Journal of Advanced Research and Multidisciplinary Studies
Volume 3, Issue 1, 2023 (pp. 48-59)
www.abjournals.org

THE RELATIONSHIP BETWEEN PEER INFLUENCE AND ALCOHOL USE AMONG SCHOOL-GOING ADOLESCENTS IN KASESE MUNICIPALITY, UGANDA

Priscilla Musomboli[1], Novatus Nyemara[2]* and Stephen Nzamuhiki[1]

[1]Faculty of Public Health and Nursing Science, Bishop Stuart University, P.O Box 9, Mbarara, Uganda

[2]Faculty of Medicine, Mbarara University of Science and Technology, P.O Box 1410, Mbarara, Uganda

*Corresponding author e-mail; nnyemara@must.ac.ug

Cite this article:

Priscilla M., Novatus N., Stephen N. (2023), The Relationship Between Peer Influence and Alcohol Use Among School-Going Adolescents in Kasese Municipality, Uganda. Journal of Advanced Research and Multidisciplinary Studies 1(3), 48-59. DOI: 10.52589/JARMS-5PBHJ1XE

Manuscript History

Received: 6 Jan 2023

Accepted: 27 Jan 2023

Published: 15 March 2023

ABSTRACT: *Peer influence is a major contributing factor to the upsurge in risky alcohol behaviors among school-going adolescents. This trend has become a public health concern in many parts of the world. Debate continues as to whether peer influence, age, gender, and religion predict alcohol use in this adolescent group. The purpose of the study was to establish the relationship between peer influence and alcohol use among school-going adolescents in Kasese Municipality. Two -structured questionnaires; the Peer Inventory Tool (PPI) and the Alcohol Use Disorders Identification Test (AUDIT) were used to obtain information from 233 adolescents. Adolescents aged 12-19 years, were randomly sampled from 10 secondary schools. Results indicated that 35.6% were hazardous drinkers, 10.7% were harmful drinkers, and 5.2% were dependent drinkers. Pearson correlation analysis confirmed a weak positive correlation (r=0.18) between age and alcohol use among school-going adolescents. A positive peer influence was established between adolescents and their peers and friends (PPI score of 12.18, on a scaled range of -66 to +66). The Chi-square test confirmed that there was no association between religion (p>0.05) or gender (p>0.05), and alcohol use among school-going adolescents. The results provide outcomes that can be used to promote positive peer relationships among school-going adolescents and policy regulation of alcohol use and abuse in schools.*

KEYWORDS: Peer influence, Alcohol use, Prevalence, Kasese Municipality

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

INTRODUTION

Alcohol consumption is the leading contributor to the disease burden of low-mortality developing countries and the third largest risk factor in developed countries (WHO, 2004). Poor performance at school, relational problems, unwanted sexual experiences or unprotected sex, delinquency, accidents and injuries are acknowledged consequences of alcohol consumption in adolescence (WHO, 2001). Adolescence is a critical stage in the life course and can be considered the most transformative period in the life of any individual (Wood et al., 2018). Alcohol use among adolescents is a public health concern and has been studied extensively in many parts of the world (NACADA, 2012). Several studies from other countries reported that teenagers were found to be involved in substance use at an early age, approximately between 11 and 14 years (Alhyas et al., 2015; Mutiso et al., 2021; Ogundipe et al., 2018). Peer influence is emotional or mental influence from people belonging to the same social group (such as age, grade or status) to act or behave in a manner similar to themselves (Weinfied, 2010). It is when individuals of a similar group persuade you to do something or refrain from doing something (Ryan, 2000). Therefore, peers can also have a negative influence. They can encourage each other to skip classes, steal, cheat, use drugs or alcohol, or become involved in other risky behaviors.

It has been noted that the majority of adolescents with substance abuse problems began using drugs or alcohol as a result of peer influence (Hartney, 2011). Peers can exert extraordinary influence over each other in the formation of certain behaviors, among which is alcohol consumption (Yeh, 2006). Alcohol consumption continues to be one of the most common risk behaviors engaged in by adolescents and young adults (Arata et al., 2003) and it is one of the common habits among peer groups that cause psychological and social problems.

