# Full Length Research Paper

# Effects of Environment and Parenting Practices on Alcohol Use among Primary School Pupils in Kenya

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### Abstract

Alcohol remains one of the most widely used substances among early and late adolescent youth. Underage drinking and its associated problems have profound negative consequences for underage drinkers themselves, their families, their communities, and society as a whole. Studies have shown that exposure to alcohol in adolescence can have detrimental effects on brain development and intellectual capabilities, and increases the likelihood for later alcohol dependence. The study aimed to determine the effects of environment and parenting practices on alcohol use among primary school pupils in Kenya. The study used a cross-sectional design covering primary schools from all the eight regions of Kenya. The study employed purposive, proportionate and random sampling methods. A total of 3,307 primary school pupils from 177 primary schools nationally were interviewed representing a response rate of 82.7%. According to the findings 51.8% of the pupils interviewed were male while 48.2% were female. Data showed that 7.2% of primary school pupils were lifetime users of alcohol. Findings revealed that home environment, school environment and parenting were significant correlates of lifetime alcohol use. The study therefore concluded that prevention programs targeting primary school going children in Kenya require a multi-pronged approach. The study underscores the importance of integrating prevention programs with targeted interventions with focus on the home environment, school environment and positive parenting practices in order to achieve delayed onset or abstinence to alcohol use.

### Introduction

Alcohol remains one of the most widely used substances among early and late-adolescent youth (Komro et al., 2007; Jonhson et al, 2006; Hibell et al., 2004). Underage drinking and its associated problems have profound negative consequences for underage drinkers themselves, their families, their communities, and society as a whole (Harding et al, 2016). The challenge of underage drinking in Kenya is on the increase. A study targeting secondary schools in Kenya showed that 23.4% of students were lifetime users of alcohol (Kamenderi et al., 2019).

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Onset age for alcohol consumption is one of the major factors predicting a later long-term negative outcome (Haan and Boljevac, 2009). Studies have shown that exposure to alcohol in adolescence can have detrimental effects on brain development and intellectual capabilities, and increases the likelihood for later alcohol dependence (Brown et al, 2000; Monti, Miranda and Nixon, 2005).

The family structure plays an important role in learning, encouraging, and establishing adolescent health behavior-related values and norms (Šumskas and Zaborskis, 2017). Family may become the origin of a variety of developmental problems, including high-risk behavior or, conversely, become a strong protective factor (Cox et al., 2018; Becoña et al., 2012; Hoda čová et al., 2017; Villareal et al., 2010). According to social learning theory (Bandura, 2007), parents influence child outcomes directly by modeling behaviors that are then internalized and repeated by their children. Under-age alcohol use may be a socially learned behaviour that results from the interplay of a variety of social factors (such as modelling and imitation) which influence personal factors (such as beliefs, attitudes, and pro-alcohol cognitions) (Botvin, 2000).

The school environment may be another important setting for nurturing positive childhood behavior. School-based alcohol interventions are designed to reduce risk factors for early alcohol use primarily at the individual level (e.g., by enhancing student's knowledge and skills), although the most successful school-based programs address social and environmental risk factors (Stingler, Neusel and Perry, 2011). Therefore, reducing of risk factors and enhancing protective factors in the school environment can reduce adolescent alcohol use (Toumbourou et al., 2013).

Parenting practices have also been shown to influence youth alcohol involvement. Characteristics such as parental control, monitoring, support, nurturance and discipline practices are associated with adolescents' alcohol use (Barnes et al., 2000; Barnes and Farrell, 1992; Engels and van der Vorst, 2003; Stice and Barrerra, 1995; Wood et al., 2004). Parental influence has been shown to be a risk factor in the development of adolescent drinking behaviour with studies establishing that many youth imitate the alcohol consumption of their parents (Beal, Ausello and Perrinn, 2001; Ennett and Bauman, 1991; Yu, 2003; Zhang, Welte and Wieczorek, 1999). Young adolescents consume alcohol not just because of intrapersonal factors, such as personality type or social skills; they drink alcohol because it is part of their daily lives in their communities and, for many youth, in their homes (Komro and Toomey, 2002; Wagenaar and Perry, 1994). Studies have shown that good and supportive family relationships with parental monitoring and communication have been linked to reduction of substance use among adolescents (Peterson, Buser and Wesburg, 2010; Bohnert, Anthony and Breslau, 2012; Center for Disease Prevention and Control, 2016).

