

RELATIONSHIP BETWEEN LEVELS OF EXPOSURE TO MASS MEDIA AND STUDENTS' DRUG ABUSE IN SELECTED SECONDARY SCHOOLS IN NAKURU COUNTY, KENYA

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Abstract

The influence of the media on the psychosocial development of children and the youth is profound. Kenya has witnessed tremendous and rapid expansion of the mass media, whose large proportion of features is Western oriented. Most of this information focuses on violence, drugs, relationships and sexuality. The available literature shows that most young people are heavy consumers of both electronic and print media. This study was therefore designed to establish the relationship between levels of exposure to mass media and students' drug abuse in selected secondary schools within Nakuru County Kenya. The study was guided by the Social Learning Theory pioneered by Albert Bandura with its principle of "modeling" and operant conditioning theory by B.F Skinner. The study employed survey research design. In view of this, questionnaires were used to collect both qualitative and quantitative data. The independent variable in the study was levels of exposure to mass media. The dependent variable was students' Drug abuse. The study was carried out in the 3 Sub-counties of Nakuru town, Molo and Nakuru North, within Nakuru County, Kenya. The sample size for this study was 482 sampled from a total student population of 12,300 from the 3 selected Sub-counties. The study areas were purposively sampled while stratified random sampling and simple random sampling were used to sample schools and students respectively. The study used 8 public secondary schools distributed as follows, 3 were Sub-county day and mixed, one provincial day and mixed, 2 provincial boarding and mixed, 1 national boys boarding and 1 national girls boarding. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 20 for Windows. Specifically, Chi square statistic was used to test the significance of the stated null hypotheses, set at $\alpha=0.05$. The key findings indicated that levels of exposure to mass media influences students to drug abuse ($P=0.007$ that is <0.05). Test done proved that levels of exposure to mass media are related to students' Drug abuse. It was recommended that government, teachers and parents undertake measure to control adverse effects of media consumption by students, such as indulgence in drug abuse.

Keywords: Relationships, Mass media, Levels of exposure, Drug abuse, Students

I. Introduction

Drug and Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs (WHO, 2015). In addition to the role of parents and peers, recent attention has focused on the role of mass media in shaping youth substance use (Strasburger & the Council on Communications and Media 2010). Children and adolescents exist in a media-rich environment and receive persuasive messages about substance-related social norms and outcome expectancies. The media's ability to influence youth's behaviors is not surprising considering the amount of media to which children are exposed. Children and adolescents spend over 7.5 hours a day using media on average, with rates exceeding 10 hours per day when considering the use of more than one form of media simultaneously (Rideout, Foehr, & Roberts 2010).

A study done by Winger, Wood and Hofmann (2004) came up with various physiological effects such as accelerated heartbeat, speeding in the peripheral circulation of blood, alteration of blood pressure, breathing rate and other body functions decline. Drug and substance abuse contributes to the formation of uric acid which accelerates conditions like arthritis, gout, osteoporosis, and heart attack especially for people with coronary hypertensive problems (Kyalo, 2010). Effects of drugs abuse include: Creased aggression or irritability, Changes in attitude/personality, Lethargy, Depression, Sudden changes in a social network, Dramatic changes in habits and/or priorities, Involvement in criminal activity.

Communication refers to conveying or transfer of information from one person to another (Lemish, 1997). Communication begins at birth and ends at death and is common to all human beings. Mass media refers to any printed or electronic media designed to carry messages to large audiences. Mass media comprises those channels of communications, which are used in receiving heterogeneous audiences simultaneously. Examples of electronic media include radio, television, cinema, interactive multimedia, communication through internet, e-mail, mobile phones among others. Print media include: Newspapers, magazines, billboards, exhibition display, poster leaflets among others. People use mass media for reasons such as: gathering information for the purposes of acquiring knowledge, for personal identification so as to gain insight into oneself, to change the attitudes and behavior of the targeted customers, for integration and social interaction with other people and for entertainment (Cantor, 1999).

Earlier researches indicated that majority of electronic media consumers were and still are young people, especially TV broadcast and cable channels, videos, radio and cinema and more recently the internet, email and the mobile phones. Factors that may determine the type of media used by an adolescent include: gender, age, race/ethnicity, social class, and religion, place of residence (rural or urban, among other factors (Cantor & Omdahl, 1999). Mass media represents one of the most important and unrecognized influences on a child's and adolescent's health and behavior (Taylor, 2006). For example, mass media to an extent can encourage children and adolescents to be constructive, imaginative and cooperative. Mass media can also help to foster vocabulary development in children and adolescents (Taylor, 2006).

