

Socio-demographic correlates of alcohol consumption among university athletes

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Abstract

Alcohol consumption among university student athletes is a global health issue attracting attention from different stakeholders. The purpose of this study was to establish the determinants of alcohol consumption among university-student-athletes in Kenya. It was hypothesized that the reasons and consequences of alcohol consumption are sport-related and mediated by selected demographic factors and Parental Social Economic Status (PSES). Data were collected through self-administered questionnaires from 146 subjects made up of 102(69.9%) males and 44 (30.1%) females. The data were analyzed using chi-square and independent t-test. Findings indicated that student athletes consume alcohol mainly for relaxation (120; 82.2%), to overcome shyness (106; 72.6%), and overcome boredom (97; 66.4%). The consequences of alcohol consumption reported were mainly behaviour offensive to others (42; 32.6%), damaged friendships (40; 29.6%), and poor academic performance (34; 26%). However both reasons and consequences of alcohol consumption could not be determined by the selected demographic factors and PSES with the exception of the place of residence (neighbourhood). It is recommended that trainers/coaches need to sensitize the student-athletes to their vulnerability to risks associated with alcohol consumption. Intervention measures and procedures to address alcohol consumption should be multi-faceted and involve sport psychologists and counselors. Future studies should be conducted with high school and elite athletes.

Keywords: Alcohol consumption, student-athletes.

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Introduction

The university environment makes students very susceptible to alcohol use and abuse due to diverse reasons. For many students, the university experience is their first time away from their families and parents which in turn prevents use of rules or curfews (Archer, 1991). Consequently, students struggle to keep control of their lifestyle because there are authority figures to watch over their decision making (Watson, 2002). This new found freedom and a sense of invulnerability and a strong desire for exploration can lead to the development of alcohol use

and abuse (Osgood, Wilson, Omalley, Bachman, & Johnson, 1996). Researchers have also found that university students are amongst the individuals ranked highest for binge drinking due to the increases in stress level from school and academia (Presley & Meilman, 1994; Lorente, Peretti-watel, Griffet, & Grelot, 2003).

Despite the general perception that athletes are more health-conscious than their non-athlete counterparts, studies indicate that athletes also abuse alcohol (Nattiv, Puffer & Green, 1997; Stainback, 1997; Leichliter, Meilman, Presley & Cashin, 1998; Wechler & Austin, 1998). McDaniel, Kinney and Chalip (2001) observed that there is inconsistency between alcohol consumption and the physical demands of sports participation. McGuifficke, Rowling and Bailey (1991) found that consumption of alcohol is typically associated with sport among Australia teenagers and youth adults as an important component of post-game celebrations. The other reasons which make student athletes consume alcohol include constant exposure and elevated status on campus, constant levels of stress and apprehension, difficulties of handling athletics and school, adapting to social change, attempting to gain the upper edge in sports, coping with hardships on and off the field (Moulton & Schnieder, 1993; Stainback, 1997; Watson 2002; Martens, O'Conner & Beck, 2006). Parkins (1992) reported that on campus men are consistently found to drink more frequently and in greater quantities than women and experience more alcohol related problems.

Alcohol consumption among athletes disinhibits and can increase self-confidence, helping tackle and reduce performance anxiety, decreases pain sensitivity, meaning that some injuries might be considered minor. The best known and most widely use of alcohol in sport is both in reducing anxiety and hand trumors (Parkins, 1992; Stainback, 1997). These studies are based on the adaptation theory which explains the relationship between athletes and alcohol use and abuse. Advocates of this theory have analyzed how perceptions and beliefs about what alcohol will do for the user, influence the rewards and behaviours associated with its use. They recognize that any number of factors including internal and external causes as well as subjective environmental experiences will contribute to abuse and addictive potential. They support the views that alcohol abuse and addiction involve cognitive and emotional regulation to which past condition contributes. Investigators have noted that alcohol users rely on alcohol to adapt to internal needs and external pressures. Ego deficiencies and other psychological deficits have been implicated as the major reasons why athletes turn to alcohol. Such deficiencies are self-esteem, peer friendships, confidence, self-acceptance and respect by others (Watson, 2002; Ford, 2007).

