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Motivation for Gambling in Student Population – Application of the Self-Determination Theory Framework


Extended summary

Research shows that a certain group of young people, such as students, is particularly vulnerable to involvement in gambling activities and the development of pathological gambling. Using Self-determination theory as a conceptual framework that focuses on understanding the motivation for starting a behavior and maintaining it over time (Ryan & Deci, 2020), which includes three forms of motivation: intrinsic motivation, extrinsic motivation and amotivation. The aim of this research is to examine the nature of the motivation for gambling among students of the University of Belgrade in relation to the extent of the risk of developing gambling problems. Starting from the fact that gambling among the student population in our country is still an unexplored area, an additional goal is to examine gambling-related activities (age of first contact with gambling, favorite gambling games, family gambling history) and sociodemographic characteristics (gender, material status, form of housing).

The research sample included 158 students of the University of Belgrade, 58% female and 42% male, aged between 18 and 25 years.

The research was conducted electronically in the period from December 2021 to June 2022. The instruments used are: Questionnaire on sociodemographic characteristics; The South Oaks Gambling Screen and The Gambling Motivation Scale. The questionnaire on sociodemographic characteristics contains questions on sociodemographic data (gender, age, material status, satisfaction with material status, form of residence, gambling history in the family, age at which the first gambling activities began). The South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1987) consists of 12 scored questions and 11 additional questions. Initially, the

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questionnaire was developed according to the symptoms of pathological gambling from DSM-III and DSM-III-R and is one of the most widely used instruments for assessing the presence of pathological gambling internationally (Battersby et al., 2002). The questions are answered in the affirmative or in the negative, and several questions are scored based on the frequency of the given behavior. Scoring the questionnaire yields a general score on gambling addiction, on the basis of which respondents are selected according to threshold values: those who are pathological gamblers (more than 4 points) and potentially pathological (problem) gamblers (with 3 and 4 points). The Gambling Motivation Scale (GMS; Shantal et al., 1994) assesses three factors of motivation: intrinsic, extrinsic, and amotivation. The questionnaire contains 28 items that divide motivation into seven subscales, namely: 1) intrinsic motivation for knowledge, 2) intrinsic motivation for achievement, 3) intrinsic motivation for stimulation, 4) extrinsic motivation – identification; 5) extrinsic motivation - external regulation, 6) extrinsic motivation - introjection, and 7) amotivation, which respondents evaluate on a seven-point Likert scale, from 1 - does not apply to me at all, through 4 - moderately applies to me, to 7 - it totally applies to me.

Statistical data processing was done in the statistical package IBM SPSS 23 and MS Excel. Descriptive statistical measures were used: percentages (%), and in testing statistical significance the chi-square test (χ^2), analysis of variance and the Kruskal-Wallis test and the difference between ranks.

The results show that of the total number of respondents, 10.6% of students met the criterion of being pathological gamblers, 6.96% of students are potentially pathological gamblers, and 82.28% of students did not have a problem with gambling. Based on the proposed motivational perspective, students who were motivated to experience stimulation/excitement had more gambling problems. Specifically, pathological gamblers had higher scores ($M=5.16$, $SD=1.24$) than the group of potential pathological gamblers ($M=3.41$, $SD=1.84$), with an average difference of 1.75 units ($p=.002$), but also from the group of students without risk ($M=2.39$, $SD=1.44$), with an average difference of 2.77 units ($p=.000$) on the subscale intrinsic motivation to experience stimulation. When it comes to extrinsic motivation on the subscale – regulation through identification, pathological gambler students ($M=2.47$, $SD=1.74$) had significantly higher scores than subjects from the risk-free group ($M=1.69$, $SD=1.09$), and that for an average 0.77 units ($p=.011$). In other words, students who used gambling as a way of coping with daily stress and provided some relief have more gambling problems. Most often they preferred: sports betting, casino and gambling on slot machines. Students whose gambling progressed to pathological gambling started in high school and have a positive family history of gambling. Such findings imply the need for education on risky behaviors to be integrated into the process of teaching organization, starting from elementary school age, which can prevent further escalation of problematic behavior at a later age. Also, the obtained results may have important implications for the prevention of gambling among students and the treatment of student gambling. Bearing in mind all of the above, the need for more systematic research in our country and the design of preventive programs is unequivocally imposed.