In the U.S.A, Several highly publicized murders in schools have alarmed the public and politicians. An average of 20-25 violent acts are shown in children's television programs each hour (Rubin, 1993). Significant association was found between the amount of time spent watching television during adolescence, with its exposure to violence, and the likelihood of subsequent antisocial behavior, such as threatening, aggression, assault or physical fights resulting in injury, drug abuse and robbery (Huesmann and Taylor, 2006). Despite the worldwide concern and education about the dangers of drug abuse, the prevalence of drug abuse continues to be felt at an alarming level in secondary schools in Kenya (Mayoyo, 2003). Recent studies show that more than 22.7% of secondary school students take alcohol (Otieno & Ofulla, 2009; Oteyo & Kariuki, 2009 Otieno, 2005).

II. Objective

To determine whether levels of exposure to mass media is related to students' drug abuse in selected secondary schools in Nakuru County, Kenya.

III. Hypothesis

There is no significant relationship between levels of exposure to mass media and students' drug abuse in selected secondary schools in Nakuru County, Kenya.

IV. Literature Review

Relationship between Levels of Exposure to Mass Media and Students' Drug Abuse

During the 1970s and 1980s, rock music lyrics became more explicit in their references to sex and drugs (Fedler & Tanzi, 1982). The AAP's revised policy statement in 1996 stated that although there were no studies documenting a cause-and-effect relationship between sexually explicit or violent lyrics and adverse behavioral effects, Several studies have in fact looked at whether music preference is associated with adolescent turmoil and even suicidality. Weidinger and Demi (1991), provided the first look at the preference for heavy metal music in disturbed or drug-abusing adolescents in a small sample of 60 adolescents hospitalized on a psychiatric unit. This was followed by Arnett (1992), who surveyed 248 students in 10th and 12th grade in a southern metropolitan area about their musical preferences and reckless behaviors. The reckless behaviors included driving while intoxicated, driving at speeds of greater than 80 mph, drug use, sexual promiscuity, shoplifting, and vandalism (Mwiti, 1994). The results demonstrated a clear association between heavy metal and hard rock as a musical preference and reckless behavior. The author cautioned that the results not be interpreted as causative, but instead that the heavy metal and hard rock music appeals to adolescents who have high levels of sensation-seeking behavior (ibid).

Martin, Clarke and Pearce (1993), surveyed 247 high school students in two Australian government high schools about their musical preferences and aspects of their psychological health and lifestyle. The results showed a marked gender bias, with 74% of the girls preferring pop music compared with 71% of the boys preferring hard rock/heavy metal music. They also reported significant associations between a preference for hard rock/heavy metal music and suicidal thoughts, acts of deliberate self-harm, "depression," "delinquency," drug taking, and family dysfunction. They suggested that there is a group of young people with preexisting personal family psychopathology who may choose hard rock/heavy metal music because its themes resonate with their own feelings of frustration, rage, and despair. Many of these adolescents report that listening to hard rock/heavy metal music actually makes them feel happier. The article did, however, identify 11% of the sample who claimed that listening made them feel sadder and postulated that it is perhaps this group that is at most risk for suicidal behavior.

In a larger study by Stack, Gundlach and Reeves (1994), the relationship between the subculture of heavy metal magazine subscriptions and adolescent suicide was examined in all 50 United States. The authors concluded that the greater the extent of heavy metal subculture, the higher the suicide rate. They further asserted that this music, which is marked by themes

of despair, alienation, and chaos, “nurtures suicidal tendencies already present in the subculture”. Using a smaller clinical sample of 88 psychiatric patients, Took and Weiss (1994) further questioned the relationship between musical preference and adolescent turmoil. This study was the first to include rap music as a preference category. Although the initial results indicated that those who preferred heavy metal and rap had worse school grades, more school behavior problems, increased sexual activity, and increased drug and alcohol use and arrests, when controlled for gender, only below-average current and elementary school grades and a history of counseling in elementary school for school problems remained significant.