In Africa, drug use among students is a major public health concern (Dada et al., 2012) with statistics showing that 49.6% of school-going youths used alcohol, followed by cannabis (12.8%), heroin (11.2%), cocaine (6.4%) and mandrax (6%). In Kenya, alcohol and drug abuse has been a serious public health issue to the extent that the Senate wanted alcohol and drug abuse declared a national disaster (Reddy et al., 2010). Rukundo et al. (2017) found that, in Uganda, alcohol consumption among students is on the increase and becoming a major point of concern. They discovered that students are mostly influenced to start consuming alcohol by their friends, and this may have devastating effects on these school-going children (Rukundo et al., 2017). Abbo (2016) found a significant relationship between alcohol use and peer influence. However, most of these studies were conducted in central Uganda, particularly Kampala. This leaves a knowledge gap in Uganda's upcountry areas with different settings. In light of the above, this study sought to establish the influence of peer influence on alcohol use among school-going adolescents with a special focus on Kasese Municipality.

MATERIALS AND METHODS

Study Area

The study was done in Kasese Municipality in Western Uganda. Kasese is approximately 345 kilometers (214 miles) by road, west of Kampala, Uganda's capital city. It lies between latitudes 12° South and 26° North and longitudes 29.42° East and 30.18° East and bordered by Bundibugyo district in the North, Bunyangabo in the East, Kamwenge in the South East,

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

Rubirizi in the South, and the Democratic Republic of Congo in the West. Kasese district has a land surface area of 3,389.8 sq km, with a population density of 183 people per sq km. According to UBOS (2019), the district has a population estimate of 785,557 (48.3% are males and 51.7% are females). There are 21 sub-counties, 130 parishes, and 773 villages in the district. With a population of 101,679, the municipality has 10 secondary schools including government-aided and private schools (KDLG, 2022).

Participants

The sample population of this study was 233 school-going adolescents aged 12–19. The study also targeted school counselors as Key Informants (KIs) with in-depth information regarding the nexus between peer relations and alcohol use among these school-going adolescents.

Sampling Technique

Saunders, Lewis, and Thornhill's (2003) method of sample size determination was adopted. This was expressed as

$$n=\frac{pqz^2}{e^2}$$

n = Minimum sample size

p = Population proportion with a given characteristic

z = Standard normal deviation at a given confidence level

e = Error margin

At a confidence interval of 95%.

Procedure

Institutional review board approval was sought from Mbarara University of science and technology review committee. Non probability sampling—specifically simple random sampling—was used to select the respondents. Adolescents who were found at school and consented to the study were recruited. Children below 18 years (consenting age) were assented to by their teachers since they are considered custodians of children while at school. Participants were recruited regardless of their gender, ethnicity, education status, or religion. Participants were assured of confidentiality whereby data collected was kept under lock and was not accessible by anyone who was not part of the study. Interviews were conducted in a private place that was not easily accessible by anyone to avoid interruption during the interviews.

Instruments

To measure peer relations, the Peer influence Inventory (PPI) was used and as adopted from Clasen and Brown (Clasen & Brown, 1985). The PPI is a 22-paired item describing how peers influence one another in their social lifestyle. Coding was as follows: -3 = 0, -2 = 1, -1 = 2, 0 = 3, +1 = 4, +2 = 5, +3 = 6. The potential total score range was from -66 to +66. Negative influence ranged from -66 to -5. Low influence ranged from -4 to +4, and positive influence

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

ranged from +5 to +66. High positive scores implied positive peer influence on the school-going adolescents. High negative scores implied negative peer influence on school-going adolescents. The AUDIT was used to measure alcohol use. This is a 10-item list of questions that have been widely used to screen for risky drinking, alcohol use and alcohol dependence. Questions 1–8 were scored from 0 to 4, and questions 9 and 10 were scored 0, 2 or 4, resulting in a maximum AUDIT score of 40. Scores are commonly split into the following categories: no risk (0), low-risk (1–7), hazardous drinking (8–15), harmful drinking (16–19), and dependent drinking (20–40) data.

