Chapter #20

PARENT-CHILD PROCESSES AND HEALTH RISK BEHAVIOUR AMONG YOUNG SLOVAK ADOLESCENTS: THE MEDIATING ROLE OF SELF-ESTEEM AND SELF-CONTROL

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ABSTRACT
Lower levels of self-esteem (SE) and self-control (SC) have frequently been associated with a full range of health risk behaviours such as alcohol use or smoking. However, much less scientific attention has been paid to the role of parental processes (PP) as possible mediators. A cross-sectional representative dataset from primary schools was used (N=572, M=12.49 years, SD=0.65, 51.1 % boys). Four types of PP (child disclosure, parental solicitation, parental knowledge and parental monitoring) were measured. With respect to risk behaviours, respondents were asked about the frequency of smoking, alcohol use and being drunk during their lifetime. By combining all three variables, a single – behavioural risk index variable was created. Regression models and mediation analyses were used for data analysis in SPSS 21. The adolescents scored low in the behaviour risk index with no gender differences. The results showed negative associations between SC and risk behaviour for both boys and girls and negative associations between SE and risk behaviour for girls only. The analysis has confirmed only a mediation effect of child disclosure and parental monitoring on the relationship between self-esteem, self-control and risk behaviour. The quality of parent-child processes may explain the role of self-esteem and self-control among adolescents and thus protect adolescents from risk behaviour.

Keywords: young adolescents, risk behaviour, parent-child processes, self-esteem, self-control.

1. INTRODUCTION

The period of adolescence is a transitional period of growth and development between childhood and adulthood during which several patterns of adult behaviour begin to be established. In particular, risk-related behaviour such as extensive smoking, alcohol or other drug use could develop into serious physical, mental and social issues. From the perspective of prevention or intervention, there are several protective factors which may buffer against health risk taking behaviours. On the one hand, there are intrinsic - personality factors (self-esteem, self-control, extroversion etc.) and on the other hand, the external factors (family, peers, community or culture). However, little is known about the interaction between personality factors such as self-esteem or self-control and family factors such as parental behaviour.

1.1. Health risk behaviour in the context of personality factors

Smoking is one of the most frequently used substances and has a harmful impact on health in general. Tobacco use among adolescents may lead to health issues such as low lung function and capacity, asthmatic problems, coughing or wheezing and shortness of breath as

well as reduced general physical fitness. Moreover, smoking may also contribute to a higher susceptibility to and severity of respiratory illness (Currie et al., 2008). Despite many anti-smoking campaigns and the increased cost of cigarettes, the rates of active smoking adolescents in the Slovak Republic have increased, especially among adolescent girls. The initiation and progression of smoking in adolescence are considered to be predictive of later involvement with substance use and other harmful consequences (Tucker, Ellickson, Orlando, Martino, & Klein, 2005).

Similarly, alcohol consumption in general is considered to be a main health risk factor for diseases (Rehm et al., 2003). It is partially responsible for every fourth and fifth death among Slovak males and females respectively of productive age (Rosicova et al., 2011). A strong association has been also found between excessive drinking and a set of other health endangering behaviours such as smoking, risk sexual behaviour (Kalina et al., 2009), violent behaviour (Mason et al., 2010), eating disorders and obesity (Breslow & Smothers, 2005) and depressive disorders (Pedrelli, Shapero, Archibald, & Dale, 2016). A high use of alcohol in adolescence is significantly associated with alcohol problems in adulthood such as alcohol dependence and physical and mental health issues in later life (Jefferis, Power, & Manor, 2005). The more intensive the use of alcohol in adolescence is, the greater the chance that other multiple substance use will occur later. Alcohol and cigarette use are characterized as gateway drugs, as they often lead to more serious substance abuse (Perkins & Borden, 2003). Despite the many negative consequences of alcohol consumption, such risk behaviours mainly prevail due to their positive effect on socialization and sensation seeking needs as a manifestation of developmentally appropriate experimentation (Hurrelmann & Richter, 2006).

