

INVESTIGATION OF TEACHING THE INTEGRATED TOPICS ON DRUG ABUSE IN SECONDARY SCHOOL CURRICULUM

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Abstract

The problem of this study was to investigate the teaching of the integrated topics on drug abuse in the secondary school curriculum as a strategy to wipe out the problem of drug abuse among students in Machakos District, Kenya. The specific objectives of the study were to: establish the prevalence of drug abuse at the secondary school level according to gender, locality (urban/rural), boarding or day and religious practice, and establish the effect of teaching integrated topics on prevalence rate of drug abuse. It was also meant to examine which topics on drug abuse are integrated in the secondary school curriculum. A survey study was carried out in Machakos District, Kenya. The subjects of the study were drawn from 24 randomly selected secondary schools. A sample of 774 respondents selected through stratified and simple random sampling techniques were used for the study. The sampling matrix comprised of 24 principals, 280 teachers and 470 students. The study utilized five research instruments: three questionnaires, interview schedule and observation schedule. The data collected was analyzed using frequencies, percentages, mean, mode and median. The main findings of the study were: the prevalence of drug abuse according to gender was Boys' (11.19%), Girls' (9.58%) and mixed sex (9.49%) schools. The urban schools had a prevalence of 10.73% whereas it was 9.66% in the rural ones. The prevalence according to status of the schools was: Day (13.84%), Mixed Day and Boarding (12.28%), and Boarding (11.54%). The teaching of the integrated topics on drug abuse had helped schools to reduce the drug menace. The topics on drug abuse were integrated in five subjects in the formal curriculum (English, Kiswahili, Chemistry, Biology and Christian Religious Education), the integrated topics were also taught through the non formal (Clubs and societies meetings) and in the informal (class, assembly and dormitory meetings) curriculum.

Key words: curriculum, integrated topics, prevalence rate of drug abuse.

Introduction

After the inability of guidance and counseling programmes to eradicate drug abuse among students in Kenyan secondary schools, attention was directed to establishment of drug abuse prevention programmes. These programmes include formal and non-formal learning

activities aimed at educating students against drug abuse by providing them with skills and knowledge that would keep them informed about the dangers of the vice and consequently avoid engaging in it. The government's formal response in the fight against drug abuse is documented in various official reports; Commissions of Education, Educational Reports, Policy documents and circulars (Republic of Kenya, 2004). The themes of HIV and AIDS and, drug abuse (which is of particular interest to this study) are now integrated in various subjects at the secondary school level.

Despite the efforts made by the government of Kenya to wipe out the problem of drug abuse among students, recent findings indicate that the drug abuse menace is still on the increase at the secondary school level in Kenya (Kombo, 2006). The prevalence of drug abuse at the national level among secondary school students in 2001 was 38%. In 2002, it was 42.5%, whereas in 2003, it was 42%. The prevalence according to the information documented by the Ministry of Education for the years: 2004, 2005 and 2007 was 43.2%, 43.5% and 43.9% respectively (NACADA, 2006). The data presented above shows that the prevalence of drug abuse at the national level has been going upward except in the year 2002.

Problem of Research

In attempt to reduce the problem of drug abuse among students, the teaching of the integrated topics on drug abuse in the secondary school curriculum was introduced in the Kenyan Education system more recently (Republic of Kenya, 2008). However, the teaching of the integrated topics on drug abuse in the secondary school curriculum may experience some challenges like resistance by teachers and lack of trained personnel (Miller, 2002). Such challenges are likely to negatively affect the teaching of topics that have been integrated in the secondary school curriculum. The problem of this study was therefore to investigate teaching of the integrated topics on drug abuse in the secondary school curriculum as a strategy to wipe out the problem of drug abuse among secondary school students in Kenya.

The study sought to establish the prevalence of drug abuse at the secondary school level according to gender, locality (urban or rural), boarding or day and religious practices. It also sought to establish the effect of teaching the integrated topics on prevalence rate of drug abuse among secondary school students and also examine which topics on drug abuse are integrated in the secondary school curriculum.