Quality Control

A pilot test was carried out on 20 adolescents from two other secondary schools outside the study area to ensure that instruments were suitable to be used in the study.

Validity

The researcher used the expert judgment of her supervisors who were experts in public health to verify the validity of the instruments. To assess this, the two experts were contacted to evaluate the relevance of each item in the instruments to the objectives. The views of these two experts were adequate in validating the items in the instruments prepared for the collection of data. The items were evaluated on a scale of 1 = relevant and 2 = not relevant. Relevant items were considered by the experts as having the ability to measure variables under the study. A Content Validity Index (CVI) was further employed to determine the validity of the instruments. A CVI of 0.7 and above was considered acceptable as noted by Amin (2005). A CVI of 0.87 was calculated based on views from expert one, and a CVI of 0.91 was based on the views of expert two. On average, the Content Validity Index (CVI) was 0.89 which was in agreement with Amin (2005) who recommended 0.7 and above for any tool to be confirmed valid.

Reliability

The reliability of the data collection tools was calculated using Cronbach's Alpha test of reliability. The data was entered into the computer and analysis was done using the SPSS Version 20. All variables had an Alpha Correlation Coefficient of 0.8 and above, and hence taken to be reliable. Ahuja, Coff and Lee (2005) argue that a correlation coefficient of 0.7 and above is acceptable for research instruments.

Data Analysis

The data was cleaned up, checked, coded and entered in SPSS version 21 for analysis. The quantitative data collected through the questionnaire was analyzed using both descriptive and inferential statistics. Descriptive statistics in the form of frequencies and percentages were used to display socio-demographics and the prevalence of alcohol use among adolescents. Correlation coefficients were generated to show the relationship between peer influence and alcohol use. A Chi-square test was used to compare differences in proportions between groups. A p-value less than 0.05 was considered statistically significant. Qualitative data obtained through the in-depth interview was subjected to transcription and represented in narrative form, and was used to strengthen the quantitative data.

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

RESULTS

Socio-demographic Characteristics

Socio-demographics provided insights on study sample attrition, including age, sex, religion and academic classes of the respondents. Table 1 below shows that 50.6% of the participants were females and 49.4% were males. The majority were between the ages of 16 to 19 (72.6%) while the least age group was 12–15 (27.4%). Of all the total respondents, 42.5% were Catholics, 40.3% were Anglican and the rest (17.2%) were Muslims, Pentecostal and SDAs. 67.8% of the total respondents were in senior four to senior six; those from senior one to three made up 32.2% of the respondents.

Table 1: Socio-demographic Characteristics of Adolescents

Demographic Characteristics		**Frequency**	**%**
Age Bracket	12-13 years	32	13.7
	14-15 years	32	13.7
	16-17 years	114	48.9
	18-19 years	55	23.7
Sex	Female	118	50.6
	Male	115	49.4
Religion	Anglican	94	40.3
	Catholic	99	42.5
	Muslim	8	3.4
	Pentecostal	8	3.4
	SDA	24	10.3
Class level	Senior One	32	13.7
	Senior Two	20	8.6
	Senior Three	23	9.9
	Senior Four	55	23.6
	Senior Five	68	29.2
	Senior Six	35	15.0
Total		**233**	**100**

Prevalence of Alcohol Use among School-going Adolescents

Results presented in Table 2 show that 48.5% of adolescents were low-risk alcohol users as confirmed by the mean AUDIT score of 2.4 out of 40 maximum scores. This implies that adolescents in this cohort had never taken any alcoholic drink in their lifetime or were drinking in moderation. This group of adolescents has no problems with alcohol and could continue drinking. The prevalence of hazardous drinkers was 35.6% as confirmed by a mean AUDIT score of 10.5. This group of adolescents occasionally drinks too much (20+ drinks a week). This pattern of drinking puts them and others at risk. It is recommended for them to try and cut down on alcohol or stop drinking completely. 10.7% of the adolescents turned out to be harmful drinkers with an AUDIT mean score of 18 out of 40. It is recommended that this group of

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

adolescents cuts down (to less than 28 drinks weekly) or stop drinking alcohol completely. And 5.2% of adolescents were dependent drinkers as explained by a mean AUDIT score of 21.8 out of 40. Their drinking is causing harm to their body systems and operations. It is recommended that they speak to a doctor or an addiction specialist, and ask for medication and counseling that can help them stop.

