

Chapter # 6

EXAMINING MENTAL HEALTH LITERACY AND ITS FACTORS AMONG SLOVAK AND FOREIGN UNIVERSITY STUDENTS

Ján Kulan¹ & Oľga Orosová²

Faculty of Arts, Pavol Jozef Šafárik University in Košice, Slovak Republic

¹*Department of Psychology*

²*Department of Educational Psychology and Health Psychology*

ABSTRACT

University years can be stressful, making students vulnerable and reluctant to seek mental health support. Aim: This cross-sectional study investigated the relationships between gender, prior help-seeking experience (HSE) with a mental health professional (MHP), self-stigma, social stigma, and mental health literacy (MHL) among 438 Slovak (73.3 %) and foreign (26.7 %) university students (60.5 % women; M age = 22.76, SD = 4.96). Data were collected from October 2024 to March 2025 at Slovak and foreign universities through online and paper-based surveys in Slovak, English, and Italian. Measures included The General Help-Seeking Questionnaire, The Self-Stigma of Seeking Help Scale, The Perceptions of Stigmatization by Others for Seeking Help Scale, The Mental Health Literacy Scale, and descriptive, non-parametric, correlational, and multiple regression analyses were conducted. Women reported higher MHL and were more likely to seek psychological support than men. Both self- and social stigma were significantly negatively associated with MHL, confirming stigma as a key barrier to mental health knowledge and help-seeking. Foreign students showed lower MHL, suggesting cultural and systemic challenges. Prior HSE with MHP was positively associated with MHL. These findings highlight the complex social, cultural, and psychological factors associated with MHL and emphasize the need for stigma-reducing and culturally sensitive interventions in university settings.

Keywords: help-seeking experience, mental health literacy, self-stigma, social stigma, university students.

1. INTRODUCTION

Although starting university is for university students a positive milestone, it brings challenges like adapting to new social settings, academic demands, and adult responsibilities (Baik, Naylor, & Arkoudis, 2015; McKay, O'Bryan, & Kahu, 2021). Evidence shows elevated rates of anxiety, depression (Barrable, Papadatou-Pastou, & Tzotzoli, 2018), stress, and suicidal ideation (Beks, Cairns, Smygwyty, Miranda Osorio, & Hill, 2018). Students also face interpersonal problems, self-harm, learning difficulties, and career uncertainty (Krumrei, Newton, & Kim, 2010; Çebi & Demir, 2020), often linked to academic pressure and future concerns (Sagar-Ouriaghli, Godfrey, Graham, & Brown, 2020). Despite higher mental health risks than the general population (Beks et al., 2018), students frequently hesitate to seek professional help (Rickwood, Deane, & Wilson, 2007).

A key barrier to student help-seeking is poor mental health literacy (MHL), or difficulty recognizing mental illness (Koutra, Pantelaiou, & Mavroeides, 2024). Defined by World Health Organization (2004), mental health impacts well-being but remains overlooked. Jorm et al. (1997) introduced MHL as knowledge aiding recognition, management, and prevention (Zehra, Sharma, Pant, & Chatterjee, 2022), including illness identification, risk awareness, service access, and sustaining help-seeking attitude (HSA) and intention (HSI) (Jorm, 2000). MHL improves early detection, empathy, and help-seeking behavior (HSB) (Zehra et al., 2022), while low MHL limits HSB (Gulliver, Griffiths, & Christensen, 2010; Lee & Shin, 2020; Wright, Jorm, Harris, & McGorry, 2007). Beks et al. (2018) found males and international students had lower MHL, reducing help-seeking – confirmed in France (Theurel & Witt, 2022). Interventions raise MHL (Nazari, Garmaroudi, Foroushani, & Hosseinnia, 2023), which supports HSAs and HSB (Zehra et al., 2022; Yang et al., 2024). Awareness of disorders and services predicts help-seeking, though students often turn to informal sources (Çebi & Demir, 2020; Pham et al., 2020). Recognition boosts efficacy (Lu, Lien, Chao, Lin, & Tsai, 2021), and perceived need/benefit mediate HSI (Sagar-Ouraghli et al., 2020).

Stigma has been widely recognized as a key barrier to positive HSA, HSI, and HSB among university students (Kim, 2021). It includes both public stigma – negative societal judgments – and self-stigma, where individuals internalize these beliefs, leading to reduced self-worth and avoidance of professional help (Vogel, Wade, & Haake, 2006; Kim, 2021). Numerous studies have highlighted stigma as a major obstacle to seeking support across cultures and student populations (Liu, Wong, Mitts, Li, & Cheng, 2020; Li, Denson, & Dorstyn, 2018; Shahwan et al., 2020). Stigma can result in isolation, fear of judgment, and worsened mental health (Nazari et al., 2023). While some research shows that greater HSI is linked to lower perceived stigma (Lian, Wallace, & Fullilove, 2020), others report that stigma remains a significant deterrent – particularly among male students (DeBate, Gatto, Rafal, & Bleck, 2022). Arab students facing privacy and cultural concerns (Khatib, Alyafei, & Shaikh, 2023), and Asian American students influenced by cultural notions of “saving face” (Nguyen, Kim, & Aronowitz, 2023). Web-based interventions show mixed results, with limited effects on reducing stigma (Nazari et al., 2023), while lower stigma levels have been associated with higher HSI (Dagani, Buizza, Ferrari, & Ghilardi, 2023). According to Begum, Preez, Robinson, and Zunszain (2024), stigma continues to negatively impact HSB in student populations.

