

EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal Volume: 10| Issue: 7| July 2024|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

RELATIONSHIP BETWEEN SUBSTANCE ABUSE COUNSELING AND BEHAVIOURAL ADJUSTMENTS AMONG UNIVERSITY STUDENTS IN UASIN GISHU COUNTY, KENYA

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Article DOI: https://doi.org/10.36713/epra17677

DOI No: 10.36713/epra17677

ABSTRACT

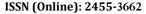
The study aimed at investigating the relationship between substance abuse counseling and behavioural adjustments among university students in Uasin Gishu County. The study was anchored on Social Learning Theory by Albert Bandura (Bandura, 1977). The study used mixed method and phenomenological design. The target population comprised of 85,000students and 10 counselors drawn from six universities in Uasin Gishu County. Simple random sampling was used to draw a sample of 323 students while purposive sampling was used to select four counselors and three universities. This study used questionnaires and in-depth interviews guide to collect data. Qualitative data were transcribed and analyzed through themes derived from the research questions. Quantitative data was analyzed using SPSS version 26.0 and presented into frequencies, percentages, mean and standard deviations. To test the hypotheses, the researcher used ANOVA to determine whether there is a relationship that exists between the variables. From the findings it was established that substance abuse counseling (F (21, 178) =3.089, p=0.00) significantly influenced behavioural adjustments of students. The findings of the study may be useful to the community, institutions of higher learning and the society. The study recommended that there was need for dedicated efforts aimed at assessing the types of psychological counseling interventions available, their accessibility, and the level of awareness among students in Uasin Gishu County universities.

KEY WORDS: Substance abuse counseling, behavioural adjustments, psychological counseling interventions, phenomenological design

INTRODUCTION

The need to investigate psychological counseling interventions on behavioural adjustments in this study has been necessitated by a significant increase of psychological problems among students in universities (Commission of University Education, 2023). Throughout the year's human beings have found comfort in sharing their problems or telling their story to others. The application of psychological counseling surrounds a range of culturally-sensitive practices that help people improve their well-being, cause relieve to distress and maladjustment, resolve crises, and enhance their ability to function better in their lives (APA, 2024). Psychological intervention is defined as a relationship aimed at promoting a better adaptation of the individual to a given situation and thereby optimizing his or her personal resources in relation to autonomy, self-knowledge and self-help. In other words, psychological intervention aims to produce a personal change leading to higher functional results. In the context of primary health care, psychological intervention is characterized by a set of competencies that involve those related to the individual intervention as well as those related to the areas of health promotion and disease prevention, long-term care, humanization, quality, research and training (Ricou et al., 2019).

In the United States of America, the rate of substance abuse rose among those aged 18 to 25 years, with many of them being new users (McCance-Katz, 2017). In Africa studies conducted in universities in Nigeria, Uganda, Ethiopia and South Africa have found that the prevalence of alcohol and substance use ranged between 27.5% and 62%. The prevalence of substance use among undergraduate students in one university in Nigeria was reported at 27.5%. The United Nations Office on Drugs and Crimes (UNODC) 2018 report on substance use in Nigeria put the overall past-year prevalence at 14.3 million (14.4%) (Nwanna, et al., 2018). While use is reported across all age groups, the highest use was among the 25 to 39-year-olds and cannabis was the most used substance, with an average initiation age of 19 years; amphetamines and ecstasy use among young people was also reported. Prescription opioids, mostly tramadol, morphine, and codeine, were also in high use; others included alcohol and tobacco use (World Drug Report, 2018). Substance abuse counseling interventions in this study focused on uplifting low self-esteem, changing recreational activities, financial independence and positive self-concept. The current study addressed the challenges as experienced among university students. The findings highlight the crucial role that psychological counseling interventions play in helping university students manage the challenges they encounter.





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The high prevalence rate of such behaviours among Iranian students has also been reported. A study conducted in 2017 among Iranian university students showed that among all 13.5% smoked cigarette, 7.8% drank alcohol, 4.9% had drug abuse and 7.8% had unprotected sex (Zamanian et al., 2018). These results indicate the greater need for preventive interventions of risky behaviours among students in universities through psychological counseling services. The study therefore responds to this need of preventive interventions through psychological counseling.

