Negative Anticipated Emotions (NAE) were also measured with five items. Participants indicated how disappointed, agitated, guilty, regretful and frustrated they would feel if they failed in playing video games. The reliabilities were high for both Negative (the Cronbach Alpha was .933) and Positive Anticipated Emotions (the Cronbach Alpha was .896).

Goal Desire. In order to measure GD, participants were first asked, "What do you think would be the most likely reason why you would play a video game?" The desire toward this goal was measured with three items ("How strongly would you characterize your desire to reason Y?," "How likely is your desire to reason Y?" and "The intensity of your desire to reason Y can be described as?"). The Cronbach Alpha was 0.854.

Participants also completed questions about their gender, age as well as choosing whether they were secondary school students, university students or employed.

6. RESULTS

Age did not correlate with any measured variables (GD, NAE, PBC, Attitude, SN, BD, Intention or Behavior). Age only significantly correlated with PAE ($r = -.146$, $p = .035$). It means that the older the players are, the fewer the positive anticipated emotions they experience when they successfully play video games. Female and male players did not differ in any of the measured variables. The descriptive characteristics measuring the variables are listed in Table 1.

Table 1.

Means (on 5-point scales with 5 indicating higher score on the construct or in hours per week in Behavior) and Standard Deviations of the components of the TPB and the EMGB.

| | All Players (N=210) | |
|---|---------------------|-------------------------|
| | Mean (M) | Standard Deviation (SD) |
| Behavior (Actual Playing in hours per week) | 18.00 | 12.68 |
| Intention to Play | 3.48 | 0.96 |
| Attitude | 3.91 | 0.59 |
| Subjective Norms | 2.76 | 0.88 |
| Perceived Behavioral Control | 4.10 | 0.65 |
| Behavioral Desire to Play | 2.96 | 0.99 |
| Positive Anticipated Emotions | 3.52 | 0.96 |
| Negative Anticipated Emotions | 2.14 | 0.95 |
| Goal Desire | 3.49 | 0.95 |

The correlation matrix for all variables included in the TPB and the EMGB models is presented in Table 2. Playing behavior correlated with intention, BD, attitude, PAE, NAE and GD. Intention and attitude correlated with all variables. PBC only correlated with intention, attitude and SN. GD was correlated with BD and intention as well as with playing behavior.

Table 2.
Correlation among the constructs of the TPB and the EMGB applied to video game playing.

| | Playing | Intention | Attitude | SN | PBC | BD | PAE | NAE |
|-----------|---------|-----------|----------|--------|-----|--------|--------|--------|
| Intention | 0.32* | | | | | | | |
| Attitude | 0.15* | 0.5** | | | | | | |
| SN | | 0.36** | 0.26** | | | | | |
| PBC | | 0.25** | 0.28** | 0.18* | | | | |
| BD | 0.30* | 0.67* | 0.46** | 0.25* | | | | |
| PAE | 0.21** | 0.58** | 0.5** | 0.29** | | 0.71** | | |
| NAE | 0.29** | 0.29** | 0.14* | 0.17* | | 0.46** | 0.40** | |
| GD | 0.32** | 0.42** | 0.36** | 0.19** | | 0.49** | 0.48** | 0.32** |

Note: GD = Goal desire, SN = Subjective Norms, PBC = Perceived Behavioral Control, PAE = Positive Anticipated Emotions, NAE = Negative Anticipated Emotions, BD = Behavioral Desire
N=210. * p<.05, **p<.01

The reasons for playing video games include the reasons (goals) participants listed for playing. The goals reported by the participants were: to have fun (31,4%), to avoid being bored (18,1%), to be with friends (15,2%), relax (10%), to escape from worry (10%), to win over other players (7,1%) and to advance in the game (6,2%).