Gender and prior help-seeking experience (HSE) with a mental health professional (MHP) are key predictors of HSB among university students. Female students generally seek professional mental health services more than males (Sheu & Sedlacek, 2004; Eisenberg, Golberstein, & Gollust, 2007; Sagar-Ouraghli et al., 2020), partly due to masculinity norms discouraging men from seeking help (Kantar & Yalçın, 2023) and higher affective disorder prevalence in women (Rickwood & Braithwaite, 1994). Prior HSE positively influences HSA and future HSB, with female students showing more favorable HSA (Çebi & Demir, 2020). Students who sought support during distress also report more positive attitudes (Pham et al., 2020), and positive HSA predicts higher intention to seek help (Wang, Weng, Li, Xue, & Chen, 2024). Cultural and racial factors affect help-seeking: “saving face” hinders Asian American students (Nguyen et al., 2023), Black men use counseling less than White men despite high distress (Williams et al., 2023), and minority and international students are less likely to receive treatment than White/domestic students (Pei et al., 2024). Gender differences remain, with women reporting greater perceived need and treatment rates (Pei et al., 2024).

Research has examined links between gender, self-stigma, social stigma, and MHL among university students (Gibbons, Thorsteinsson, & Loi, 2015; Reavley, McCann, & Jorm, 2012; Smith & Shochet, 2011). Lower stigma is associated with higher MHL (Morgan, Ross, & Reavley, 2018; Schomerus et al., 2019) and greater HSI (Kim, Yu, & Kim, 2020; Kim, 2021). Koutra et al. (2024) found that students with higher MHL showed less stigmatizing attitudes and lower self-stigma. Gorczynski, Sims-Schouten, and Wilson (2020) reported no significant correlation between prior HSE with MHP and MHL.

2. OBJECTIVES

This study examines the relationships between gender, prior HSE with MHP, self-stigma, social stigma, and MHL among university students. Few studies have explored these links, especially between prior HSE with MHP and MHL. We expect most students won't seek help, women will be more likely to do so, and lower stigma will relate to higher MHL.

3. DESIGN

This study used a quantitative research design, which involved a quantitative data collection. A cross-sectional study was conducted among Slovak and foreign university students at Slovak universities in Slovakia and foreign universities abroad.

4. METHODS

4.1. Sample and Procedure

The final sample included 438 university students: 321 Slovak students (73.3 %) and 117 foreign students (26.7 %), studying in Slovakia or abroad. Women made up 60.5 % (n = 265) and men 39.5 % (n = 173), with a mean age of 22.76 years (SD = 4.96; range 17.17–70). Among foreign students, the most common countries of origin were Ukraine (13 %, n = 57), Russia (3.9 %, n = 17), Italy (3.4 %, n = 15), Czech Republic (1.6 %, n = 7), other European countries (1.6 %, n = 7), Asia (1.4 %, n = 6), Africa (0.9 %, n = 4), and America (0.9 %, n = 4). Participants studied at various Slovak and foreign universities (e.g., Czech Republic, Israel, Italy, Netherlands, Hungary, Ukraine), with 50.7 % (n = 222) completing the online version and 49.3 % (n = 216) the paper-based version. Most students were in the 1st degree (BA) program (61.6 %, n = 270), followed by the 2nd degree (MA/P.E/Dr./other...) program (34.9 %, n = 153), and 3rd degree (PhD) (2.7 %, n = 12); three students (0.7 %) did not report their level of study.

Data were collected from October 2024 to March 2025 via online (Google Forms) and paper-based surveys. The online form was distributed through university Facebook groups and official channels in Slovakia and abroad, available in Slovak, English, and Italian. English questionnaires without Slovak/Italian versions were translated and proofread by psychologist lecturers. The paper Slovak version was distributed on campuses and in Christian pastoral centers in Slovakia. Participation was voluntary, anonymous, and based on informed consent. Of 438 respondents, 336 gave explicit consent; 102 did not but their participation was considered implicit agreement.

4.2. Measures

Sociodemographic data included gender (0 – woman; 1 – man), age, academic level (1st degree program – BA; 2nd degree program – MA/P.E/Dr./other; 3rd degree program – PhD), origin (0 – Slovak student; 1 – foreign student), country of origin and university affiliation.