Lemish (1997), examined the potential causal effect of music television on violent behavior. He collected data on 222 patients in six wards of a forensic hospital between the ages of 18 and 67 years, mean age 28.65 ± 9.45 (SD) years. The study was prompted by his observation that at least one and often both of the two television sets on each ward were often tuned to the Music Television (MTV) network. Noting the high levels of sexual and violent themes present, and seeing signs of clinical deterioration after prolonged viewing, they designed a study that looked at the number of assaultive incidents before and after MTV removal on the wards. The results showed a statistically significant reduction in incidents per week from 44 to 27 after removal of MTV that was further supported by time-series analysis.

Durant et al (1997b), examined the content of tobacco and alcohol use behaviors on television. The results showed that a high percentage (26%) of MTV videos portrayed tobacco use. The percentage of alcohol use on MTV was still the highest at 27%, but differences with the other networks were not statistically significant. Of note, given the influence of modeling and imitation in young people, videos that portrayed alcohol and tobacco use depicted the lead performer as most often the one observed to be smoking or drinking. Sexuality was also portrayed in a higher percentage of videos with drinking. BET contained the highest percentage of videos with sexuality or eroticism. Subsequent studies of older ages considered the influence of various advertising and marketing techniques and later susceptibility to smoking. Evans, Farkas, Gilpin, Berry and Pierce (1995), examined data on 3,536 adolescents who had never smoked to determine their susceptibility to smoking; they surveyed two indices: (1) a 5-point index of an individual's receptivity to advertising as evidenced by recognition of advertising messages, having a favorite advertisement, naming a brand he or she might buy, owning a tobacco-related promotional item, and willingness to use a tobacco-related promotional item; and (2) an index classifying the individual's reported exposure to family and peer smoking. The relationship of receptivity to advertising and susceptibility to smoking was stronger than the relationship of family or peer smoking and susceptibility, indicating that advertising is a more powerful influence than exposure to peer or family smoking. Four recent research articles, with large sample sizes and different geographical locales, have looked more specifically at the relationship between tobacco promotional items and smoking susceptibility: Sargent et al (1997), survey of 1,265 rural New Hampshire and Vermont youths aged 10–19 years; Pierce (1998), survey of 1,752 California adolescents aged 12–17 years.

Each study has documented a strong association between an awareness of and involvement with tobacco promotional items and subsequent susceptibility to tobacco use. Pierce's study was the only longitudinal examination of the link between advertising, exposure to promotional

tobacco items, and later smoking. Spanning a 3-year period from 1993 to 1996, the study found that adolescents who had a favorite cigarette advertisement in 1993, compared with those who did not, were twice as likely either to have started smoking by 1996 or to be willing to start, and those who owned or were willing to own a promotional item were three times as likely to have started smoking by 1996 or to be willing to start.

Studies from the 1980s showed significant correlation between exposure to alcohol advertising and drinking beliefs and behaviors (Atkin & Block, 1981). In the 1990s two major studies examined the effects of alcohol advertising on children and adolescents. Grube and Wallack (1994), looked specifically at the relationship between television beer advertising and drinking knowledge, beliefs, and the intention to later drink. The sample queried was a random group of 468 fifth and sixth graders, using self-administered questionnaires and structured interviews. They measured television viewing, awareness of beer advertising, knowledge of beer brands and slogans, alcohol beliefs (both positive and negative), intention to drink as an adult, perceived parental and peer approval of drinking, perceived parental and peer drinking, and demographic and background variables. Children with more knowledge of beer brands and slogans held more favorable beliefs about drinking and more frequently intended to drink as adults. The positive values associated with drinking included romance, sociability, and relaxation.

Concern from parents, professionals, and the populace at large about the impact of the media on children and adolescents has grown steadily over recent years. Dietz and Strasburger's review (1991), summarized the research of the previous 20 years, which demonstrated the multiple effects of television on child and adolescent cognition and behavior. Looking at topics ranging from cognitive development, to obesity, to aggressive behavior and violence, drug use, suicide, sexual activity, and the promotion of stereotyping, this article highlighted earlier findings and provided the basis for much of the recent research (Alliet 2000). From this point, particularly in the area of television and movies, the research became heavily oriented toward content analysis and viewing patterns, with the widely accepted premise that children gain knowledge, learn behaviors, and have their value systems significantly shaped by exposure to media. In 1996 the American Medical Association's brochure "Physician Guide to Media Violence" (Walsh, Goldman & Brown, 1996) further highlighted the direct correlation between media exposure and violent behavior and called on physicians to incorporate a media history into the routine assessment of patients as part of an effort to stem the growing epidemic of violence in America. More recently, Strasburger and Donnerstein (1999), updated the media topic by providing an overview article, "Children, Adolescents, and the Media: Issues and Solutions." With more than 150 references, this article detailed research, popular press articles, governmental publications, and survey data. The article summarizes the research findings and examines the roles of parents, health professionals, the media, and government in providing solutions.