6.1. Tests of the TPB and the EMGB applied to video game playing

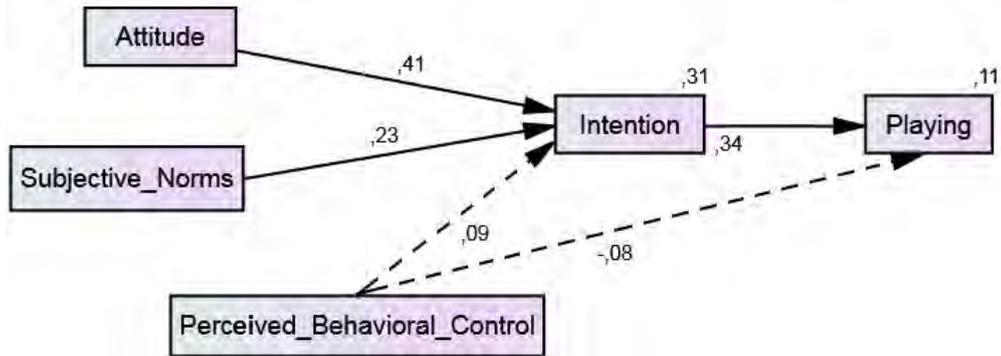
The TPB and the EMGB were formally tested with structural equation models using AMOS 20. Full structural equation models were used in order to investigate the goodness of fit for the TPB and the EMGB. The goodness of fit was ascertained by examining the chi square statistic which should be non-significant. The comparative fit index (CFI), the normed fit index (NFI), and the root mean square error of approximation (RMSEA) were also used as indicators of goodness of fit. Values above .95 for both the CFI and NFI and below .06 for the RMSEA can be considered satisfactory (Hu & Bentler, 1999).

6.1.1. Tests of the TPB applied to video game playing

Structural equation modeling was used to test the TPB. Attitude, SN and PBC were included as predictors of intention. Intention and PBC were included as predictors of playing behavior. The TPB obtained a perfect fit $\chi^2(N=210) = .166, p = .92$ (CFI = 1, NFI = .999, RMSEA = 0). The predictors accounted for 31% of the variance for intention and 11% for behavior. Intention was a function of attitude ($\gamma = .41$) and SN ($\gamma = .23$). PBC was a significant predictor of neither intention nor behavior. Finally, intention predicted playing behavior ($\beta = .34$). The standardized parameter estimates for the TPB are reported in Figure 1. The correlations among predictors are omitted for the sake of simplicity.

The Role of Prevolitional Processes in Video Game Playing: A Test of the Theory of Planned Behavior and the Extended Model of Goal-Directed Behavior Applied to Video Game Playing

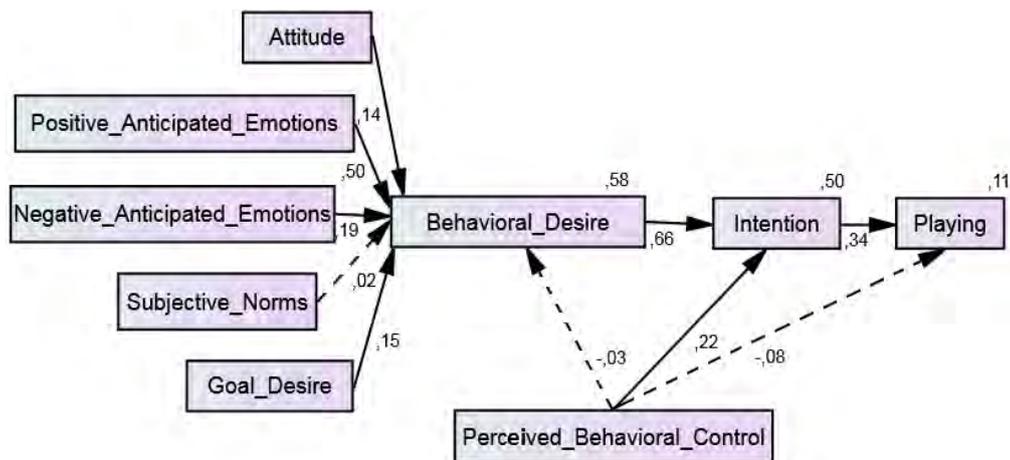
Figure 1.
Parameters estimates for the TPB applied to video game playing (N=210).



