

Chapter # 8

DEPRESSIVE SYMPTOMS AND HELP-SEEKING INTENTIONS IN UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC

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

Background: The COVID-19 pandemic significantly impacted university students, a vulnerable group with a low tendency to seek help. Aim: To explore the association between students' depressive symptoms and their help-seeking intentions while controlling for gender, fear of COVID-19, and well-being among Slovak university students during the COVID-19 pandemic. Methods: During November and December of 2021, 258 students ($M = 21.86$, $SD = 2.05$; 77.1 % women) from Slovak universities participated in an online survey. Findings were analyzed using the Mann-Whitney U Test and hierarchical multiple regression. Results: We identified three primary sources of help that included informal help from partner, friends, and parents of university students. Women were more likely to seek help from informal sources. Students with prior formal help-seeking (28.2 %) were more likely to seek help from formal sources, such as mental health professionals. Women and students with higher life satisfaction and fear of COVID-19 exhibited a higher level of help-seeking intentions, while those with more depressive symptoms were less likely to seek help. Conclusion: The results of this study support previous findings related to the willingness of young people, especially to use informal sources of help-seeking.

Keywords: help-seeking intentions, satisfaction with life, depressive symptoms, university students, COVID-19.

1. INTRODUCTION

Young adulthood is a significant life stage marked by identity formation, romantic relationships, career choices, and gaining independence, often coinciding with university years (Yelpaze & Ceyhan, 2020). University students are an important segment of the population, poised to become future intellectuals, political leaders, teachers, and doctors, playing a vital role in driving social changes (Kovács, 2018).

On the other hand, this period can be stressful and challenging for students' mental health and well-being (Baik, Naylor, & Arkoudis, 2015; McKay, O'Bryan, & Kahu, 2021). Students face numerous changes, such as forming new relationships, living apart from family, and acquiring new skills, leading to increased anxiety, depression (Barrable, Papadatou-Pastou, & Tzotzoli, 2018), stress, and suicidal ideation (Beks, Cairns, Smygwyat, Miranda Osorio, & Hill, 2018). They report interpersonal conflicts, self-harm, learning difficulties, and career uncertainties (Krumrei, Newton, & Kim, 2010; Çebi & Demir, 2020). Anxiety and depression often stem from academic pressure and post-graduation concerns (Beiter et al., 2015; Sagar-Ouriaghli, Godfrey, Graham, & Brown,

2020), putting university students at higher risk for poor mental health than the general population (Blanco et al., 2008; Beks et al., 2018). Mental illness is prevalent in adolescents and young adults (Kessler & Walters, 1998), yet this group is among the least likely to seek help (Rickwood, Deane, Wilson, & Ciarrochi, 2005). According to the World Health Organization, mental disorders such as depression and anxiety account for about 14 % of the global disease burden (Seyfi, Poudel, Yasuoka, Otsuka, & Jimba, 2013).

The COVID-19 pandemic forced worldwide changes to social life (Arikatt & Mohanan, 2021), leading to increased psychological distress, depression, anxiety, and panic behaviors (Giusti et al., 2021). It significantly impacted higher education and the well-being of university students. Social distancing, lockdowns, and online learning disrupted students' lifestyles, academic performance, and mental health, requiring flexibility from both students and teachers (Giusti et al., 2021). Students struggled to maintain attention and faced financial instability due to lost on-campus jobs (Žilinskas, Žulpaitė, Puteikis, & Viliūnienė, 2021). A systematic review and meta-analyses on the prevalence of depressive symptoms among students during the COVID-19 pandemic reported that the rate of depressive symptoms was relatively high and higher compared to pre-pandemic levels in similar populations (Deng et al., 2021; Chang, Ji, Li, Pan, & Su, 2021). Di Consiglio, Merola, Pascucci, Violani, and Couyoumdjian (2021) discovered that university students experienced moderate to severe levels of depressive and anxiety symptomatology during the first wave of the COVID-19 pandemic and during the lockdown, female students reported worse depressive symptoms. Conceição, Rothes and Gusmão (2021) found that depressive and anxiety symptoms among university students significantly increased during the first (June 2020) and second wave (March 2021) of the COVID-19 pandemic. Moreover, some students with increasing depression and anxiety symptomatology did not accept the professional help of psychotherapy (Di Consiglio et al., 2021). Participants with moderate to severe depressive and anxiety symptoms reported significantly lower satisfaction with online teaching than those with milder symptoms (Conceição et al., 2021). The results of the research study of the Behavioral and experimental economic team and the Department of Innovation Approaches in Health of the Ministry of Health of the Slovak Republic (Beet & MZ SR, 2022) demonstrated that there was an elevated level of depression in 80 % of university students with the consequences of paralysis in their performance (school, work), home, and social relations.