Review of literature

Watson (2002) indicates the significant issues faced by many college student athletes are due to stress and pressure associated with maintaining balance between athletics and academia. An overwhelming number of college students many of whom are below the minimum drinking age use alcohol and their pattern of binge drinking causes numerous problems among college campuses such as fighting and drunken driving which causes accidents. Wechler, Lee, Kueo, Seibring, Nelson and Lee (2002) reported that student-athletes were more likely to be occasional and frequent binge drinkers than non-athletes and that college students in general were more likely to be problematic drinkers than non-college students.

Literature suggests, that alcohol use among adolescents athletes is fairly high but the problem is rather complex (Passer, 1983). Young athletes are more likely to abuse alcohol than their non-athlete peers and more likely to suffer from behavioural and psychological problems as a result of drinking (Passer, 1983). Nattiv *et al* (1997) found that NCAA Division I athletes involved in contact sports such as ice hockey and football consumed alcohol at greater frequencies and quantity than their non-contact sport counterparts. Surprisingly this pattern was consistent among both males and females. Brenner and Swanik (2007) reported elevated alcohol consumption patterns of athletes over non-athletes. They found that NCAA Division I athletes reported higher risk or problematic drinking (78%) as contrasted to NCAA Division II athletes (76%) and NCAA Division III athletes (67.5%) in a 12 month period.

Drug-related deaths and arrest of several professional and college athletes had fueled public interest in examining the role which alcohol plays in the lives of athletes (Schneider & Greenberg, 1992). Martens *et al* (2006) speculated that the excessive time demands for college athletes may also lead to problematic alcohol problems. The authors noted the possibility of social isolationism as athletes are often separated from their non-athlete peers. Athletes feel psychological pressures as they experience demands to excel and to live up to coaches, fans and family expectations. Physically, they also speculated that when athletes are injured they may feel stressed about recovery and thus turn to alcohol use.

Literature shows that alcohol abuse within college athletics have been recognized as a major problem plaguing universities and colleges across the world (Choi, Kueffler & Lim, 2006). Recently, researchers have also investigated the alcohol usage of college students, student athletes, their motives for use, perception of alcohol use by their peers and alcohol consumption based on selected demographic characteristics (Choi *et al* 2006). Lorente *et al* (2003) investigated patterns of alcohol consumption and intoxications among French sport science students. It was found that 20.4% of the students reported more than six episodes of intoxication during the previous year. Male students drank more frequently

and were more frequently intoxicated than female students. Female sports science students drank less frequently but had more episodes of intoxication.

Donato *et al* (1994) studied the reasons why athletes turn to alcohol use. They found that student athletes feel more pressure to perform at a higher level than their peers both inside and outside the classroom. They also found that athletes encounter pressures on a daily basis such as isolated living quarters, long hours spent training and travelling. The study identified four behavioural tendencies which cause an athlete to use and abuse alcohol as opinions by the public eye and media, fear of intense failure, fear of aggression and peer pressure associated with athletes. Doumas, Turrisi and Wright (2006) studied 249 college freshmen and found a disturbing prevalence of binge drinking among students and an even greater prevalence among athletes. They found that college athletes consumed an average of 5.07 drinks per weekend, former high school athletes 4.19 and non-athlete students 3.5 drinks. Gill (2002), while reviewing 25 years of research in alcohol consumption and binge drinking within UK undergraduate students found that a significant number of male and female students drink more than recommended weekly limits (14 units for women and 20 for men). He observed that alcohol consumption has increased among women students and it resembles that of male students.

Adelekan (2000) using a sample of 988 university students in Ilorin-Nigeria found the rate of current users of alcohol to be 18.5% and the average age of self-initiated drinking was 13.2 years. Okoza, Aluede, Fajogu and Okhiku (2009) found students in the university abuse hard drugs and that to feel good, availability, parents and siblings and other factors predispose university students to abuse drugs. They observed that people who drink alcohol consistently are known for antisocial behaviours such as fighting, lying and so on. In Kenya Pudo (1998) noted that children from homes where parents take drug tend to imitate the behaviour of their parents by taking illegal drugs. Young people learn from what they see by imitating what parents and other people in the community do.

With the above literature review, it was apparent that studies on alcohol consumption of university athletes are scarce in Africa generally and Kenya in particular. Therefore it was apt to establish social-demographic correlates of alcohol consumption of athletes in a Kenyan university. The findings of the study will possibly have both theoretical and practical knowledge on how to come-up with intervention measures to reduce alcohol consumption among university athletes. Secondly, significant others who are associated with student athletes will possibly be informed on the university athletes' alcohol consumption patterns.