Limitations of the Study

This study was limited by the intervening variables related to the characteristics of the schools selected for this study. These included the status of each school (provincial or district) and the school's resource base. The study was also limited to teacher-related variables; teaching experience and personal competency. Student's ability could also have influenced their interpretations of the various items in the Students Drug Abuse Education Questionnaire. Another limitation to the study was related to sample size. Specifically the study was affected by the intervening variable of mortality rate where some teacher and student respondents who had been selected for the study returned their questionnaires uncompleted. The effects of such variables were also likely to have affected the findings of this study.

Delimitations of the Study

This study delimited itself to secondary schools in Machakos District, Eastern Province, Kenya. Ideally, the secondary schools sampled for the study should have been drawn from all districts in Kenya. However, this was not possible due to time and financial constraints. This study also confined itself to fourth form students and teachers in public secondary schools in the four divisions of Machakos District. Thus the current study was confined to the variables that were related to teachers and the school curriculum only. Again, this decision was taken due to the financial and time constraints.

Methodology of Research

General Background of Research

The study was conducted using both quantitative and qualitative approaches; however, quantitative methods were prioritized. Descriptive survey design was majorly used for the study. This is because the study was meant to ask large numbers of people questions about their opinions and ideas, and even describe what they say. The survey was cross-sectional in nature and used students, teachers and principals all at the same time in the study.

Sample of Research

The target population of this study comprised of approximately, 19200 students, 3739 teachers and 62 principals in Machakos district. The subjects of the study were drawn from 24 randomly selected secondary schools. A sample of 774 respondents was selected through stratified and simple random sampling techniques. The sampling matrix comprised of 24 principals, 280 teachers and 470 students.

Data Collection Tools

The study utilized five research instruments: three questionnaires, interview schedule and observation schedule. The validity and reliability of the research instruments was established by piloting the instruments in two secondary schools in Machakos District. The items in the research instruments were modified after the pilot study. The reliability of the research instruments was determined through the split-half correlation formula. The reliability index for each research instrument was: Students' Drug Abuse Education Questionnaire (0.96), Teachers' Drug Abuse Education Questionnaire (0.94), Principals' Drug Abuse Education Questionnaire (0.95) and Interview Schedule (0.72).

Data Analysis

The data collected was analyzed using frequencies, percentages, mean, mode and median. The data analyzed was categorized and presented as follows:

- Prevalence of drug abuse at the secondary school level according to gender, locality, status (boarding/day) and religious practices.
- Effect of teaching the integrated topics on drug abuse on prevalence rate among secondary school students.
- Topics on drug abuse that are integrated in the secondary school curriculum.

Results of Research

The Prevalence of Drug Abuse according to Gender, Locality, Status (Boarding/Day) and Religious Practices at the Secondary School Level

a) Prevalence according to gender parity.

The subjects of the study were asked to state the prevalence rate of drug abuse in secondary schools according to gender parity. The findings from the student respondents showed that the computed mean for drug abuse prevalence rate in Girls' schools was 9.58%. On the other hand, the calculated mean for the prevalence rate of drug abuse in Boys' schools was 11.19% and that of mixed schools was 9.49%. The modal class for the drug abuse prevalence rate in the three categories of schools was 1-10%. This implied that most of the schools selected for this study had a drug abuse prevalence rate of less than 10%. The median for the drug abuse prevalence was 9.98% for the mixed schools, 10.14% for the Girls' schools and 10.35% for the Boys' ones. A summary of the study findings on drug abuse prevalence in the schools selected for the study according to gender is shown in the table 1 below

Table 1. Students' Response on Prevalence of Drug Abuse in Secondary Schools according to Gender Stratification.

Schools according to gender Stratification	Class	Frequency (f)	Mid-point (x)	fx	Mean
Boys' School	1-10	92	5.5	506	11.19
	11-20	47	15.5	728.5	
	21-30	19	25.5	484.5	
	31-40	2	35.5	71	
		$\Sigma f=160$		$\Sigma fx=1790$	
Girls' School	1-10	69	5.5	379.5	9.58
	11-20	41	15.5	62	
	21-30	37	25.5	943.5	
	31-40	2	35.5	71	
		$\Sigma f=152$		$\Sigma fx=152$	
Mixed School	1-10	103	5.5	556.5	9.49
	11-20	47	15.5	728.5	
	21-30	8	25.5	204	
	31-40	-	35.5	-	
		$\Sigma f=158$		$\Sigma fx=1499$	