In Kenya NACADA, which has been spear-heading the government's crusade against drug abuse, has been very active in targeting the creative advertising industry that fronts for leading beer and cigarette manufacturers. Former NACADA boss Joseph Kaguthi says that he is not against alcohol or anyone but maintains that he will fight arbitrary efforts by alcohol and tobacco firms to "destroy Kenyan youth through unfairly exposing them to the products". People who smoke are portrayed as being either great sportsmen or socially successful,

wealthy or important people. Social pressure from media and friends is a universal risk factor for substance abuse among adolescents in developed and developing countries (Gikonyo, 2005). This is especially common in urban areas where there is widespread exposure to advertising on radio, television and billboards. Young people in urban areas are more exposed to images and messages promoting tobacco and alcohol than their counter parts in rural areas (Imbosa, 2002), concur with this argument asserting that external pressures especially the media have an influence in substance abuse among the youth. According to him, the amount of time young people spend watching television has a negative influence on their behaviour. Okech (1997), argues that the mass media lays a big role in influencing children. They receive information from movies, television, video cassette, billboards and magazines. Even though these media do not usually promote drug use explicitly, they can reinforce a child's impression that the use is normal (NACADA 2011).

A study conducted by Kiragu (2010), to investigate the extent to which selected factors contribute to alcohol and cigarette use among male students in public day secondary schools: a case study of Nakuru Municipality. A total student population of 2279 and a sample size of 327 was used. The research design used was ex post facto and independent variables were studied retrospectively. Multistage cluster, Probability Proportionate to Size and purposive sampling methods were used to select the participating schools and respondents. Data was analyzed by use of frequencies, percentages, cross-tabulation, Chi-square and logistic regression. SPSS computer program was used in data analysis. The study established that peer-group influence had the greatest contribution to high school and cigarette use, followed by family factors. The selected factors accounted for 44% of high alcohol and cigarettes use collectively. The findings were such that exposure to pro-alcohol and cigarettes mass media content was significantly related to levels of alcohol and cigarettes use ($\chi^2=13.63$, $df=2$, $p<0.05$). The findings indicated that 52.9% low drug users reported low mass media exposure as compared to 9.3% who reported high mass media exposure. For high alcohol and cigarettes users, 58.2% had mass media exposure. This is compared to 4.2% high alcohol and cigarettes users who had low mass media exposure. The results indicated that 15.7% of the respondents had seen or heard pro-alcohol and cigarettes advertisement on the internet.

A study to establish the factors that influence drug and substance abuse among the youth was conducted in mbeere district, Kenya. This study sought to establish the factors influencing the use of drugs and drug abuse among the youth in Mbeere district. It focused on how literacy levels influence drug and substance abuse; whether gender influences substance and drug abuse; the influence of type of employment on drug and substance abuse; evaluation of the role of availability of drugs and substance in drug and substance abuse and lastly whether peer pressure is a contributing factor to drug and substance abuse among the youth in Mbeere district (Murimi, 2012).

A descriptive survey research design was used. Three out of 27 Locations in Mbeere district were purposively sampled for the purposes of the study. Depending on accessibility 40 youths were selected in each location for the study; giving a total of 120 youth. A questionnaire was used to collect information from both the youth and the organizations dealing with youth issues. Data was analyzed using descriptive statistics. The study findings showed that drug and substance abuse among the youth are influenced by literacy level, gender, type of employment, availability of drugs and substances of abuse and peer pressure.

Key recommendations made are; effects of drug and substance abuse be part of the syllabus from primary school, media be used to emphasize on the effects of drug abuse, the Government to create employment for the youth and train youth on time management and entrepreneurship, reinforcement of various laws that regulate production and consumption of drugs and substance of abuse and sensitize parents on good role modelling.

