

## Influence of Family Issues on Effectiveness of Substance Abuse Preventive Measures among Secondary Schools in Kakamega County, Kenya

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### ABSTRACT

*The rising prevalence of youth involvement in substance abuse is a global issue that requires immediate attention. The critical need everywhere in the 21 century world is to prepare students to lead healthy lives by providing them with relevant educational programmes inclusive of family matters. The study examined influence of family issues on effectiveness of substance abuse preventive measures among secondary school students in Kakamega County through mixed design. The target population was 59675 form three students, 1080 class teachers, 530 G/C teachers and 12 parent representatives in the study area. Multi-stage sampling, simple random and purposive sampling techniques were used to select sample size; 381 students, 108 class teachers, 53 G/C and 12 parent representatives. The study adopted a cross-sectional survey design. Structured questionnaires, focus group discussion guide and interview guide were used to collect data which was subjected to descriptive statistics, correlation and simple linear regression. Qualitative data was transcribed, analysed and reported according to emerging themes. Supervisors were consulted to determine the face, content, and construct validity of the instruments while reliability was tested using split half method and Cronbach's alpha of reliability coefficient index for data collection instruments was above 0.8 both for teachers and students. The study established that there was a strong positive association ( $r=.730, p<.01, N=270$ ;  $r=.768, p<.01, N=59$ ) between influence of family issues and effectiveness of substance abuse preventive interventions. The study further established that family issues significantly influence effectiveness of substance abuse preventive measures, thus,  $[F(1, 269) = 415.202, P<.05]$  and where  $[F(1, 58) = 24.071, P<.05]$ . The study concludes that family issues significantly influence effectiveness of substance abuse preventive measures. Based on conclusion, it was therefore recommended that schools should increase forums on parent-child communication so as to work on role modeling as an effective target in substance abuse preventive measures.*

**Keywords:** Abuse, Effectiveness, Family Issues, Preventive Measures, Secondary School Student, Substance

### I. INTRODUCTION

Any person can be influenced to some extent by the words and actions of others, or even the perceived attitude of others. For teens in general, this is especially true, as the prime developmental task of young people is to recognize and shape one's own identity Muhia (2021). It is of great concern that children appear to be the new market for substances like alcohol, cigarettes, bhang, miraa, cocaine, and heroin, which have all seen rising rates of abuse. World Health Organization (WHO, 2014) recommends that the rising prevalence of youth involvement in substance abuse is a global and national problem that needs immediate response. In Malaysia, a study reported that the impact of family concerns on substance abuse among adolescents found that young people's substance usage is strongly influenced by several factors including family (Lee et al., 2013). Moor et al., (2015) supports that, young people's substance usage is commonly blamed on their parents. Similarly, Azeez et al. (2020) study also supports that children's substance use was significantly influenced by their parents' views about using tobacco, alcohol, and other substances. According to the research, most parents are either constantly on the go in search of money or, when they are at home, too preoccupied with entertainment to pay much attention to their children. Due to their absence, parents are unable to guide their offspring in matters of the heart. Further still, substance abuse risk appears to be affected by the adolescent's family dynamics, more so in cases of single-parent households (Moore et al., 2013; Nash, 2005). Substance misuse has also

been linked to parental divorce (Hall & Solowij, 1998; Barrett & Turner, 2005). However, Foxcroft and Tsertsvadze (2012) found that family intervention is the most effective preventive measures for teenage substance misuse.

In terms of prevention, research has revealed that no single approach, no matter how well-structured, is capable of effectively addressing substance abuse across board in educational institutions. Allen et al. (2016) maintains that multiple preventive strategies have proved to effectively reduce substance abuse among the young ones in Africa. The most successful programs are those that focus on both improving parenting and strengthening family relationships (Griffin & Bovine, 2010). Dunne et al. (2017) report indicated that other successful programs that have found family measures that work alongside school programs are beneficial because active parental involvement in children's education is a critical piece in preventing substance abuse. Recent reports from Kakamega County Education Office indicates that despite the efforts schools make by involving families directly and indirectly as regards prevention the vice is still rampant (Government of Kenya [GoK], 2018). So the question is, to what extent does family issues influence the effectiveness of preventive measures?