Studies have indeed shown rising levels of anxiety and depression amongst students in universities compared to preuniversity (Barrable, et al., 2018). Students engage in risky health-related behaviours that influence their current and future health status. Patterns of multiple health risk behaviour among university students and the association with mental health highrisk students reported significantly higher levels of stress than typical students (Murphy et al., 2019). Another study on students' aggression and its relevance to personal, family and social factors by Mahmood and Kakamad (2018) indicated that aggression for in-dorm students was higher than those students who lived out of dorm. These findings justify that students usually live in stressful conditions and far from their home. There was a significant variation noted in students' anti-social behaviour due to school related challenges as revealed by a study on the causes of students' antisocial behaviour (Khaliq & Rasool, 2020). Substance use, abuse and risky sexual behaviour and its consequences among students showed that substance use and consequently abuse among students is moderately high and there is a potential for this vice increasing further (Mangeni & Mbuthia, 2018).

The prevalence rate of some risky behaviours is reported to be high among university students who constitute a large part of the young population (Shekari et al., 2020). In order to prevent the adverse consequences and impairments associated with antisocial behaviour, targeted prevention and early intervention strategies for children and adolescents under risk are required. Understanding the factors related to the development of antisocial behaviour can help to inform experts planning prevention and intervention (Otto et al., 2021). This necessitates carrying out research to identify methods of aiding university students in overcoming these problems, in order to accomplish their academic goals for the collective benefit of everyone. Due to the enduring adverse effects, the study of risktaking behaviour and other forms of anti-social behaviour has emerged as a significant area of research concerning young people. Universities have witnessed violent protests and destruction of property including those of the community, risky sexual behaviour that has ended in many female students becoming pregnant and careless drinking by students in the villages surrounding the universities, suicide, murder and academic stress (Kaggwa et al, 2022). All these types of behaviours have been of concern to parents, lecturers, counselors, the Ministry of Education and other stakeholders. Similarly, another study in Iran indicated that, risky behaviours

is reported to be high among universities who constitute a large part of the young population.

Substance abuse among students in universities in Kenya is currently a major public health concern (Mangeni & Mbuthia, 2018). Drugs such as tobacco and alcohol are now widely and easily available in the universities. Students in universities therefore form the main locus of substance abuse, with more than 40% of students already affected. Research in Kenya indicated that 84% of students in the universities are in involved in drugs (NACADA, 2012). There are chains of shocking youth-related crime often provoking ugly thoughts about the state of young people.

Studies carried out in Uasin Gishu County demonstrated that the prevalence of substance use and other risky behaviours among college and university students in Eldoret is high and causes significant physical and psychosocial problems in this population. A large proportion of those using alcohol reported serious adverse effects, raising the necessity of targeted interventions to reduce the risk of subsequent substance dependence and other deleterious consequences (NACADA, 2021). Hence, this research was necessary to elucidate the difficulties encountered by university students in Uasin Gishu County. The high levels of stress experienced by students as a result of the demanding nature of their It is against this backdrop, that the current study was conducted to explore the influence of psychological counseling interventions on behavioural adjustments among university students in Uasin Gishu County.

OBJECTIVE

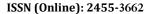
To establish the relationship between substance abuse counseling and behavioural adjustments among university students in Uasin Gishu County.

RESEARCH HYPOTHESIS

There is no significant relationship between substance abuse counseling and behavioural adjustments among university students in Uasin Gishu County.

METHODOLOGY

Mixed method design was used by the researcher to triangulate the methods by directly comparing and contrasting quantitative statistical results with qualitative findings for corroboration and validation purposes. In the study, the two phases (quantitative and qualitative) allowed for collection of data from students and counselors. Secondly, mixed methods were used in order to complement, seek elaboration, illustrate and enhance results from one component with another in order to extend the breadth of findings. In the quantitative strand, cross-sectional survey design was adopted for this study. In the qualitative strand, a phenomenological design was used in the study to describe and interpret the experiences of participants with the aim of understanding the experiences as perceived by the respondents (Creswell, 2011). The study was carried out in Uasin Gishu County. The study population comprised of 85,000 students, 6 universities and 10 counselors. Purposive sampling was chosen