Life satisfaction may also be a factor linked to attitudes toward seeking help (Topkaya, 2021). Life satisfaction is a key part of psychological well-being, reflecting how individuals evaluate the overall quality of their lives (Diener, Pressman, Hunter, & Delgado-Chase, 2017). Subjective well-being encompasses these evaluations, where people assess whether they view their life and circumstances positively or negatively. These assessments can be thoughtful reflections on their overall life or specific aspects (Diener et al., 2017). While negative mental health factors like depression and anxiety are often studied in relation to help-seeking attitudes, positive factors like life satisfaction are rarely explored (Crowe & Kim, 2020; Topkaya, 2021). More research is needed to understand the link between life satisfaction and help-seeking intentions (Topkaya, 2021).

University students, particularly those living alone, were significantly affected by the COVID-19 lockdown, experiencing greater mental health issues such as fear, stress, and anxiety due to isolation and limited outdoor activities compared to those living with family or friends (Tran-Chi, Ly, Luu-Thi, Huynh, & Nguyen-Thi, 2021). There are a very limited number of studies exploring the association between fear of COVID-19 and help-seeking intentions. The results of a study examining factors predicting help-seeking intentions during the COVID-19 pandemic (Maba, Mulawarman, Anugrah Intan Cahyani, & Indah

Fajrotuz Zahro, 2020) highlight the importance of including fear of COVID-19 among the factors associated with students' help-seeking intentions.

Help-seeking intention and subsequent behavior during difficult times in life is one of the most important problem-solving adaptive behavioral strategies of people, that involves asking for assistance or advice from available help sources, for example, friends, relatives, neighbors, peers, as well as professionals such as teachers, counselors and medical professionals (Fallon & Bowles, 1999). Nevertheless, people are often reluctant to seek help even if they are suffering from severe problems and difficulties such as depressive symptoms (Nagai, 2015). Help-seeking intention and subsequent behavior have been defined as communication with other people in the sense of obtaining help in terms of understanding, advice, information, treatment, and general support in response to a problem or distressing experience (Rickwood et al., 2005). It means that an individual must be aware of the experienced problem, be able to express the need for support, intent to seek help, access sources of help, and have the willingness to explain the problem to overcome the difficulty experienced (Rickwood et al., 2005). Help-seeking intention and behavior can be classified into two categories of sources: 1.) informal source of help-seeking – from family, partner, friends, other relatives, etc., and 2.) formal source of help-seeking – from mental health professionals, youth workers, teachers, etc. (Rickwood et al., 2005; Çebi & Demir, 2020).