Prior HSE with MHP was assessed using additional items from the *General Help-Seeking Questionnaire* (Rickwood, Deane, Wilson, & Ciarrochi, 2005), covering previous use of professional help (e.g. from school counsellor, counsellor, psychologist, psychiatrist; 0 – Yes, 1 – No), number of visits, and perceived effectiveness (rated on a 5-point scale from 1 = extremely unhelpful to 5 = extremely helpful).

Self-stigma was measured using the 10-item *Self-Stigma of Seeking Help Scale* (Vogel et al., 2006), rated on a 5-point Likert scale. Items 2, 4, 5, 7, and 9 were reverse-scored. Higher total scores (range: 10–50) indicate greater self-stigma. Cronbach's alpha was 0.779, indicating good internal consistency.

Social stigma was assessed with the 5-item *Perceptions of Stigmatization by Others for Seeking Help Scale* (Vogel, Wade, & Ascherman, 2009), using a 5-point scale. Total scores range from 5 to 25, with higher scores reflecting stronger perceived public stigma. Cronbach's alpha was 0.901, indicating excellent internal consistency.

MHL was measured using the 13-item *Mental Health Literacy Scale* (Lee, Hwang, Ball, Lee, & Albright, 2019). Responses were on a 5-point Likert scale, with items 5–13 reverse-scored. Higher total scores (13–65) reflect greater MHL. Cronbach's alpha was 0.815, indicating good internal consistency.

4.3. Statistical Analyses

Data were analyzed in IBM SPSS Statistics 26. Descriptive statistics (mean, median, SD, range) were calculated, with medians emphasized for non-normal distributions. Histograms showed non-normality, so non-parametric tests were used. The Mann–Whitney U test compared independent groups (e.g., gender), with U, z, p, and effect size (r) reported per Cohen (1988). Chi-square tests examined associations between dichotomous variables (e.g., gender/origin and prior HSE with MHP). Pearson correlations and multiple regressions explored links between gender, prior HSE, self-/social stigma, and MHL. Assumptions (linearity, multicollinearity, homoscedasticity, residual normality) were tested and met.

5. RESULTS

5.1. Descriptive Statistics of Gender and Origin Differences of Prior MHE with MHP, Self-Stigma, Social Stigma, and MHL

Regarding prior HSE with MHP, 32.2 % (n = 141) of students reported having visited MHP (e.g., counsellor, school counsellor, psychologist, psychiatrist) for personal problems, while 67.8 % (n = 297) had not. Among those who had visited MHP (n = 141), the number of visits varied widely (M = 14.05, SD = 23.77, range = 0–150) and was generally evaluated as helpful (M = 3.71, SD = 1.23). Among 265 women, 34.7 % (n = 92) had sought professional help, compared to 28.3 % (n = 49) of 173 men. Women reported more visits (M = 15.84, SD = 27.50, range = 0–150) than men (M = 10.76, SD = 14.28, range = 0–81). However, gender differences were not statistically significant: $\chi^2(1, N = 438) = 1.96$, $p = .162$; continuity correction $\chi^2 = 1.678$, $p = .195$. Among 321 Slovak students, 31.2 % (n = 100) had sought professional help 35.0 % (n = 41) of 117 foreign students. Foreign

students reported more visits ($M = 19.00$, $SD = 30.49$, range = 0–150) than Slovak students ($M = 12.11$, $SD = 20.40$, range = 0–140). The association between origin and prior HSE with MHP was not significant: $\chi^2(1, N = 438) = 0.594$, $p = .441$.

As shown in Table 1, men reported slightly higher self-stigma than women, but the difference was not significant and had a negligible effect size. Men showed significantly higher social stigma, though the effect size was small, suggesting only a modest gender influence. No significant gender difference was found in MHL, indicating gender does not meaningfully affect MHL in this group.

Table 1.
Descriptive statistics of self-stigma, social stigma, and MHL – along with gender comparisons in the total sample of 438 university students.

Variables	Theoretical range	Total sample (N = 438)	Women (n = 265)			Men (n = 173)			U test (z; r)
		M (SD)	M (SD)	Me	Mean rank	M (SD)	Me	Mean rank	
Self-stigma	10–50	24.03 (6.96)	23.69 (7.01)	23.00	210.42	24.55 (6.86)	25.00	225.69	20779.00 (-1.246; -.06)
Social stigma	5–25	9.53 (4.51)	9.21 (4.54)	8.00	206.29	10.01 (4.42)	9.00	234.75	19537.50* (-2.337; -.11)
MHL	13–65	48.79 (8.57)	48.90 (8.78)	49.00	79.74	48.66 (8.38)	50.00	78.17	3009.50 (-.216; -.02)

Note: M – Mean; Me – Median; MHL – Mental Health Literacy; N – Number of total sample; n – number of partial sample; SD – Standard Deviation; SUM – Summary score of; U – Mann–Whitney U test; z – Standardized test statistic; r – Effect size (small $\approx .10$, medium $\approx .30$, large $\approx .50$); * $p < .05$; ** $p < .01$; *** $p < .001$.