As shown in Table 1, the study found out that the prevalence rate of drug abuse was below 12% in all the schools selected for this study. However, these findings indicated that drug abuse was slightly more prevalent in Boys' schools compared to the Girls' ones. The mixed girls'/ boys' schools had the lowest prevalence of drug abuse. This observation was associated with students' behaviour, whereby girls are less adventurous on anti-social issues compared to boys. The case for the mixed schools might have been brought about by peer counseling that students of the opposite sex give one another.

b) Prevalence of drug abuse according to locality

The study also aimed at establishing the prevalence of drug abuse according to the locality of secondary schools in Machakos district. The data collected showed that 9 (37.50%) schools sampled for the study were in urban centers whereas the rest 15(62.50%) were in rural

areas. The schools categorized as rural ones were those located 20 kilometers from Machakos town center. The prevalence rate of drug abuse in urban schools was slightly higher than that for rural ones as shown in Table 2 below.

Table 2. Prevalence of Drug Abuse in Secondary Schools according to Locality.

Schools by Locality	Class	Frequency(f)	Mid-point(x)	fx	Mean
Urban Schools	1-10	125	5.5	687.5	10.73
	11-20	19	15.5	294.5	
	21-30	26	25.5	668	
	31-40	7	35.5	248.5	
		$\Sigma f=177$		$\Sigma fx=1898.5$	
Rural Schools	1-10	192	5.5	1056	9.66
	11-20	84	15.5	1302	
	21-30	13	25.5	331.5	
	31-40	4	35.5	142	
		$\Sigma f=293$		$\Sigma fx=2831.5$	

Table 2 shows that the computed mean for drug abuse prevalence rate in the urban schools was 10.73% while that for the rural ones was 9.66%. The modal class for the prevalence rate for both categories of schools was 1-10%. This implied that most of the schools selected for this study had a drug abuse prevalence rate of less than 10%. Table 2 further shows that 33 student respondents in urban schools reported that the drug abuse prevalence was above 20%. This represented 18.64% of the urban schools. On the other hand, 17 (5.80%) student respondents stated that drug abuse prevalence rate in the rural schools was above 20%. It also shows that the median for drug abuse prevalence in the urban schools was 8.62% while that for the rural ones was 6.51%. Once more these statistics revealed that drug abuse prevalence was higher in the urban schools compared to the rural ones. This observation was brought by the fact that the drugs abused by secondary school students were readily available in urban centers compared to the rural ones. The probes with the teacher interviewees further revealed that students' indiscipline that is closely linked to drug abuse was also more pronounced in urban schools compared to the rural ones.

The teacher and principal respondents reported a similar pattern of the prevalence of drug abuse. For instance, the teacher respondents stated that 20% urban schools had a prevalence rate of less than (10%) whereas 40% rural ones had the same rate. A teacher interviewee from an urban Secondary School reported that cases of drug abuse in that school were low due to the teaching of the integrated topics on drug abuse. There were only two teacher interviewees from a rural school, who reported a high prevalence (above 50%) of drug abuse in their school. However, an interview with the principal of that school revealed that the two teachers had been posted to the school one month before the study was carried out and hence their results were not valid. The data collected from the principal respondents showed that both urban and rural schools had a drug abuse prevalence rate of less than 10%. A comparison between the students' and teachers' responses showed that the prevalence rate of drug abuse was higher in urban schools compared to the rural ones.

c) Prevalence of drug abuse according to school status

The results of the drug abuse according to school status were as presented in table 3 below.

Table 3. Teachers' Response on Prevalence of Drug Abuse in Secondary schools according to Boarding or Day Status.