Table 2: A Table Showing the Prevalence of Alcohol Use among Adolescents

Alcohol use Strata	Freq	Prevalence
Low risk (0-7)	113	48.5%
Hazardous Drinking (8-15)	83	35.6%
Harmful Drinking (16-19)	25	10.7%
Dependent Drinking (26-40)	12	5.2%
Total	233	100%

Association between Demographic Variables and Alcohol Use

Age and Alcohol Use

Results shown in Table 3 indicate a p-value of 0.005 which is less than a 5% level of significance, and a correlation coefficient of (r=0.184). The results suggest there was a weak positive correlation between age and alcohol use. The null hypothesis was rejected with a conclusion that there is a weak positive association between alcohol use and the age of school-going adolescents in Kasese Municipality. The results suggest that an increase in age was somewhat associated with the increased use of alcohol among adolescents.

Table 3: Correlation between Age of Adolescents and Alcohol Use

Variable		**Respondents' Age**
Alcohol use	Pearson Correlation	.184**
	Sig. (2-tailed)	.005
	N	233

Sex and Alcohol Use

Results shown in Table 4 indicate analysis from a Pearson chi-square test with a p-value of 0.661, which is greater than the 5% level of significance. The null hypothesis was accepted, with the conclusion that there was no significant association between sex and alcohol use. The decisions made by adolescents on whether to use or not to use alcohol were not associated with their sex.

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

Table 4: Chi-Square Test for Sex of Adolescents and Alcohol Use

	Value	df	Asymp. Sig. (2-sided)
Chi-Square	2.407a	2	.661
N of Valid Cases	233		

Religion and Alcohol Use

Results are shown in Table 7 present an analysis from Pearson's chi-square test with a p-value of 0.322, which is greater than the 5% level of significance. The null hypothesis was accepted, with the conclusion that there was no association between religion and alcohol use. The decision to use or not to use alcohol is not associated with the adolescent's underlying religious beliefs.

Table 5: Chi-Square Test Results for Respondents' Religion and Alcohol Use

	Value	df	Asymp. Sig. (2-sided)
Chi-Square	18.039a	16	.322
N of Valid Cases	233		

Association between Peer Influence and Alcohol Use

Peer Influence Assessment Score

Peer influence among adolescents was measured using the Peer influence Inventory (PPI) tool. A three-strata peer influence score was derived from the possible total maximum score of +66 and the total minimum score of -66 for each of the respondents surveyed. Negative peer influence (-66 to -5) implies that there was a high negative influence on the school-going adolescent by other peers; low peer influence (-4 to +4) implies that there was low or no influence on the adolescent; positive peer influence (+5 to +66) implies that there was a high positive peer influence on the adolescent by their peers. (0 - neutral score) would imply that there was no pressure whatsoever (positive or negative) exerted on the school-going adolescent. Results in Table 11 below indicate an average Peer influence (PPI) score of 12.18. The value range of +5 to +66 implies that there was a high positive peer influence on school-going adolescents in Kasese Municipality. 89.3% of the respondents reported having been positively pressured to complete school, not to steal, work hard, not engage in eating marijuana, and not to indulge in sexual relationships, among other bad behaviors. Only 11.4% of the respondents reported having been negatively pressured into drinking alcohol or partying or disobeying their parents.

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

One Sample t-test for Peer Influence Test Score

The one sample mean t-test was used by the researcher to determine whether the average peer influence score of 12.18 was significantly different from the neutral score (0). Results in Table 6 show a p-value of 0.000 which is less than the 5% level of significance. The results suggest that there is a significant positive peer influence on school-going adolescents in Kasese Municipality by their peers.