As shown in Table 2, foreign students showed significantly higher self-stigma ($p < .05$, small effect) and social stigma ($p < .001$, small-to-moderate effect) than Slovak students. Slovak students had significantly higher MHL ($p < .001$, medium-to-large effect), indicating a substantial difference by origin.

Table 2.
Descriptive statistics of self-stigma, social stigma, and MHL – along with origin comparisons in the total sample of 438 university students.

Variables	Theoretical range	Total sample (N = 438)	Slovak (n = 321)			Foreign (n = 117)			U test (z; r)
		M (SD)	M (SD)	Me	Mean rank	M (SD)	Me	Mean rank	
Self-stigma	10–50	24.03 (6.96)	23.73 (7.20)	24.00	209.03	24.83 (6.21)	26.00	236.62	16073.50* (-2.044; -.10)
Social stigma	5–25	9.53 (4.51)	9.03 (4.47)	7.00	202.11	10.94 (4.33)	11.00	260.69	13316.50*** (-4.332; -.21)
MHL	13–65	48.79 (8.57)	53.58 (8.24)	57.00	105.64	46.98 (8.00)	47.00	68.95	1305.50*** (-4.512; -.36)

Note: M – Mean; Me – Median; MHL – Mental Health Literacy; N – Number of total sample; n – number of partial sample; SD – Standard Deviation; SUM – Summary score of; U – Mann-Whitney U test; z – Standardized test statistic; r – Effect size (small $\approx .10$, medium $\approx .30$, large $\approx .50$); * $p < .05$; ** $p < .01$; *** $p < .001$.

5.2. The Relationships Between Gender, Prior HSE with MHP, Self-Stigma, Social Stigma, and MHL

In the total sample (see Table 3), MHL was significantly negatively correlated with origin, self-stigma, social stigma, and moderately with prior HSE with MHP. Inter-correlations revealed significantly positive relationships between gender, social stigma, and origin; then between prior HSE with MHP, social stigma, and self-stigma; and moderately significant relationship between gender and social stigma. Multiple linear regression analysis (see Table 4) confirmed that self-stigma, social stigma, origin, and prior HSE with MHP were significantly negatively associated with MHL, explaining 58.7 % of its variance ($R^2 = .600$, Adjusted $R^2 = .587$, $F(4,366) = 84.46$, $p < .001$), while gender was not significantly related with MHL.

Among Slovak students (see Table 3), MHL was significantly negatively correlated with gender, self-stigma, and social stigma. Inter-correlations revealed significantly positive relationships between gender, self-stigma, and social stigma, and between prior HSE with MHP and self-stigma. Multiple linear regression analysis (see Table 4) revealed that self-stigma, social stigma, and gender were significantly negatively associated with MHL, while prior HSE with MHP was not significantly related with MHL. The model explained 43.5 % of the variance in MHL ($R^2 = .489$, Adjusted $R^2 = .435$, $F(4,243) = 50.04$, $p < .001$).

Among foreign students (see Table 3), MHL was significantly negatively correlated with self-stigma and social stigma, and with prior HSE with MHP. Inter-correlations revealed significantly positive relationships between prior HSE with MHP, social stigma, and self-stigma. Multiple linear regression analysis (see Table 4) revealed that self-stigma and social stigma were significantly negatively associated with MHL, while gender and prior HSE with MHP were not related with MHL. The model explained 50.9 % of the variance in MHL ($R^2 = .527$, Adjusted $R^2 = .509$, $F(4,108) = 30.03$, $p < .001$).

Table 3.

Correlation matrix with significance levels of all independent variables – gender, prior HSE with MHP, self-stigma and social stigma, and dependent variable MHL in the total sample of 438 university students, controlling for origin, and separately for Slovak and foreign groups.

Variables	Total sample (N = 438)					
	MHL	Origin (control)	Gender	Prior HSE with MHP	Self-stigma	Social stigma
MHL	-					
Origin (control)	-.345***	-				
Gender	-.014	.114**	-			
Prior HSE with MHP	-.185*	-.037	.067	-		
Self-stigma	-.620***	.070	.060	.186***	-	
Social stigma	-.575***	.186***	.089*	-.020	.373***	-
Slovak students (n = 321)						
MHL	-					
Gender	-.344*	-	-			
Prior HSE with MHP	-.223	-	.044	-		
Self-stigma	-.564***	-	.065	.167**	-	
Social stigma	-.467**	-	.150**	-.007	.375***	-
Foreign students (n = 117)						
MHL	-					
Gender	.143	-	-			
Prior HSE with MHP	-.177*	-	.142	-		
Self-stigma	-.621***	-	.019	.261**	-	
Social stigma	-.549***	-	-.153	-.023	.346***	-

*Note: HSE – Help-Seeking Experience; MHL – Mental Health Literacy (dependent variable); MHP – Mental Health Professional; * $p < .05$; ** $p < .01$; *** $p < .001$.*

Table 4.