Keywords: student population, gambling, motivation, self-determination theory, prevention

References

- Allen, S. E., Grolnick, S.W., & Córdova, V. J. (2019). Evaluating a Self-Determination Theory-Based Preventive Parenting Consultation: The Parent Check-In. *Journal of Child and Family Studies*, 28, 732–743. <https://doi.org/10.1007/s10826-018-01309-0>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>
- Avenyo, S. J., Kwashie, N. S., & Demuyakor, J. (2024). Online sports betting in universities: Does online sports betting addictions impact the academic achievements and social relations of students? *Journal of Digital Educational Technology*, 4(1), ep2402. <https://doi.org/10.30935/jdet/14039>
- Azevedo, N. P., Santos, P., & Sá, L. (2023). Gambling Disorder among Porto's University Students. *Healthcare*, 11, 2527. <https://doi.org/10.3390/healthcare11182527>
- Battersby, M. W., Thomas, L. J., Tolchard, B., & Esterman, A. (2002). The South Oaks Gambling Screen: a review with reference to Australian use. *Journal of Gambling Studies*, 18(3), 257–271. <https://doi.org/10.1023/a:1016895221871>
- Buchanan, T. W., McMullin, S. D., Baxley, C., & Weinstock, J. (2020). Stress and gambling. *Current Opinion in Behavioral Sciences*, 31, 8–12. <https://doi.org/10.1016/j.cobeha.2019.09.004>
- Calado, F., Alexandre, J., & Griffiths, M. D. (2020). Gambling among adolescents and emerging adults: A cross-cultural study between Portuguese and English youth. *International Journal of Mental Health and Addiction*, 18(3), 737–753. <https://doi.org/10.1007/s11469-018-9980-y>
- Chantal, Y., Vallerand, R. J., & Vallières, E. F. (1994). Construction et validation de l'Échelle de motivation relative aux jeux de hasard et d'argent. *Loisir & Société*, 17, 189–212.
- Dalan, S. K., Ringheim, T. E., & Richardsen, V. (2019). *Pathological gambling among university students – the impact of personality and subjective well-being*. Faculty of Health Science – Department of Psychology <https://munin.uit.no/bitstream/handle/10037/16910/thesis.pdf?sequence=2&isAllowed=y>
- Denčić, M. (2023). Štetne posledice problematičnog kockanja. *Zbornik Instituta za kriminološka i sociološka istraživanja*, 42(1), 41–62. <https://doi.org/10.47152/ziksi2023013>
- Ember, H. (2020). The Impact of Gambling on Students. *NOSR Experimental Sciences* 6(1), 57–61.
- Goodboy, K. A., Myers, A. S., Goldman, W. Z., & Borzea, D. (2022). Self-Determination in Marriage: Actor and Partner Effects of Spousal Autonomy on Relationship Maintenance Behaviors *Communication Reports*, 35(3), 148–159. <https://doi.org/10.1080/08934215.2022.2058039>
- Guay, F. (2021). Applying Self-Determination Theory to Education: Regulations Types, Psychological Needs, and Autonomy Supporting Behaviors. *Canadian Journal of School Psychology*, 37(1). <https://doi.org/10.1177/08295735211105355>