Methods

Research design

This study was conducted to determine social-demographic correlates of alcohol consumption of athletes in university of Nairobi, Kenya. Therefore a cross-sectional survey research design was used as there were no variables to be manipulated and the manifestations of alcohol consumption on student's athletes had already taken place.

Sample

Multi-stage sampling techniques were employed to get participants for the study. The first stage was to identify the university students who represented the university in the Kenya interuniversity sports championship held in December 2011. This was done from the records of sports and games department of the university. After that, the second stage involved getting student athletes who confessed having consumed alcohol in the last one year. They were briefed about the purpose of the study and requested to sign the consent form and this was treated as an indication of agreeing to take part in the study. The demographic details of the respondents are presented in Table 1.

Table 1: Demographic information of the participants

		N	%
Gender	Male	102	69.9
	Female	44	30.1
Age (years)	18-21	25	17.21
	22-24	112	76.71
	Over 25	09	6.16
Level of study	1	11	7.5
	2	21	13.69
	3	28	19.17
	4	87	59.58
Sport involvement	Ball games	96	65.75
	Athletics	10	6.84
	Racket games	20	13.69
	Swimming	12	8.21
Fees payment	Martial arts	8	5.47
	Government	98	67.12
	Self	48	32.87

Research instrument

A self-administered questionnaire was utilized for data collection. It was constructed by the researchers after a robust review of literature. It consisted of three sections, where section A sought the student's demographic information of

gender, age, and sport involvement. Section B gathered information on drinking patterns and motives for alcohol consumption while section C dwelt on the consequences of alcohol consumption experienced by the student athletes. Items in sections B and C were derived from the Daily Drinking Questionnaire; Drinking Motives Questionnaire and Athlete drinking scale (Ford, 2007) which examines sport-related drinking motives. The resulting data were analyzed using Statistical Package for Social Sciences (SPSS). The Chi-square test of independent measures was used to test the hypothesis at 0.05 level of significance.

Results and Discussion

Demographic data

Table 1 shows that 102(69.9%) of the subjects were males and 44(30.1%) were females, a majority of 87(59.58%) were in their fourth year of study, 96(65.75%) were participants in ball games (soccer, volleyball, basketball etc) and 98(67.12%) of these participants were sponsored by the government to pursue university education. Their age indicates that majority (112; 76.71%) were between 22-24 years and only 9(6.16%) were over 25 years of age. Their age mean and standard deviation was 23.07± 4.03 years. The athletes' family and neighborhood background factors are presented in Table 2.

Table 2: Nature of neighbourhood and family size of the respondents

		n	%
Family where brought up	Single (mother absent)	22	15.1
	Single (father absent)	07	4.8
	Both parents present	112	76.7
	Orphans	5	3.4
Number of children	1-3	35	23.97
	4-6	70	47.94
	Over 7	41	28.08
Birth rank	1 st born	29	19.86
	Middle born	108	73.97
	Last born	09	6.16
Neighbourhood where brought up	Urban	46	31.5
	Rural	89	61.0
	Urban/rural	11	7.5

Table 2 shows that 112(76.7%) subjects had both parents living with them, 70(47.94%) came from families with 4 to 6 children, 108(73.97%) were middle born and a majority of 89(61.0%) came from rural settings. Their parental social economic status as measured by highest level of parents' education and occupation is provided in Table 3.

Table 3 shows that majority 58(39.72%) of the university athletes' fathers had college education followed by 32(21.91%) whose fathers had secondary education.

Table 3: Parental SES of the university athletes

Level of education	Father		Mother	
	N	%	n	%
No formal education	16	10.95	20	13.69
Primary education	10	6.84	16	10.95
Secondary education	32	21.91	36	24.65
College	58	39.72	53	36.30
University	30	20.54	21	14.38
Occupation				
Professional	14	9.58	13	8.9
Managerial	08	5.4	03	2.05
Skilled	12	8.2	09	6.16
Commercial/business	28	19.17	27	18.49
Unskilled	13	8.9	08	5.4
Teaching	32	21.91	31	21.23
Farmer	23	15.75	36	24.65
Housewife	-		12	8.2
Armed forces/police	10	6.84	-	
Others	06	4.10	07	4.79

Similarly, 53(36.30%) of the mothers athletes had college education. Most of the subjects had their fathers' and mothers' occupation as teaching 32(21.91%) and 31(21.23%0, respectively. The family members' consumption of alcohol is shown in Figure 1.