### 1.1 Research Objective

To determine the extent to which family issues influence the effectiveness of substance abuse preventive measures among secondary schools in Kakamega County, Kenya

## II. LITERATURE REVIEW

A longitudinal study conducted in Hong Kong, Shek et al. (2020) found that parental behavioral control and the quality of the parent-adolescent connection were inverse predictors of early substance. Further still, surveys conducted by National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) reveal that majority of students at all levels of education abuse substances and are likely to destroy their lives before they become adults or even drop out of school (NACADA, 2015). In particular, The Kenya Tobacco Control Alliance (KETAC) records that shisha smoking for example is becoming a popular fad among adolescents in Kenya. It is sold in a variety of different flavors and unlike cigarettes it has no tobacco smell (Mwaniki, 2017). The WHO (2017), warns that a puff of shisha is equivalent to smoking 100 to 200 cigarettes due to the amount of smoke inhaled during shisha smoking.

When targeting middle-aged children content should be broad and focus on teaching social skills, self-control, problem-solving skills, decision-making skills and healthy behaviour, which is found to be helpful for early adolescents as well (Onrust et al., 2016). Including parents during this period is important in order to enhance family bonding and ensure that parental support is provided (United Nations Office on Drugs and Crime [UNODC], 2015).

Catalano, Fagan and Gavin (2012) suggest that parents' active participation in their children's education is a crucial component in reducing substance misuse in them. Similarly, Allen et al. (2016) emphasizes that family-based interventions were beneficial in reducing adolescent substance abuse. This view is promoted in the Treat net Family training package created by UNODC that incorporates the fundamentals of both evidence-based family therapy and family-based interventions. Family members and adolescents alike reported enjoying the therapy's positive effects on their mental health and parent-child communication (Bowen et al., 2012). The evaluation of the literature on the topic influence of family issues on effectiveness of substance abuse prevention in Kenya and, more particularly, Kakamega County, does not give sufficient evidence to determine the extent of influence the family issues have on effectiveness of substance abuse preventive measures, which the current study undertakes.

## III. METHODOLOGY

### 3.1 Study area

Kakamega County is located on the western part of Kenya. The County is made up of twelve sub-counties. It has a total of 491 secondary schools of which 95 are girls' schools, 32 are boys' schools, 251 are mixed day and 113 are mixed day and boarding (GoK, 2018). Kakamega has a poverty index of 49.2%, a contributing factor to the consumption of busaa and changaa which is cheap and easily available in the study area (NACADA, 2013).

### 3.2 Research Design

The study adopted a cross-sectional survey design, because the intent was to identify and describe the extent to which family issues influence effectiveness of substance abuse preventive measures among secondary school students

in Kakamega County. Mukherji and Albon (2018) observes that a cross sectional survey enables collection of data at one point in time only and provides for comparison of different groups within the study.

### 3.3 Population and Sampling

The study sample consisted of 12 parent association chairpersons, 530 guidance and counseling Heads of departments, 1,080 class teachers and 59,675 form three students drawn from 491 secondary schools (GoK, 2018). Due to the broad sample frame, multi-stage sampling was adopted in line with Kothari and Garg (2014) which caters for all subsets of interest. Simple random sampling of class teachers and Guidance and Counseling HoDs was conducted. Parent representatives were purposively selected as key informants (Ary et al., 2009). Sample size for students was determined using the Krejcie and Morgan table as recommended by Kothari and Garg (2014). Probability proportion to size sampling technique was used to determine sample size per cluster (Mertler, 2019). Kathuri and Pals (1993) formula was used to obtain the number of members from each school cluster (Mertler, 2019). The overall sample size for students was the summation of the specific sample size from the different clusters.

### 3.4 Instruments

Data collection was done by use of a self-administered questionnaire, interview guide and focus group discussion guide which were intended to collect data on demographic factors, evaluate the level of influence of family predisposing issues on substance abuse preventive measures and the influence of family issues on the effectiveness of substance abuse preventive measures.

### 3.5 Validity and Reliability

Independent experts majorly from the Department of Educational Psychology in Masinde Muliro University of Science and Technology (MMUST) were engaged to examine the content of items contained in the questionnaire. Their feedback was closely similar, which ascertained that the questionnaire was valid. A pilot study was conducted in Bungoma County, Kenya for the sake of ensuring that the instrument is reliable. Forty eight questionnaire sheets were distributed and filled by the 48 respondents, five interview guide sheets filled by 5 HoD G/C teachers and 1 sub-county director of education and one focus group discussion filled by one group of students from a randomly selected school. Each instrument was reviewed until it exhibited a Cronbach's alpha Coefficient score 0.70 and above. After testing, a Cronbach Alpha ranging from 0.735 to 0.894 was yielded. Therefore, the instruments were considered reliable.