A lot of previous studies have explored the role of self-esteem in association with health risk behaviour, either as a health protecting or health-endangering characteristic. Additionally, self-esteem has been found to be connected with the initiation and continuation of smoking and cannabis use (Kokkevi, Richardson, Florescu, Kuzman, & Stergar, 2007; Wild, Flisher, Bhana & Lombard, 2004). However, the position of self-esteem regarding drinking among adolescents is not clear. On one hand, it has been found that positive self-esteem may work as a buffer against health risk behaviour by facilitating better psychological adjustment (Schweitzer, Seth-Smith, & Callan, 1992). On the other hand, there have been some inconsistent results from research which has shown that low alcohol consumers as well as high alcohol consumers report higher levels of self-esteem (Freeman & Newland, 2002). Positive and high self-esteem can be interpreted as a key factor for mental health as well as a protective factor in the field of health and social behaviour. In contrast, the development of mental disorders and social problems such as depression, anxiety, delinquency and high-risk behaviours have been linked to negative self-esteem (Mann, Hosman, Schaalma, & de Vries, 2004). The Social Cognitive Theory (Bandura, 1986) and the Theory of Planned Behaviour (Ajzen, 1987) propose that problem behaviours, including both smoking and alcohol use, are affected by dynamic and mutual interactions with personality characteristics (such as self-esteem) and environmental factors (such as social expectations). However, self-esteem should not only be seen as a single factor but also in the framework of a multidimensional theory, given its connection with other factors as well (Kalina et al., 2011). Positive self-esteem could be seen as a basic part of mental health and also as a protective factor in the field of health behaviour.

Another personality factor which has broadly attracted scientific attention is self-control. Self-control is often interpreted as the personal capacity to override and inhibit socially unacceptable and undesirable impulses and to alter and regulate behaviour, thoughts, and emotions (Tangney, Baumeister, & Boone, 2004). It is proposed that self-control is a

personal ability and symbolically may operate like a muscle, such that increased strength affords the individual more opportunities to achieve the desired outcomes. However, some studies have found that higher rates of self-control did not protect individuals from risk or antisocial behaviour. This can be explained by the assumption that over-control (very high self-control) could decrease spontaneity, creativity, and enjoyment of life and thus could be linked with emotional issues such as depression and low self-esteem.

1.2. Health risk behaviour in the context of family factors

The prevailing conditions in the family environment are very important factors for adolescent development. Indeed, key values, attitudes and patterns of behaviour are formed here. Despite the growing influence of peers, family remains an important factor which can shape the behaviour and lifestyle of youths. There are a number of reasons as to how family environment can be crucial with regards to the development of health risk behaviour in adolescence. Firstly, in many situations the first contact with alcohol is at family gatherings where alcohol is frequently served (Settertobulte, Bruun-Jensen, & Hurrelmann, 2001). Secondly, the continuity in alcohol consumption and increased excessive drinking is dependent on the types of family-based factors (Kuntsche & Kuending, 2006). Various family related factors which might be protective or risky for health endangering behaviour have been identified in studies, such as the structure of the family or the characteristics of family processes. Many studies (e.g. Fisher, Williams Miles, Austin, Camargo, & Colditz, 2007) have found that living with one parent only or where one of the parents is not active in parenting processes increases the risk of adolescent cigarette and alcohol use.

Adequate parent-child communication has been found to be a protective factor (Currie et al., 2008). A high quality of interactions within a family indicates higher social support from parents and family connectedness (Laursen, 1995). In contrast, a low quality of parent-child communication was found to be associated with a higher risk of youth substance use (Currie et al., 2008). During adolescence, parent - child communication is quite specific as children speak less with their own parents about themselves and communication tends to be more difficult (Barnes & Olson, 1985). The perception of communication by adolescents is far different to the perception of their parents (Rosnati, Iafrate, & Scabini, 2007). Typically, communication in this period is easier with mothers than with fathers for and girls (Rosnati et al., 2007) as girls more than boys felt unable to talk to their father about problems, whereas boys and girls felt equally comfortable talking to their mother about problems (Ackard, Neumark-Sztainer, Story, & Perry, 2006). Regarding these findings, it has been proposed that communication with fathers and with mothers may play distinct roles in health risk behaviour among adolescents (Luk, Farhat, Iannotti, & Simons-Morton, 2010).

One of the most typical parental behaviours in the family environment is parental monitoring. This is the activity through which the parents facilitate the adjustment of adolescents, by providing them with necessary supervision and guidance (Smetana & Daddis, 2002). It is also seen as the level of parental knowledge of their child's whereabouts, activities and friends (Jacobson & Crockett, 2000). If adolescents are exposed to risk factors (risk peer groups, going out with unknown friends, etc.), parental control may serve as a protective factor (Nash, McQueen, & Bray, 2005). The effectiveness of parental monitoring is more dependent on mutual communication between parents and adolescents than dependent on direct observation (Clark, Kirisci, Mezzich, & Chung, 2008).

