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Co-curricular practices on prevention of substance abuse among secondary school students in Kakamega County – Kenya

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Abstract: The critical need everywhere in the 21st-century world is to prepare students to lead healthy and fulfilling lives by providing them with relevant educational programs inclusive of co-curricular practices. The study evaluated the fluence of co-curricular practices on the effectiveness of substance abuse preventive intervention among secondary school studenprogramsmega County. It adopted a cross-sectional survey design. The target populproblem-solving form three students, 1080 class teachers, 530 G/Cteachers, and 12 sub-county directors in the study area. Simple random and pua purposive sampling techniques were usedprogramrathe me sample size; 381 students, 108 class teachers, 53 G/, C, and 12 sub-county directors of education. Structured questionnaires, focus group discussion guides,e, and intervieguidesde were used to collect data which was subjected to descriptive andbeingential analysis using Statistical Package for Social Sciences. Based on the correlation results, the study established that there is a positive association between co-curricular practices and the effectiveness of substance abuse preventive interventions in the study area. From the regression results, co-curricupracticese and saree are significant predictors. Therefore at a 95% confidence limit c,o-curricular practices have a statistically significant influence on the effectiveness of substance abuse preventive intervention. The practices range from competitive games and sports, with the highest influence, followed by the time allocated, and frequency of participation, down to stars in co-curricular and lastly clubs. Overall, the study concludes that the success or effectiveness of substance abuse prevention is dependent on co-curricular practices. The intervention range from school administration, school location, open communica,tion and finally random checks

Keywords: Co-curricular practices, influence, effectiveness, preventive intervention, substance abuse, secondary school student

1. Introduction:

In the 21st century success in life demands good health and proper education (World Health Organization WHO, 2014). Pursuers and governments across the world are striving to provide relevant educational programs inclusive of co-curricular practices that nurture students' passions, problem-solving abilities, and creative skills (World Health Organization WHO, 2014) for quality education. Improved health results more from a safe environment provided by the education program, United Nations Office on Drugs and Crime (2015). If students lead heal heallifestylesyles integrated with vi with able physical activities their intellectual abilities do grow, Larson, Gakidou, and Marry (2021). Learners like any other human being experience health complications. Several of these complications are psychological in nature and substance abuse is one of the critical causes. This largely emanates from the environment a learner interacts with. To address this issue schools, engage in co-curricular practices such as competitive games, sports, music, and dance which are important parts of the curriculum law and serve as the prevention of stand bus use. Co-curricular is defined as programs and learning experiences within or outside the school that complement, in some way, the academic curriculum but do not earn a student an academic credit, (Great Schools Partnership, 2013). When targeting prevention content should be broad and focus on teaching social skills, self-control, decision-making skills, and healthy behavior. Programs should largely be interactive and focus on resistance skills and dispel the idea that substance abuse is normal. These programs ware ell conducted through co-curricular practices.

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UNODC (2017) supports that various stakeholders combine strategies to deal with substance abuse before it escapes further. School is one of the most influential outlets for adolescent development where positive environments for students to perform in extra-curricular activities are remoted, Wanjama, Muraya, &Gichaga, (2013). However, schools also expose students to at-risk behavior activities such as substance abuse (Andrade, 2014). An e et (2016) observed that several preventive interventions have been utilized in schools to curb substance abuse, however, their effectiveness is of concern since the challenge has persisted in hen case of Kakamega County.