### 3.6 Theoretical background

The current study focused on a theory from a developmental perspective because it explores social, biological, emotional and cognitive domains. To better comprehend the relationship between psychosocial predisposing issues and the underlying substance abuse preventive measures, this study draws on Social Cognitive Theory Bandura, 1986). Based on this theory, responses of school actors were used to assess the extent to which psychosocial issues influence the effectiveness of preventive measures in Kakamega County since it provides a triangular relationship between individuals, their surroundings, and their actions.

### 3.7 Statistical Treatment of Data

Different statistical procedures were applied in data treatment. The data was subjected to descriptive and inferential analysis on the basis of measures of central tendency, correlation and simple linear regression. The items in the questionnaire were framed on a five point Likert scale where by 5 meant very strong, 4 = moderately strong, 3 = Neutral, 2= moderately weak 1 = very weak, thus 5 represented a high level of influence of family issues on substance abuse preventive measures, while 1 indicated a low level. On the basis of mean score ( $\mu$ ) 3.00 was adopted as the baseline for data analysis and interpretation. Therefore a variable with a mean score of at least ( $\mu$ ) 3.00 was interpreted as having strong influence, and below ( $\mu$ ) 3.00 was interpreted as non-issue in the study area.

## IV. FINDINGS & DISCUSSIONS

### 4.1 Demographics of Respondents

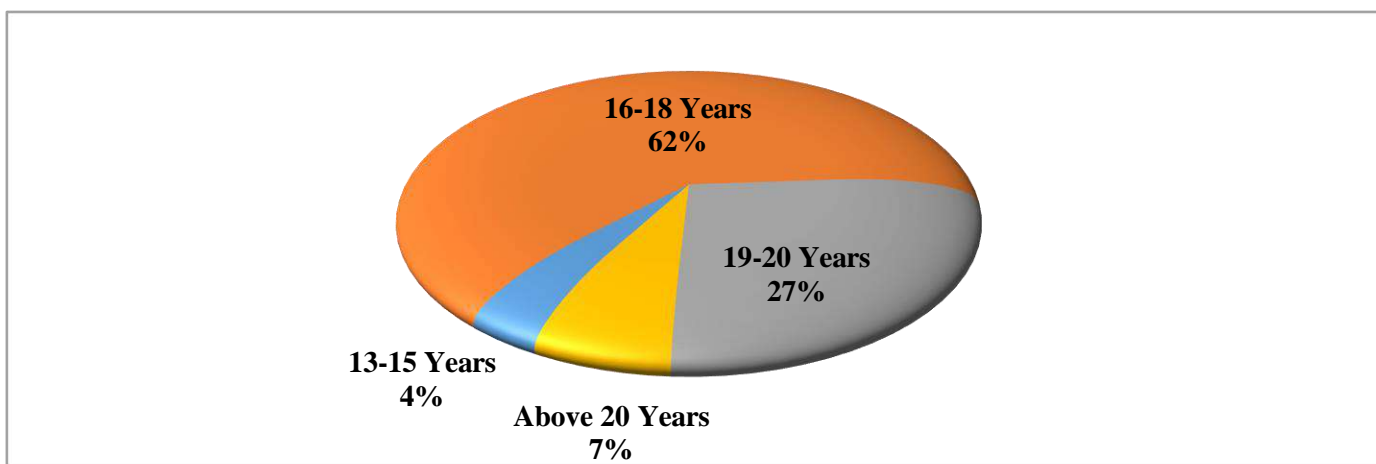
The respondents were asked to indicate their gender and their response was as shown in Table 1. Female teachers were 55.9% while male were 44.1%. Male chair persons were 66.7% while 33.3% were female. On the other hand, 48.9% of the students were male while 41.1% were female. This findings reveal that majority of the teacher respondents were female whereas student respondents were male as well as the parent representatives. Therefore there is no equal

gender representation. This is attributed to the fact that substance abuse is a social activity that engage more of male than female respondents. In a school situation teachers take the lead role in managing substance abuse problem and as indicated there are more female than male teachers that are willing to engage in substance abuse preventive activities. On the contrary, more of male students engage in the social activity than girls. Therefore this implies that, gender in this study partly contributes significantly in determining the effectiveness of substance abuse preventive measures.