Despite the growing attention towards prevention programs targeting primary school pupils, literature on alcohol use behaviour among this target group especially in resource constrained settings is limited. Further, there is paucity of data on the nexus between parenting practices influence underage alcohol use in an African and Kenyan context where alcohol has a deep-rooted historical and cultural significance. Finally, there is limited data on the effect of home and school environment on underage drinking. Therefore, this study aims to determine the effects of environment and parenting practices on alcohol use among primary school pupils in Kenya. The findings will provide useful data to bolster drugs and substance abuse prevention intervention programs targeting primary school pupils.

# Methodology

The study used a cross-sectional design employing a mixed methods approach combining both qualitative and quantitative techniques. The study covered primary schools from all the eight regions of Kenya.

# Sampling methods

A national sample of schools was selected from a sampling frame obtained from the Ministry of Education, Science and Technology (MoEST). The study targeted primary school pupils from classes five (5) to eight (8) aged between 11-14 years.

The desired sample for the study was 4,000 primary school pupils distributed across 200 randomly selected schools in the eight regions of Kenya. The eight regions were stratified into a purposive sample of 29 counties based on geographic, socioeconomic and rural – urban differences. The number of schools visited in each county was based on the proportion of schools' pupil enrolment in the county. The first step was to allocate the 4,000 pupils to be interviewed across the selected counties based on the total county enrolment levels. The number of pupils interviewed in a selected county was derived as follows:

Number of pupils interviewed = (Number of pupils in class 5 to 8 in a county)/ x 4,000 (Total number of all pupils in classes 5 to 8 in the 29 sampled counties)

Thus, each pupil had an equal chance of selection. The number of pupils interviewed was determined by the number of primary schools selected. The target schools from each county were selected randomly and were on average equal to the number of sampled pupils divided by 20 (where 20 was the average number of pupils in each of the 200 targeted schools). The 200 randomly selected schools were sampled from a sampling frame of all primary schools in the country. In each of the sampled schools, the number of pupils interviewed in each of the classes (5 to 8) was proportional to the enrolment in each of the classes. The number of interviewees per class was computed as follows:

Number of pupils per class = (No. of pupils in grade) x No. of pupils selected for school (No. of pupils in class 5 to 8)

# Data collection

Data was collected through structured self-administered questionnaires. The first set of questionnaires targeted primary school pupils covering questions on knowledge, attitudes and individual drug use behaviour as well parenting practices.

The school questionnaire targeted school heads/ deputies and covered questions on school environment characteristics, interventions on awareness and control of drugs and substance abuse. The teacher questionnaire targeted the class teachers and covered questions on observed forms of drugs and substances of abuse in schools and interventions on awareness and control measures.

The questionnaire targeting primary school pupils was translated to Kiswahili and was administered in schools where English language was a challenge. The questionnaires were administered by trained research assistants. The pupils were taken through each question by the research assistants before they could respond to make sure that they understood what was required. This interviewer led process of data collection was used through the entire questionnaire. Data collection was conducted over a three weeks period in the month of June 2018. Permission to undertake the study was also sought and granted by the Ministry of Education Science and Technology. A total of 3,307 primary school pupils from 177 primary schools were interviewed. This represented a response rate of 82.7%.