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for the selection of four counselors spreading across three selected universities in Uasin Gishu County. The researcher adopted simple random sampling procedure to select the students from the sampled public and private universities. The sample size was determined using the fisher formula. The following sample size formula for infinite population is used to arrive at a representative number of respondents (Godden, 2004):

$$SS = \frac{Z^2 \times p (1-p)}{M^2}$$

Where:

SS= Sample Size for infinite population (more than 50,000)

Z = Z value (e.g. 1.96 for 95% confidence level)

P = population proportion (expressed as decimal) (assumed to be 0.3 (30%) since this would provide the maximum sample size).

M = Margin of Error at 5% (0.05)

After substitution, n = 323

The study employed questionnaires for students and in-depth interview guide for counselors. The data was analyzed using both qualitative and quantitative data analysis processes. Qualitative data was transcribed and analyzed through themes, for quantitative data analysis. Data was presented by use of tables. The researcher also employed inferential statistics in analyzing quantitative data. Analysis of variance (ANOVA) was used to test the hypotheses. The type of relationship between independent and dependent variables was determined by running scatter plots to determine whether the relationship was linear or non-linear. Specifically, the researcher was interested in establishing whether substance abuse counseling had any relationship with behavioural adjustments among students.

RESULTS AND DISCUSSION

The participants were requested to indicate the frequency at which they have partaken in the intake of substances that exceed the permitted limits for legitimate medical use. The responses were determined on a 5- point Likert rating scale as follows: 5- Always, 4- Often, 3- Sometimes, 2- Once and 1-Never. The results are reported in Table 1.

Table 1

Substance Abuse Counseling a	(n-200)						
Statements	Never	Once	Several Times	Often	Always	Mean	SD
I have stopped using drugs other than those required for medical reasons after counseling	8 (4.0%)	9 (4.5%)	118 (59%)	42 (21.0%)	23 (11.5%)	1.34	0.83
I stopped smoking after counseling	4 (2.0%)	164 (82.0%)	3 (1.5%0	16 (8.0%)	13 (6.5%)	1.36	0.88
I avoided the use of illicit drugs after counseling	4 (2.0%)	165 (82.5%)	5 (2.5%)	11 (5.5%)	15 (7.5%)	1.20	0.70
I stopped engaging in illegal activities in order to obtain drug	3 (1.5%)	180 (90.0%)	3 (1.5%)	9 (4.5%)	5 (2.5%)	1.18	0.67
Following counseling for substance use, I have not experienced medical complications such as memory loss, hepatitis, convulsions, or bleeding.	3 (1.5%)	91 (182%)	3 (1.5%)	9 (4.5%0	3 (1.5%)	1.25	0.79
I have successfully navigated through the withdrawal symptoms associated with cessation from heavy drug use or alcohol consumption.	5 (2.5%)	176 (88.0%)	3 (1.5%)	11 (5.5%)	5 (2.5%)	1.20	0.62
After counseling I stopped receiving treatment as an outpatient for problems related to drug abuse.	2 (1.0%)	176 (88.0%)	2 (1.0%)	15 (7.5%)	5 (2.5%)	1.36	0.87
Following counseling, you have not lost friends due to drug use.	5 (2.5%)	160 (80.0%)	5 (2.5%)	23 (11.5%)	7 (3.5%	1.68	1.21
Following counseling, I no longer feel bad about your past drug abuse.	5 (2.5%)	172 (86.0%)	3 (1.5%)	14 (7.0%)	6 (3.0%)	1.28	0.81
1 have sought help for a drug problem from someone.	2 (1.0%)	176 (88.0%)	2 (1.0%)	14 (7.0%)	6 (3.0%)	1.19	0.62
1 have participated in a treatment program specifically for drug use.	176 (88.0%)	14 (7.0%)	5 (2.5%)	3 (1.5%)	2 (1.0%)	1.21	0.65

Results on if the students have stopped using substances other than those required for medical reason after counseling 118 (59%), reported to oftenly used non-medical drugs indicating

that most university students partake drug for non-medical motives on a regular basis. Multiple research investigations have elucidated the influence of substance use on the



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behavioural adaptations, scholastic achievements, and general welfare of college students. The utilization of substances has been found to be correlated with a heightened likelihood of experiencing academic underachievement, mental health challenges, and interpersonal challenges (Arria et al., 2018). In contrast, previous studies have demonstrated the efficacy of psychological counseling interventions in mitigating substance misuse and fostering favorable behavioural modifications within the university student population.