Table 6: One Sample t-test for the Peer Influence Assessment Score

t	**df**	**Sig. (2-tailed)**	**Mean Diff.**
14.453	232	.000	12.180

Association Between Peer Influence and Alcohol Use

Results in Table 7 show Pearson correlation analysis with a p-value of 0.023, which is less than the 5% level of significance, with a correlation coefficient of -0.149. The results suggest a weak negative correlation between peer influence and alcohol use among school-going adolescents.

Table 7: Pearson Correlation Test for Peer Influence and Alcohol Use

Variables		Peer influence
Alcohol use	Pearson Correlation	-.149*
	Sig. (2-tailed)	.023

Based on the statistical results in Table 6, the null hypothesis was rejected with the conclusion that there is no significant positive association between alcohol use and peer influence among school-going adolescents in Kasese Municipality.

DISCUSSION

This study aimed to investigate the relationship between peer influence and alcohol use among school-going adolescents in Kasese Municipality. In the present study, Pearson's Product Moment Correlation was computed to establish the associations between peer influence and alcohol use, and results were presented in the previous analysis section. In relation to the associations of the above two variables, the result of the present study shows that a weak negative correlation exists between peer influence and alcohol use among school-going adolescents. These results are consistent with the previous studies.

The study conducted by Evarist (2010) revealed that peer group influence is not significantly related to alcohol consumption. However, there are earlier research findings that are inconsistent with the present study. For instance, Chalder et al. (2005) in their study pointed out that peer influence is a key determinant in causing alcohol consumption that may result into getting into fights, engaging in sexual promiscuity, and missing school. Similarly, Steinberg et al. (1986) noted that friends encourage their peers to engage in undesirable acts, including alcohol consumption, arguing that school rules normally prohibit students from

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

falling into such misbehaviors. Similarly, Kandel et al. (1987) also pointed out that children who are friends to one another influence one another to engage in habits like alcohol consumption. Therefore, adolescents who are too dependent on their friends rely on them for affirmation and acceptance, which allows them to disobey authority by engaging in risky activities like skipping class or experimenting with drugs like alcohol and marijuana as long as their friends are okay with it (Spear et al., 2001).

The findings did not reveal any association between sex and alcohol use, as well as between religion and alcohol use. However, alcohol use prevalence was high among males compared to females. These findings are consistent across different countries and cultures as reported in literature. A substantial body of research indicates that males are more likely to drink alcohol, consume higher amounts of alcohol and are more likely to be alcohol dependent in comparison with females (Kenney & LaBrie, 2013). Similar to this finding, the study of Tabitha (2013) indicated that more boys than girls were influenced by peers to engage in all the behaviors that were investigated in the study of family, peer and protective factors related to sex behavior in secondary schools. The difference may be due to the African culture that allows for males to play and stay with their peers outside their home while keeping females most of the time at home doing house chores. Contrary to this finding, Brown (1982) stated that peer pressure appeared stronger for females than males.

CONCLUSION AND RECOMMENDATIONS

Alcohol use by school-going adolescents is driven by several factors including peer influence, age, gender, religion and other guiding regulations within the school, the public and at home. The study examined whether there was a relationship between peer influence and alcohol use among adolescents in secondary schools in Kasese Municipality. The study found a high prevalence of alcohol use. Alcohol use was found to be high among males, compared to females, and higher among Catholics than Anglicans.

Age was found to have a weak positive association with alcohol use. School-going adolescents reported being positively influenced by their peers and friends, with a weak negative relationship between peer influence and alcohol use, implying there was no significant positive association between alcohol use and peer influence among school-going adolescents in Kasese Municipality.

Religion or gender did not present an association with alcohol use. The two indicators (sex and religion) cannot be ignored as part of the causes leading to high-risk alcohol use by school-going adolescents. Religious norms that prohibit alcohol use among adolescents (minors) should be instilled among students while at school and at home, especially those from the Catholic and Anglican faiths.