School Status	Class	Frequency (f)	Mid-point (x)	fx	Mean
Day School	1-10	32	5.5	176	13.84
	11-20	47	15.5	728	
	21-30	13	25.5	331.5	
	31-40	3	35.5	106	
		$\Sigma f=97$		$\Sigma fx=1342$	
Boarding Schools	1-10	40	5.5	220	12.28
	11-20	37	15.5	573.5	
	21-30	8	25.5	204	
	31-40	2	35.5	71	
		$\Sigma f=97$		$\Sigma fx=1068.5$	
Mixed (Day/Boarding) schools	1-10	25	5.5	137.5	11.54
	11-20	18	15.5	279	
	21-30	4	25.5	102	
	31-40	1	35.5	35.5	
		$\Sigma f=97$		$\Sigma fx=554$	

The results of the study further revealed that the computed mean for prevalence rate of drug abuse according to the status of each school selected for this study was: 13.84%, 12.28% and 11.54% in Day, Boarding and Mixed (Day& Boarding) schools respectively. These findings, therefore, showed that drug abuse was more prevalent in Day schools compared to the other types. The modal class for drug abuse prevalence in Day schools was 11-20%, whereas that of the other two categories of schools was 1-10% respectively. A comparison between the Day and Boarding schools indicated that drug abuse was more rampant in the Day schools. These findings were attributed to the fact that the school administrators were able to control trafficking of drugs in their institutions more easily in the boarding schools compared to the day ones. Furthermore, the students who commuted from their homes to school on daily basis were more vulnerable to drug abuse due to negative peer influence from the non-school going youth.

d) Prevalence rate of drug abuse in secondary schools according to religious practices.

The study also sought to establish the prevalence rate of drug abuse in secondary schools according to religious practices. The findings of the study revealed that there were 2 (8.33%) Islamic schools selected for the study. There were 6(25.00%) schools sponsored by the Catholic Church and the rest 16 (66.67%) were Protestant schools. The findings from the student respondents showed that the calculated mean for the prevalence rate of drug abuse in schools sponsored by the Protestant Church was 10.69%, while for those ones sponsored by the Catholic Church was 12.98%. The modal class for the prevalence rate of drug abuse in the schools sponsored by the Protestant Church and Islamic Foundation was 1-10% respectively. That for the schools sponsored by the Catholic Church was 11-20%. This finding suggested that drug abuse was more prevalent in Catholic sponsored schools compared to those sponsored by the Protestant Church. A comparison between the schools practicing Christianity and Islamic faith showed that drug abuse prevalence was higher in the former ones. A summary of the study findings on drug abuse prevalence rate according to religious practices in the selected schools is given in Table 4.

Table 4. Students' Response on Prevalence of Drug Abuse in Secondary Schools according to Religious Practices.

Schools by Religious Practice	Class	Frequency (f)	Mid-point (x)	fx	Mean
Protestant Schools	1-10	187	5.5	1028.5	10.69
	11-20	102	15.5	1581	
	21-30	14	25.5	357	
	31-40	11	35.5	390.5	
		$\Sigma f=314$		$\Sigma fx=3357$	
Catholic Schools	1-10	43	5.5	236.5	12.98
	11-20	67	15.5	1038.5	
	21-30	4	25.5	102	
	31-40	3	35.5	142	
		$\Sigma f=117$		$\Sigma fx=1519$	
Islamic Schools	1-10	26	5.5	143	10.37
	11-20	9	15.5	139.5	
	21-30	2	25.5	51	
	31-40	2	35.5	71	
		$\Sigma f=39$		$\Sigma fx=404.5$	

Effect of Teaching the Integrated Topics on Prevalence Rate of Drug Abuse among Secondary School Students

One of the questions in the SDAEQ, sought to establish the effect of teaching the integrated topics on drug abuse on prevalence rate of drug abuse among secondary school students. The findings of the study revealed that 57(12.13%) student respondents, 29(12.51%) teacher respondents and 2(8.33%) principal respondents stated that the prevalence of drug abuse among secondary school students was on the increase due to teaching of the integrated topic on drug abuse in the secondary school curriculum. Another 77(16.38%) student respondents, 31(13.36%) teacher respondents and 2(8.33%) principal respondents noted that the teaching of the integrated topics on drug abuse made no change on the prevalence rate of drug abuse among secondary school students. On the contrary, 334(71.06%) student respondents, 169(72.84%) teacher respondents and 20(83.34%) principal respondents reported that the prevalence rate of drug abuse had reduced since the introduction of teaching of the integrated topics on drug abuse in the secondary school curriculum. These results suggested that the teaching of the integrated topics on drug abuse had a positive impact on reduction of drug abuse among secondary school students in Machakos district.