Substance abuse is the self-administration of psychoactive substances into one's body through chewing, sniffing, snuffing, suc, king, and smoking rubbing on one's body, if not injected for wrong intentions (World Health Organization, 2016). United Nations Office on Drugs and Crime (UNODC) (2015) reported that the use of illicit drugs has increased throughout the world with heroin and cocaine being the main substances abused. Substances that are commonly abused in a school setting currently include, alcohol, cigarettes, bhang, miraa, cocaine, and heroin, United Nations (2013). Environmental factors for students such as co-curricular practices, all play a role in the abuse of substances by students (Nicole De Wet, Takalani Muloiwa & Clifford Odimegwu, 2018; Khan & Hillman, 2014; Lisha & Sussman, 2010). Many studies conducted on sport participation and adolescent substance abuse have found that participating in sports during adolescence contributes to substance abuse (Veliz et al., 2015; Kwan et al., 2014; Mays et al., 2011). However, co-curricular activities among students decrease their chances of substance abuse and as a way to prevent adolescents from engaging in deviant behaviors Kwan et al., 2014; (Farrel & Barnes, 2000; Moore & Werch, 2004). A study in Iran revealed that membership in the sports team and participation in sports camps increased alcoholism among adolescents. The higher levels of risk tendency among members of the sports team were a result of stress caused by the conditions of the sport its camp, and the normative pressure of peers, (Ahmadabadi, 2018). Co-curricular activities do not necessarily because substance abuse directly but may either prepare the potential victoreengagemenforo the vice or increase their vulnerability Azeez, Olugbenga & Oyetunde, (2020) Un-checked substance abu among youths and the entire population, therefore, could negatively affect the general well-being of an individual.

From the perspective of preventive intervention when formulating and putting in place any preventive intervention to the students a good percentage of the students should participate for them to own it. This is with the understanding that effective change always comes from comes in;n the person (Otingi, 2012) and that preventive interventions targeting the root of the problem are essential to curb substance abuse and help people lead healthier lives, Wanjama, Muraya, &Gichaga, (2013). Co-curricular issues such as the location of the school, student population, and on, and random checks require programs that engage youth-focused use ad interactive. It has been shown that young people use substance prevention information if it is accurate, honest, and delivered by people they trust. That is when emphasizes the importance of involving peers in the treatment of adolescent substance abuse and co-occurring disorders (WHO, 2017).

Alcohol abuse prevalence among secondary school students in Kakamega has reached 23.4%, which is far above the national average of 12.2%, despite attempts to implement substance abuse preventive interventions in schools. Enforcement of the Alcohol Drinks Control Act 2010 and County Alcohol Drinks Control Act are yet to be perfected in Kakamega County (NACADA, 2017). As Muhia, D. (2proclaimsclaim, it is necessary to ascertain the reasons why substance prevalence is high and yet preventive strategies are in place. Hence the need to investigate the influence of co-curricular practices on the effectiveness of substance abuse prevention.

2. Material and Methods

2.1 Study Area

The study was purposively undertaken in Kakamega County which is located in the Western region of Kenya. It is made up of twelve sub-counties namely; Lurambi, Ikolomani, Mumias East, Matungu, Shinyalu, Khwisero, Butere, Lugari, Malava, Likuyani, atet,e and Navakholo (County Survey Office, 2016). The study was carried out in secondary schools of which 95 are girls' schools, 32 are boys' schools, 251 are mixed day and 113 are mixed day and boarding. (County Education Office, 2017). Kakamega has a poverty index of 49.2% (Wiesmann, Kitem,e and Mwangi, 2016), a contributing factor to the consumption of buses and change which is cheap and easily available (NACADA, 2016). The lengthy history of the renowned football club, A Fleopards has an indirect strong influence on co-curricular practices and substance abuse prevention.

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2.2 Research Design

The study adopted a cross-sectional survey. This was based on the expert opinion of Penny and Deborah (2018) who observes that a cross-sectional survey has the advantage of enabling the collection of data at one point in time and also provides for comparison of different groups within the study.