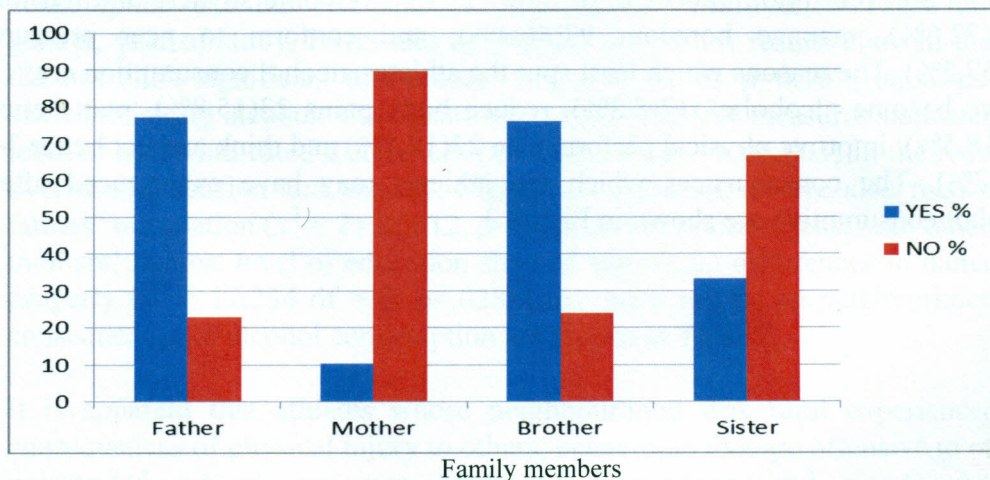


Figure 1: University athletes' family members' consumption of alcohol

The results in Figure 1 shows that 57(77.0%) fathers of the university athletes consumed alcohol, 5(10.4%) mothers consumed alcohol, 63(75.90%) brothers consumed alcohol while 18(33.33%) sisters consumed alcohol. Asked about the number of beers the subjects took in one sitting, the results revealed that 50% of the athletes consumed 1-3 beers, 30.8% took 4-6 beers, 15(10.27%) consumed 7-9 beers while 13(8.9%) took over ten beers in one sitting. The reasons/motives which make the student- athletes to consume alcohol are shown in Figure 2.

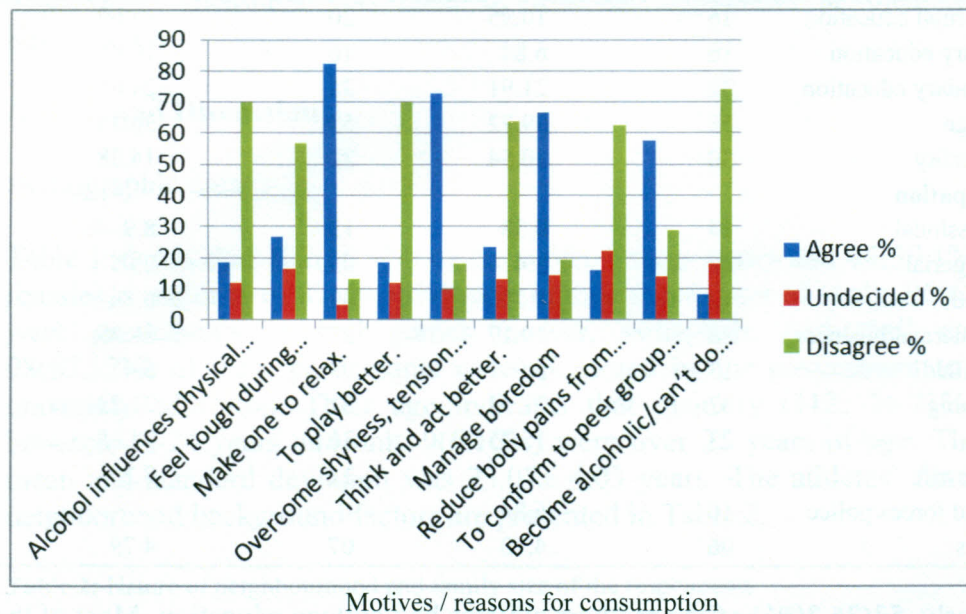


Figure 2: University athletes' motives/reasons for consumption of alcohol

Figure 2 shows that the first five major reasons which make the athletes consume alcohol are: relaxation 120(82.2%), followed by overcome shyness and tension 106(72.6%), manage boredom 97(66.4%), and conform to peer pressure 84(57.5%). The reasons which least spur the athletes alcohol consumption are: "have become alcoholic" 12(8.2%), reduce body pains 23(15.8%), play better 27(18.5%), improve physical performance 27(18.5%) and think and act better 34 (63.7%). The consequences which the athletes may have experienced after alcohol consumption are shown in Figure 3.