Topics on Drug Abuse Integrated in Secondary School Curriculum

The study aimed at establishing the topics on drug abuse that were integrated in the secondary school curriculum. A summary of its findings on whether topics on drug abuse were integrated in the secondary school curriculum is shown in table 5. It shows that 433(92.13%) student, 277(97.84%) teacher and 23(95.83%) principal respondents indicated that the topics on drug abuse were integrated in the secondary school curriculum. Only a small percentage of less than 10% in each stratum of respondents reported that the topics on drug abuse were not integrated in the secondary school curriculum.

Table 5. Teaching of Integrated Topics in Secondary School Curriculum.

Response	Students	Teachers	Principals
N	470	232	24
Yes	433 (92.13)	227 (97.84)	23 (95.83)
No	37 (7.87)	5 (2.16)	1 (4.17)
Total	470 (100)	232 (100)	24 (100)

N = total number of respondents

Figures in brackets are percentage scores

The probes carried out through interviews with both the teacher and principal interviewees supported the above findings. In one of the secondary schools, the following discussion was captured during an interview with a teacher interviewee.

Researcher: Are the topics on drug abuse integrated in the secondary school curriculum?

Mr. Joseph: Oh yes! In fact the topics on drug abuse are integrated in several subjects in the secondary school curriculum. In the two subjects that I teach (Mathematics and Chemistry), the integrated topics on drug abuse are covered in all classes. For Me, I enjoy teaching these topics in Chemistry more than in Mathematics.

The above finding was supported by another teacher interviewee from girls' only secondary school, who reported that the integrated topics on drug abuse were covered in the subjects she taught; English and Geography. This teacher interviewee further noted that in her school, their schemes of work could not be approved for use by the HODs unless the topics on drug abuse were clearly shown. One of the principal interviewees was very categorical that the topics on drug abuse were integrated in most subjects in the secondary school curriculum. When challenged by the researcher to justify her stand, she had this to say:

During the signing of the teachers' schemes of work, I usually pay keen interest on the teaching of the emerging issues in teaching process. My major areas of concern are the topics on drug abuse and HIV/AIDS... this practice is known by all my teachers.

The study also sought to establish the specific topics on drug abuse integrated in the secondary school curriculum. The findings from the student respondents revealed that the integrated topics on drug abuse taught in the secondary school curriculum were as follows: reasons for drug abuse 81(17.24%), dangers of drug abuse 143(30.42%), social impact of drug abuse 131(27.87%) and types of drugs abused by students 114(24.26%).

The findings from the teacher respondents were in agreement with those of the student respondents. According to the 38 (16.56%) teacher respondents the topic on reasons for drug abuse was covered in class, whereas 68 (29.22%) stated that the topic on dangers of drug abuse was also covered in class. The rest of the topics were taught as follows: social impact of drug abuse by 62(26.77%), types of drugs abused by secondary students by 54(23.31%) and methods of drug peddling by 10(4.13%).

The results from the principal respondents showed that the following integrated topics on drug abuse were taught in the secondary school curriculum: reasons for drug abuse by 5(20.83%), dangers of drug abuse by 7(29.17%), social impact of drug abuse by 6(25.00%) and types of drugs abused by secondary students by 6(25.00%) respectively.

Though all the respondents were asked to state the topics on drug abuse that were integrated in the secondary school curriculum in the respective Drug Abuse Education Questionnaire, this question was further probed through the interviews carried out with the teacher and principal

interviewees. Several teacher interviewees in confidence reported that they covered the topics on: reasons for abusing drugs, dangers of drug abuse, social impacts of drug abuse and types of drugs abused in schools. The principal interviewees revealed that all the above topics on drug abuse were integrated in the secondary school curriculum. In addition they were of the opinion that the topics on factors that influence drug abuse and methods of drug trafficking should also be integrated in the secondary school curriculum.