Gender is an important predictor of help-seeking intention and behavior among university students, because certain studies have shown that male students are less likely to intend to seek help compared to female students (Sheu & Sedlacek, 2004; Sagar-Ouriaghli et al., 2020). Other studies have shown that female students are significantly more likely to use professional mental health support in comparison to male students (Eisenberg, Golberstein, & Gollust, 2007; Sagar-Ouriaghli et al., 2020). The theoretical review of Kantar and Yalçın (2023) has confirmed that men are more reluctant to seek psychological help than women. According to them, in many studies, traditional masculinity norms are consistently recognized as an obstacle to individuals' decision to seek psychological help (Kantar & Yalçın, 2023). Similarly, Çebi and Demir (2020) confirmed that females possessed more favorable help-seeking attitudes than males. Perceived social support (friends and significant other), prior help-seeking experience, and gender significantly predicted positive attitudes to seek psychological help. Their research found that friends were the most frequently cited sources of information (24.2 %) and sources of help (59 %), followed by family (45.6 %) and professionals (only 5.8 %; Çebi & Demir, 2020). The results of the study of Theurel and Witt (2022) showed, that 63 % of participants at the universities in France reported, that they would not seek any formal or informal help if dealing with an emotional or mental health difficulty. Most students reported a preference for informal help from friends and family compared to help from professionals. Khatib, Alyafei and Shaikh (2023) discovered, that Arab university students across the world had negative attitudes towards formal sources of help-seeking and were reluctant to seek help, despite the presence of psychological distress. In their study, the preference for informal sources of help-seeking, such as family and friends, was expressed and considered more acceptable (Khatib et al., 2023). Finally, the results of research by the Behavioral and experimental economic team and the Department of Innovation Approaches in Health of the Ministry of Health of the Slovak Republic (Beet & MZ SR, 2022) demonstrated, that informal sources of help-seeking such as family and friends (57 %) was preferred source of help-seeking among Slovak university students.

The COVID-19 pandemic, which significantly altered people's lifestyles, has also had a serious impact on college students. The findings highlight the importance of providing services aimed at reducing the risk of anxiety and depression among college students (Chang et al., 2021; Volken et al., 2021), as well as improving the understanding of their intentions to seek help. Based on the presented findings, we aimed to assess the association between students' depressive symptoms and their help-seeking intentions, while controlling for gender, fear of COVID-19, and well-being.

2. OBJECTIVES

The present study aims to explore the association between students' depressive symptoms and their help-seeking intentions while controlling for gender, fear of COVID-19, and well-being among Slovak university students during the COVID-19 pandemic.

3. DESIGN

The study employed a cross-sectional design and involved collecting quantitative data from Slovak universities.

4. METHODS

4.1. Sample and Procedure

A total of 258 students ($M = 21.86$; $SD = 2.05$) from Slovak universities took part in an online survey, which was distributed through various Facebook university campus groups across Slovakia. Participants' ages ranged from 18 to 30 years ($n = 258$, $M = 21.86$; $SD = 2.05$). Of these, 77.1 % were women ($n = 199$, $M = 21.62$; $SD = 1.94$) and 22.9 % were men ($n = 59$, $M = 22.66$; $SD = 2.21$). The sufficient sample size was verified using an online calculator for hierarchical regression (Soper, 2020).

The majority of the university students studied at the universities in the Bratislava region (30 %), then in the Košice region (27.1 %) and in the Prešov region (11.7 %). The rest of the students (31.2 %) studied in other regions of Slovakia. The data collection among university students took place between November and December of 2021. Due to the repeated lockdowns caused by the COVID-19 pandemic at the time of the data collection, we were compelled to shift the entire data collection process to an online platform. Participation in the survey was voluntary and anonymous. Data collection was carried out after obtaining informed consent from each participant. The protocol of this study was reviewed and approved by the Ethics Committee at the Faculty of Arts of Pavol Jozef Šafárik University in Košice.

4.2. Measures

The study utilized the General Help-Seeking Questionnaire (GHSQ; Rickwood et al., 2005), which comprises 14 items. It was employed to evaluate students' intentions to seek help (specifically within the upcoming 4 weeks) when experiencing personal or emotional problems. Two sources of help-seeking intentions were listed here: 1.) informal sources (e.g. partner like significant boyfriend or girlfriend; friend; parent; other relative/family member) and 2.) formal sources (e.g. mental health professional like a school counsellor, psychologist, psychiatrist; phone helpline; family doctor; teacher). One item was seeking

help from someone not listed above, and one item was that a participant would not seek help from anyone. Participants were asked to indicate their level of agreement with the statements on a 7-point scale ranging from 1 (extremely unlikely) to 7 (extremely likely). Each source was treated as a separate scale, and an overall scale including all sources of help was utilized. A supplementary second question was also included within the GHSQ to assess past help-seeking experiences. It was operationalized by asking, whether professional help has been sought in the past for a specific problem and, if help has been sought, how many times it was sought, what specific sources of help were sought, and whether the help obtained was evaluated as worthwhile on a 5-point scale indicating more or less helpfulness (1 – extremely unhelpful; 5 – extremely helpful; $C\alpha = 0.86$).