Existing government policies and laws on high-risk alcohol use and abuse should be implemented. Parents who sit on the school management and board committee should take a keen interest in issues to do with peer influence and alcohol use whenever they have meetings with parents, learners and staff. They should put in place rules and regulations that discourage alcohol use. Furthermore, school administrators should work together with the surrounding local communities to ensure that alcohol is not served to adolescents. Sensitization of the dangers of alcohol abuse should be intensified. Through the department of guidance and

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

counseling, the Ministry of Education and Sports (MoES) should ensure that each school has at least one counselor that handles issues like alcohol abuse, peer influence and related challenges among adolescents. Lastly, more research is needed to establish the underlying factors and prevention approaches for alcohol use among adolescents.

DECLARATIONS

Ethical Considerations

Approval to conduct the study were obtained from the Research and Ethics Committee of Mbarara University of Science and Technology (MUST). Participants were treated with respect in regards to individual autonomy, dignity, and freedom of choice. Voluntary informed consent and assent were sought from the respondents, and they were informed of their right not to participate and that they could withdraw from the research at any point if they felt they could no longer continue in the study.

Conflict of Interest

Authors declare no conflicts of interest.

REFERENCES

Abbo, C., Okello, E. S., Muhwezi, W., Akello, G., & Ovuga, E. (2016). Alcohol, substance use and psychosocial competence of adolescents in selected secondary schools in Uganda: *A cross-sectional survey. International neuropsychiatric disease journal,* 7(2), 25387.

Alhyas, L., Ozaibi, N., Elarabi, H., El-Kashef, A., Wanigaratne, S., Almarzouqi, A., & Ghaferi, H. (2015). Adolescents' perception of substance use and factors influencing its use: a qualitative study in Abu Dhabi. *Jrsm Open*, *6*(2), 2054270414567167.

Anderberg, M., & Dahlberg, M. (2018). Gender differences among adolescents with substance abuse problems at Maria clinics in Sweden. *Nordic Studies on Alcohol and Drugs*, *35*(1), 24-38.

Arata, C. M., Stafford, J., & Tims, M. S. (2003). High School Drinking and its Consequences, retrieved May 6, 2015 from http://findarticles.com

Arief, G.I & Martin, A.J. (2011). Peer relationship and adolescents' academic and non-academic outcomes: some-sex and opposite-sex and opposite-sex peer effect and the role of school engagement. *British Journal of Educational Psychology* 81, 183-206.

Bandura, A. & Walters, M. (1973). Aggression: a social learning analysis: New Jersey: Printers-hall.

Brown, B.B. (1982). The extent and effects of peer pressure among high school students. University of Wisconsin. Journal of Youth and Adolescence.

Carolina, P., Angela, M., Kessler, F. (2019). *Sociodemographic Characteristics, School Performance, Pattern of Consumption and Emotional Health as Risk Factors for Alcohol Use among Adolescents.* Brazil Journal of Trends in Psychology. DOI: 10.9788/TP 2019. 1-20

Chalder, M., Elgari, F. J., & Bennett, P. (2005). Drinking and motivations to drink among