6.1.2. Tests of the EMGB applied to video game playing

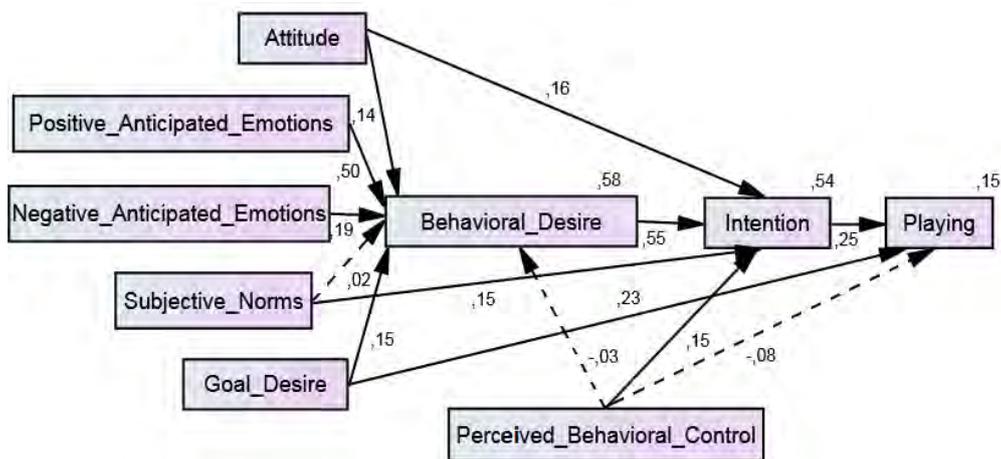
Structural equation modeling was used to test the EMGB. Attitude, SN, PAE, NAE, PBC and GD were included as predictors of BD. BD and PBC were included as predictors of Intention. Intention and PBC were included as predictors of playing behavior. The initial model obtained a poor fit $\chi^2(N=210) = 41.66, p < .001$ (CFI = .947, NFI = .933, RMSEA = .115). Post hoc modification indices suggested an improved fit by the direct effect from attitude and SN to Intention and from GD to playing behavior. The standardized parameter estimates for the EMGB initial model is reported in Figure 2 and for the EMGB revised model in Figure 3. The correlations among predictors are omitted for the sake of simplicity.

Figure 2.
Parameters estimates for the EMGB (initial model) applied to video game playing (N=210).



The revised model obtained an acceptable fit $\chi^2(N=210) = 12.581, p = .127$ (CFI = .992, NFI = .98, RMSEA = .52). The predictors accounted for 58% of the variance in BD, for 54% of the variance in intention and for 11% of the variance in playing behavior. BD was a function of attitude ($\gamma = .14$), PAE ($\gamma = .50$), NAE ($\gamma = .19$) and GD ($\gamma = .15$). Intention was a function of BD ($\beta = .55$), but also attitude ($\gamma = .16$), SN ($\gamma = .15$) and PBC ($\gamma = .15$). Finally, playing behavior was predicted by intention ($\beta = .25$) as well as by GD ($\gamma = .23$). The hypothesis H2 was not supported and the hypothesis H3 was supported.

Figure 3.
Parameters estimates for the EMGB (revised model) applied to video game playing (N=210).



A comparison between the predictive power of the two models for intention and behavior shows that the EMGB accounted for more variance than the TPB. When applied to video game playing, the EMGB explained 54% and the TPB 31% of the variance for intention. The EMGB explained 15% and the TPB 11% of the variance for behavior. Therefore, hypothesis H1 was supported.

7. DISCUSSION

This study was designed to examine the prevolitional processes of video game playing within two models; the TPB and the EMGB. A further aim of this study was to investigate the goals underlying the behavior and the role of those goals in the determination of the desire to play (BD) and playing behavior within the EMGB. Using structural equation modeling, the goodness of fit of these models was tested.