The depressive symptoms were measured through the construct of depressive dimension identified from a shortened version of the DASS Scale (Lovibond & Lovibond, 1995; Antony, Bieling, Cox, Enns, & Swinson, 1998). This short version includes 7 items from the subscale of the depressive dimension. Respondents were asked to indicate the extent to which the statement applied to them on a 4-point Likert scale ranging from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). As it is a shortened version of the original DASS scale we need to multiply the obtained score by 2 to calculate the final score. The higher score for this subscale indicates a higher level of depression ($C\alpha = 0.893$ – university sample).

The well-being of university students was measured through the construct of subjective well-being within the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985; Džuka & Dalbert, 2002). Respondents were asked to indicate the extent to which they agree with the 5 statements (e.g., “In most ways my life is close to my ideal.”) on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher score indicates a higher level of well-being ($C\alpha = 0.877$).

The fear of COVID-19 was measured by the Fear of COVID-19 Scale (Ahorsu et al., 2020) consisting of 7 items. Respondents were asked to indicate their level of agreement with the statements on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The higher score indicates a greater fear of COVID-19 ($C\alpha = 0.622$).

4.3. Statistical Analyses

Findings were analyzed using descriptive statistical analysis, the Mann-Whitney U Test, and hierarchical multiple regression, and then were performed in SPSS 25.

5. RESULTS

5.1. Moderately Elevated Level of Depressive Symptoms of University Students during the COVID-19 Pandemic

We identified moderately elevated levels of depressive symptoms which indicated university students during the COVID-19 pandemic ($M = 16.30$; $SD = 11.42$; Normal = 0-9; Mild = 10-13; Moderate = 14-20; Severe = 21-27; Extremely severe = 28+; Table 1). There were no statistically significant differences in gender between women and men.

5.2. Three Primary Sources of Help, which are Likely to be Accessed by Students

We identified three primary sources of help that are likely to be accessed by students when they experience a personal or emotional problem during the COVID-19 pandemic.

These sources include informal help from their partner, friend, and parents (Table 1). The lowest tendency of intentions was to seek help from teachers (Table 1). The results indicated that women had a higher tendency of intentions to seek help from informal sources (partner, parents, other relatives; $M = 19.55$; $SD = 5.32$) than men ($M = 17$; $SD = 6.12$). Students with lifetime formal help-seeking experiences (28.2 %) had a higher tendency of intentions to seek help from formal sources (such as mental health professionals), than students without lifetime help-seeking experiences.

Table 1.
Means and standard deviations of research variables.

| | Help-seeking intentions | | | | | | | | Satisfac-tion with life | Fear of COVID-19 | Depressi-ve symptoms |
|-------|----------------------------------|---------|---------|--------------------|--------------------------------|-----------------|----------------|----------|-------------------------|------------------|----------------------|
| | Informal sources of help-seeking | | | | Formal sources of help-seeking | | | | | | |
| | Partn-er | Frien-d | Paren-t | Anoth-er relativ-e | Profe-ssional | Phone helplin-e | Famil-y doctor | Teach-er | | | |
| Mea-n | 5.37 | 5.20 | 4.94 | 3.44 | 3.34 | 2.07 | 2.33 | 1.79 | 13.49 | 15.76 | 16.30 |
| SD | 2.30 | 2.02 | 2.05 | 2.12 | 2.22 | 1.62 | 1.83 | 1.36 | 4.87 | 3.79 | 11.42 |