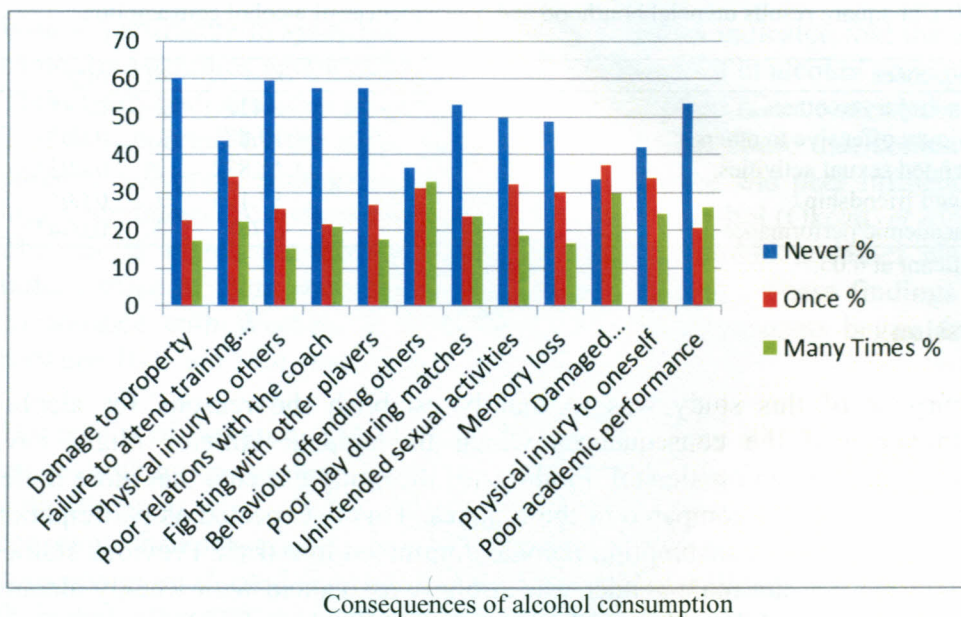


Figure 3: Consequences of alcohol consumption experienced by university athletes

The five main consequences that the athletes have experienced many times are behaviour offensive to others, 42(32.6%), damaged friendships 40 (29.6%), poor academic performance 34(26%), poor play during matches 31(23.5%) and failure to attend training sessions 30(22.2%). The consequences which the student-athletes have never experienced were damage to property 80(60.2%), physical injury to others 79(57.4%), fighting with others 74(57.4%) and memory loss 71(48.6%).

The study was interested in finding out whether the reasons for alcohol consumption and the consequences experienced would differ based on age, gender, year of study, PSES and neighbourhood. T-test results showed that age did not elicit significant differences ($t = 0.611$, $df = 85$ $p = 0.167$) on when they started drinking alcohol. Chi-square test of independent measures indicated that level of study indicated differences ($\chi^2 = 13.839$, $df = 3$ $p = .003$) in the reason of overcoming tension and anxiety. Significant differences were also realized on fathers' occupation ($\chi^2 = 21$ $df = 12$, $p = 0.49$) on behaviour offensive to others and mothers' highest level of education showed significant differences in damage to property ($\chi^2 = 17.234$ $df = 8$, $p = .028$). Chi-square results on neighborhood and consequences of alcohol consumption are shown in Table 7.

It is apparent that athletes whose neighbourhood was rural experienced the consequences of physical injury to others, behaviours that are offensive to others, unintended sexual activities, damaged friendships and poor academic performance more times than their urban counterparts.

Table 4: Chi-square results on neighbourhood and consequences of alcohol consumption

Consequences	χ^2	df	Sign.
Physical injury to others.	6.422	2	0.04*
Behaviours offensive to others.	19.881	2	0.00*
Unintended sexual activities.	11.832	2	0.003*
Damaged friendship	17.196	2	0.00*
Poor academic performance	6.768	2	0.034*

* Significant at 0.05.