Therefore, with regard to the previous literature, the aim of this study is to explore the role of parental processes and its interactions with personality factors in the context of health risk behaviour among adolescents.

2. METHODS

2.1. Sample

Participants were recruited from the national project VEGA which focused on parental processes in the context of health risk behaviour of adolescents. This analysis is based on data from 572 (51.1% males; mean age = 12.49; SD = 0.65) students from 12 primary schools in Slovakia. The schools and classes were selected randomly in each region. School headteachers were asked for participation. After their approval and the approval of parents, data were collected by a team of trained researchers and research assistants during the fall of 2017. Respondents filled in a questionnaire on a voluntary and anonymous basis without the presence of the teacher during two regular 45-minute lessons. The overall response rate was 93.0%. Non-response was primarily due to illness or other type of absence. The procedure and the content of data collection was approved by the ethics committee of P. J. Safarik University.

2.2. Measures

Self-esteem was assessed by the Rosenberg Self-esteem scale RSES (Rosenberg, 1965). The 10 items of the RSES assess a person's overall evaluation of his/her worthiness as a human being. Responses range on a 4-point scale from 1 (strongly disagree) to 4 (strongly agree). The global self-esteem factor can then be calculated, with the sum score ranging from 10 to 40. A higher score indicates higher self-esteem. Cronbach's alpha for global self-esteem was 0.76.

In order to assess self-control, a Slovak translation of the short version of the original Self-control scale developed by Tangney et al. (2004) was used. The short version consisted of 11 items. *"I am lazy, I have a hard time breaking bad habits, I wish I had more self-discipline"* are examples of items in the Self-control scale. Response categories ranged from 1-Not at all to 5-Very much. A higher score indicated a higher level of self-control. The Cronbach alpha was 0.731.

Regarding parental processes, we were guided by the approach of Stattin and Kerr (2000). Respondents were asked regarding four types of parenting processes.

(1) Child disclosure (5 items): a process of spontaneous disclosure of children (without parental asking) to parents about their own life. E.g. *Do you usually say how school was when you get home (how you did in different exams, your relationships with teachers?)*

(2) Parental solicitation (5 items): a process of active parental gathering of information regarding their children. E.g. *How often do your parents talk with your friends when they come to your home (ask what they do or what they think and feel about different things)?*

(3) Parental knowledge (7 items): information level of parents about children's free time activities. E.g. *Do your parents: know what you do during your free time? Know who you have as friends during your free time?*

(4) Parental monitoring (5 items): a parental process of setting up the rules regarding children's behaviour. E.g. *Do your parents always require that you tell them where you are at night, who you are with, and what you do together?* Respondents were asked how they perceived the parenting processes from parents using a 5-point scale (1-almost never; 2-rarely; 3-sometimes; 4-often; 5-very often). A higher score indicated a higher level of parental processes. Cronbach's alpha for parental processes varied from 0.51 to 0.61.

Regarding alcohol use, students were asked: (1) if they had used alcohol during the last 30 days (yes/no); (2) if they had ever been drunk (yes/no). Regarding cigarette use, students were asked: if they had smoked cigarettes during the last 30 days (yes/no). All questions were

using two-point scale as risky type of behaviour was indicated by two points and non-risky by 1 point. By combining all three variables, a single – behavioural risk index variable was created where a higher score indicated a higher level of risk behaviour.

2.3. Statistical analyses

Firstly, we selected only those respondents who answered the question regarding all types of risk behaviours. After that, we dichotomized three outcome variables (see Method section). Finally, we performed multiple regression analyses by using a PROCESS procedure in SPSS (Hayes, 2012) to examine whether the relationship between the independent variables (self-esteem and self-control) and dependent variable (risk behaviour index) is mediated through parental processes (mediator). In total, four independent models (one for each type of parental process) were tested. The models were adjusted for gender.