A study by Kembo (2012), on the factors associated with drug use among standard eight primary school pupils in Mathare division, Nairobi province, indicated that gender has a significant influence in the pupils' drug use. It was found out that where both parents use of drugs, the father's use of drugs had a significant influence on the pupils drug use. Friends and siblings' use of drugs were also significant influences in pupils drug use as was the pupil's high knowledge of drug terminology. On the other hand, socio-economic status, family environment, availability of drugs and having knowledge on drug were found not to be statistically significant in influencing pupil's drug use. A study conducted to investigate the factors that influence drug abuse among boys in high school within Nakuru North Sub-county, revealed that drug abuse among boys in high school is influenced by factors such as peer pressure, curiosity, influence from family members, and celebrities, lack of knowledge about the dangers of drug abuse, easy availability of drugs, low cost of drugs, excessive pocket money, the wish to increase intelligence and lack of good role models in teachers and parents. Girl students were however not included in the study. The role of mass media was also not the focus of the study; the current study therefore aims at filling these gaps.

V. Methodology

The study was carried out in the 3 Sub-counties of Nakuru town, Molo and Nakuru North, within Nakuru County, Kenya. The sample size for this study was 482 sampled from a total student population of 12,300 from the 3 selected Sub-counties. The study areas were purposively sampled while stratified random sampling and simple random sampling were used to sample schools and students respectively. The study used 8 public secondary schools distributed as follows, 3 were Sub-county day and mixed, one provincial day and mixed, 2 provincial boarding and mixed, 1 national boys boarding and 1 national girls boarding. All form one, two and three students in the specified categories formed the accessible population of 482 students. The study used questionnaires to collect data. The instruments were pretested in 3 schools, randomly selected from the 3 Sub-counties. Quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) version 20 for Windows. Specifically, Chi square statistic was used to test the significance of the stated null hypotheses, set at $\alpha=0.05$. Qualitative data applied thematic analysis while descriptive statistics such as percentages, frequencies and means were used to summarize data.

VI. Findings

Levels of Exposure to Mass Media and Students' Drug Abuse

These objective of this study was to determine the relationship between levels of exposure to mass media and students' drug abuse. To achieve this objective the study sought to test the null hypothesis which stated that, "There is no significant relationship between levels of exposure to mass media and students drug use" against the alternative hypothesis, "There is a

significant relationship between levels of exposure to mass media and students' drug abuse.” The respondents were asked to indicate the extent to which levels of exposure to mass media influenced people into abusing drugs. Different tabulations were sought to analyze the relationship between levels of exposure to mass media and students' drug abuse which included: use of cross-tabulation tables, chi-square test statistics and stacked bar plots. The results of cross tabulation in table 4.3 shows that majority of the respondents (197) were, on average, exposed to mass media for 7 hours and below. Out of the 197 respondents, 186 do not abuse drugs at all, 6 abuse drugs on rare occasions while 5 abuse drugs more often. Out of 123 respondents who were exposed to mass media for 14 hours, 112 argued that they don't abuse drugs at all, 5 respondent that they rarely abuse drugs while 6 confirmed to abuse drugs more often. A total of 105 respondents were exposed to mass media for 21 hours out of which 83 did not abuse drugs at all, 8 abused drugs on rare occasions and 14 abused drugs more often. A few respondents (55) were exposed to mass media for 28 hours. 45 of them said they did not abuse drugs at all, 4 said they abused drugs rarely while 6 abused drugs more often. Only 2 respondents were exposed to mass media for more than 28 hours all of whom did not abuse drugs at all. These findings implied that many students were exposed to mass media for less than 21 hours but however, abused drugs more often if it was the case that they were drug abusers. The results further showed that the lesser the number of hours of exposure to mass media the greater the count of students who did not abuse drugs at all. This therefore, leads to a conclusion that there exists a significant relationship between the level of exposure to mass media and students' drug abuse.

Table 1: Cross Tabulation Results on Mass Media versus Drug Abuse
MASS MEDIA * DRUG ABUSE Cross tabulation

		DRUG ABUSE			Total
		RARELY	OFTEN	NOT AT ALL	
MASS MEDIA	7 HOURS AND BELOW	6	5	186	197
	14 HOURS	5	6	112	123
	21 HOURS	8	14	83	105
	28 HOURS	4	6	45	55
	MORE THAN 28 HOURS	0	0	2	2
Total		23	31	428	482

A chi-square statistical test was carried out to test the null hypothesis stating that, “There is no significant relationship between exposure to mass media and students drug use.” P-Value was taken at 0.05 significance level. The findings of this test indicated a P-Value of 0.007 that is less than 0.05 with degree of freedom at 8 and chi square value of 20.909. The null hypothesis was thus rejected, and the alternative accepted. This implied that, there is a significant relationship between levels of exposure to mass media and students' drug abuse.