Majority of the university students (82.5%) students stated refraining from the consumption of illegal substances show that university students do not partake in frequent use of illicit substances. However, the use of illegal substances, regardless of the degree, can have substantial consequences on the physical health, academic performance, and behavioural adjustments of kids. In line with the study results for the negative consequences of illicit drug use on the physical health, mental well-being, and academic achievement of those enrolled in higher education institutions Arria (2018); (Pedersen et al., 2017).

The results show that most of the students 180 students (90.0%), reported refraining from engaging in those unlawful activities to obtain drugs is not widespread positive association between involvement in illicit behaviours for obtaining drugs and the presence of more serious substance use disorders and legal ramifications Salom et al., (2019). Regarding whether students stopped having medical problems as a result of substance use counseling (e.g., memory loss, hepatitis, convulsions, bleeding, etc.), a total of 182 (91%) of the sample, said that they had no prior experience of substance-related medical difficulties. The results agree with previous research which shows potential association between substance use and various medical conditions, including cognitive impairments, hepatic disorders such as hepatitis, seizures, and other detrimental health outcomes, which contradicts the findings of the aforementioned studies El-Gabalawy et al. (2016); (Hasin et al., 2018).

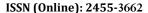
Participants were requested to indicate the frequency with which they had encountered withdrawal symptoms, encompassing both bodily and psychological distress, during their attempts to decrease or cease the consumption of drugs or alcohol. A total of 176 students (88.0%), said that they had not encountered any withdrawal symptoms, 11 students, accounting for 5.5% of the sample, indicated that they had encountered withdrawal symptoms on a single occasion. Moreover, 5 (2.5%) had withdrawal symptoms multiple times, 2.5% of university students acknowledged frequently having withdrawal symptoms due to excessive drug or alcohol consumption. The results suggest that university students in Uasin Gishu County do not frequently encounter withdrawal symptoms as a consequence of excessive drug or alcohol consumption. Nevertheless, the presence of even a limited cohort of adolescents exhibiting withdrawal symptoms is a subject of apprehension, since it could potentially signify problematic substance abuse involving drugs or alcohol.

Previous research has demonstrated the effectiveness of counseling therapies that prioritize motivational enhancement, coping skills training, and relapse prevention in managing substance dependency and withdrawal symptoms among university students (Magill et al., 2014).

Students requiring treatment as outpatient for problems related to drug abuse after counseling was also reviewed with 176 (88.0%), stating that they had not had outpatient therapy for drug-related concerns. Furthermore, 15 (7.5%) indicated that they had received outpatient treatment on a single occasion, whereas 5 (2.5%) reported having had outpatient treatment multiple times. According to the data, less than 1.0% of university students reported receiving outpatient treatment for drug usage on a frequent basis, as shown by the responses of the participants. Previous research has demonstrated that counseling interventions incorporating psychological training and support for treatment-seeking have yielded favorable outcomes in terms of promoting help-seeking behaviours among individuals grappling with substance misuse problems (Kelly et al., 2017).

The question on loss of friends because of use of drugs after counseling, a prevailing majority160 (80.0%) had not experienced the loss of friendships as a consequence of their Twenty-three (11.5%) indicated drug consumption. experiencing the loss of friends on a single occasion, 7 (3.5%) of the sample, encountering many instances of losing friends, 5 (2.5%), reported experiencing a frequent or consistent loss of friendships as a result of their engagement in drug consumption. The social well-being of university students may be adversely affected by the loss of friendships resulting from drug usage. Experiencing isolation, loneliness, and diminished social support can have negative implications for individuals' behavioural adaptations and psychological welfare. Numerous studies have provided evidence indicating that the misuse of substances can result in the deterioration of interpersonal connections, including the dissolution of friendships (Lövdén et al., 2020). Individuals who encounter these social repercussions may face an increased likelihood of experiencing supplementary behavioural and emotional difficulties. Counseling therapies that target the enhancement of social skills and the provision of peer support have exhibited potential in ameliorating the negative consequences of substance abuse on interpersonal connections and behavioural adaptations Dager et al., (2014); (Wills et al., 2017).