5.3. Hierarchical Multiple Regression

Hierarchical multiple regression analysis was conducted with help-seeking intentions as the dependent variable to examine the level of help-seeking intentions and their associated factors. A two-step process was followed. The first step of regression analysis included gender, fear of COVID-19, and satisfaction with life as independent variables. The model explained 7 % of the variance of help-seeking intentions of university students during the COVID-19 pandemic ($F = 6.35$; $p < 0.001$). The regression model revealed associations between gender, satisfaction with life, fear of COVID-19, and help-seeking intentions (Table 2). Female and students with higher levels of satisfaction with life and fear of COVID-19 exhibited a higher level of help-seeking intentions. In the second step, an independent variable, namely depressive symptoms, was added to the model. The model explained 11 % of the variance of help-seeking intentions of university students during the COVID-19 pandemic ($F = 7.50$; $p < 0.001$). In the final model, gender, fear of COVID-19, and depressive symptoms were statistically significant (Table 2). Life satisfaction was not a significant factor (Table 2). Students' help-seeking intentions were positively associated with the fear of COVID-19 and negatively associated with depressive symptoms. Finally, females were more likely to have higher levels of help-seeking intentions than their male counterparts.

Table 2.
Results of hierarchical multiple regression for help-seeking intentions and associated factors.

| | | B | Beta | t | p | 95.0 % Confidence Interval for B | |
|----------------|------------------------|--------|--------|--------|-------|----------------------------------|-------------|
| | | | | | | Lower Bound | Upper Bound |
| Step 1 | Gender | -4.545 | -0.198 | -3.179 | 0.002 | -7.36 | -1.729 |
| | Fear of COVID-19 | 0.330 | 0.131 | 2.119 | 0.035 | 0.023 | 0.638 |
| | Satisfaction with life | 0.244 | 0.125 | 2.014 | 0.045 | 0.005 | 0.483 |
| R ² | 0.07 | | | | | | |
| Step 2 | Gender | -4.361 | -0.190 | -3.105 | 0.002 | -7.127 | -1.595 |
| | Fear of COVID-19 | 0.430 | 0.171 | 2.753 | 0.006 | 0.122 | 0.738 |
| | Satisfaction with life | 0.119 | 0.061 | 0.947 | 0.345 | -0.128 | 0.365 |
| | Depressive symptoms | -0.348 | -0.208 | -3.198 | 0.002 | -0.563 | -0.134 |
| R ² | 0.11 | | | | | | |

6. DISCUSSION

In this study, we explored the association between students' depressive symptoms and their help-seeking intentions while controlling for gender, fear of COVID-19, and well-being among Slovak university students during the COVID-19 pandemic. We found that university students during the COVID-19 pandemic indicated moderately elevated levels of depressive symptoms. The results of this study support previous findings of other research studies about the increased level of depressive symptoms among university students during the COVID-19 pandemic (Giusti et al., 2021; Di Consiglio et al., 2021; Conceição et al., 2021; Beet & MZ SR, 2022).

We discovered three primary sources of help that are likely to be accessed by students when they experience a personal or emotional problem during the COVID-19 pandemic. These sources include informal help from their partner, friend, and parents. The lowest tendency of intentions was to seek help from teachers. The results of this study support previous findings related to the willingness of young people, especially to use informal sources for help-seeking (Beet & MZ SR, 2022). The results indicated that women had a higher tendency of intentions to seek help from informal sources (partner, parents, other relatives) than men. The study confirmed the results that females possessed more favorable help-seeking attitudes than males (Çebi & Demir, 2020).

Our results also confirmed previous results of research in France by Theurel and Witt (2022), that most students reported a preference for informal help from friends and family compared to help from professionals (Theurel & Witt, 2022). These results are also in accordance with the research of Khatib et al. (2023), where Arab university students across the world had negative attitudes towards formal sources of help-seeking and they preferred informal sources of help-seeking, such as family and friends. Students with lifetime formal help-seeking experiences (28.2 %) had a higher tendency of intentions to seek help from

formal sources (such as mental health professionals), than students without lifetime help-seeking experiences.