2.3 Sampling and sample size determination

SaThe sample frame for the study consisted of 12 education officers, 530 G/C HoDs, 1,080 games teachers, and 59,675 form-three students drawn from 491 secondary schools (CDE's Office Report, 2017). The form three students were considered for study because they have stayed relatively longer in school and are capable of evaluating the extent of effectiveness of preventive intervention in schools. Due to the broad sample frame, multi-stage sampling was adopted in line with Kothari and Garg (2014) which caters to all subsets of interest. This was followed by cluster sampling and then proportionate sampling. Cluster sampling focuses on intact groups (Mertler and Craig, 2019), while proportionate sampling provides for fair representation of each group of interest (Mugenda and Mugenda, 2011) in this case the students, teachers, and education officers. This was then followed by a simple random sampling of class teachers and Guidance and Counseling HoDs. Sub-County Directors of Education were purposively selected as key informants in line with Aryl et al. (2019). The sample size for students was determined using the Krejcie and Morgan table as recommended by Kothari and Garg (2014). The probability proportion to size (PPS) sampling technique was used to determine sample size per cluster (Kothari & Garg, 2014). Kathuri Pals'sPals (1993) formula was used to obtain the number of members from each school type (cluster) because it is appropriate for studies that involve several clusters like this (Mertler & Craig 2019). The overall sample size for students was the summation of the specific sample size from the different clusters. Purposive sampling was adopted for selecting class teas and Guidance and Counseling HODs and 12 sub-county directors of education.

2.4 Data Collection and Analysis

Structured questionnaires, Interview GU Guides, and Focus Group Discussion Guides were re-used to collect primary data. The factor analysis technique was used to optimize the number of indicators for the study variable. The data was then subjected to descriptive and inferential analysis using version 27 of the Statistical Package for Social Science based on measures of central tendency, correlation simple linear regression. The items in the questionnaire were framed on a five-point Likert scale whereby mesentery strongly 4 = moderately strong 3 = Neutral 2= moderately low 1 = very low, thus 5 represented a high level of influence of co-curricular practices on substance abuse preventive intervention, while 1 indicated a low level. Based on the mean score (μ) 3.00 was adopted as the base baseline beta and interpretation. Therefore, a variable with a mean score of at least (μ) 3.00 was interpreted as having a strong influence, while those scoring below (μ) 3.00 were interpreted as non-issues in the study area.

3. Results and Discussions

Table 1. Contribution of Co-curricular practices on substance abuse preventive intervention by secondary school students in Kakamega County

Cocurricular Practice			**VS 5**	**MS 4**	**N 3**	**ML 2**	**VL 1**	**Mean(μ) AG.Mean**	**Std d**
Competitive games and sports	Soccer	Students	16.29% 44	30.00% 81	22.59% 61	22.59% 61	17.77%	3.20 48	1.356
		Teachers	18.64% 11	49.15% 29	14.0% 8	10.53% 6	5.26%	3.89 3	1.068
	Rugby	Students	30.37% 82	30.74% 83	16.29% 44	11.48% 31	10.37%	3.62 28	1.334
		Teachers	38.98% 23	20.33% 12	18.64 11	10.16% 6	8.47%	3.91 5	1.311
	Sports	Students	2.96% 8	10.74% 29	32.59% 88	25.18% 68	27.77%	3.09 75	1.311

	Teachers	20.33% 12	27.41% 16	25.72% 15	15.75% 9	14.86%	3.09 7	1.121
Musical performances	Students	14.81% 40	7.77% 21	17.46% 47	21.115 % 56	39.25%	2.78 106	1.411
	Teachers	16.94% 10	15.25% 9	27.11% 16	13.55% 8	25.42%	3.09 15	1.121
Clubs – Drama Festival	Students	8.88% 24	11.85% 12	18.14% 49	20.74% 6	39.25%	2.78 106	1.411
	Teachers	20.33% 12	38.98% 23	18.64% 11	8.47% 5	13.55%	3.89 8	1.068
Time allocated	Students	26.66% 72	30.00% 81	15.55% 42	13.33% 36	13.33%	3.37 36	1.259
	Teachers	15.25% 9	30.50% 18	22.03% 13	16.67% 9	11.56%	3.38 7	1.247

Source: Field data (2021)

Key: 5 = Very strong 4 = Moderately strong 3 = Neutral 2 =Moderately low 1= Very low