The above finding about the topics on drug abuse integrated in the secondary school level according to the above principal interviewees corresponds to the documentary evidence obtained from an analysis carried out on various syllabi in the secondary school curriculum. Most of the syllabi reviewed showed that the topics: reasons for drug abuse, dangers of drug abuse, social impact of drug abuse and types of drugs abused were integrated in the school curriculum (Republic of Kenya, 2007). A similar observation which is in line with the findings of this study was also recorded by Mathai (1990) in a study on drug prevention education in Kenya. Mathai (1990) showed that apart from the topics integrated in the current secondary school curriculum, other topics such: drug use and misuse, coping up with modern stress without resorting to drug abuse and types of drug dependence were also incorporated in drug prevention programmes.

The finding of the study further revealed that the topics on drug abuse were integrated in several subjects at the secondary school level. Documentary analysis of the various syllabuses showed that the topics on drug abuse were integrated in following subjects: Mathematics, Chemistry, Physics, Christian Religious Education, Geography and Biology in the secondary school curriculum but at different levels (Republic of Kenya, 2007). For instance, the syllabus for languages clearly showed that various topics on drug abuse had been integrated in the syllabus. According to the English syllabus, in Form 1 and Form 2 classes, the following topics on drug abuse were integrated: reasons for drug abuse, dangers of drug abuse, types of drugs and social impact of drug abuse (Republic of Kenya, 2007). Similarly the same topics were included in the Kiswahili syllabus.

This study also sought to find out whether the topics on drug abuse were integrated in the non-formal curriculum; students' clubs and religious societies programmes at the secondary school level. All the respondents answered this question. The findings of the study revealed that 268 (52.02%) student respondents reported that the integrated topics on drug abuse were covered in students' clubs meetings while another 431(91.70%) stated that they covered the topics during their religious societies meetings.

Table 6. Integration of Topics on Drug Abuse in Students' Clubs Meetings.

Response	Principals	Teachers	Students
N	24	232	470
Reasons for drug abuse	5 (20.83)	54 (23.28)	117 (24.87)
Dangers of drug abuse	7 (29.17)	82 (35.34)	168 (35.74)
Social impact on drug abuse	7 (29.17)	89 (38.36)	172 (36.6)
Signs and symptoms of drug abuse	-	-	13 (2.77)
Types of drug abuse	5 (20.83)	7 (3.02)	-
Total	24 (100)	232 (100)	470 (100)

N = total number of respondents

Figures in brackets are percentage scores

The findings of the study revealed that one of the topics on drug abuse integrated in the students' club meetings was reasons why students abuse drugs, which was rated at 20.83% by 5 principal respondents. They also reported that the topic on dangers of drug abuse was covered in the students' clubs meetings. It was rated at 29.17% by 7 principal respondents. Another

integrated topic on drug abuse covered in the students' clubs meeting was the social impact of drug abuse according to 7 (29.17%) principal respondents. Table 6 shows that the teacher respondents revealed that the integrated topics on drug abuse; reasons why people abuse drugs, dangers of drug abuse, the social impact of drug abuse and signs and symptoms of drug abuse were covered in students' club meetings.

The findings from interviews with teacher interviewees were in agreement with those from the questionnaires. A teacher interviewee reported that:

... in this school (Kola Boys' Secondary School) several club patrons had reported that they always discuss topics on drug abuse with the students at least twice in a term.

When probed to highlight the topics on drug abuse which the teachers had said:

In **Science club**--- Reasons for drug abuse and dangers of drug abuse

In **Straight Talk club**--- reasons for drug abuse, signs and symptoms of drug abuse, social problems of drug abuse and prevention measures.

In **Mathematics club**--- causes of drug abuse and social impact of drug abuse.

Findings regarding the integration of topics on drug abuse as reflected from the above excerpt seemed to concur with those of the principal interviewees. For instance the principal interviewee of a Girls' Secondary School said that apart from Science club, the integrated topics on drug abuse; reasons for drug abuse, signs and symptoms of drug abuse, dangers of drug abuse and types of drugs were covered in other students' clubs meetings in her school.

The findings on the integration of the topics on drug abuse in specific clubs as per the student respondents were: Straight Talk 209 (44.46%), Debate 143 (30.42%), Science 96 (20.43%) and Mathematics 22 (4.62%). Similarly, 80 (34.48%) teacher respondents reported that the integrated topics on drug abuse were discussed in clubs meetings, whereas 93 (40.08%) indicated that the integrated topics on drug abuse were discussed in religious societies meetings. In the Straight Talk club, the topics discussed by its members were programmed by a national steering committee. Among these topics, drug abuse was given a special preference together with issues on HIV and AIDS pandemic. However, the meetings for the Straight Talk club in 22 (91.67%) schools selected for the study took place at the same time with meetings for other clubs, that is, on Tuesdays. This implied that only a small percentage of the students' population in each school benefited from such teachings.