In line with the results of a previous study (Topkaya, 2021), life satisfaction was not a significant factor in the final regression model. Our results support the author's interpretation that the association between life satisfaction and help-seeking intentions might be restricted when viewed alongside the other variables examined in the study. Consistent with previous studies, our findings showed that gender, the fear of COVID-19, and depressive symptoms played an important role in students' help-seeking behavior. The results, that students with higher levels of depressive symptoms exhibited a lower level of help-seeking intentions are in accordance with the results of Nagai (2015). These results agree also with the research of Di Consiglio et al. (2021), where some students with increasing depressive symptomatology did not accept the professional help of psychotherapy and did not seek help. However, another study found that, in addition to the fear of COVID-19 being a key factor motivating college students to seek psychological help, depressive symptoms can also be significant predictors of help-seeking behavior (Liang et al., 2020).

7. CONCLUSIONS

The limitations and strengths of this research study must be highlighted. The most significant limitation was using only online questionnaires because of the COVID-19 pandemic. Next, the final model of hierarchical multiple regression explained 11 % of the variance in help-seeking intentions. However, as Ozili (2023) reported, a low R-squared value of at least 0.1 (or 10 %) is acceptable in social science research. The findings of this research study positively contribute to the important investigation of help-seeking intentions and behaviors among university students (Rickwood et al., 2005; Çebi & Demir, 2020). They could also contribute to the implementation of mental health services, counsellors' programs, and university counselling centers, which will focus more on improving help-seeking attitudes, intentions, and behaviors of university students by targeting and eliminating the main barriers to treatment. The COVID-19 pandemic has highlighted the need to improve mental health literacy among university students. Similarly, this study may contribute to mental disorder treatment among university students, especially in cases of depression. Finally, future empirical research on the help-seeking intention and behavior of university students in Slovakia and abroad could be accomplished.

REFERENCES

- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998). Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological assessment, 10*(2), 176. <https://doi.org/10.1037/1040-3590.10.2.176>
- Arikatt, R. M., & Mohanan, S. A. (2021). Social distancing intention during the COVID-19 pandemic: The theory of planned behavior in Thai cultural context. *Indian Journal of Health and Wellbeing, 12*(1), 93-99. <https://www.proquest.com/docview/2518454556?pq-origsite=gscholar&fromopenview=true&sourcetype=Scholarly%20Journals>
- Ahorsu, D. K., Lin, C. Y., Imani, V., Saffari, M., Griffiths, M. D., & Pakpour, A. H. (2020). The fear of COVID-19 scale: development and initial validation. *International journal of mental health and addiction, 1-9*. <https://doi.org/10.1007/s11469-020-00270-8>