# Estimating the prevalence of lifetime alcohol use

Lifetime alcohol use referred to the proportion of the sampled pupils who had ever used alcohol at least once in the past. Prevalence of lifetime use was computed as the number of pupils in the sample who had ever used alcohol at least once in the past (lifetime use) divided by the total number of pupils in the sample as indicated in equation below:

Prevalence = (Number of pupils in sample who were lifetime users of alcohol)/ (Total number of pupils sampled)

# Data analysis

An interviewer screen was developed for data entry to minimize errors. Quantitative data was coded, sorted, entered and analysed using SPSS. Descriptive statistics were used to describe, organize and summarize collected data. Multivariate logistic regression was used to identify the correlates of lifetime alcohol use among the primary school pupils. The variables of consideration were gender; religion; type of school; class of study; home environment; school environment; and parenting practices.

# Results

### **Background characteristics**

According to the findings, 51.8% of the interviewed pupils were male while 48.2% were female. In terms of class level, 28.8% were in class five (5), 22.9% were in class six (6), 22.5% were in class seven (7) and 22.8% were in class eight (8). Data also showed that 7.2% of primary school pupils were lifetime users of alcohol.

# Correlates of lifetime alcohol use

Table 1 presents findings from multivariate logistic regression analysis with lifetime alcohol use being the dependent variable.

# Table 1: Correlates of lifetime alcohol use

Variable	P - value	Odds Ratio	95% Confidence Interval	
			Lower	Upper
Demographic characteristics				
Gender	0.004	1.561	1.149	2.121
Religion	0.801	1.095	0.542	2.213
Type of school	0.0001	0.176	0.098	0.318
Class of study	0.001	0.795	0.691	0.915
Home environment				

Family member who lives with the pupil at home	0.026	0.874	0.776	0.984
Parent or guardian uses alcohol	0.0001	2.321	1.660	3.244
Parent or guardian keeps alcohol at home	0.033	1.716	1.044	2.819
Accompany parents to events where alcohol is served	0.174	1.498	0.836	2.685
Active member of a church/mosque/ temple	0.014	1.633	1.106	2.413
School environment				
Knowledge of schoolmates or friends who use alcohol	0.697	1.060	0.790	1.423
Often inspected for drugs and substances of abuse in school	0.814	0.959	0.678	1.357
Ever seen a teacher coming to school drunk	0.599	0.891	0.579	1.371
Ever attended an awareness talk on the dangers of alcohol and drugs abuse in school	0.008	1.554	1.119	2.158
An active member of any sport, club or study group	0.417	0.863	0.605	1.231
Parenting practices				
A. Parenting skills				
Parent or guardian is available to discuss with you any issues affecting you	0.440	1.058	0.917	1.220
Parent or guardian usually talks to you about the dangers of drugs and	0.791	1.020	0.879	
substance abuse				1.184
	0.533	1.051	0.898	1.184
substance abuse Parent or guardian discusses with you	0.533 0.012	1.051 0.823		
substance abuse Parent or guardian discusses with you about the kind of friends you keep Parent or guardian takes time to discuss with your teachers about your character			0.898	1.231
substance abuse Parent or guardian discusses with you about the kind of friends you keep Parent or guardian takes time to discuss with your teachers about your character and performance in school Parent or guardian has an open communication with you about your	0.012	0.823	0.898	0.959
substance abuse Parent or guardian discusses with you about the kind of friends you keep Parent or guardian takes time to discuss with your teachers about your character and performance in school Parent or guardian has an open communication with you about your academic and social life Parent or guardian shows you affection	0.012	0.823	0.898 0.707 0.842	1.231   0.959   1.132