**Table 1**  
*Students, Teachers and P.A. Chair by Gender*

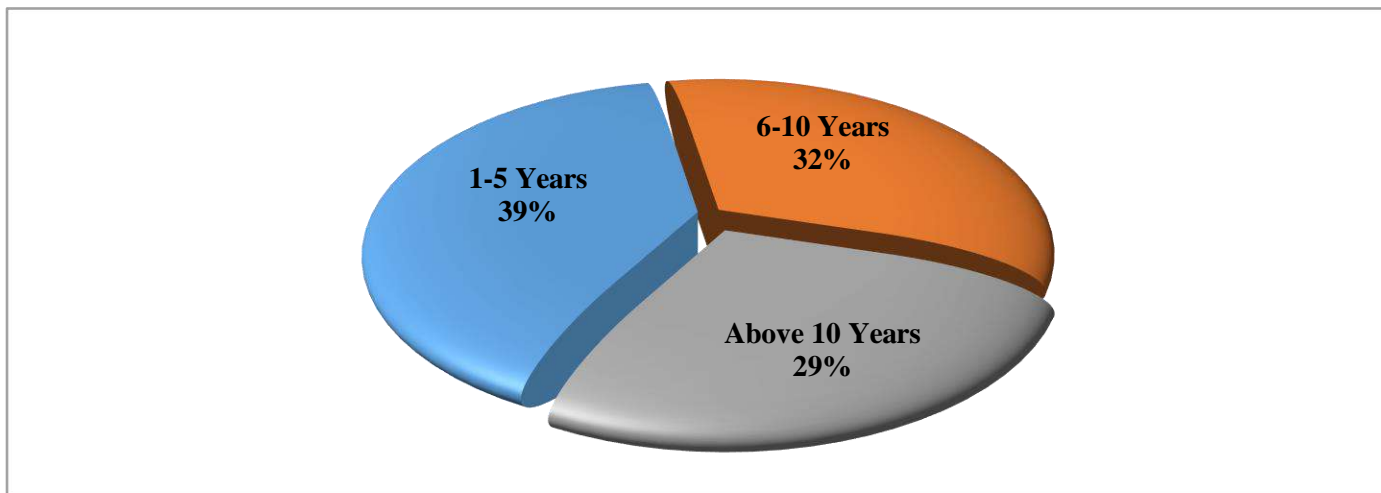
Respondent Category	Teachers		Students		P.A Chair persons	
	Frequency	%	Frequency	%	Frequency	%
Male	26	44.1	159	48.9	8	66.7
Female	33	55.9	111	41.1	4	33.3
<b>Total</b>	<b>59</b>	<b>100</b>	<b>270</b>	<b>100</b>	<b>100</b>	<b>100</b>

The respondents were asked to indicate their age bracket and the results are as shown in Figure 1. The findings show that 4.1% of the students were between 13-15 years, 61.5% were between 16-18 years followed by 27.1% between 19-20 years and 7.4 were over 20 years. Therefore, majority of the form three students who took part in the research are between ages 16-18 years, an age bracket that is a critical period for students to experiment with substances. This is close to UNODC (2018) which observed that most research suggests that early (12–14 years) to late (15–17 years) adolescence is a critical risk period for the initiation of substance abuse.