Following counseling, students no longer felt bad about past drug abuse 139 (69.5%) stated that they never feel bad about their drug use, 21 (10.5%) reported feeling bad once, 19(9.5%) stated they feel bad several times. Only a few students 7 (3.5%) reported feeling bad about their drug abuse often while a small percentage 14 (7.0%) of university students conveyed that they felt bad about their drug abuse always. Addressing emotional regulation and individual differences in emotional experiences can be essential components of counseling interventions aiming to influence behavioural adjustments and reduce substance abuse among university students. By recognizing the emotional





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impact of drug abuse, counseling programs can offer tailored support and foster positive change towards healthier behaviours. From the interviews conducted in particular, Counselor 3 stated:

Right now, I have two students who we discovered using drugs, one of them has been referred to another psychiatrist because it was an extreme case that I could not handle. Even though he is highly resistive, I'm working carefully with the second one and seeing some progress.

All the three counselors reported drug abuse. Counselor 1 stated that there were instances of drug use among students. Suicidal thoughts and mood swings were reported by the three counselors:

Low self-esteem, eating disorder symptoms, and phobia were also mentioned as problems. For example, one student was skipping meals. When it was brought to my attention and I sat down with him to chat, he stated he was not going to pick food since the queue for food was so long, according to counselor 1. I have noticed certain students displaying eating disorder signs.

The results of this study are consistent with the WHO report from 2020, which placed suicide as the third leading cause of mortality among the youth worldwide. According to a study done in Germany by Schulte-Körne(2016), students who attend university also encounter some mental health issues. The results of the current investigation are supported by these two studies. Regarding students seeking counseling for a drug-related issue

Table 14 portrays that majority of the students 172 (86.0%) indicated that they had never sought assistance for a drugrelated issue, 14 (7.0%), reported seeking treatment for such a problem on a single occasion. Six (3.0%) had actively sought assistance for a drug-related issue on multiple occasions, five (2.5%) of university students said that they consistently sought assistance for a drug-related issue, as denoted by the response option "Always." A minute fraction of the participants, specifically 3 (1.5%), indicated that they frequently sought assistance. The research indicates that a significant proportion of university students exhibit a lack of proactive behaviour in seeking assistance for their drug-related issues, hence implying the presence of potential obstacles to engaging in help-seeking behaviours. The scholarly literature emphasizes the significance of early intervention and the reduction of barriers to seeking help in the context of substance misuse treatment (Maclean &Saloner, 2019). Lastly, finding on whether the students have ever been involved in a treatment program specifically related to drug use, majority of them 176 (88.0%) have never been involved in a treatment program related to drug use. This indicates that a significant proportion of the surveyed individuals have not encountered the need for or sought out such programs. The high percentage of respondents who have never been involved in drug-related treatment programs suggests that preventive measures, education, and awareness campaigns may be having a positive impact in reducing the need for formal treatment among the majority of the surveyed population.

ANOVA test was used to test the significance of this relationship at 0.05, significance level as recorded in Table 2.

Table 2. Analysis of Variance on the Influence of Substance Abuse Counseling on Behavioural Adjustments

	Sum of Squares	df	Mean Square	\mathbf{F}	Sig.
Between Groups	8722.126	21	415.339	3.089	.000
Within Groups	23934.594	178	134.464		
Total	32656.720	199			

a. Dependent Variable: Behavioural Adjustment

b. Predictors: (Constant), Substance Abuse Counseling

The Analysis of Variance (ANOVA) examining the impact of substance abuse counseling on behavioural adjustments evident. The calculated F-statistic of 3.089, along with a p-value of 0.000 (which is less than the usual 0.05), leads us to reject the idea that substance abuse counseling has no effect on behavioural adjustments (F (21, 178) = 3.089, p < .05). In simpler

terms, it means that substance abuse counseling significantly influences how behaviours change.

The study used scatter plot too to support the study finding that substance abuse affects students' behavioural adjustments is as shown in Figure 1.