Table 1 the respondents were asked whether co-curricular practices influence substance abuse. Findings indicate that (16.29%; N=44) of students and (18.64%; N=11) of teachers held the view that soccer had a strong influence on students' abuse of sub substances implication that soccer highly provides social networks in substance abuse. This is contrary to Larson, 2000) that observed the incorporation of games and sporting activities in prevention programs and ramaireарguments that the effectiveness of preventive interventions. Further still, (30.00%); N=81) of students and 49.15%; N=29) of teachers felt that soccer had modern students on students' participation. A majority of the respondents felt that soccer predisposed students to substance abuse. This is reflected in a mean that is above the baseline ((μ)=3.00) However, this is contrary to (Kwan et al., 2014; Barnes et al., 2006) that asserted that it is also a way to prevent adolescents from engaging in deviant behaviors. This corroborates with findings from the interview guide with Education Officers who felt that soccer exposed students to substance abuse. Commenting on the association between co-curricular practices and substance abuse, one of the Education officers stated:

> Co-curricular activities possessed students to social networks, a breeding ground for substance abuse. Students in the process of playing the directly or indirectly influenced by their fellow peers to abuse substances (Edu. officer, Feb. 19, 2021).

The results showed that the environment is a critical source of substance. This is in agreement with Ondieki and Mokua (2012) who asserted that peers or friends in a school were the major source of information about the availability of drugs of abuse.

Further assessment of competitive games revealed that (30.37%; N=82) of students and (38.98%; N=23) of teachers were of the view that rugby strongly influences d abuse of substances. This implies that the majority of the students thought opinion that rugby equally provides room for social networking again a conducive environment for substance abuse. This is reflected in a mean of 1.334>1.311 which means that the majority of teachers and students were in agreement that rugby to an extent exposed students to substances. This is close to Gee, Jackson, and Sam (2014) who explored the role that alcohol played in the international rugby sevens tournament and found that pageantry and excessive alcohol consumption were normative. This could be due to the competitive spirit of participants which enhances works that easily expose students to substance abuse. On the contrary, Nicole, Takalani & Clifford, (2018) study revealed that participation in physical extra-curricular actiactivitiesuces crisis behavior like illicit drug abuse. The responses from the interview guide validated the findings fa from the questionnaire that participation in competitive games influenced students to abuse substances. One of the respondents during the interview asserted

Substance abuse is evident and cases have risen in recent years of many students involved in vice. It is something very normal during school competitions in games and sports (HoD, Feb. 19, 2021).

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Given the researcher, these students come from environs where the use of substances is part of their cultural practices, and the same is practiced in school. This is close to (KIPPRA) and NACADA (2019) surveys conducted across 25 counties including Kakamega which revealed that standard five and eight pupils (respondents) get alcohol, change, and buses from homes since a majority of their parents brew at home. According to the study, the second most co-curricular practice with strong influence as reflected in μ= 3.62 and with STD deviation of α = 1.334 according to students and μ= 3.91 and STD deviation of α = 1.311 according to teachers is rugby. This is attributed to the popularity the game has gained especially in the recent past.

Further assessment of co-curricular practices in Table 1 revealed that (2.96%; N=8) of students and (20.33%; N=12) of teachers felt that sports had a strong influence, while (10.74%; N=12) of students and 27.41%; N=16) of teachers noted that it had a moderate influence on students abuse of substances, this means a bigger proportion of teachers than students felt that sports contributed to substance abuse. An indication that teachers thought sports activities create a competitive spirit that enhances setting in the abuse of substances. This corroborates the suggestion of Sztainert, T. (2015) in a study on sports participation and substance abuse that the type of sports, the environment in which the sport is conducted, as well competition le earth reth the amount mount. Similarly, a good proportion of students (32.59%; N=88) were neutral, implying that some students were not sure whether sports activities exposed them to substance abuse. In the same vein, (25.18%; N=68) of students and (15.75%; N=9) of teachers felt that sports activities have a very low influence on students' abuse of substances, whereas 75(27.77%; N=75) of students and (14.86%; N=7) of teachers felt it had a moderately low influence. This is reflected in a moderate score of STD deviation (α = 1.311) which means that on average, t cheese from the mean by only 1.311 units about the Liker tems. This indicates terms that a bigger proportion of students felt that sports activities did not expose students to substance abuse. This is close to Otingi, 2012; Donaldson, et al., 1994) observation that it is imperative when formulating and putting in place any extra-curricular activities to fore students a that good percentage of the students should participate for them to own it.