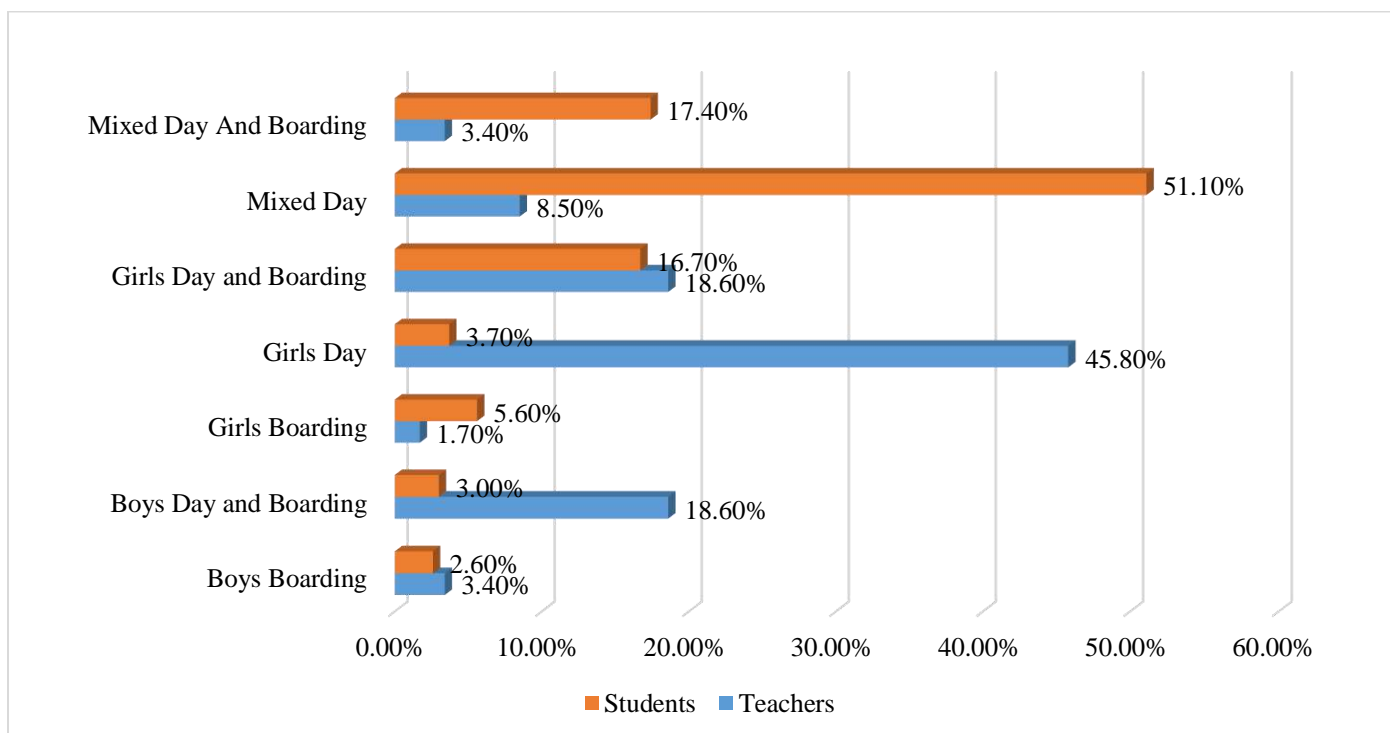
**Figure 1**  
*Distribution of Students by Age*

With regard to experience of teachers, HoDS’ Guidance and Counseling and class teachers’ teaching experience was 1-5 years, followed by 6-10 years and finally above 10 years. Therefore majority of the teachers’ experience are between 1-5 years, a pointer to the fact that teachers of this category were more willing to participate in this research. The findings were shown in Figure 2.



**Figure 2**  
*Distribution of Teachers by Experience*

Respondents were also asked to state their school type and the results were presented as shown in Figure 3. The sampled respondents indicated that majority 45.8% of the teachers were in girls day schools compared to 18.6% who were in boys day and boarding schools and girls day and boarding schools respectively. Whereas 1.7% was in a girls boarding school. This finding indicate that majority of the teachers 45.8% were from girls day schools followed by boys day and boarding schools as well as girls day and boarding. School type as a characteristic directly determine the response of teachers to the influence of family issues on effectiveness of substance abuse and schools preventive measures. Majority 51.1% of the students indicated that they were from mixed day schools followed by 17.4% who indicated that they were in mixed day schools and boarding schools. Further still, 16.7% of the students indicated that they were in girls day and boarding schools while 2.6% of the students were from boys boarding schools. These findings reveal that the majority of the student respondents 51.1% were from mixed day schools.



**Figure 3**  
*Types of Schools*



#### 4.2 Family Predisposing Issues on Substance Abuse

To assess the influence of family issues on substance abuse respondents were asked to rate their responses. This was done on a 5 point likert scale where: 5 = Very strong, 4 = Moderately strong, 3 = Neutral, 2 = Moderately weak, 1 = Very weak.

**Table 2**  
*Family Predisposing Issues on Substance Abuse*

Item	Respondent Category	Opinion							Ag.M
		VS 5	MS 4	N 3	MW 2	VW 1	Mean	Std Dev.	
Trading in substances	Students	22.22 % 60	42.59 % 115	21.85% 59	3.35% 9	10.41% 28	3.46	1.381	<b>3.545</b>
	Teachers	23.72% 14	30.50% 18	15.25 9	15.25% 9	15.25% 15	3.63	1.388	
Separation of Parents	Students	23.70% 64	50.74% 137	13.70% 37	6.675% 18	5.19% 14	3.24	1.172	<b>3.375</b>
	Teachers	27.11% 16	35.59% 21	15.35% 9	10.17% 6	11.86% 7	3.51	1.023	
Weak family Cohesion	Students	25.55% 69	27.03% 73	25.55% 69	15.19% 41	6.675% 18	3.70	1.174	<b>3.45</b>
	Teachers	32.20% 19	33.89% 20	11.86% 7	10.17% 6	11.865% 7	3.20	1.297	
Economically Stable	Students	13.70% 37	42.22% 114	20.37% 55	21.85% 59	1.85% 5	3.39	1.270	<b>3.10</b>
	Teachers	27.11% 16	30.50% 18	18.64% 11	13.56% 8	10.17% 6	3.81	1.196	
Living in urban area	Students	25.55% 69	42.22% 115	16.66% 45	11.85% 32	3.33% 9	3.40	1.271	<b>3.14</b>
	Teachers	22.03% 13	32.20% 19	20.33% 12	8.47% 5	16.95% 12	3.88	.966	
Deficient parental monitoring,	Students	27.03% 73	40.74% 110	13.70% 37	5.17% 14	13.65% 37	3.70	1.174	<b>3.435</b>
	Teachers	33.89% 20	32.20% 19	11.85% 7	10.17% 6	11.86% 7	3.17	1.271	