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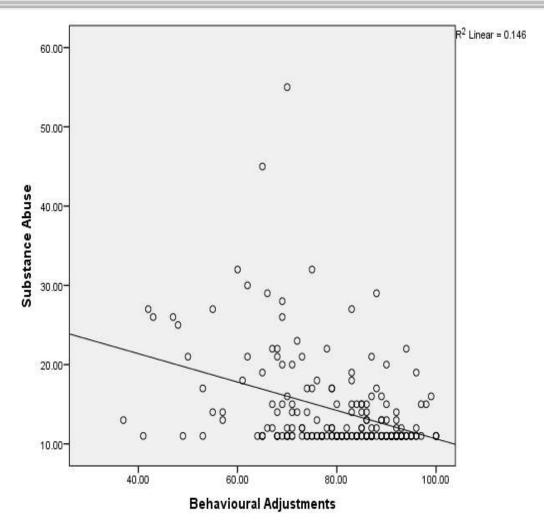


Figure 1. Scatter Graph for Correlation between Substance Abuse Counseling on Behavioural Adjustment

Figure 1 demonstrates a coefficient of determination of 0.146, suggesting a limited degree of shared variation between substance use counseling and behavioural adjustments among university students. There is limited correlation between substance abuse counseling among students and behavioural adaptations. The coefficient of determination of 0.146 indicates that approximately 0.14% of the variability in the two sets of scores can be attributed to shared variance, while the remaining 99.86% of the variability is attributable to independent variance. This suggests that factors other than substance abuse are primarily responsible for the observed changes in behaviour.

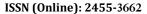
CONCLUSION

In conclusion, most students abused substances because of their availability, access and peer influence. The study recommends that Universities should enforce strict rules on alcohol and drug abuse by requiring all social events during orientation of first years to be alcohol free. Disseminate responsible host guidelines for both on and off-campus parties, install a responsible beverage service program, eliminate residence hall delivery of alcohol purchases, and advertise food and activities, such as dancing or sports, rather than drinking as the focus of

the event. This study suggests that future studies should be carried out to assess the effectiveness of different counseling methods, including cognitive-behavioural therapy (CBT), mindfulness-based interventions, group therapy, and online counseling, in enhancing behavioural adjustments among university students.

REFERENCES

- 1. Arria A. M., Geisner, I, M., Jason, I. R. Kilmer, J. R., Caldeira, K. Barrall, A et al., (2018). Perceived academic benefit is associated with nonmedical prescription stimulant use among college students. Addict Behaviours 27-33.
- Ayele A. (2018). Assessing Major Adjustment Problems of First Year Students in Ethiopia, Wolaita Sodo University. American Journal of Educational Research. 2018, 6(9), 1326-1332.
- 3. Barrable, A., Papadatou-Pastou, M. & Tzotzoli, P. (2018). Supporting mental health, wellbeing and study skills in Higher Education: an online intervention system. Int J Ment Health Syst 12, 54 (2018). https://doi.org/10.1186/s13033-018-0233-z
- Commission of University Education (2023). Universities Regulations 2023. Retrieved