Further still, (8.88%; N=24) of students and (20.33%; N=12) of the cheers had the union that drama to an extent had a strong influence on students' abuse of substances. Whereas (11.85%; N=32) of students and (38.98%; N=23) of teachers felt it had a moderately strong influence. On the other hand (39.25%; N=106) of students and (13.55%; N=8) of teachers were of the view that drama had a very low influence substance on substance. An indication that while a majority of teachers were in agreement, the majority of students disagreed that drama exposed them to substance abuse. This view is further supported by a very low mean (2.78) which is below the baseline score compared to teachers'(3.89)res response to responses ontolubs could be due to the difference in the high level of experience of teachers that gives them an upper hand to understand the student behavior better in matters of drama festivals. Students on the other hand are ignorant of the fact that drama exposes them to networks of substance abuse for they are controlled by situational excitement. This is in line with NACADA, (2021) guideline for alcohol and substance use that points out clubs and in particular drama festivals which some students misuse to abuse substances. On the contrary, Dunne, Bishop, Avery, & Darcy (2017) noted that establishing school connectedness by increasing student participation in co- co-cco-curricular relationshipshelpsp stance abuse.

Findings from further assessment revealed that while, (26.66%; N=72) of students and (15.25%; N=9) of teachers felt that the length of the time the activity allocated had a very strong influence, on students' abuse of substances, (30.00%; N=81) of students, and (30.50%; N=18) of teachers were of the view that it had a moderately strong influence over the same. This, therefore, implied that a majority of teachers and students felt that time scheduled for activities provided oom th for work substance abuse use among students. This view is further supported by a moderately high mean (3.37) for students and (3.38) for teachers from the study. This is close to Carson-Chahhoud, Ameer, Sayehmiri, Hnin, Agteren, SayehmirInd, and I, Smith, (2017) who asserted that longer and more intensive interventions are more successful. However, (13.33%; N=36) of students and (16.67%; N=9) of teachers felt it had a moderately low influence, while (13.33%; N=36) of students and (11.56%; N=7) felt it had a very low influence on students' abuse of substances. The findings imply that the time scheduled for these activities does not contribute to social networking for students' abuse of substances. This is contrary to the views of Jernigan, Nl, La,d on, and Lobstein (2017) whose study findings revealed that sports and other social activities provided an enabling environment for behavior such as substance abuse.

This study sought to examine the effectiveness of substance abuse preventive intervention in secondary schools in Kakamega County as summarized in Table 2.

Table 4.11: Effectiveness of substance abuse preventive interventions (teachers/students' perspectives.

	Respondent category	Opinion 5	4	3	2	1	Stdd	Mean(μ)
Nature of co-curricular/sch culture	Students	29.62% 80	30.74 % 83	10.74% 29	15.93% 43	12.96% 35	3.87	1.377
	Teachers	20.33% 12	42.37% 25	20.33% 12	3.51% 2	10.53% 6	4.33	1.173
Location of the school	Students	19.25% 52	38.17% 103	21.84% 59	11.15% 30	9.29% 25	4.14	1.191
	Teachers	22.03% 13	49.15% 29	13.55% 8	7.02% 4	5.26% 3	4.54	1.076
School Admin	Students	18.88% 51	32.22% 87	31.1% 84	11.72% 34	11.72% 34	1.269	4.55
	Teachers	23.72% 14	25.42% 15	23.72% 14	16.075 9	7.14% 4	4.16	1.223
Co-curricular resources	Students	14.1% 38	25.9% 70	24.1% 65	21.85% 59	14.07% 38	1.268	3.62
	Teachers	14.72% 8	42.37% 27	18.64% 11	21.05% 12	1.75% 1	4.10	1.038
Random checks	Students	29.62% 80	30.00% 81	15.55% 42	12.59% 34	12.22% 33	1.352	3.97
Open communication channels	Teachers	23.72% 4	42.37% 25	15.25% 9	12.28 7	3.51% 4	4.73	1.050
	Students	15.93% 43	12.96% 35	29.62% 80	30.00% 81	11.11% 30	1.349	3.83
	Teachers	42.37% 25	25.42% 15	3.51% 2	3.55% 8	15.25%	1.125	4.89