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

adolescent children of parents with alcohol problems. University of Bristol, UK
Dada, S., Burnhams, N., Parry, C., Bhana, A., Timol, F., Wilford, A., Fourie, D., & Kitshoff, D., Nel, E., Weimann, R., & Johnson, K. (2013). *Monitoring alcohol and drug abuse trends in South Africa (June 1996-June 2013)*. S. Afr. Community Epidemiol. Netw. Drug UseRes. Br.. 16. 1-16.
Evarist M. (2010).Peer Group Influence, Alcohol Consumption, and Secondary School Students Attitudes towards School.M.A. thesis, University of Makerere, Kampala
Kandel, D. B., & Andrews, K. (1987). Processes of adolescent socialization by parents and peers,International Journal of Addictions, 22, 319–342.
Kenney, S. R., & LaBrie, J. W. (2013). Use of protective behavioural strategies and reduced alcohol risk: examining the moderating effects of mental health, gender, and race. *Psychology of Addictive Behaviors*, *27*(4), 997.
Kruis, N. E., Seo, C., & Kim, B. (2020). Revisiting the empirical status of social learning theory on substance use: A systematic review and meta-analysis. *Substance use & misuse*, *55*(4), 666-683.
Marin, A. H., Peuker, A. C., & Kessler, F. H. P. (2019). Sociodemographic characteristics, school performance, the pattern of consumption and emotional health as risk factors for alcohol use among adolescents. *Trends in Psychology*, *27*, 279-292.
Mutiso, V. N., Ndetei, D. M., Muia, E. N., Alietsi, R. K., Onsinyo, L., Kameti, F., & Mamah, D. (2021). The Prevalence Of Binge Eating Disorder And Associated Psychiatric And Substance Use Disorders In A Student Population In Kenya–Towards A Public Health Approach.
NACADA, (2012). Rapid Situation Assessment of the Status of Drug and Substance Abuse in Kenya.
Noller, P., & Callan, V. (2015). *The adolescent in the family*. Routledge.
Norman, L. B., & Ford, J. A. (2015). Adolescent ecstasy use: A test of social bonds and social learning theory. *Deviant Behavior*, *36*(7), 527-538.
Ogundipe, O., Amoo, E. O., Adeloye, D., & Olawole-Isaac, A. (2018). Substance use among adolescents in sub-Saharan Africa: A systematic review and meta-analysis. *South African Journal of Child Health*, *2018*(1), s79-s84.
Rukundo, A., Kibanja, G., & Steffens, K. (2017). *Factors influencing psychoactive substance use among adolescents in public secondary schools in Uganda.* The International Journal of Alcohol And Drug Research, 6 (1), 69-76. doi: http://dx.doi.org/10.7895/ijadr.v6i1.237
Ryan, A. M. (2000). Peer groups as a context for the socialization of adolescents' motivation, engagement, and achievement in school. Educational psychologist, 35(2), 101-111.
Slattery, T. L., & Meyers, S. A. (2014). Contextual predictors of adolescent antisocial behaviour: The developmental influence of family, peer, and neighborhood factors. *Child and Adolescent Social Work Journal*, *31*(1), 39-59
Spear, H. J., & Kulbok, P. A. (2001). Adolescent health behaviors and related factors: A review. Public health nursing, 18(2), 82-93.
Steinberg, L., & Silverberg, S. B. (1986). The vicissitudes of autonomy in early adolescence.Developmental Psychology. NY: Harper & Row Barcett et al. (1988)
Tabitha Wang'eri (2013). Family, peer and protective factors related to sex behavior among Adolescents in secondary schools in Mombasa. Kenyatta University, Kenya.
Weinfield, A. (2010). Coping with family transition winners, losers and survivors. Child Development, 60 (1), 1-4.
Whitmore, M. (2011). Late Adolescent Behaviour: The Role of Internal Control and Peer

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE

Relationships. *Distinguished Majors Thesis. The* University of Virginia.

Wood, D., Crapnell, T., Lau, L., Bennett, A., Lotstein, D., Ferris, M., & Kuo, A. (2018). Emerging adulthood is a critical stage in the life course. *Handbook of life course health development*, 123-143.

World Drug Report (2014), United Nations, New York. Retrieved from: https://www.unodc.org.

Wu, P., Goodwin, R. D., Fuller, C., Liu, X., Comer, J. S., Cohen, P., & Hoven, C. W. (2010). The relationship between anxiety disorders and substance use among adolescents in the community: specificity and gender differences. *Journal of youth and adolescence*, *39*(2), 177-188.

World Health Organization. Global status report on alcohol (2004). Geneva: Department of Mental Health and Substance Abuse.

World Health Organization (2001). Global status report: alcohol and young people. Geneva.

Yeh, M.Y. (2006). Factors associated with alcohol consumption, problem drinking, and related consequences among high school students in Taiwan, Journal of Psychiatry and Clinical Neurosciences, 60, 46-54, retrieved May 12, 2016 from http://www.Blackwell-synergy.com

Article DOI: 10.52589/ARMS-5PBHJ1XE
DOI URL: https://doi.org/10.52589/ARMS-5PBHJ1XE