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- fromhttps://www.cue.or.ke/index.phpoption=com_phocado wnload&view=category&id=71:amended-universitiesregulations-2019&Itemid=494
- Kaggwa, M. & Muwanguzi, M., Najjuka, S., Elicana, N., Kajjimu, J., Mamunid, M., Arinaitwe, I., Ashaba, S., & Griffiths, M. (2022). Risky sexual behaviours among Ugandan university students: A pilot study exploring the role of adverse childhood experiences, substance use history, and family environment. PLoS ONE. 17. e0277129. doi:10.1371/journal.pone.0277129.
- 6. Khaliq, A., & Rasool, S. (2020). Causes of Students' Antisocial Behavior at Secondary Level Schools. The Spark, Vol. 4 (2019).
- 7. Mahmood D & Kakamad, K. K. (2018). Measuring Aggression Among University Students: A Comparative Study Between Garmian University and Soran University Students. Journal of Garmian University https://doi.org/10.24271/garmian.385.
- Magill, M., Ray, L., Kiluk, B., Hoadley, A., Bernstein, M., Tonigan, J. S., & Carroll, K. (2019). A meta-analysis of cognitive-behavioral therapy for alcohol or other drug use disorders: Treatment efficacy by contrast condition. Journal of Consult Clin Psychol. 2019 Dec;87(12):1093-1105. doi: 10.1037/ccp0000447.
- 9. Mangeni, J. N. & Mbuthia, G. W. (2018). Substance Use, Abuse and Risky Sexual Behaviour among Students Studying Health Related Courses In A Tertiary Institution In Western Kenya. . East African Medical Journal. Vol. 95. No. 3.
- 10. Mendo-Lázaro, S., León-Del-Barco, B., Polo-Del-Río, M. I., & López-Ramos, V. M.(2022). The Impact of Cooperative Learning on University Students' Academic Goals. Front Psychol. 2022 Jan 5;12:787210.
- 11. McCance-Katz E. F. (2017). The National Survey on Drug Use and Health: 2017 National Survey on Drug Use and Health (NSDUH). SAMHSA Subst Abus Ment Heal Serv Adm. 2017:53.
- 12. Murphy, J. J., MacDonncha, C. Murphy, M. H., & Murphy, N. (2019). Identification of health related behavioral clusters and their association with demographics characteristics in Irish university Students. BMC Public Health 2019, Jan 28/; 19 (1): 121.
- 13. National Authority for the Campaign Against Alcohol, & Drug Abuse (Kenya). (2012). Rapid Situation Assessment of the Status of Drug and Substance Abuse in Kenya, 2012. National Authority for the Campaign Against Alcohol and Drug Abuse.
- 14. National Campaign against Alcohol and Drug Abuse (2021). National Guidelines for Alcohol and Substance Use Prevention and Management in Basic Education Institutions, 2021 National Campaign against Alcohol and Drug Abuse.
- 15. Nwanna, U.K, Sulayman A.A, Oluwole I, Kolawole A.K, Komuhang G, & Lawoko S. (2018). Prevalence & Risk Factors for Substance Abuse among University Students in Kampala, Uganda. Int J Med Res Public Heal (IJMRPH. 2018;1(2):1–13.
- 16. Otto, C., Kaman, A., Erhart, M., & Barkmann, C. (2021). Risk and resource factors of antisocial behaviour in children and adolescents: results of the longitudinal Bella study. Child Adolesc Psychiatry Ment Health. doi:10.1186/s13034-021-00412-3.

- 17. Pedersen M. T., Vorup, J. Nistrup A. & Wilkam, J. (2017). Effect of team sports and resistance training on physical function, quality of life, and motivation in older adults. Scand J Med Sci Sports., 852-864.
- Ricou, M. Marina, S., Veira, P. M. Duarte, I.,& Sampaio, I. (2019). Psychological intervention at a primary health care center: predictors of success. Bmc Fam Pract 20, 2019, Aug 17: 20 (1):116. doi:https://doi.org/10.1186/s12875-019-1005-9.
- 19. Salom, C. L., Williams, G. M., Najman, J. M., & Alati, R. (2019). Substance use and mental health disorders are linked to different forms of intimate partner violence victimisation. Drug Alcohol Depend. 2019 Jun 1;151:121-7.
- 20. Schulte-Körne, G. (2016). Mental Health Problems in a School Setting in Children and Adolescents. Dtsch Arztebl Int. 2016, Mar 113 (11); 183-190
- 21. Shekari, F, Habibi, P. Nadrian, H. & Mohammadpoorasl, A. (2020). Health-risk behaviors among Iranian university students, 2019: a web-based survey. Arch Public Health. 78, 131 (2020) doi:10.1186/s13690-020-00514-y.
- 22. Wang, K. (2022). The Yin-Yang Definition Model of Mental Health: The Mental Health Definition in Chinese Culture. Conceptual Analysis article. Front. Psychol., 23 March 2022, Volume 13 2022
- 23. Zamanian, H. Poorolajal, J. & Taheri-Kharameh, Z. (2018). Relationship between stress coping strategies, psychological distress, and quality of life among hemodialysis patients. Perspect Psychiatr Care. 2018 Jul;54(3):410-415.