Results of multiple linear regression of all independent variables – gender, prior HSE with MHP, self-stigma, and social stigma, and dependent variable MHL in the total sample of 438 university students, controlling for origin, and separately for Slovak and foreign groups.

	Total sample (N = 438)			Slovak students (n = 321)			Foreign students (n = 117)		
Variables	B	SE	β	B	SE	β	B	SE	β
Origin (control)	-4.999	1.022	-.258***	-	-	-	-	-	-
Gender	1.460	.914	.083	-4.627	2.011	-.270*	1.693	1.080	.106
Prior HSE with MHP	-2.282	.970	-.125*	-2.530	2.097	-.142	-1.285	1.164	-.077
Self-stigma	-.549	.070	-.446***	-.483	.146	-.422**	-.612	.095	-.475***
Social stigma	-.704	.108	-.371***	-.497	.233	-.270*	-.684	.133	-.370***

*Note: B – Unstandardized Coefficient; β – Standardized beta coefficient; HSE – Help-Seeking Experience; MHL – Mental Health Literacy (dependent variable); MHP – Mental Health Professional; SE – Standard Error; * $p < .05$; ** $p < .01$; *** $p < .001$.*

6. DISCUSSION

This study examined relationships between gender, prior HSE with MHP, self-stigma, social stigma, and MHL, while controlling for origin. As we supposed, self- and social stigma emerged as the strongest negative factors, confirming that stigma remains a major barrier to both MHL and HSB (Gulliver et al., 2010; Kim, 2021; Nazari et al., 2023; Wright et al., 2007). Stigma may lead individuals to avoid mental health information, thereby hindering symptom recognition and timely intervention (Vogel et al., 2006; Theurel & Witt, 2022), which is particularly concerning in light of the growing mental health challenges among university students (Barrable et al., 2018). Foreign students demonstrated lower MHL compared to their Slovak peers, likely due to linguistic, cultural, and systemic barriers (Beks et al., 2018; Khatib et al., 2023), emphasizing the need for culturally sensitive mental health education. As we assumed, gender was significantly associated with MHL, with females reporting higher levels of knowledge, consistent with prior findings on gender differences in mental health awareness and service utilization (Eisenberg et al., 2007; Çebi & Demir, 2020; Pei et al., 2024). Traditional masculinity norms may contribute to reduced help-seeking among men (Kantar & Yalçın, 2023). Finally, prior HSE with MHP was significantly associated with MHL, suggesting that students who had previously sought professional help possessed greater mental health knowledge than those who had not. This finding aligns with previous studies (Çebi & Demir, 2020; Pham et al., 2020; Wang et al., 2024), but contrast with the results of Gorczynski, Sims-Schouten, and Wilson (2020). Additionally, among international students, barriers such as cultural misunderstandings, language challenges, and inadequate institutional support may exacerbate negative perceptions of MHP (Nguyen et al., 2023; Pei et al., 2024), highlighting the need for more culturally attuned services that foster trust and efficacy in support systems.

Overall, findings show that MHL is related with social, cultural, and psychological factors beyond education or exposure (Zehra et al., 2022; Yang et al., 2024). Effective interventions must tackle stigma, access, and trust (Nazari et al., 2023). Strengths include a large, diverse sample and validated tools with robust analysis for non-normal data. Limitations are the cross-sectional design limiting causality, self-report bias, underrepresentation of some foreign groups, incongruity of the sample of foreign university students and focus only on university students. Cultural and contextual influences on mental health services were not deeply explored. Missing MHL data, especially among Slovak students, reduced sample size and may bias results.

For the future research, cultural, religious, and contextual variability, such as differing mental health service availability and societal attitudes toward mental health across countries, would be explored. Additionally, future longitudinal and qualitative studies could be performed to gain deeper insights into students' subjective experiences and cultural narratives surrounding HSI and HSB. Focus groups or in-depth interviews could reveal nuanced barriers and facilitators not captured in these quantitative surveys. Future studies should consider designing and testing targeted interventions such as stigma-reduction programs, life skills training, or MHL enhancement initiatives, to evaluate their effectiveness in increasing HSI and actual HSB. Finally, institutional and policy-related factors should be incorporated into future research. Variables such as campus support availability, financial barriers, awareness campaigns, and national mental health strategies can influence HSB on a systemic level.

7. CONCLUSIONS

This study shows that lower MHL among university students is related with higher self- and social stigma, foreign origin, and male gender, while higher MHL is associated with prior HSE with MHP. Addressing stigma and cultural barriers is key, beyond just raising awareness. The model explains much variance and guides future research and interventions. Universities should focus on stigma reduction, inclusive education across practical workshops about MHL, intercultural discussions, and gender-sensitive support. Future studies should examine prior help quality to clarify its value. Improving MHL is essential for resilient and healthy student communities.