The first aim of this study was to investigate the TPB applied to video game playing. The obtained fit was perfect but attitude and SN (predictors) only accounted for 31% of the variance in intention and intention only accounted for 11% of the variance in behavior. The results revealed better predictive power of the TPB applied to video game playing compared to those previously reported by Haagsma et al. (2012). Yet, despite the statistical significance, the total variance explained by this model was relatively low. A possible explanation for this is the fact that the TPB does not take into account motivational or

affective processes. This could potentially improve the predictive power of the model. In contrast to Haagsma et al. (2012), it was found that SN was a significant predictor of intention, while PBC was not. PBC also failed to predict playing behavior within the TPB model. A reason for this could be the procedure used to measure PBC or the relatively weaker reliability of this construct.

The second aim of this study was to investigate the motivational and affective processes within the EMGB that lead to video game playing. It was found that the initial model obtained an unsatisfactory fit. While intention was a significant predictor of behavior, the desire to play (BD) did not fully mediate the direct effect of SN, attitude and GD on intention. By direct effect from attitude and SN to intention and by direct effect from GD to behavior, the revised model obtained acceptable fit. The EMGB (Perugini & Bagozzi, 2004) proposes that desire mediates the effects of other predictors on intention. The full mediation hypothesis was confirmed by Perugini and Bagozzi (2001) and obtained support in the current data too. It was found that BD mediated the effect of PAE and NAE on intention but did not fully mediate the effect of attitude on intention. SN and PBC were not significant predictors of BD. Nevertheless, even when the aforementioned direct effects from attitude and SN to intention were included, BD was still the strongest predictor.

As is consistent with previous findings (Perugini & Bagozzi, 2001; Leone et al., 2004; Richetin et al., 2011), the significant predictors of BD were PAE and NAE. The anticipation of the positive feelings one would have if they succeeded in playing behavior and the anticipation of the negative feelings one would have if they failed in playing behavior are associated with the desire to play (BD). The greater variance explained by PAE compared to NAE in BD echoes the main reported goals underlying video game playing.

Although Perugini and Bagozzi (2001) assume in the EMGB that the effect of attitude on intention is mediated by BD, in some cases and for some behaviors, the mediation by BD may not be complete (e.g. Leone et al., 2004). Given that previous research has demonstrated that attitude influences intention, it is theoretically meaningful to allow a direct path from attitude to intention. It was found that the attitude to play was a significant predictor of BD although attitude also had a direct effect on the intention to play.

As mentioned, under some circumstances, the mediational power of BD might not mediate all the effects of the EMGB constructs on intention. Although what is desired is often intended, intention still might be directly based on the reasons and beliefs concerning the behavior. The results have revealed the direct effect from SN and PBC to intention. Playing game might be intended because players are believed to be normatively appropriate and therefore crucial for one's role identity (Carver, 1996). The development of an intention to play can be also facilitated if the player feels capable of enacting the behavior (Perugini & Conner, 2000). In such cases, the motivational input to intention comes from SN and PBC and can influence the intention directly without being completely mediated by BD.

A further aim of this research was to use the EMGB to determine whether the goal one wants to achieve when playing had an indirect rather than a direct relationship with behavior through BD and intention. The current results have confirmed that video game playing can be motivated by many different goals. The contribution of GD on BD was significant but the desire toward the goal one wants to achieve by playing (GD) also directly related to the emergence of the behavior. The results have also revealed that the desire toward the playing goals (GD) not only predicts the desire to play (BD) but has a more important role than more well established constructs. Indeed, SN and PBC did not

play a critical role, whereas PAE, NAE, attitude and GD were significant predictors of one's desire to play video game (BD).

Habitual or automatic processes included in video game playing may result in an association between GD and playing behavior occurred without considering intention or BD. As Perugini and Bagozzi (2004) mentioned, given the extent that the reasons for acting reflect non-deliberative processes, direct effects from reasons to intentions might be expected. This direct effect would reflect automatic activation of intentions. Although the study found direct effects between GDs and behaviors (not intentions), it can also be assumed that there is the effect of automatic or habitual processes in prevolitional processes that lead to video game playing. This direct association between GD and playing behavior should be stronger among heavy players than among casual players where the connection between goal desire (GD) and playing has not been created (or is not very strong) and deliberative processes are stronger determinants of behavior. For that reason, the moderating effects of playing experience should be taken into account in further research. It should also be emphasized that the contributions of the EMGB model only consider the deliberative path and treats video game playing as a planned behavior. Based on the findings, there is an assumption that habitual or automatic processes in prevolitional processes that lead to playing should not be omitted because they can play a role in playing behavior.