-
- Herchenroeder, L., Kracke-Bock, J., Rentia, S., & Dodge, T. (2024). Application of Self-Determination Theory to Substance Use and Its Treatment: A Scoping Review of the Literature. *Substance Use and Misuse*, 3–17. <https://doi.org/10.1080/10826084.2024.2352622>
 - Hossain, J. (2024). *Online Gambling: Exploring the Academic, Social, and Mental Health Consequences of Online Gambling among University Students in Bangladesh*. https://www.researchgate.net/publication/381791975_Online_Betting_Addiction_in_Higher_Education_Effects_on_Academic_and_Mental_Health
 - Jones, C., Bowles, C. H., Mayes, D., & Smith, H. (2022). Gambling among university sport students: a preliminary analysis. *AUC Kinanthropologica*, 58(2), 83–<https://doi.org/10.21101.14712/23366052.2022.6>
 - Oksanen, A., Sirola, A., Savolainen, I., & Kaakinen, M. (2019). Gambling patterns and associated risk and protective factors among Finnish young people. *Nordic Studies on Alcohol and Drugs*, 36(2), 161–176.
 - Jovanović, V. (2023). *Rezultati istraživanja ponašanja u vezi sa zdravljem dece školskog uzrasta u Republici Srbiji 2022. godine*. Institut za javno zdravlje Srbije „Dr Milan Jovanović Batut”. <https://www.batut.org.rs/download/publikacije/IstrazivanjeHBSC2022.pdf>
 - Kapukotuwa, S., Bonsu, L., Chatterjee, A., Fudolig, M., & Sharma M. (2023). Examining the Gambling Behavior of University Students: A Cross-Sectional Survey Applying the Multi-Theory Model (MTM) of Health Behavior Change in a Single Institution. *Healthcare*, 11(15), 2151. <https://doi.org/10.3390/healthcare11152151>.
 - Kilibarda, B., Mravčik, V., Sieroslavski, J., Gudelj Rakić, J., & Sebastian Martens, M. (2014). *Nacionalno istraživanje o stilovima života stanovništva Srbije 2014. godine*. Institut za javno zdravlje Srbije „Dr Milan Jovanović Batut” <https://www.batut.org.rs/download/publikacije/20140626IstrazivanjeStiloviZivotaS.pdf>
 - Kurilla, A., Hawley, C. E., Cathers, L., & Iwanaga, K. (2022). Can the Relationship Between Problem Gambling and Class Attendance of College Students Be Explained by Alcohol and Drug Use? A Brief Report. *Rehabilitation Counselors and Educators Journal*, 11(1), 1–11. <https://doi.org/10.52017/001c.36758>
 - Lesieur, H. R., & Blume, S. B. (1987). The South Oaks Gambling Screen (SOGS): a new instrument for the identification of pathological gamblers. *American Journal of Psychiatry*, 144, 1184–1188. <https://doi.org/10.1176/ajp.144.9.1184>
 - Lev Arey, D., Blatt, A., & Gutman, T. (2022). A Self-Determination Theory and Acceptance and Commitment Therapy-based intervention aimed at increasing adherence to physical activity. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.935702>
 - López-Del-Hoyo, Y., Monreal-Bartolomé, A., Aisa, P., Pérez-Aranda, A., Plana, C., Poblador, J. A., Casterad, J., García-Campayo, J., & Montero-Marin, J. (2022). The Gambling Habits of University Students in Aragon, Spain: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, 19(8), 4553. <https://doi.org/10.3390/ijerph19084553>
 - Mathieu, S., Barrault, S., Brunault, P., & Varesco, I. (2020). The role of gambling type on gambling motives, cognitive distortions, and gambling severity in gamblers recruited online. *PLoS ONE*, 15(10), Article e0238978. <https://doi.org/10.1371/journal.pone.0238978>
-