Parent or guardian praises you after some achievement	0.004	1.265	1.077	1.485
Parent or guardian reprimands you when you make mistakes	0.755	1.026	0.872	1.207
Parent or guardian gives you advice and guidance	0.170	0.884	0.741	1.054
B. Parental disrespect of individual worth				
Parent or guardian ridicules you or puts you down (for example, say you were stupid or useless)	0.306	0.934	0.819	1.065
Parent or guardian expects too much of you in school	0.004	0.854	0.767	0.951
Parent or guardian embarrasses you in public or in front of your friends	0.716	0.977	0.861	1.108
Parent or guardian unfairly compares you to someone else (such as to your brother or sister or to themselves)	0.238	1.076	0.953	1.215
Parent or guardian ignores you (for example, walk away from you or not pay attention to you)	0.374	1.057	0.935	1.195
C. Parental monitoring				
Parent or guardian usually tries to know who your friends are	0.387	1.064	0.925	1.223
Parent or guardian usually tries to know how you spent money in your possession	0.895	1.008	0.890	1.143
Parent or guardian usually tries to know where you were most evenings after school	0.557	1.046	0.901	1.215
Parent or guardian usually tries to know what you did with your free time	0.138	1.111	0.966	1.278
Parent or guardian asks you to assist with household chores	0.494	0.954	0.832	1.093
Parents or guardian looks through your books or homework	0.009	1.191	1.045	1.357

# Source: Survey data, 2018

# **Demographic factors**

Results showed that gender (AOR = 1.561, 95% Cl 1.149 - 2.121, p=0.04); type of school (AOR = 0.176, 95% Cl 0.098 - 0.318, p=0.0001); and class of study (AOR = 0.795, 95% Cl 0.691 - 0.915, p=0.001) were significant correlates of lifetime alcohol use among primary school pupils.

Analysis on gender showed that pupils who were male had a higher likelihood of lifetime alcohol use compared to those who were female. Findings on the type of school showed that pupils from "mixed boys and girls day" and "boys day" schools had a higher likelihood of lifetime alcohol use compared to pupils from boys boarding; boys day and boarding; girls boarding; girls day; girls day and boarding; and mixed boys and girls boarding schools. The findings also showed that pupils in class eight had a higher likelihood of lifetime alcohol use compared to pupils in class five, six or seven.

#### Home environment

Results on home environment showed that parent's or guardian's alcohol use (AOR = 2.321, 95% Cl 1.660 - 3.244, p=0.0001); type of family member who lives with the pupil at home (AOR = 0.874, 95% Cl 0.776 - 0.984, p=0.026); parent's or guardian's alcohol use (AOR = 2.321, 95% Cl 1.660 - 3.244, p=0.0001); parent or guardian keeping alcohol at home (AOR = 1.716, 95% Cl 1.044 - 2.685, p=0.033); and not being an active member of a church/mosque or temple (AOR = 1.633, 95% Cl 1.106 - 2.413, p=0.014) were significant correlates of lifetime alcohol use among primary school pupils.

Findings showed that pupils who either lived with a "guardian" or "father only" at home had a higher likelihood of lifetime alcohol use compared to pupils living with both mother and father; mother only; or grandparents. Results also showed that pupils with parents or guardians who use alcohol had a higher likelihood of lifetime alcohol use. In addition, pupils with parents or guardians who keep alcohol at home had a higher likelihood of lifetime alcohol use. Finally, findings also showed that pupils who were not active members of a church, mosque, temple had a higher likelihood of lifetime alcohol use.

#### School environment

Results showed that lack of exposure to an awareness talk on the dangers of alcohol and drug abuse in school (AOR = 1.554, 95% Cl 1.119 – 2.158, p=0.008) was a significant correlate of lifetime alcohol use among primary school pupils. Analysis showed that pupils who had not been exposed to sensitization and awareness talks on the dangers of alcohol and drug abuse in school had a higher likelihood of lifetime alcohol use.

### **Parenting practices**

Results showed that parents or guardians who did not take time to discuss with teachers about a pupil's character and performance in school (AOR = 0.823, 95% Cl 0.707 – 0.959, p=0.012); parents or guardians without caring attitudes for the pupil (AOR = 0.804, 95% Cl 0.669 – 0.966, p=0.020); parents or guardians who did not praise the pupil after some achievement (AOR = 1.265, 95% Cl 1.077 – 1.485, p=0.004); parents or guardians expecting too much from the pupil in school (AOR = 0.854, 95% Cl 0.767 – 0.951, p=0.004); and parents or guardians who were not actively monitoring their children e.g. looking through a pupil's homework (AOR = 1.191, 95% Cl 1.045 – 1.357, p=0.009) were significant corelates of lifetime alcohol use among primary school pupils.