REFERENCES

- Baik, C., Naylor, R., & Arkoudis, S. (2015). *The first year experience in Australian universities: Findings from two decades, 1994-2014*. Melbourne, Australia: Melbourne Centre for the Study of Education.
- Barrable, A., Papadatou-Pastou, M., & Tzotzoli, P. (2018). Supporting mental health, wellbeing and study skills in higher education: an online intervention system. *International Journal of Mental Health Systems*, 12:54. doi:<http://dx.doi.org/10.1186/s13033-018-0233-z>
- Begum, S., Preez, A. D., Robinson, M., & Zunszain, P. A. (2024). Mental health help-seeking behaviours in university students: Are first-generation students different? *Student Success*, 15(1), 48-58.
- Beks, T. A., Cairns, S. L., Smygwy, S. L., Miranda Osorio, O. A. L., & Hill, S. J. (2018). Counsellor-in-residence: Evaluation of a residence-based initiative to promote student mental health. *The Canadian Journal of Higher Education*, 48(2), 55-73. <https://www.proquest.com/scholarly-journals/counsellor-residence-evaluation-based-initiative/docview/2216863877/se-2>

- Çebi, E., & Demir, A. (2020). Help-seeking attitudes of university students in Turkey. *International Journal for the Advancement of Counselling*, 42(1), 37-47. <http://dx.doi.org/10.1007/s10447-019-09385-7>
- Cohen, J. (1988). The effect size. Statistical power analysis for the behavioral sciences. Abingdon: Routledge, 77-83.
- Dagani, J., Buizza, C., Ferrari, C., & Ghilardi, A. (2023). The role of psychological distress, stigma and coping strategies on help-seeking intentions in a sample of Italian college students. *BMC psychology*, 11(1), 1-15.
- DeBate, R., Gatto, A., Rafal, G., & Bleck, J. (2022). A qualitative assessment of mental health literacy and help-seeking behaviors among male college students. *Discover Mental Health*, 2(1), 23.
- Eisenberg, D., Golberstein, E., & Gollust, S. E. (2007). Help-seeking and access to mental health care in a university student population. *Medical care*, 45(7), 594-601. doi:10.1097/MLR.0b013e31803bb4c1
- Gibbons, R. J., Thorsteinsson, E. B., & Loi, N. M. (2015). Beliefs and attitudes towards mental illness: an examination of the sex differences in mental health literacy in a community sample. *PeerJ*, 3, e1004.
- Gorczynski, P., Sims-Schouten, W., & Wilson, C. (2020). Evaluating mental health literacy and help-seeking behaviours in UK university students: a country wide study. *Journal of public mental health*, 19(4), 311-319.
- Gulliver, A., Griffiths, K. M., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC psychiatry*, 10, 1-9.
- Jorm, A. F. (2000). Mental health literacy: Public knowledge and beliefs about mental disorders. *The British Journal of Psychiatry*, 177(5), 396-401.
- Jorm, A. F., Korten, A. E., Jacomb, P. A., Christensen, H., Rodgers, B., & Pollitt, P. (1997). "Mental health literacy": a survey of the public's ability to recognise mental disorders and their beliefs about the effectiveness of treatment. *Medical journal of Australia*, 166(4), 182-186.
- Kantar A., & Yalçın İ. (2023). Masculinity and Seeking Psychological Help: A Review Based on Social Identity Theory. *Psikiyatride Güncel Yaklaşımlar*. 2023; 15(4): 677-686. <https://doi.org/10.18863/pgy.1227948>
- Khatib, H. E., Alyafei, A., & Shaikh, M. (2023). Understanding experiences of mental health help-seeking in Arab populations around the world: a systematic review and narrative synthesis. *BMC psychiatry*, 23(1), 1-26. <https://doi.org/10.1186/s12888-023-04827-4>
- Kim, H. C. (2021). Mediating effect of stigma on the relationship between mental health literacy and help-seeking attitudes among university students in South Korea. *International Journal of Mental Health*, 52(2), 163-178.
- Kim, E. J., Yu, J. H., & Kim, E. Y. (2020). Pathways linking mental health literacy to professional help-seeking intentions in Korean college students. *Journal of psychiatric and mental health nursing*, 27(4), 393-405.
- Koutra, K., Pantelaiou, V., & Mavroeides, G. (2024). Breaking barriers: Unraveling the connection between mental health literacy, attitudes towards mental illness, and self-stigma of psychological help-seeking in university students. *Psychology International*, 6(2), 590-602.
- Krumrei, E. J., Newton, F. B., & Kim, E. (2010). A multi-institution look at college students seeking counseling: Nature and severity of concerns. *Journal of College Student Psychotherapy*, 24(4), 261-283. doi:10.1080/87568225.2010.509223
- Lee, H. Y., Hwang, J., Ball, J. G., Lee, J., & Albright, D. L. (2019). Is health literacy associated with mental health literacy? Findings from Mental Health Literacy Scale. *Perspectives in Psychiatric Care*, 56(2), 393-400. <https://doi.org/10.1111/ppc.12447>
- Lee, JY., & Shin, YJ. (2020). Using the Theory of Planned Behavior to Predict Korean College Students' Help-Seeking Intention. *The Journal of Behavioral Health Services & Research*, 49(1), 76-90. doi:10.1007/s11414-020-09735-z