Family issues is any practice emanating from family circles whose influence is not clear. From Table 2, sampled respondents( students and teachers respectively) indicated that students trading in substances had a moderately strong influence on students’ abuse of substance as reflected in the mean of ( $\mu = 3.46$ ;  $\mu = 3.63$ ), as well as deficient parental monitoring( $\mu = 3.70$ ;  $\mu = 3.17$ ), weak family cohesion ( $\mu = 3.70$ ; ( $\mu = 3.20$ ), separation of parents ( $\mu = 3.24$ ;  $\mu = 3.51$ ) which are way above the baseline value of 3.00. The highest influence was at an aggregate mean of 3.545, implying that trading in substance greatly influenced students in abuse of substance in Kakamega County. This corroborates with (Lee et al., 2013) report which observed that, with the increase of student drug pushers in the school compound, the accessibility of drugs among the young generations has increased.

Respondents were also asked to determine the influence of family issues on effectiveness of substance abuse preventive measures and the results were presented as shown in table 3.



**Table 3**  
*Effectiveness of Substance Abuse Preventive Measures*

Item	Respondent	Opinion							Ag.M
		VS 5	MS 4	N 3	MW 2	VW 1	Mean	Std. Dev.	
Spending time with children.	Students	35.55% 96	28.88% 78	13.70% 37	16.97% 46	4.81% 13	3.57	1.311	<b>3.735</b>
	Teachers	22.03% 13	30.50% 18	15.25% 9	15.25% 9	15.25% 9	3.90		
Parental Role model	Students	18.51% 50	32.22% 87	27.03% 73	15.24% 41	6.69% 18	3.70	1.174	<b>3.875</b>
	Teachers	18.64% 11	39.98% 23	22.03% 13	11.86% 7	8.47% 15	4.05	1.057	
Family dialogue	Students	15.18% 41	30.37% 82	18.51% 50	18.51% 50	17.10% 46	3.52	1.175	<b>3.74</b>
	Teachers	18.64% 11	32.20% 19	23.72% 14	12.07% 7	12.07% 46	3.93	1.015	
Self - management programmes	Students	23.70% 64	28.88% 78	18.51% 50	13.70% 37	15.19% 41	3.68	1.174	<b>3.44</b>
	Teachers	13.55% 8	25.42% 15	23.72% 14	22.41% 13	13.79% 8	3.20	1.297	
Strict parental control	Students	16.66% 45	35.55% 96	5.18% 14	28.88% 78	13.70% 37	3.17	1.271	<b>3.34</b>
	Teacher	23.72% 14	32.20% 19	13.55% 8	11.86% 7	18.64% 11	3.51	1.023	

From Table 3, sampled respondents (students and teachers respectively) indicated that parental role modelling had a moderately strong influence on students’ substance abuse preventive measures as reflected in the mean of ( $\mu=3.70$ ;  $\mu=4.05$ ), spending time with children ( $\mu=3.57$ ;  $\mu=3.90$ ), family dialogue ( $\mu=3.52$ ; ( $\mu=3.93$ ), self-management programme ( $\mu=3.68$ ;  $\mu=3.20$ ) which are way above the baseline value of ( $\mu$ )3.00. The highest influence was at an aggregate mean of 3.875, implying that role modeling plays a great role in mitigating substance abuse in the County. This is in agreement with interview guide where one participant observed:

*‘Parents are very key in cases of substance abuse. They need to spend more time with their children so as to understand their behaviour to effectively address cases of substance abuse’* (PA5, Feb. 28, 2021).

On the contrary Gil. (2011) posits that family-based content is critical although adolescents spend less time with their parents and peers become more important, parents always remain an important influence on their lives.