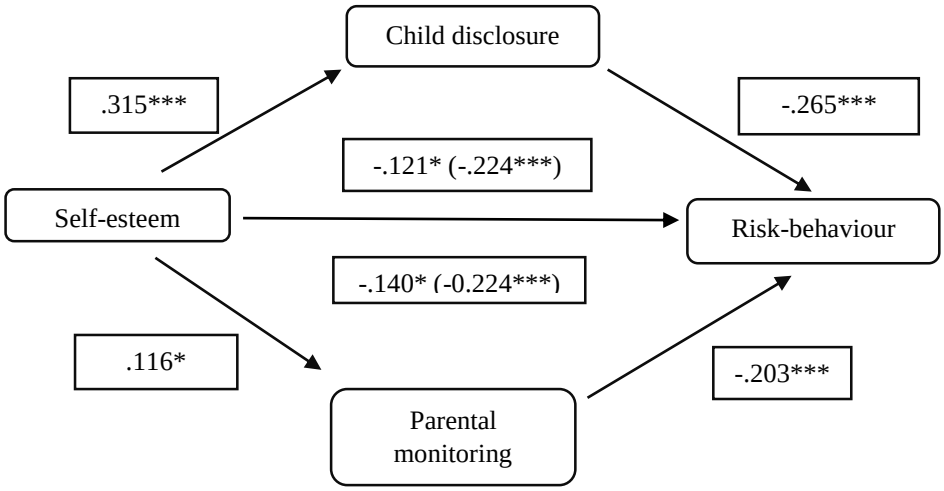
3. RESULTS

In general, the adolescents in the sample scored low in the behaviour risk index with no gender differences. Only about 4% of adolescents reported smoking in the last 30 days. Regarding alcohol use in the last 30 days, 20% of adolescents reported such behaviour. The regression analyses showed a negative relationship between self-esteem and risk behaviour (B = -.224; t= -3.66, p=.001) as those adolescents with higher self-esteem scored low regarding risk behaviour but only among girls. Similarly, a negative relationship between self-control and risk behaviour was found for boys (-.180; -2,915; p=.004) and girls (-.151; -2.369; p=.019). Regarding parental processes, only the parental monitoring (-.125; -2.563; p=.011) and the child disclosure (-.177; -3.629; p=.000) were negatively associated with the index of risk behaviour. For that reason, only these two parental processes were further analysed as mediators.

The analyses among girls (Figure 1) showed that child disclosure and parental monitoring partially mediated the role of self-esteem on risk behaviour as the effect of self-esteem decreased after adding disclosure (B = -.121*/.224***) and monitoring into the model (B = -.140*/.224***). No mediation models were tested for boys as there was no significant association between self-esteem and risk behaviour in the boys' sample.

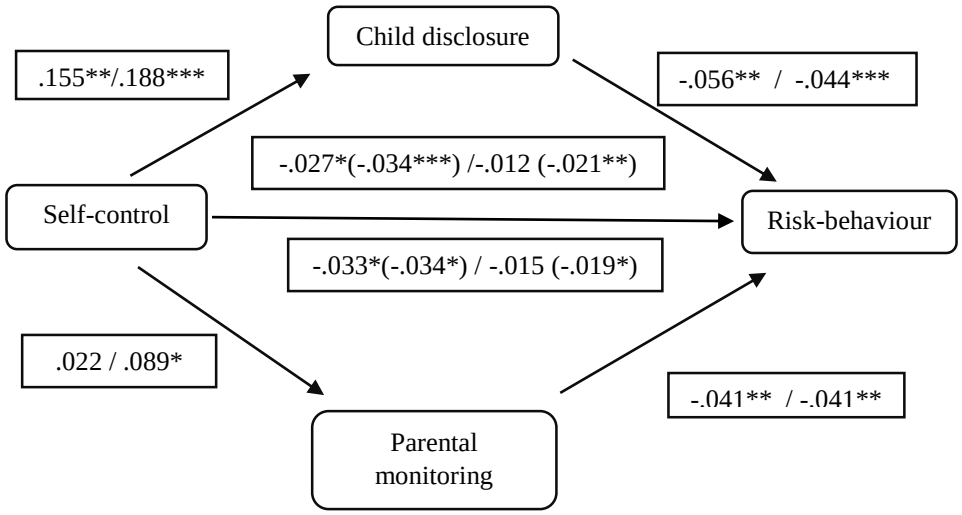
The results regarding self-control and risk behaviour among the boys showed that this association was not mediated by parental monitoring (B = -.033*/ -.034**) although it was partially mediated by child disclosure (B = -.027*/.034***). However, a full mediation effect of child disclosure was confirmed among girls as the role of self-control on risk behaviour was no longer significant after adding disclosure (B = -.012/.021**). Similarly, the strong mediation effect of child disclosure was confirmed among girls as the role of self-control on risk behaviour was no longer significant after adding parental monitoring (Figure 2).