- Li, W., Denson, L. A., & Dorstyn, D. S. (2018). Understanding Australian university students' mental health help-seeking: An empirical and theoretical investigation. *Australian Journal of Psychology*, 70(1), 30-40.
- Lian, Z., Wallace, B. C., & Fullilove, R. E. (2020). Mental health help-seeking intentions among Chinese international students in the US higher education system: The role of coping self-efficacy, social support, and stigma for seeking psychological help. *Asian American Journal of Psychology*, 11(3), 147-157.
- Liu, H., Wong, Y. J., Mitts, N. G., Li, P. F. J., & Cheng, J. (2020). A phenomenological study of east Asian international students' experience of counseling. *International Journal for the Advancement of Counselling*, 42(3), 269-291. <http://dx.doi.org/10.1007/s10447-020-09399-6>
- Lu, C.-M., Lien, Y.-J., Chao, H.-J., Lin, H.-S., & Tsai, I.-C. (2021). A structural equation modeling of mental health literacy in healthcare students. *International Journal of Environmental Research and Public Health*, 18(24), 13264. <http://dx.doi.org/10.3390/ijerph182413264>
- McKay, L., O'Bryan, S., & Kahu, E. R. (2021). "My uni experience Wasn't completely ruined": The impacts of COVID-19 on the first-year experience. *Student Success*, 12(3), 1-13. doi:<http://dx.doi.org/10.5204/ssj.1762>
- Morgan, A. J., Ross, A., & Reavley, N. J. (2018). Systematic review and meta-analysis of Mental Health First Aid training: Effects on knowledge, stigma, and helping behaviour. *PloS one*, 13(5), e0197102.
- Nazari, A., Garmaroudi, G., Foroushani, A. R., & Hosseinnia, M. (2023). The effect of web-based educational interventions on mental health literacy, stigma and help-seeking intentions/attitudes in young people: systematic review and meta-analysis. *BMC psychiatry*, 23(1), 647. <https://doi.org/10.1186/s12888-023-05143-7>
- Nguyen, N., Kim, B., & Aronowitz, T. (2023). Factors that influence Asian American college students use of mental health services: A systematic mixed studies review. *Journal of Psychiatric and Mental Health Nursing*, 31(2), 181–202. <https://doi.org/10.1111/jpm.12972>
- Pei, J., Amanvermez, Y., Vigo, D., Puyat, J., Kessler, R. C., Mortier, P., ... & Cuijpers, P. (2024). Sociodemographic correlates of mental health treatment seeking among college students: A systematic review and meta-analysis. *Psychiatric services*, 75(6), 556-569.
- Pham, N. C., Li, Y., Hossain, T., Schapsis, C., Pham, H. H., & Minor, M. (2020). Understanding Mental Health Services and Help-Seeking Behaviors Among College Students in Vietnam. *Asia Pacific Journal of Health Management*, 15(3), 58-71. <https://doi.org/10.24083/apjhm.v15i3.353>
- Reavley, N. J., McCann, T. V., & Jorm, A. F. (2012). Mental health literacy in higher education students. *Early intervention in psychiatry*, 6(1), 45-52.
- Rickwood, D. J., & Braithwaite, V. A. (1994). Social-psychological factors affecting help-seeking for emotional problems. *Social science & medicine*, 39(4), 563-572. [https://doi.org/10.1016/0277-9536\(94\)90099-X](https://doi.org/10.1016/0277-9536(94)90099-X)
- Rickwood, D. J., Deane, F. P., & Wilson, C. J. (2007). When and how do young people seek professional help for mental health problems?. *Medical journal of Australia*, 187(S7), S35-S39. doi:10.5694/j.1326-5377.2007.tb01334.x
- Rickwood, D. J., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-journal for the Advancement of Mental health*, 4(3), 218-251.
- Sagar-Ouriaghli, I., Godfrey, E., Graham, S., & Brown, J. S. L. (2020). Improving mental health help-seeking behaviours for male students: A framework for developing a complex intervention. *International Journal of Environmental Research and Public Health*, 17(14), 4965. <http://dx.doi.org/10.3390/ijerph17144965>
- Shahwan, S., Lau, J. H., Goh, Ch. M. J., Ong, W. J., Tan, G. T. H., Kwok, K. W., Samari, E., Lee, Y. Y., Seet, V., Chang, S., Chong, S. A., & Subramaniam, M. (2020). The potential impact of an anti-stigma intervention on mental health help-seeking attitudes among university students. *BMC Psychiatry*, 20, 1-14. <http://dx.doi.org/10.1186/s12888-020-02960-y>