- 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>
- Beet, MZ SR (2022). *Analýza duševnej pohody u mladých ľudí počas pandémie COVID-19* [The analysis of wellbeing in young people during the COVID-19 pandemic]. <https://www.beet.sk/publikacie-a-vystupy/>
- Baik, C., Naylor, R., & Arkoudis, S. (2015). The First Year Experience in Australian Universities: Findings from Two Decades, 1994-2014. *Melbourne centre for the study of higher education*. https://melbourne-cshe.unimelb.edu.au/__data/assets/pdf_file/0017/2305061/FYE-2014-FULL-report-FINAL-web.pdf
- Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of affective disorders*, 173, 90-96. <https://doi.org/10.1016/j.jad.2014.10.054>
- Beks, T. A., Cairns, S. L., Smygwyat, 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. doi:10.7202/1057103ar
- Blanco, C., Okuda, M., Wright, C., Hasin, D. S., Grant, B. F., Liu, S. M., & Olfson, M. (2008). Mental health of college students and their non-college-attending peers: results from the national epidemiologic study on alcohol and related conditions. *Archives of general psychiatry*, 65(12), 1429-1437. doi:10.1001/archpsyc.65.12.1429
- Çebi, E., & Demir, A. (2020). Help-seeking attitudes of university students in Turkey. *International Journal for the Advancement of Counselling*, 42(1), 37-47. doi:10.1007/s10447-019-09385-7
- Chang, J. J., Ji, Y., Li, Y. H., Pan, H. F., & Su, P. Y. (2021). Prevalence of anxiety symptom and depressive symptom among college students during COVID-19 pandemic: A meta-analysis. *Journal of affective disorders*, 292, 242-254. <https://doi.org/10.1016/j.jad.2021.05.109>
- Conceição, V., Rothes, I., & Gusmão, R. (2021). The Association Between Changes in the University Educational Setting and Peer Relationships: Effects in Students' Depressive Symptoms During the COVID-19 Pandemic. *Front. Psychiatry*, 12, 783776. doi: 10.3389/fpsy.2021.783776
- Crowe, A., & Kim, T. (2020). Ethnicity, life satisfaction, stress, familiarity, and stigma toward mental health treatment. *Journal of Counseling & Development*, 98(1), 83-93. <https://doi.org/10.1002/jcad.12302>
- Deng, J., Zhou, F., Hou, W., Silver, Z., Wong, C. Y., Chang, O., ... & Huang, E. (2021). The prevalence of depressive symptoms, anxiety symptoms and sleep disturbance in higher education students during the COVID-19 pandemic: A systematic review and meta-analysis. *Psychiatry research*, 301, 113863. <https://doi.org/10.1016/j.psychres.2021.113863>
- Di Consiglio, M., Merola, S., Pascucci, T., Violani, C., & Couyoumdjian, A. (2021). The Impact of COVID-19 Pandemic on Italian University Students' Mental Health: Changes across the Waves. *International Journal of Environmental Research and Public Health* 18(18), 9897. <https://doi.org/10.3390/ijerph18189897>
- Diener, E., Pressman, S. D., Hunter, J., & Delgado-Gill, D. (2017). If, why, and when subjective well-being influences health, and future needed research. *Applied Psychology: Health and Well-Being*, 9(2), 133-167. doi:10.1111/aphw.12090
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of personality assessment*, 49(1), 71-75. https://doi.org/10.1207/s15327752jpa4901_13
- Džuka, J., & Dalbert, C. (2002). Vývoj a overenie validity škál emocionálnej habituálnej subjektívnej pohody (sehp) [Elaboration and verification of emotional habitual subjective well-being scales (SEHP)]. *Československá Psychologie: Časopis Pro Psychologickou Teorií a Praxi*, 46(3), 234-250.
- 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
- Fallon, B. J., & Bowles, T. (1999). Adolescent help-seeking for major and minor problems. *Australian Journal of Psychology*, 51(1), 12-18. <https://doi.org/10.1080/00049539908255329>

- Giusti, L., Mammarella, S., Salza, A., Sasha, D. V., Ussorio, D., Casacchia, M., & Roncone, R. (2021). Predictors of academic performance during the COVID-19 outbreak: Impact of distance education on mental health, social cognition and memory abilities in an Italian university student sample. *BMC Psychology*, 9(1), 1-17. doi:<http://dx.doi.org/10.1186/s40359-021-00649-9>
- Kantar A., & Yalçın İ. (2023). Masculinity and Seeking Psychological Help: A Review Based on Social Identity Theory. *Psikiyatride Güncel Yaklaşımlar*, 15(4), 677-686. <https://doi.org/10.18863/pgy.1227948>
- Kessler, R. C., & Walters, E. E. (1998). Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the national comorbidity survey. *Depression and anxiety*, 7(1), 3-14. [https://doi.org/10.1002/\(SICI\)1520-6394\(1998\)7:1<3::AID-DA2>3.0.CO;2-F](https://doi.org/10.1002/(SICI)1520-6394(1998)7:1<3::AID-DA2>3.0.CO;2-F)
- 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), 324. <https://doi.org/10.1186/s12888-023-04827-4>
- Kovács, K. (2018). A comparison of factors influencing health risk behaviour of college students in the countries of the Carpathian basin. *European Journal of Mental Health*, 13(2), 184-210. doi:<http://dx.doi.org/10.5708/EJMH.13.2018.2.5>
- 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. <https://doi.org/10.1080/87568225.2010.509223>
- Liang, S. W., Chen, R. N., Liu, L. L., Li, X. G., Chen, J. B., Tang, S. Y., & Zhao, J. B. (2020). The psychological impact of the COVID-19 epidemic on Guangdong college students: the difference between seeking and not seeking psychological help. *Frontiers in psychology*, 11, 2231. <https://doi.org/10.3389/fpsyg.2020.02231>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour research and therapy*, 33(3), 335-343.
- Maba, A. P., Mulawarman, M. R. I. K., Anugrah Intan Cahyani, K., & Indah Fajrotuz Zahro, S. (2020). Help-seeking Intention During COVID-19 Pandemic: A Nationwide Web-based Survey in Indonesia. *Preprint. Open Science Framework*, 9.
- 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>
- Nagai, S. (2015). Predictors of help-seeking behavior: Distinction between help-seeking intentions and help-seeking behavior. *Japanese Psychological Research*, 57(4), 313-322. <https://doi.org/10.1111/jpr.12091>
- Ozili, P. K. (2023). The acceptable R-square in empirical modelling for social science research. In *Social research methodology and publishing results: A guide to non-native english speakers* (pp. 134-143). IGI global.
- Rickwood, D., 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. <https://doi.org/10.5172/jamh.4.3.218>
- 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. doi:<http://dx.doi.org/10.3390/ijerph17144965>
- Seyfi, F., Poudel, K. C., Yasuoka, J., Otsuka, K., & Jimba, M. (2013). Intention to seek professional psychological help among college students in Turkey: influence of help-seeking attitudes. *BMC research notes*, 6(1), 1-9. <https://doi.org/10.1186/1756-0500-6-519>
- 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. <https://doi.org/10.1080/07481756.2004.11909755>