Findings showed that pupils whose parents or guardians did not find time to discuss with teachers about their character and performance in school had a higher likelihood of lifetime alcohol use. In addition, pupils with parents or guardians without caring attitudes had a higher likelihood of lifetime alcohol use. Analysis also showed that pupils with parents or guardians who did not praise them after some achievement had a higher likelihood of lifetime alcohol use. Further, the pupils whose parents or guardians expected too much from them in school had a higher likelihood of lifetime alcohol use. Finally, pupils with parents or guardians who were not actively monitoring their children e.g. looking through their homework had a higher likelihood of lifetime alcohol use.

#### Discussion

The study showed that 7.2% of primary school pupils in Kenya were lifetime users of alcohol. The findings revealed that primary schools in Kenya were not drug free environments. In another study from Trinidad and Tobago, 31.6% of primary school pupils were lifetime users of alcohol (Agu et al., 2018). Another study in Kenya targeting secondary schools showed that 23.4% of students were lifetime users of alcohol (Kamenderi et al., 2019). These studies underpin the importance of undertaking mitigation measures targeting the basic institutions of learning to delay early onset to alcohol use. Literature shows that alcohol remains one of the most widely used substances among early and late-adolescent youth (Komro et al., 2007; Jonhson et al, 2006; Hibell et al., 2004). Underage drinking and its associated problems have profound negative consequences for underage drinkers themselves, their families, their communities, and society as a whole (Harding et al, 2016). Age of onset of alcohol consumption is one of the major factors predicting a later long-term negative outcome (Haan and Boljevac, 2009). Studies have shown that exposure to alcohol in adolescence can have detrimental effects on brain development and intellectual capabilities, and increases the likelihood for later alcohol dependence (Brown et al, 2000; Monti, Miranda and Nixon, 2005).

#### **Demographic factors**

Examining demographic factors helps to explain local differences in drinking patterns and understanding of alcohol problems (Marsiglia et al., 2004; Stewart and Connors, 2007; Stewart and Power, 2003; White and Jackson, 2005). In this study, findings on gender showed that pupils who were male had a higher likelihood of lifetime alcohol use compared to those who were female. Pupils who were males were disproportionately more exposed to lifetime alcohol use compared to female pupils. The findings were consistent with another study targeting secondary school students in Kenya where being male was a risk factor for drugs and substance abuse (Kamenderi et al., 2019). A Spanish study conducted among school going children established that males had a higher likelihood of alcohol consumption (MoñinoGarcía et al., 2018). Similar findings were reported in Trinidad and Tobago where the male gender was associated with increased likelihood of lifetime alcohol use among primary school pupils (Agu et al., 2018). The study emphasizes the importance of focusing on the "boy child" in light of the on-going national debate on protecting this vulnerable target group through positive parenting practices, parental role modeling and other boy-centered prevention programs.

Analysis of the type of school showed that pupils from "mixed boys and girls day" and "boys day" schools had a higher likelihood of lifetime alcohol use. The results showed that boarding schools were protective against exposure to lifetime alcohol use with greater risk being associated with day primary schools. The findings also revealed that pupils in class eight had a higher likelihood of lifetime alcohol use compared to pupils in class five, six or seven. The results showed that the risk of exposure to lifetime alcohol use increases with the number of years a pupil was in school. This finding is consistent with another study targeting secondary school students in Kenya where risk of drugs and substance use was dependent on the number of schooling years (Kamenderi et al., 2019). Disruption of this vulnerability curve of exposure is achievable through implementation of targeted prevention programs focusing on the infant years of a child's development in order to delay early onset or attain abstinence to underage alcohol use.