- Sheu, H. B., & Sedlacek, W. H. (2004). An exploratory study of help-seeking attitudes and coping strategies among college students by race and gender. *Measurement and Evaluation in counseling and Development*, 37(3), 130-143.
- Schomerus, G., Stolzenburg, S., Freitag, S., Speerforck, S., Janowitz, D., Evans-Lacko, S., ... & Schmidt, S. (2019). Stigma as a barrier to recognizing personal mental illness and seeking help: a prospective study among untreated persons with mental illness. *European archives of psychiatry and clinical neuroscience*, 269(4), 469-479.
- Smith, C. L., & Shochet, I. M. (2011). The impact of mental health literacy on help-seeking intentions: Results of a pilot study with first year psychology students. *International Journal of Mental Health Promotion*, 13(2), 14-20.
- Theurel, A., & Witt, A. (2022). Identifying Barriers to Mental Health Help-Seeking in French University Students during the Covid-19 Pandemic. *Creative Education*, 13(2), 437-449. doi:10.4236/ce.2022.132025
- Vogel, D. L., Wade, N. G., & Ascherman, P. L. (2009). Measuring perceptions of stigmatization by others for seeking psychological help: Reliability and validity of a new stigma scale with college students. *Journal of counseling psychology*, 56(2), 301-308. <https://doi.org/10.1037/a0014903>
- Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of counseling psychology*, 53(3), 325-337.
- Wang, X., Weng, W., Li, M., Xue, J., & Chen, S. (2024). Understanding the intention and behavior of psychological help-seeking among Chinese college students using theory of planned behavior: a three-month follow-up study. *Psychology, Health & Medicine*, 29(4), 765-777.
- Williams, K. D., Adkins, A., Kuo, S. I., LaRose, J. G., Utsey, S. O., Guidry, J. P., ... & Carlyle, K. E. (2023). Mental health disorder symptom prevalence and rates of help-seeking among university-enrolled, emerging adults. *Journal of American college health*, 71(1), 61-68.
- World Health Organization. (2004). *Promoting mental health: Concepts, emerging evidence, practice: Summary report*. World Health Organization.
- Wright, A., Jorm, A. F., Harris, M. G., & McGorry, P. D. (2007). What's in a name? Is accurate recognition and labelling of mental disorders by young people associated with better help-seeking and treatment preferences?. *Social psychiatry and psychiatric epidemiology*, 42(3), 244-250.
- Yang, X., Hu, J., Zhang, B., Ding, H., Hu, D., & Li, H. (2024). The relationship between mental health literacy and professional psychological help-seeking behavior among Chinese college students: mediating roles of perceived social support and psychological help-seeking stigma. *Frontiers in Psychology*, 15, 1356435.
- Zehra, A., Sharma, S., Pant, N., & Chatterjee, S. (2022). Mental Health Literacy and Help-Seeking Attitudes in Young Women. *Indian Journal of Health & Wellbeing*, 13(4), 473-477.

ACKNOWLEDGEMENTS

This work was supported by the Slovak Research and Development Agency, Contract No. APVV-23-0500.

AUTHORS' INFORMATION

Full name: Ján Kulan

Institutional affiliation: Department of Psychology, Faculty of Arts, Pavol Jozef Šafárik University in Košice, Slovak Republic

Institutional address: Šrobárova 2, 041 80 Košice, Slovak Republic

Short biographical sketch: An external PhD. student of psychology, psychologist, and roman-catholic priest. A director of the Archdiocesan Center for Young People in Košice and

assistant in the University Pastoral Center of Saints Martyrs of Košice. A specialist on the Metropolitan Ecclesiastic Tribunal of the Archdiocese of Košice. A rector of the Pilgrim's House of blessed Anna Kolesárová in Obišovce for young people.

Full name: Oľga Orosová

Institutional affiliation: Department of Educational Psychology and Health Psychology; Faculty of Arts; Pavol Jozef Šafárik University in Košice, Slovak Republic

Institutional address: Šrobárova 2, 041 80 Košice, Slovak Republic

Short biographical sketch: Professor of Psychology at Pavol Jozef Šafárik University in Košice. Her research encompasses a broad range of topics within social and educational psychology, with a particular focus on factors associated with drug use among adolescents. She also investigates the effectiveness of drug use prevention programs, emigration intentions among university students, academic stressors, and the promotion of teacher well-being. She possesses extensive expertise in the evaluation and implementation of evidence-based drug prevention strategies within educational settings.