*There is no statistically significant influence of family issues on effectiveness of substance abuse preventive measures among students.*

This hypothesis sought to establish the relationship between family issues and effectiveness of substance abuse preventive measures. To establish the level of influence of family issues and examining whether it was a significant predictor of preventive measures of substance abuse, the study was first subjected to a Pearson correlation to pursue regression model at  $p=0.05$ . as seen in table 4.

**Table 4**  
*Correlation between Family Issues and Substance Abuse Preventive Measures*

		Preventive measures
Family issues-students	Pearson Correlation	.730**
	Sig. (2-tailed)	.000
	N	270
Family issues-teachers	Pearson correlation	.768**
	Sig. (2-tailed)	.000
	N	59



From Table 4, the results revealed that there was a strong positive association ( $r=.730$   $N=270$   $p<.01$ ;  $r=.768$   $N=59$   $p<.01$ ) between influence of family issues and effectiveness of substance abuse preventive interventions according to students and teachers accordingly.

This research called for testing of the following null hypothesis: *There is no statistically significant influence of family issues on effectiveness of substance abuse preventive measures among students.* The hypothesis was tested through simple linear regression.

**Table 5**  
*Model Summary*

	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Students	1	.730 <sup>a</sup>	.532	.531	.61296
Teachers	1	.768 <sup>a</sup>	.589	.588	.57420

\*\*\*Predictors: (Constant), Family issues

The predictor (family issues) account for 53.2% from students and 58.9% from teachers of the variation in the dependant variable as indicated by the Adjusted R Square=.531 and Adjusted R Square=.588

**Table 6**  
*ANOVA of Family Issues and Effectiveness of Preventive Measures*

	Model	Sum of Squares	df	Mean Square	F	Sig.	
Students	1	Regression	155.999	1	155.999	415.202	.000 <sup>b</sup>
		Residual	137.137	269	.376		
		<b>Total</b>	<b>293.137</b>	<b>270</b>			
Teachers	1	Regression	72.792	1	72.792	24.071	.000 <sup>b</sup>
		Residual	20.345	58	.330		
		<b>Total</b>	<b>93.127</b>	<b>59</b>			

\*\*\*a. Dependent Variable: Preventive measures.

\*\*\*b. Predictor: (Constant), Family issues

Results in in Table 6 indicated that family issues was a significant predictor of effectiveness of preventive measures of substance abuse, thus,  $[F(1, 269) = 415.202, P<.05]$  and where  $[F(1, 58) = 24.071, P<.05]$ . We therefore reject the null hypothesis. This implies that effectiveness of substance abuse preventive measures in secondary schools in Kakamega County is dependent on family issues among secondary school students in Kakamega County. The results of the current study is contrary to Azeez, et al. (2020) study that was conducted in Nigeria to determine parental involvement, peer influence and openness to experience as determinants of undergraduates ‘substance abuse in Ogun State, Nigeria. Findings of Azeez’s study revealed that parental involvement, peer influence and openness to experience positively and significantly contributed to substance abuse among university undergraduates ( $R = .646, R^2 = 0.417; F=3,387) = 91.526, p<0.05$ ).

## V. CONCLUSIONS & RECOMMENDATIONS

The study concluded that deficient parental monitoring, weak cohesion and trading in substances are moderately strong influencers of substance abuse. Further still, the study concluded that effectiveness of substance abuse preventive measures in secondary schools in Kakamega County is determined by family issues and that the most effective preventive measures are: parents having time with their children, family dialogue and role modeling. It was recommended that schools should increase forums on parent-child communication so as to work on role modeling as an effective substance abuse prevention measure. Majority of the students trust their own independence and fellow peers more than their parents. It was therefore recommended that teachers should correct this perception through increasing forums that bring them together.

## REFERENCES

Allen, J.D., Litten, C. K., Fertig, L. D., & Barbor, P.P. (2013). Brief group interventions with college students: Examining motivational components. *Journal of Drug Education, 33*(2), 159–176.