Source: Field data (2021)

N=329

Key: 5 = Strongly agree 4 = Moderately agree 3 = Neutral 2 =Moderately disagree 1 = Strongly disagree M=mean SDD= standard deviation

The participants were asked to indicate whether substance abuse preventive interventions against curricular practices were effective in schools. Findings revealed that (29.62%; N=80) of students and 20.33%; N=12) of teachers felt the nature of co-curricular had a strong influence on the effectiveness of substance abuse preventive interventions. However, 83(30.74%; N=83) of students and (42.37%; N=25) of teachers felt it had a moderately strong influence over the same. This, therefore, implies the hat majority of teachers and students were in agreement t that the nature of co-curricular plays a role in the effectiveness of the preventive intervention, indicating that the kind of sports such as competitive gender-based lender-based sports that calls the high-level level of discipline assists in preventing substance abuse. This is reflected in a moderate score of STD (α = 1.377) for students and (α = 1.173) for teachers meaning that e average of the teachers' opinions differs from the mean

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by only 1.173 units with about the Likert scale items. is contrary to Diehl et al., 2012; Kwan et al. (201cautionons against the use of sports as a means to reducing youth substance abuse for the feelings that youth get from participating in sports might mirror the same feelings produced from higher alcohol use.

Further still, (19.25%; N=52) of students and (22.03%; N=13) of teachers thought that the location of the school had a very strong influence on the effectiveness of preventive interventions on substance abuse. Similarly, (38.14%; N=103) of the students and (49.15%; N=29) of teachers felt it had a moderately strong influence over the same. An indication that the majority of the teachers and students thought that where the school is situated has a bearing on the effective management of substance abuse. This is further supported by a strong mean of (μ=4.14 for students and (μ= 4.54) for teachers from the study. The result is attributed to competitive or open games taking place in a school that is free from drinking dens, further support in effective preventive intervention, and vice versa. This is consistent with Otieno, et al (2009) study findings which noted that students in towns are more likely to abuse drugs and other substances as compared to those in rural areas. Further assessment reveals that (18.9%; N=51) of students and (25.72%; N=14 of teachers were of the view that school administration had a very strong influence on the effectiveness of the preventive intervention. Similarly, 87(32.2%; N=87) of students and (25.42%; N=15) of teachers felt that it had a moderately strong influence. On the other hand, (11.72%; N=34) of students and 9 (16.07) teachers had a view that it had a moderately low influence. Therefore, it was established that a majority of teachers and students were in agreement that school administration to an extent contribute to the effectiveness of preventive interventions. This view is further confirmed by a very high mean ((μ=4.55) for students and ((μ=4.16) for teachers from the study. The implication is that where the administration embraces open forums and listens to students' grievances creating an environment conducive to the management of substance abuse. This is close to Dunne, Bishop, Avery, & Darcy (2017) who noted that establishing school connectedness by increasing student participation in co-curricular, does improve relationships and helps in cutting down on substance use.