In debate club, the students' discussions were specifically tailored to address the social vices that they faced in life. In this respect, the debate patrons deliberately taught the integrated topics on drug abuse as a way of sensitizing students on the dangers of drug abuse. Some of the topics that the students debated upon were: dangers of drug abuse, social impact of drug abuse, reasons why students abuse drugs, sources of the drugs abused in schools and ways of avoiding drug abuse. The findings of the study according to the principal respondents revealed that four topics on drug abuse were mainly discussed in the Mathematics club; reasons for drug abuse by 5(20.83%), dangers of drug abuse by 7(29.17%) social impact of drug abuse by 7(29.17%) and sources of the drugs abused by 5(20.83%).

The researcher also sought to establish the consistency in which, the integrated topics on drug abuse were covered in students' clubs meetings. The findings of the study were tabulated according to the number of times the integrated topics on drug abuse were discussed during such meetings. The student respondents revealed that the integrated topics on drug abuse were covered as follows: frequently 134 (28.51%), occasionally 166 (35.32%) and rarely 110 (23.40%).

Table 7. Frequency of Teaching of the Integrated Topics on Drug Abuse in Students' Clubs Meetings.

Response	Students	Teachers	Principals
N	470	232	24
Frequently	134 (28.51)	92 (39.66)	4 (16.67)
Occasionally	166 (35.32)	81 (34.91)	16 (66.66)
Rarely	110 (23.4)	38 (16.38)	4 (16.67)
Never	60 (12.77)	21 (9.05)	
Total	470 (100)	232 (100)	24 (100)

N = total number of respondents

Figures in brackets are percentage scores

Table 7 shows that an exceptional case was pointed out by 60 (12.76%) student respondents who said that the integrated topics on drug abuse had never been discussed in their schools during students' clubs meetings. However, responses from the teacher respondents gave a slightly higher rating for the frequency of the coverage of the integrated topics on drug abuse in students' clubs meetings; frequently 92(39.66%), occasionally 81(34.91%), rarely 38(16.38%) and never 21(9.05%) accordingly. The principal respondents on the other hand reported that the integrated topics on drug abuse were also discussed in students' clubs meetings. This was rated 66.66%, which was almost twice to the rating given by the teacher respondents on the same item. The discrepancy on this finding compared to that of either the student respondents or teacher respondents was associated to the fact that a good number of the principals did not directly handle issues related students' clubs activities.

In the schools where students reported that the integrated topics on drug abuse were not covered, this was attributed to the principal's attitudes toward the drug problem. For instance, in Mavoko Secondary School, the principal confided to the researcher that exposing the prevalence of drug abuse in his school was tantamount to tarnishing its name. For this reason, the principal opted to avoid discussions on topics of drug abuse with his students.

The study also sought to establish whether the integrated topics on drug abuse were covered in the students' religious societies meetings. The findings of the study revealed that the integrated topics on drug abuse were covered in the schools' religious practices follows: Christian Union 118(50.86%), Young Christian Students 84(36.21%) and Seventh Day Adventist 30(9.48%) as reported by the teacher respondents. The results further showed that 22 (91.67%) principal respondents suggested that the integrated topics on drug abuse were covered in students' clubs meetings.

The study also found out that the integrated topics on drug abuse were covered in school assembly meetings according to 396(84.26%) student respondents, 207(89.22 %) teacher respondents and 100% principal respondents. The integrated topics covered during the school assembly meetings were: school policy on drug abuse 137(29.15%), dangers of drug abuse 165 (35.11%), social impact of drug abuse 104 (22.13%), sources of drugs abused by students 47(10.00%) and disciplinary measures used by the school administration to curb down drug abuse 17(3.62%).