#### Home environment

Understanding the risks associated with the home environment in relation to exposure of early onset of alcohol use is the basis for developing targeted prevention interventions. The study showed that pupils who either lived with a "guardian" or "father only" at home had a higher likelihood of lifetime alcohol use compared to pupils living with both mother and

father; mother only; or grandparents. This finding lay emphasis on the importance of understanding the family structure in relation to exposure of children to the risk of under-age alcohol use. Literature shows that alcohol consumption in teenagers is influenced by family structure (Fraga et al., 2011; Griffin and Botvin, 2000). The family structure plays an important role in learning, encouraging, and establishing adolescent health behavior-related values and norms (Šumskas and Zaborskis, 2017). Family may become the origin of a variety of developmental problems, including highrisk behavior or, conversely, become a strong protective factor (Becoña et al., 2012; Hoda Čová et al., 2017; Villareal et al., 2010).

Findings also showed that pupils with parents or guardians who use alcohol had a higher likelihood of lifetime alcohol use. Parental role modelling comes to focus in shaping behaviour in the different developmental stages of children. According to social learning theory (Bandura, 2007), parents influence child outcomes directly by modeling behaviors that are then internalized and repeated by their children (Cox et al., 2007). Under-age alcohol use may be a socially learned behaviour that results from the interplay of a variety of social factors (such as modelling and imitation) which influence personal factors (such as beliefs, attitudes, and pro-alcohol cognitions) (Cox et al., 2018; Botvin, 2000). Witnessing parents drink alcohol may lead adolescents to drink and/or adopt norms permissive of alcohol use (Cox et al., 2018; Duncan, Duncan and Strycker, 2006; van der Vorst et al., 2009; White, Johnson and Buyske, 2000). Evidence suggests that adolescents whose parents drink regularly are at increased risk for using alcohol (Cox et al, 2018; Alati et al., 2014; Ary et al., 1993).

Parents or guardians may be enablers of under-age alcohol use through storing or stocking alcohol within homes. The study showed that pupils with parents or guardians who keep alcohol at home had a higher likelihood of lifetime alcohol use. Similar observations have been reported where parental provision of alcohol and home alcohol availability; parental report of providing alcohol to their child; and the accessibility of alcohol in the home were associated with significant increases in the trajectories of young adolescent alcohol use and intentions (Komro et al., 2007). Student report of receiving alcohol from their parent or taking it from home during their last drinking occasion were the most robust predictors of increases in alcohol use and intentions over time (Komro et al., 2007).

Religion is a critical pillar in a child's early life for molding character and values which may be protective against negative behaviour including underage alcohol use. The study showed that pupils who were not active members of a church, mosque, temple or any other religious affiliation had a higher likelihood of lifetime alcohol use. Studies have shown that high levels of religiosity are predictive of young adults' abstention from high risk behaviour (Koenig and Heath, 2011; Langer, Warheit and McDonald, 2001; Sauer-Zavala, Burris, and Carlson, 2012). In another study, high religiosity was associated with lifetime alcohol abstention and was found to be protective against hazardous drinking (Drabble, Trocki and Klinger, 2016). Religiosity's protective properties for alcohol use have been particularly robust and demonstrated across age, gender and socioeconomic status (Wills et al., 2003). Although studies have demonstrated the protective effects of religion, Brechting et al., (2010) established that individuals must exhibit highly religious behaviors in addition to highly religious beliefs in order to benefit from religiosity's protective effect.

The study therefore lays emphasis on reducing of risk factors and enhancing protective factors in the family environment in order to reduce underage alcohol use and a range of health and social problems (Toumbourou et al., 2013).

### School environment

The school environment provides an important opportunity for implementing prevention programs to delay early onset of alcohol use. The study showed that pupils who had not been exposed to sensitization and awareness talks on the dangers of alcohol and drug abuse in school had a higher likelihood of lifetime alcohol use. School-based alcohol interventions are designed to reduce risk factors for early alcohol use primarily at the individual level (e.g., by enhancing student's knowledge and skills), although the most successful school-based programs address social and environmental risk factors (Stingler, Neusel and Perry, 2011). Teaching general personal and social skills in the absence of other components of the social influence approach such as drink refusal skills training and normative education has only been found to have a minimal impact on alcohol use (Caplan et al., 1992).