Table 2: Chi-Square Tests Results: Mass Media Versus Drug Abuse
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.909 ^a	8	.007
Likelihood Ratio	20.267	8	.009
Linear-by-Linear Association	11.139	1	.001
N of Valid Cases	482		

a. 5 cells (33.3%) have expected count less than 5. The minimum expected count is .10.

Further on this analysis, a bar plot was used to explore the relationship between levels of exposure to mass media and students' drug abuse. The findings of the plot in figure 4.1 showed a negative linear relationship between the count of the students who did not abuse drugs at all and the number of hours of exposure to the mass media. The number of students who did not abuse drugs at all diminished linearly with increase in the number of hours of exposure to the mass media. A greater count of students who abused drugs more often was observed at 21 hours of exposure category. The number of respondents who said they abused drugs rarely remained low and relatively constant across all categories except for the category of more than 28 hours of exposure which had a count of zero.

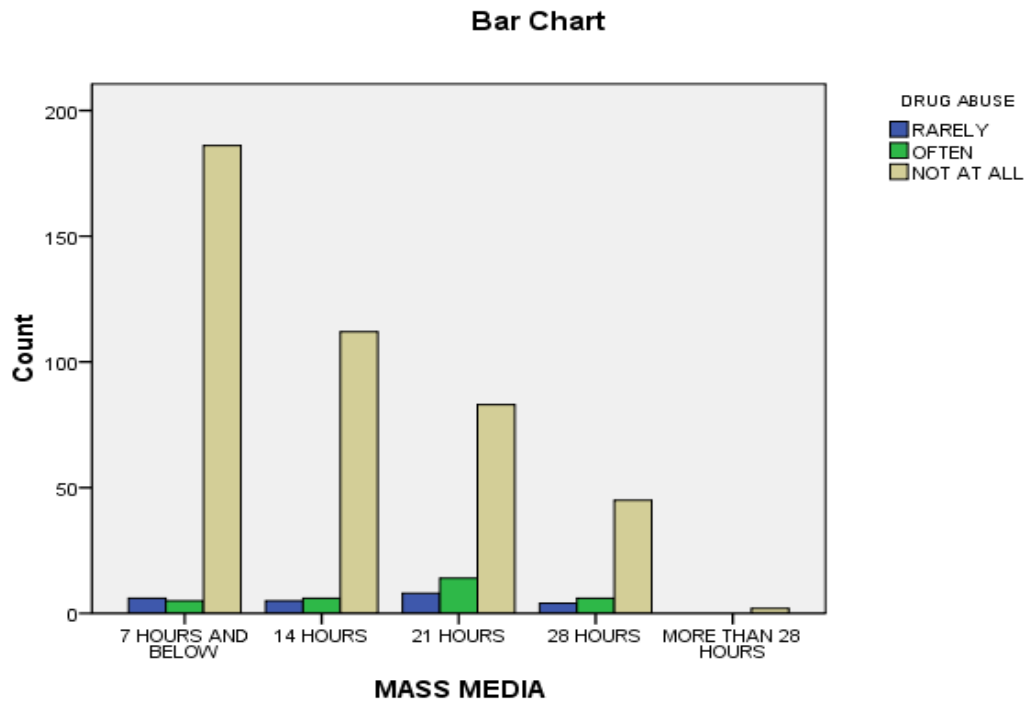


Figure 1: Bar chart on levels of exposure to mass media against students' drug abuse

VII. Conclusion

The study sought to establish the relationship between exposure to mass media and students' drug abuse. It was evident that the major contributing factor considered important in influencing drug abuse among students was advertisement on mass media, movies and internet in order of influence. However, novels and magazines were said to be the least influencing mass media. This indicates that the electronic media viewing influenced students more towards drug abuse than novels and magazines (print media).

VIII. Recommendation

The study established that levels of exposure to mass media were significantly related to students' abuse of drugs. For this reason, it was recommended that parents, teachers and government undertake intervention measures aimed at censoring mass media information that children would misuse. In addition, intervention measures need to be put in place to rehabilitate those adolescents affected by drugs.

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