-
- Mills, D. J., Li Anthony, W., & Nower, L. (2021). General motivations, basic psychological needs, and problem gambling: Applying the framework of self-determination theory. *Addiction Research & Theory*, 29(2), 175–182. <https://doi.org/10.1080/16066359.2020.1787389>
 - Milošević, S., i Milošević, V. (2020). Kockanje kao kriminogeni faktor. *Zbornik Instituta za sociološka i kriminološka istraživanja*, 39 (2–3), 127–142. <https://doi.org/10.47152/zik-si2020238>
 - Mond, J., Skromanis, S., Purton, T., Cooling, N., Fan, F., Harris, K., Bridgman, H., Presser, J., & Rodgers, B. (2019). Gambling Behaviour, Problem Gambling and Reasons for Gambling Among International Students in Tasmania, Australia. *Journal Gambling Studies*, 35(1),155–170. <https://doi.org/10.1007/s10899-018-09819-8>
 - Moreira, D., Azeredo, A., & Dias, P. (2023). Risk Factors for Gambling Disorder: A Systematic Review. *Journal of Gambling Studies*, 39, 483–511. <https://doi.org/10.1007/s10899-023-10195>
 - Murphy, P. M., Murphy, R., & Roberts, A. (2024). Correlates of Problematic Gambling in Emerging Adult University Students in Ireland. *Journal of Gambling Studies*, 40(2), 17–34. <https://doi.org/10.1007/s10899-024-10323-5>
 - Nower, L., Anthony, W. L., & Stanmyre, F. J. (2022). The intergenerational transmission of gambling and other addictive behaviors: Implications of the mediating effects of cross-addiction frequency and problems. *Addictive Behaviors*, 135. <https://doi.org/10.1016/j.addbeh.2022.107460>
 - Nsereko, N. D., Kaggwa, M. M., Adebisi, T., Ssewanyana, D., Basa, V., Hussain, S., Kihumuro, R. B., Ssewante, N., & Bbosa, S. (2023). *Gambling Prevalence and Factors Associated with Gambling Participation among University Students in Uganda*. <https://www.qeios.com/read/QL6YC1.2>
 - Parrado Gonzalez, A., & Newall, P. W. S. (2023). Childhood use of coin pusher and crane grab machines, and adult gambling: A conceptual replication of Newall et al. (2021). *Journal of Behavioral Addictions*, 1–7. <https://doi.org/10.1556/2006.2022.00090>
 - Richards, D. K., Pearson, M. R., & Field, C. A. (2020). Profiles of motivations for responsible drinking among college students: A self-determination theory perspective. *Addict Behav.*, 111, 106550. <https://doi.org/10.1016/j.addbeh.2020.106550>
 - Rodriguez, L. M., Neighbors, C., Rinker, D. V., & Tackett, J. L. (2015). Motivational profiles of gambling behavior: Self-determination theory, gambling motives, and gambling behavior. *Journal of Gambling Studies*, 31(4), 1597–1615. <https://doi.org/10.1007/s10899-014-9497-7>
 - Ryan, R. M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology*, 61, Article 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
 - Scandroglio, F., Ferrazzi, G., Giacobazzi, A., Vinci, V., Marchi, M., Galeazzi, G. M., Musetti, A., & Pingani, L. (2022). Prevalence and Possible Predictors of Gambling Disorder in a Sample of Students in the Healthcare Professions. *International Journal Environmental Research and Public Health*, 20(1), <https://doi.org/10.3390/ijerph20010452>
-

-
- Tóth-Király, I., Vallerand, R. J., Bóthe, B., Rigó, A., & Orosz, G. (2019). Examining sexual motivation profiles and their correlates using latent profile analysis. *Personality and Individual Differences, 146*, 76–86. <https://doi.org/10.1016/j.paid.2019.04.002>
 - Vayisoğlu, K. S., Öncü, E., & Güven, Y. (2019). The Frequency of Gambling among University Students and Its Relationships to Their Sensation-Seeking Behaviors. *Addicta: The Turkish Journal on Addictions, 63–69*.
 - Vuorinen, I., Savolainen, I., Hagfors, H., & Oksanen, A. (2022). Basic psychological needs in gambling and gaming problems. *Addictive Behaviors Reports, 16*, 1–7. <https://doi.org/10.1016/j.abrep.2022.100445>
 - Wang, C., Cunningham-Erdogdu, P., Steers, M. N., Weinstein, A. P., & Neighbors, C. (2020). Stressful life events and gambling: The roles of coping and impulsivity among college students. *Addictive Behaviors, 107*. <https://doi.org/10.1016/j.addbeh.2020.106386>
 - Wong, I. L. K., So, E. M. T., & Chu, C. H. (2022). Gambling behaviour among Hong Kong college and university students. *International Journal of Mental Health & Addiction, 1–10*. <https://doi.org/10.1007/s11469-021-00512-3>
 - Young Gamers and Gamblers Education Trust (2021). *New survey shows students use borrowed money to gamble*. <https://www.ygam.org/new-survey-shows-students-useborrowed-money-to-gamble>
 - *Zakon o igrama na sreću Republike Srbije* (2020). Službeni glasnik Republike Srbije, br. 18. https://www.paragraf.rs/propisi/zakon_o_igrama_na_srecu.html
 - Zolkwer, M. B., Dighton, G., Singer, B. F., & Dymond, S. (2022). Gambling Problems among Students Attending University in the United Kingdom: Associations with Gender, Financial Hardship and Year of Study. *Journal of Gambling Issues, 40(5)*, 2211–2220. <https://doi.org/10.1007/s12144-019-0145-3>