- Soper, D. S. (2020). *Hierarchical multiple regression sample size calculator* [online software]. <https://www.analyticscalculators.com>
- 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
- Topkaya, N. (2021). Predictors of attitudes toward seeking professional psychological help among Turkish college students. *Children and Youth Services Review, 120*, 105782. <https://doi.org/10.1016/j.chilyouth.2020.105782>
- Tran-Chi, V. L., Ly, T. T., Luu-Thi, H. T., Huynh, V. S., & Nguyen-Thi, M. T. (2021). The influence of COVID-19 stress and self-concealment on professional help-seeking attitudes: a cross-sectional study of university students. *Psychology Research and Behavior Management, 14*, 2081-2091.
- Volken, T., Zysset, A., Amendola, S., Klein Swormink, A., Huber, M., von Wyl, A., & Dratva, J. (2021). Depressive symptoms in Swiss university students during the COVID-19 pandemic and their correlates. *International journal of environmental research and public health, 18*(4), 1458. <https://doi.org/10.3390/ijerph18041458>
- Yelpaze, İ., & Ceyhan, A. A. (2020). The prediction of personality, culture and coping strategies on university students' psychological help seeking attitudes. *Turkish Journal of Education, 9*(2), 134-153. doi:10.19128/turje.611402
- Žilinskas, E., Žulpaitė, G., Puteikis, K., & Viliūnienė, R. (2021). Mental health among higher education students during the COVID-19 pandemic: A cross-sectional survey from Lithuania. *International Journal of Environmental Research and Public Health, 18*(23), 12737. doi:<http://dx.doi.org/10.3390/ijerph182312737>

AUTHORS' INFORMATION

Full name: Ján Kulan, Mgr. et Mgr.

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

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

Short biographical sketch: Ján Kulan is an external PhD. student of Psychology, theologian and Roman Catholic priest. He is a director of the Archdiocesan Center for Young People in Košice, an assistant in the University Pastoral Center of Saints Martyrs of Košice, a specialist on the Metropolitan Ecclesiastical Tribunal of the Archdiocese of Košice and a rector of the Pilgrim's House of blessed Anna Kolesárová in Obišovce specialized for young people.

Full name: Oľga Orosová, Prof., PhD.

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

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

Short biographical sketch: Oľga Orosová is a professor of Psychology. She served as the principal investigator for national and international research projects focusing on risk factors for health-related behaviors among adolescents and young adults, as well as the effectiveness of drug use prevention programs.