The limitations of this study need to be acknowledged. This study is correlational and therefore may shed light only indirectly on the causal mechanisms underlying decision-making processes. Nevertheless, the results have been consistent with the hypothesized theoretical framework. Future experimental studies could manipulate the key variables explicitly. It also needs to be acknowledged that the procedures used to measure some constructs could be improved. PBC was the construct that obtained weaker reliability. Although similar problems with reliability have been found in other studies (e.g. Richetin et al., 2011), items measuring this construct are used in a lot of research investigating behavior within the EMGB (e.g., Perugini & Bagozzi 2001; Leone et al. 2004; Richetin et al. 2011).

Practitioners may benefit from knowing the processes that lead to playing behavior. The determinants of the TPB or the EMGB have a different role in this process. The results have suggested that anticipated emotions, attitude and GD seem to be connected with more distal determinant of playing behavior; the desire to play. This construct does not necessarily imply that the player will intend to play. However, the desire to play was the strongest predictor of a more proximal determinant of playing behavior and together with perceived perception of control over playing (PBC), perceived social pressure to play (SN) and attitude, had a direct effect on the intention to play. The results have also suggested that players' goals played an important role in the prevolitional processes of video game playing and goal desire had an important role in the desire to play. The results have also suggested that it is necessary to know a player's playing habits because automatic processes can play a role in the process of developing and maintaining playing behavior.

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KEY TERMS & DEFINITIONS

The Theory of Planned Behavior (TPB): is widely adopted model of attitudes. According to the TPB, people act in accordance with their intentions and perceptions of control over the behavior (PBC), whereas intentions in turn are influenced by attitudes toward the behavior, subjective norms (SN), and perceived behavioral control (PBC).

Intention: is assumed to be the most proximal determinant of the behavior.

Attitude toward the behavior: corresponds to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question.

Subjective Norms (SN): involve the perceived social pressure to perform or not to perform the behavior.

Perceived Behavioral Control (PBC): is defined as the perceived ease or difficulty of performing the behavior.

The Extended Model of Goal-directed Behavior (EMGB): expanded the TPB. In the EMGB, the intention to perform a behavior is primarily motivated by the desire to perform the behavior. This behavioral desire (BD) relies on reasons that make the behavior desirable and is assumed to reflect the effects of attitude, SN, PBC, anticipated emotions (AE) and Goal Desire (GD) and mediates their influence on intention.

Behavioral Desire (BD): is defined as the personal motivation or wish to perform the action.

Anticipated Emotions (AE): are anticipated affective reactions to the failure (negative anticipated emotions, NAE) and success (positive anticipated emotions, PAE) of performing the action.

Goal Desire (GD): the inclusion of GD in the EMGB is based on the assumption that the desire to achieve a certain goal influences the desire to perform a certain behavior that is subjectively felt to be instrumental for goal attainment.

ACKNOWLEDGEMENTS

This study was supported by the Scientific Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic and the Slovak Academy of Sciences (VEGA) (grant number 1/0924/15).

AUTHOR INFORMATION

Full name: Bibiána Kováčová Holevová, Ph.D

Institutional affiliation: Pavol Jozef Šafárik University, Faculty of Arts, Department of Psychology

Institutional address: Moyzesova 9, Košice, 040 59, Slovakia

Email addresses: bibiana.kovacova.holevova@upjs.sk; bibiana.holevova@gmail.com

Short biographical sketch: Bibiána Kováčová Holevová was born in 1983. She graduated from the Faculty of Arts, Prešov University (Slovakia) in 2007. She works at the Department of Psychology of Pavol Jozef Šafárik University in Košice (Slovakia). Her research interests are media effects and video games, currently also the goals of the players.

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