- Ary, D., Jacobs, L. C., Razavieh, A., & Sorensen, C. K. (2009). *Introduction to Research in Education* (8th Ed.). Cengage Learning.
- Azeez, R. O., Ajayi, O. S., & Babalola, S. O. (2020). Parental involvement, peer influence, and openness to experience and undergraduates' substance abuse in Ogun East Senatorial District, Ogun State, Nigeria. *Asia Pacific Journal of Multidisciplinary Research*, 8(3), 140-148.
- Bandura, A. (1986). *Social Foundations of Thought and Action: Social Cognitive Approach*. Eaglewood Cliff, N.J: Prentice Hall.
- Bowen, G. L., Hopson, L. M., Rose, R. A., & Glennie, E. J. (2012). Students perceived parental school behavior expectation and their academic performance: A Longitudinal analysis. *Family relations. An Interdisciplinary Journal of Applied Family Studies*, 61(2), 175-191.
- Catalano R.F., Fagan A.A., & Gavin L.E. (2012). Worldwide application of prevention science in adolescent health. *Lancet*, 379, 1653–1664.
- 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.
- Foxcroft, D.R., & Tsertsvadze, A. (2012). Universal alcohol misuse prevention programmes for children and adolescents: cochrane systematic reviews, *Perspectives in Public Health*, 132, 128–134.
- Gil, J. (2011). Families, Socioeconomic Status and Students' Educational Outcomes, *Education Culture*, 23(1), 141-154.
- GoK. (2018). *Kenya Vision 2030*. Nairobi: Government Printer.
- Griffin, & Botvin. (2010). Evidence-based interventions for preventing substance use disorders in adolescents. *Child and Adolescent Psychiatric Clinics of North America*, 19(3), 505–526.
- Griffin, K. W., & Botvin, G. J. (2010). Evidence-based interventions for preventing substance use disorders in adolescents. *Child and Adolescent Psychiatric Clinics of North America*, 19(3), 505–526.
- Hall, W., & Solowij, N. (1998). Adverse effects of cannabis. *Journal Substance Use*, 11(6), 387-394.
- Kathuri, N. J., & Pals, E. (1993). *Introduction to education research*. Njoro: Egerton University.
- Kothari .C.R., & Garg .G. (2014). *Research methodology; methods and techniques*. Mumbai: New Age International (P) Ltd.
- Lee, J., Johnson, C., Rice, J., Warren, CW., & Chen, T. (2013). Smoking beliefs and behavior among youth in South Korea, Taiwan, and Thailand. *International Journal of Behavioral Medicine*, 20, 319-326.
- Mertler, C. A. (2019). *Introduction to Educational Research* (2nd ed.). Los Angeles: Sage Publications.
- Moore, R., Hill, K., & Catalano, R. (2013). Exploring the effects of age of alcohol use initiation and psychosocial risk factors on subsequent alcohol misuse. *Journal of Studies on Alcohol*, 58, 280-290.
- Muhia, D. (2021). Impact of peer influence on substance abuse among students in public day secondary schools in Thika, Kiambu County. *Journal of Sociology and Religious Studies*, 1(1), 1-18
- Mukherji, P., & Albon, D. (2018). *Research Methods in Early Childhood* (3rd Ed.). New Delhi: Sage Publication Ltd.
- Mwaniki, M. (2017). *The Kenya Tobacco Control Alliance: Shisha Smoking*. Medical Media Services, Nairobi, Kenya.
- NACADA. (2013). *Prevalence of Drugs and Substances in Kenya*. Nairobi: National Authority for the Campaign against alcohol and Drug Abuse.
- NACADA. (2015). *Prevalence of Drugs and Substances in Kenya*. Nairobi: National Authority for the Campaign against alcohol and Drug Abuse.
- Nash, S. G., McQueen, A., & Bray, J. H. (2005). Pathways to adolescent alcohol use: Family environment, peer influence, and parental expectations. *Journal of Adolescent Health*, 37(1), 19–28.
- Onrust, S. A., Otten, R., Lammers, J., & Smit, F. (2016). School-based programmes to reduce and prevent substance use in different age groups: What works for whom? Systematic review and meta-regression analysis. *Clin. Psychol. Rev*, 44, 45–5.
- Shek, D. T. L., Zhu, X., Dou, D., & Chai, W. (2020). Influence of Family Factors on Substance Use in Early Adolescents: A Longitudinal Study in Hong Kong. *Journal of Psychoactive Drugs*, 52(1), 66–76. <https://doi.org/10.1080/02791072.2019.1707333>
- UNODC. (2017). *World Drug Report*. Vienna, Austria: United Nations Office on Drugs and Crime.
- UNODC. (2018). *World Drug Report*. United Nations Office on Drug and Crime. United Nations publication.
- WHO. (2014). *Global Status Report on Alcohol and Health*. World Health Organization. [http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf).
- WHO. (2017). *Health for the world's Adolescents*. World Health Organization. [http://public.tableau.com/shared/FHBTGF565?:display\\_count=no&:showVizHome=no](http://public.tableau.com/shared/FHBTGF565?:display_count=no&:showVizHome=no)