Discussion

The purpose of this study was to mainly establish the reasons for alcohol consumption and the consequences which the student athletes might have suffered after consuming alcohol. Findings of the study indicate that more males took part in the study compared to the females. This is expected as participation in sports and alcohol consumption is male dominated in Africa. Previous studies have reported that the male gender was strongly associated with weekly alcohol use among young adult athletes. Men were more likely to be intoxicated more than 10 times a year and women were more likely to be intoxicated (Faulker & Slattery, 1990; Aaron *et al*, 1995; O'Malley & Johnston, 2002). Traditionally alcohol consumption and participation in sport was a male preserve but due to disrespect to traditional cultures at the expense of western civilization, females are equally consuming alcohol and participating in sport. Most alcohol advertisements target men and tend to portray a picture that alcohol drinking is male preserve. Those who escape the allure of alcohol advertisements are captured by the fact that moderate alcohol drinking is good for ones health. This is buttressed by the fact that university female athletes are operating away from parental control and peer influence is awash with daring into activities such as dancing which is a male preserve. In the university context where traditional sex roles have been significantly challenged and deviant lifestyles are more likely tolerated, a rise in the level of women's alcohol abuse is expected (Parkins, 1992; Gill, 2002).

A good percentage of the respondents were actively involved in ball games of soccer, volleyball, basketball, netball, hockey, rugby and handball. These ball games are very popular not only in Kenyan universities but also in Kenyan secondary schools (Rintaugu, 2005). Indeed there is a lot of emphasis on these games and educational institutions have invested on a lot of sports infrastructure and human resources in these games. Most of the athletes were living with their parents and it is expected that the parents needed to have taken a central role in ensuring that their siblings are not consuming alcohol. Their birth order showed that majorities (73.97%) were middle born and consequently they may have been influenced either into sport participation or alcohol consumption by their older siblings. Indeed, Udoh (1997) observed that younger siblings were over-represented in compared with the first born. First born are less likely than last

born to participate in sport (Rintaugu, 2005). Findings indicated that the athletes came from families where family members are involved in alcohol consumption. This clearly indicates that possibly alcohol consumption is not restricted a home. This is supported by the social perspective of alcohol abuse that contends that parental influence, siblings influence, school influence and peer influence take high prominence in student overall motive to abuse alcohol (Okoza, *et al*, 2009). The age at which the athletes started consuming alcohol is rather alarming. Indeed some of them start drinking as early as 11 years. These findings are in consonance with Wechler *et al* (1997) where the respondents began drinking between 16.5 and 18.4 years of age.

The results of this study showed that almost 50% of the athletes are involved in binge drinking (more that 5 beers per sitting). These findings are in consonance with Rintaugu *et al*, (2011) findings that student athletes are not more health-conscious than non-athletes. Similarly, Watson (2002) found that college athletes consume more alcohol than non-athletes. Bracken and Wilfert (2010) reported in their study, that 49% of student athletes drink 5 or more beers in one sitting; they also found that male student-athletes drink on average 5 more drinks per week than other male students and female student-athletes drink on average one more drink per week than other female students. Studies have suggested that college athletes often report problems such as negative and unsatisfactory relationships with teachers, coaches and fellow athletes (Ford, 2007; Bracken & Wilfert, 2010).

The reasons why student-athletes consume alcohol included relaxation, management of boredom, overcoming shyness and conforming to peer pressure. As much as these reasons have been reported elsewhere (Ford, 2007, Rintaugu *et al.*, 2011), Osgood et al (1996) observed that participation in sports provides opportunities for young people to drink alcohol as well as to consume other drugs because it takes participants to venues where they are out without adult and parental control. Ford (2007) further reported that student athletes drink alcohol to please many people including coaches, teammates, teachers, school-officials, classmates, fans and members of the media.

Indeed, Presley and Meilman, (1994) opined that despite the athletes constant exposure and elevated status on campus; college-student athletes are typically placed in situations that cause stress and anxiety. Bracken and Wilfert (2010) observed that 86.1% of athletes that drink report to do so for reasons not related to sports. The least reasons which make athletes consume alcohol in this study were becoming alcoholic, reduction of body pains emanating from sports and sport specific reasons of playing better and improving performance. O'Brien and Lyons (2000) indicated that drinking can affect athletic performance by impairing psychomotor skills, decreased psychological levels of functioning and impairs body's temperature regulation system. They also indicated that drinking leads to greater risk of injury and athletes who use alcohol at least once a week

had an injury rate of 54.7% (O'Brien & Lyons, 2000). These results corroborate with Humphreys *et al.*, (2000) that almost half of the male athletes indicated that stress associated with sport participation such as pressure to win, excessive anxiety, frustration, conflict, irritation and fear significantly affected their mental or emotional health.