Finally, findings reveal that (15.93%; N=43) of students and (42.37%; N=25) of teachers thought open communication had a very strong influence, while, (25.42%; N=15) of teachers and (12.96%; N=35) of students felt that it had a moderately strong influence This view is further supported by a moderately high mean (μ=3.83) for students and (μ=4.89) for teachers from the study an indication that open communication impacts positively on effectiveness of preventive intervention of substance abuse However, (30.00%; N=81) of students and (13.55%; N=8) of teachers felt it had a very low influence. This study therefore established that while teachers agreed that open communication had a positive impact on preventive interventions students disagreed as indicated (μ=4.89>3.83). This could be because, in an open forum, most students are not able to express themselves openly for fear of being labeled as wrong elements, while teachers consider open forums as an effective method. This is close to the ministerial guidelines on schools having suggested box boxes where issues raised by students are addressed at the earliest opportunity in an open forum (MOE, 2021). This corroborates with the views of Maithya (2009) whose study revealed that 50% percent of the teachers felt that the integrated methods were moderately effective in Kenyan schools.

4. Hypothesis Testing

The Null Hypothesis of the study was that co-curricular practices have no statistically significant influence on the effectiveness of substance abuse preventive intervention in Kakamega County. The study was first subjected to a pair-wise correlation to the pursued regression model at p=0.05. To establish the level of influence of co-curricular practices and examine whether it was a significant predictor of preventive intervention of substance abuse, the study used a coefficient of determination (R2) using regression analysis and the results indicated that the model accounted for 9.7% of teachers and 5.5% from students of the variation in the dependent variable and thus a significant predictor, where [F (1, 269) = 15.363, P<.05] and [F (1, 58) = 6.098, P<.05](Appendix I and ii). The decision rule is to reject the null hypothesis and accept the alternative hypothesis. This implies that the effectiveness of substance abuse preventive intervention in secondary schools in Kakamega County is dependent on co-curricular among secondary school students in Kakamega County.

5. Conclusion

In Kakamega County, the effectiveness of substance abuse preventive intervention range from school administration, followed by school location to open communication and finally random checks (from highest to the lowest). The study further concludes that the key practices of co-curricular such as competitive games and sports followed by time allocated and clubs have an influence on substance abuse and that at a 95%

confidence limit these practices of co-curricular have a statistically significant influence on the effectiveness of substance abuse preventive intervention.

6. References

Azeez Olugbenga, Olugbenga, A. & Oyetunde, S. (2020).Parental involvement, peer influence, and openness to experience and undergraduates' substance abuse in Ogun East Senatorial

Dunne, T., Bishop, L., Avery, S., & Darcy, S. (2017). A Review of Effective Youth Engagement Strategies for Mental Health and Substance Use Interventions. Journal of Adolescent Health, 60(5), 487-512.

Dorcus Muhia, D. (2021). Impact of peer influence on substance abuse among Students on a public day secondary schools in Thika Sub-County, Kiambu County, Journal of Sociology, Psychology, and Religious Studies, 1(1), 1-18.

Gee, S., & Sam, M. (2013). The culture of alcohol promotion and consumption at major sports events in New Zealand: Research report commissioned by the Health Promotion Agency. Wellington: Health Promotion Agency.

Gee, S., Jackson, S.J., & Sam, M. (2014). Carnivalesque culture and alcohol promotion and consumption at an annual international sports event in New Zealand. International Review for the Sociology of Sport, 101269021452246, 1-19.

Guèvremont, A., Findlay, L., & Kohen, D. (2014). Organized Extracurricular Activities: Are In-School and Out-of-School Activities Associated With Different Outcomes for Canadian Youth? Journal of School Health, 84(5), 317-325 9p. doi:10.1111/josh.12154

Great Schools Partnership (2013). The Glossary of Education Reform: Co-curricular, Portland.

Kathuri N.J and Pals (1993). Introduction to Educational Research. Egerton Media Centre, Njoro, Kenya

Kothari. C.R. & Garg .G. (2014), Research methodology; methods and techniques, Mumbai; New Age International (P) Ltd.