In addition, the findings of the study also revealed that the integrated topics were covered in dormitory meetings. The specific topics covered in the schools selected for this study were: school policy on drug abuse by 68(29.31%), dangers of drug abuse by 71 (30.60%), social impact of drug abuse by 30 (8.62%), sources of drugs abused by students by 34(14.66%) and disciplinary measures used by the school administration to curb down drug abuse by 29(12.50%) teacher respondents respectively.

The other non-formal teaching activity where the integrated topics on drug abuse were

covered at the secondary school level was in class meetings. The responses obtained from the teacher interviewees indicated the integrated topics on drug abuse discussed in class meetings were: dangers of drug abuse, sources of drugs abused by students, social impact of drug abuse and methods of curbing drug abuse among students.

Discussion

From the study, it was found out that, boys' schools had higher drug abuse prevalence rate compared to the Girls' and Mixed (boys and girls). The trend of drug abuse prevalence according to gender parity is not new. Flisher, Ziervogel, Charlton, Leger & Robertson (1993) in a study on prevalence of drug abuse among the American youth reported that drug abuse was significantly related to gender. According to Flisher et al (1993) the prevalence of drug abuse was higher among the male youth compared to the female ones. Similarly studies carried out by Lambo (1995) and Mathison & Freeman (1997) showed that drug abuse prevalence is strongly influenced by gender due to the different male and female socialization as the child grows up.

Although the findings of this study suggested that drug abuse was more prevalent in the schools situated in the urban centers compared to those in rural ones, the findings seemed contradict those of Grube & Morgan (1996) when they reported a no significant correlation between drug abuse prevalence and the locality of a school in a study carried out with Middle High grade students in Canada. However, research findings of a study carried out in Nigeria concurred with the findings of the current study when they reported that the prevalence of drug abuse was influenced by the locality of the learning Institution (Obot, 1993). Thus the findings of the current study suggest that the prevalence of drug abuse was influenced by the locality of the secondary school in Machakos district, Kenya.

The prevalence of drug abuse according to the status of a school had been underscored earlier in a study on the trend of drug abuse among secondary school students in Nairobi province (Asuni, 1990). According to Asuni (1990) the prevalence of drug abuse was higher in mixed Day & Boarding schools compared to the fully Boarding schools. Similarly, Acuda, Edie, Gudyanga & Khan (1991) discussed the factors that influenced drug abuse among the youth in Zimbabwe. The findings of the study carried by Acuda et al (1991) seemed to be in agreement with the findings of the current study when they reported that the prevalence of drug abuse among secondary school students was higher in Day schools compared to those in the Boarding ones. The reasons contributing to this trend of drug abuse was that the students in the Day schools could easily access the drugs they abused on their way to school.

Religious practices have been reported to have a direct influence on the prevalence of drug abuse among secondary school students in studies carried out in other countries (Nabunya, 1992). For instance documentary analysis from the study carried out by Nabunya (1992) showed that specific religious teachings and intervention programmes were significantly related to the prevalence of drug abuse among the youth in a study carried out in Uganda.

The importance of integrating the topics on drug abuse had been captured in earlier studies (Kilonzo, 1992). In his study on drug prevention programmes with secondary school students Kilonzo (1992) reported that integration of topics in the non-formal dimension of the school curriculum compliments the teaching of the same content in class. Due the flexibility of the learning activities, students openly discussed drug abuse related topics with their patrons, which lead to improved understanding of the content on drug abuse.

Conclusions

The findings of this study as reported and discussed in this section revealed that the prevalence rate of drug abuse among secondary school students in Machakos district was

higher in boys' school compared to girls' and mixed schools. It was also found out that urban schools had higher drug abuse prevalence rate compared to the rural ones and day schools had higher drug abuse prevalence rate compared to the boarding ones. Schools practicing the Christian faith had higher drug abuse prevalence rate compared to the schools sponsored by the Muslim faith. The following topics on drug abuse were integrated in the secondary school curriculum: dangers of drug abuse, social impact of drug abuse and reasons why students abuse drugs. Others were sources of the drugs abused in schools and ways of avoiding drug abuse. In addition, the above listed topics were integrated in both the formal and non-formal learning activities. The topics on drug abuse were integrated in all classes (from Form 1 to Form 4) and in both students' clubs and religious societies meetings.

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Received: July 16, 2011

Accepted: October 04, 2011

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