### **Parenting practices**

Parenting styles and practices have raised concerns over the years in Kenya due to the changing lifestyles, urbanization and challenges associated with work-life balance leading to deprivation of the quality time needed to raise children with the desired values. Parents play a critical role in the socialization of children, serving as their primary source of influence throughout childhood. Although peers become increasingly important during adolescence, parents continue to be instrumental in the socialization process throughout adolescent development (Wood et al., 2004).

The study endeavored to understand how parenting practices influence lifetime alcohol use among primary school pupils. Findings showed that pupils whose parents or guardians did not find time to discuss with teachers about their character and performance in school had a higher likelihood of lifetime alcohol use. In addition, pupils with parents or guardians without caring attitudes had a higher likelihood of lifetime alcohol use. Parental love and care towards children impart self-confidence and self-worth of a child thereby reinforcing positive behaviour. Studies have also linked parental hostility, rejection, and harsh, inconsistent discipline to childhood drinking and alcohol-related problems (Chartier, Hesselbrock and Hesselbrock, 2010).

Recognition of simple achievements by parents or guardians was protective against lifetime alcohol use by primary school pupils. Analysis showed that pupils with parents or guardians who did not praise them after some achievement had a higher likelihood of lifetime alcohol use. Further, the study showed that pupils whose parents or guardians expected too much from them had a higher likelihood of lifetime alcohol use. The findings show that enforcing unrealistic targets to a child may lead to stressful experiences resulting to under-age alcohol use as a coping mechanism.

Consistent monitoring of a child by a parent or guardian reduces the risks of negative behaviour because the child is aware that they are being followed closely. Findings showed that pupils with parents or guardians who were not actively monitoring their children through simple activities like looking through their homework had a higher likelihood of lifetime alcohol use. Because of increasing demands on their time and attention, parents are spending less time with their children (Kumpfer, 2000). Studies have shown that high quality parent-child communication (Carver et al., 2017), including the communication of strict alcohol specific rules (Mattick et al., 2017; Schinke, 2004), and parent's monitoring of adolescent's activities and whereabouts (Kelly, Becker and Spirito, 2017; Van Ryzin, Fosco and Dishion, 2012) are associated with reduced levels of alcohol consumption among adolescents. It has also been shown that alcohol consumption in teenagers is influenced by parental monitoring (Abar and Turrisi, 2008; Duffy, 2014; Kelly, Becker and Spirito, 2017). Evidence shows that positive parenting practices remains as a key pillar in any prevention efforts on underage drinking targeting primary school pupils in Kenya.

# Conclusion

The study depicts parents or guardians as enablers of underage alcohol use among primary school pupils in Kenya. Exposure of children to alcohol through storage and drinking at home was a major risk factor. This was despite the existence of a law regulating access to underage children especially in areas where alcohol is stored or consumed (GoK, 2010). Evidence also showed that negative role modelling was a dominant influence to early exposure to underage alcohol use especially among alcohol using parents or guardians.

The school environment was another notable setting for implementation of prevention programs including sensitization and awareness programs on the effects of alcohol and other drugs; and life skills training which imparts young children with drug refusal skills, communication skills, problem solving skills and anger management skills.

Further, negative parenting practices was shown to increase the risk of exposure to underage alcohol use among primary school pupils. Positive parenting practices including parenting skills, parental monitoring and embracing parent - child relationships may be promising protective interventions for school going children.

The study therefore concluded that prevention programs targeting primary school going children in Kenya requires a multi-pronged approach. The study underscores the importance of integrating prevention programs with targeted interventions with focus on the home environment, school environment and positive parenting practices in order to achieve delayed onset or abstinence to alcohol use.

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