Kwan, M., Bobko, S., Faulkner, G., Donnelly, P., & Cairney, J. (2014). Sport participation and alcohol and illicit drug use in adolescents and young adults: A systematic review of longitudinal studies. Addictive Behaviors, 39497-506. doi:10.1016/j.addbeh.2013.11.006

Mazuri, A. (2014). The incidence and extent of substance abuse among secondary schools in Mombasa County. American Journal of Public Health, 89(4), 1538-1545.

Mugenda A.G. and Mugenda .C. (2011). Social Science Research, Theory, and Principles, Nairobi: Applied Research and Training Services (Acts Press).

Mertler and Craig, A. (2019). Introduction to Educational Research. 2nd Ed. Los Angeles: Sage Publications.

National Authority for the Campaign against Alcohol and Drug Abuse and Kenya Institute for Public Policy Research and Analysis, (2019): Status of Drugs and Substance Abuse among Primary School Pupils in Kenya: Nairobi, Kenya. Publication No. 20

Otingi, V. (2012). The Wellbeing of the Youth - A Literature revReviewhe drug abuse prevention methods and Strategies between Finland and Kenya. Journal of Health Sciences, 34(5), 156-178.

Penny Mukherji and Deborah Albon, (2018). (3rdEd). Research Methods in Early Childhood. New Delhi: Sage Publication Ltd

Sstained, T. (2015). Sports participation and substance use in Canada: analysis of the effects of sport type, self-esteem, and peer use. An unpublished study commissioned by Canadian Centre on Substance Use and Addiction.

Tahiraj E, Cubela M, Ostojic L, Rodek J, Zenic N, Sekulic D, et al. Prevalence and factors associated with substance use and misuse among Kosovar adolescents; cross-sectional study of scholastic, familial-, and sports-related factors of influence. International Journal of environmental research and public health. 2016; 13(5):502.

United Nations Office on Drugs and Crime (2012). World Drug Report 2012. Vienna:

WHO, (2016) global report on trends in the prevalence of tobacco smoking. GeneHealthaOrganizationtion.

United Nations Office on Drugs and Crime, (2015). International Standards on Drug Prevention Use

United Nations Office on Drugs and Crime (2012). World Drug Report 2012. Vienna:

United Nations (2013).World Drug Report. New York: Oxford University Press

Veliz, P. T., Boyd, C. J., & McCabe, S. E. (2015). Competitive Sport Involvement and Substance Use among Adolescents: A Nationwide Study. Substance Use & Misuse, 50(2), 156-165.

Wiesmann U, Kiteme B, Mwangi Z. (2016). Socio-economic atlas of Kenya: depicting the National Population Census by county and sub-location. Kenya National Bureau of Statistics, Centre for Training and Integrated Research in ASAL.Development, Centre for Development and Environment: Nairobi, Nanyuki,

WHO.2017Health for World'sld's Adolescents: H.J. Larsonson, E. Gakidou andC.J.L.Murry (2021).The New England Journal of Medicine https: // www.Science daily.com

a. Appendix i: Table 3: Model summary (students)

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.234[a]	.055	.051	.63961

a. Predictors: (Constant), Co-curricular Determinant

b. Table 4: Model Summary (teachers)

Model	R	R Square	AdjustedThe error is	Std. The error in the Estimate
1	.311[a]	.097	.081	.60655

a. Predictors: (Constant), Co-curricular Determinant

c. Table 4.16: ANOVA of co-curricular determinant and preventive interventions (students)

Model	Sum of Squares	Df	Mean Square	F	Sig.
1Regression	6.285	1	6.285	15.363	.000[b]
Residual	108.412	269	.409		
Total	114.697	270			

a. Dependent Variable: Preventive interventions

b. Predictors: (Constant), Co-curricular determinant

d. Appendix ii: ANOVA of co-curricular determinant and preventive intervention (teachers)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.243	1	2.243	6.098	.017[b]
	Residual	20.970	58	.368		
	Total	23.214	59			

e. Dependent Variable: Preventive intervention

f. Pedictros (Constat), Co-curricular determinant