Researchers have found that the level of alcohol abuse was quite high and correlated with a host of problems such as residence hall damage, sexual assaults, fights, drunk driving and impaired academic functioning (Presley & Meilman, 1994). Equally, heavy drinking is associated with multiple social and interpersonal problems such as arguing with friends, engaging in unplanned sexual activity, drinking and driving, getting into trouble with the law and academic difficulties (Wechler *et al.*, 1997; Presley & Meilman, 1994). Lorente, *et al.* (2003) reported that male students drank more frequently and were more intoxicated than were female students. Athletes in this study mostly experienced alcohol consumption consequences such as behaviour offensive to others (negative reactions from others), damaged friendships and poor academic performance (missed classes, exams or poor homework and poor laboratory performance). It is possible that some of these consequences of alcohol consumption do not only affect the athletes' sport performance but also their academic performance. This scenario creates a situation where athletes may turn to drink alcohol due to stresses emanating from poor sports performance and academic standing. Wechler *et al.* (1997) observed that the dual role as athlete and student may create an environment that increases the likelihood of athletes engaging in behavioural risks including sexual activity and alcohol use. Presley and Meilman (1994) indicated that most students drink an average of five beers per week and alcohol abuse correlated with a host of problems such as residence hall damage, sexual assault, fights, drunk driving and impaired academic functioning. In this study, 42% of the respondents reported at least one episode of binge drinking.

The findings of this study indicated significant differences on reasons for alcohol consumption and level of study especially the reason bordering on: overcoming shyness, tension and anxiety. Thus, it was evident that more first level students were consuming alcohol due to the above reasons. It is generally acknowledged that the first year of college is stressful and can be filled with emotional disturbances such as loneliness, homesickness and grief. This could trigger risk behaviours such as substance abuse (Marten *et al.*, 1999). Most student-athletes' are big stars in their high school campuses by the time they reach their senior year. They therefore have over the years earned recognition, positive feedback by peers, faculty and the whole community (Hyatt, 2003). However once they enroll in college, they have to start from scratch academically, socially and even on the athletics team. Secondly, the first level student athletes may consume alcohol because of the newly found freedom away from parental and teacher control which is a common practice at the lower levels of education.

Parental social economic status index of fathers' occupation was significantly related to the athlete's alcohol consequences of behavior that are offensive to others, while mothers' highest level of education correlated with the consequence of damage to property. Whereas it is difficult to explain this scenario, it is apparent that the victims of these circumstances were athletes whose parents had lower levels of education and occupation. It can be postulated that student athletes are in a celebratory state having acquired better education levels than their parents and the same time their parents' low occupational status may compromise their ability to control their children in the university.

An important finding of this study was the influence of neighbourhood and the consequences of alcohol consumption. Athletes whose neighbourhood was rural returned higher frequencies on the consequences of physical injury to others, behaviour that is offensive to others, poor play during matches, unintended sexual activities, damaged friendships and poor academic performance. In rural areas the student athletes, don't drink frequently i.e. drink few times due to poverty and drink hot and cheap liquor but when they drink, they overindulge. Equally, having grown up in rural areas, the student athletes may have a lot of recognition from their neighbours' as they may be appreciated as achievers in contrast to their urban based students where social bonds are minimal.

Conclusions and Recommendations

The findings of the study have shown that student-athletes engaged in binge drinking. The reasons for alcohol consumption and resulting consequences are not sport-related. The selected demographic factors of age, gender and parental SES do not significantly mitigate the reasons for consumption of alcohol and consequences with the exception of place of residence. It is recommended that student-athletes need to be educated on the dangers of alcohol consumption. This has to be done by all the stakeholders including coaches sport psychologists and counselors. Alcohol consumption consequences spill over to the academic and possibly their performance in sports could be drastically affected. Intervention measures need to be put in place by educational institutions to combat alcohol consumption. Student-athletes need to be sensitized about their lifestyles which make them vulnerable to alcohol consumption. Finally, future studies should focus on alcohol consumption among high school and elite athletes as these students eventually find their ways into colleges and universities.

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