Figure 1.
Mediation model predicting relationship among self-esteem, child disclosure, parental monitoring and risk behaviour for girls only.



* p < .05 **p < .01 ***p < .001

Figure 2.
Mediation model predicting relationship among self-control, child disclosure, parental monitoring and risk behaviour for boys and girls.



* p < .05 **p < .01 ***p < .001

4. FUTURE RESEARCH DIRECTIONS

This study shows that smoking and alcohol use in particular are a major concern in the field of health promotion. Regarding a HBSC report study (Inchley et al., 2018), there has been a reduction of smoking and alcohol use across EU countries although the levels of consumption remain dangerously high and this continues to be a major public health concern. The prevalence of high-level consumption among young adolescents reveals the importance of efficient primary prevention from an early age. Prevention and later intervention programs should be focused on the specific individual as well as on the social and environmental influences. We propose that the best place to deliver these programs is the school environment, as after family it is the most important place for adolescents.

In this environment, it would be essential to decrease feelings of negative self-esteem by providing such activities which support the establishment of self-worth and at the same time keep adolescents from risk behaviour. Training focused on social skills such as assertiveness could, for instance, help adolescents to cope with real situations when a group of friends offers a cigarette or alcohol. This may yield further appropriate social skills to deal with the upcoming pressure of peers and the social environment regarding alcohol use, smoking or other forms of risk behaviour. Furthermore, the role of self-control in the context of health risk behaviour deserves greater scientific attention as peers may influence levels of self-control. Examining the link among negative and positive peer pressure for adolescents' behaviour and levels of self-control could reveal an important path in risk taking trajectories. Previous research has shown that peers may foster values that are associated with high levels of self-control, including hard work and academic achievement (Santrock, 2001). Moreover, additional research is needed to draw firm conclusions regarding the influence of parental processes in adolescents' self-control. Finally, further research is needed to examine the genetic factors in self-control as genetic aspects on personality are well-documented (e.g., Bouchard & Loehlin, 2001) and will probably be active in self-control as well.

5. CONCLUSION/DISCUSSION

The aim of this study is to explore the role of parental processes and its interactions with personality factors in the context of health risk behaviour among adolescents. Both explored personality factors (self-esteem and self-control) were found to be negatively associated with the index of risk behaviour. However, these associations were partially or fully mediated by two parental processes (child disclosure and parental monitoring). However, these mediations differed according to gender.

Regarding self-esteem, this study supports the previous finding that self-esteem may play an essential role in the context of risk-taking behaviour especially for girls. The feeling of self-worth for girls seems to be very important for adolescent girls as the associations between self-esteem and risk behaviour in this study were very strong and remained significant even after adding the parental process variables into the model. Similar effects were found regarding self-control as the model was significant for girls and boys too. Moreover, both child-disclosure and parental monitoring fully mediated the self-control – risk behaviour relationship among girls. However, only partial mediation was found regarding child-disclosure among boys. It must be said that parental control and child disclosure are significantly different types of parental processes. In particular, child disclosure is more child active behaviour than parental. Therefore, we may assume that both significant parental processes can be associated with other variables such as parental

closeness, warmth…etc. –processes which create a family environment where parents can gather information from children and children are willing to share such information by spontaneous disclosure.

To conclude, these findings support that adaptive parenting behaviour where children are able to disclose their own feelings and parental monitoring may help in building children's capacities to inhibit anti-social and health risk taking behaviour.

6. STUDY LIMITATIONS

However, our study also has some limitations. The main one is its cross-sectional design, which can limit our understanding of the relevant pathways. A longitudinal study design, especially looking at different types of health risk behaviour, may provide deeper insight into this issue. In addition, we did not obtain information from other family members such as parents, friends or school environment. These sources could increase the understanding of some inconsistencies in the field of parental processes and risk behaviour research. Finally, our results are strongly dependent on the assumption of what participants say is what they did. Therefore, self-reported alcohol use, smoking or other types of behaviour data may be vulnerable to various types of information biases, like memory effects and social desirability bias. However, some studies showed no type of data collection mode-dependent differences (Hines, Douglas, & Mahmood, 2010). Therefore, existing research suggests that the mode of data collection may have some degree of impact on participants' responses, but the results are not specific enough to isolate which mode is best suited for which situation (McCallum & Peterson, 2012).

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Parent-Child Processes and Health Risk Behaviour among Young Slovak Adolescents: The Mediating Role of Self-Esteem and Self-Control

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