Prevalence and factors associated with gambling disorder among Kenyan university students involved in sports betting

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ABSTRACT

With the high uptake of sports betting among young people especially university students, it is inevitable that some of them will experience adverse effects associated with gambling disorder. This study sought to determine the prevalence of gambling disorder among university students who engage in sports betting and describe the factors associated with gambling disorder. A cross-sectional survey was conducted among 228 students from one large private university in Kenya. Data was collected using a questionnaire developed based on the DSM-V criteria for gambling disorder and included items that measured gambling frequency and typical amount placed per bet. The results revealed that 69.3% of the participants were disordered gamblers, 68.9% gambled more than once in a week while 56.6% typically placed bets of between 50 to 100 Kenyan shillings. The study also found that frequency of gambling predicted gambling disorder while typical amount placed per bet did not. Findings also showed that many university students who gamble experience adverse effects as a result of disordered gambling and that there is need to develop policies and interventions aimed at reducing risk and harm associated with gambling disorder.

Key words: Gambling, Sports betting, University students, Gambling disorder, Prevalence, Gaming, Kenya

1.0 Introduction

Gambling can be defined as "Staking money or something of material value on an event having an uncertain outcome in the hope of winning additional money and/or material goods" (Williams, et al.,2017). The history of gambling suggests that it is as old as organized society. Over the centuries, gambling has evolved from a social vice to being legalized and from land based casinos to online gambling (Schwartz, 2019). The increase in legalized gambling opportunities across the globe has stimulated a high rate of gambling participation in many countries including Kenya. Although gambling may provide an innocuous chance for excitement and relief of boredom for the occasional gambler, it can have adverse consequences on the compulsive gambler. Compulsive gambling not only affects the individual psychologically and financially, it also leads to other social problems such as crime and loss of productivity. This makes it a public health concern. The proliferation of undesirable effects of compulsive gambling on the psychological wellbeing of the individual has led to interest among mental health professionals in diagnosis and treatment of the condition. The American Psychiatric Association, (2013) classifies compulsive gambling as Gambling Disorder

under substance-related and Addictive Disorders in the Diagnostic Statistical and Manual for Mental disorders Fifth Edition (DSM-V). It was previously referred to as Pathological gambling in the DSM IV-TR (APA, 2000) and is commonly referred to as problem gambling. Gambling disorder is described in the DSM-V as persistent and recurrent problematic gambling behaviour leading to clinically significant impairment or distress in the last 12-month period. Some of the symptoms associated with gambling disorder are preoccupation with gambling, chasing loses, unsuccessful attempts to control gambling and financial difficulties due to gambling. Individuals suffering from gambling disorder lose time from school or work, get into severe debt, legal problems, experience relationship problems, psychological distress and physical health problems (Latvala, et al., 2019; Keen, et al., 2015; Koross, 2016).

Sports betting, casino, poker and lotteries are some of the various forms of gambling. One of the forms of gambling that has gained prominence in Africa is online sports betting. As indicated by Hing, et al., 2019), sports betting is increasing worldwide through increased turnover in existing markets and expansion into new ones as legislation becomes more liberal. In Kenya the market for sports betting has increased rapidly over the past decade. Due to a dearth of scientific findings, there is much debate on the extent to which university students are engaged in online sports betting although, current estimates indicate that between 57-76% of Kenyans have participated in gambling (Geopoll, 2017; 2019) with 29% of the gamblers being students (Wangari, 2018). Youth with post secondary education form the bulk of Kenyans involved in gambling. According to Mwadime, (2017) most of those who gamble in Kenya are aged below 40 years while Koross, (2016) reports that over 78% of university students in Kenya gamble at least once a week. University students are especially vulnerable to gambling disorder compared to the general population (Hing, et al., 2016). The studies conducted on gambling in Kenya have been done among the general population and provide estimates of the frequency of gambling. They fail to highlight the prevalence as well as factors associated with gambling disorder among gamblers that are university students. Despite the knowledge that many university students gamble, it is not clear how many of them are disordered gamblers and which factors are associated with disordered gambling.

1.1 Study Objectives

The study was conducted among Kenyan university students who engaged in sports betting and had three objectives:

- 1. To determine the prevalence of gambling disorder
- 2. To determine the frequency of gambling
- 3. To establish the typical amount placed per bet
- 4. To establish the predictors of gambling disorder

2.0 METHODOLOGY

A cross-sectional survey was conducted among students that were active gamblers, at a large private university in Kenya. Convenience sampling was used whereby students who gambled were invited through WhatsApp, text messages and word of mouth to participate in the study. The participants filled a self administered questionnaire which had items measuring gambling disorder symptoms, gambling frequency and typical amount placed per bet. The sample size was n = 228 students.

2.1 Instruments

Data were collected using a questionnaire that measured symptoms of gambling disorder. It comprised nine items derived from the DSM criteria for gambling disorder as shown in Appendix I. A likert scale was used to measure gambling frequency and typical amount placed per bet (see appendix I).

2.2 Ethical considerations

Clearance was sought from the Kenyatta University Ethical Review Board prior to commencement of the study. Informed consent was sought from the participants before participation in the study. Also, the researcher ensured respondent anonymity by not collecting any identifying information from them.

3.0 FINDINGS OF THE STUDY

3.1 Demographic information

A majority (89%) of the respondents were male while only 11% were female. Most of the respondents comprised fourth year (36.4%) and third year students (32%) while first and second year students constitute 11% and 20.6% respectively.

3.2 Experience of gambling disorder symptoms

The study findings revealed that most (91.7%) of the respondents were pre-occupied with gambling with 65.8% indicated to needing to gamble with more money. Further, 78.9% of respondents tried to gamble to recover their lost money. In addition, 60.5% had made repeated unsuccessful attempts to reduce their gambling and 61% of respondents had borrowed as a result of their gambling habit. The results are shown in Table 1.

Gambling disorder symptoms	YES	NO
	(%)	(%)
1. Have you found yourself thinking about, reliving past experiences,	91.7	8.3
planning next time you will gamble, thinking of ways to get money to		
gamble?		
2. Have you needed to gamble with more and more money to get the	65.8	34.2
amount of excitement you are looking for?		
3. Have you become restless or irritable when trying to cut down or stop	52.2	47.8
gambling?		
4. Have you gambled to escape from problems or when you are feeling	46.1	53.9
depressed, anxious or bad about yourself?		
5. After losing money gambling, have you returned another day in order to	78.9	21.1
get even?		

Table 1: Experience of Gambling disorder symptoms

6. Have you lied to your family or others to hide the extent of your	48.7	51.3
gambling?		
7. Have you made repeated unsuccessful attempts to control, cut back or	60.5	39.5
stop gambling?		
8. Have you compromised a significant relationship, educational	43.4	56.6
opportunity or job career because of gambling?		
9. Have you borrowed to relieve a desperate financial situation caused by	61.0	39.0
gambling?		

3.3 Prevalence of gambling disorder

To calculate the prevalence of gambling disorder, the scores were categorised into four: non disordered gamblers (0-4), mild gambling disorder (5-6), moderate (7-8) and severe gambling disorder (9). The results revealed majority of respondents (69.3%) met the criteria for gambling disorder (had a score of 5 and above). Moderate disordered gamblers comprised 31.1% while mild disordered gamblers comprised 30.7% of the sample and severe disordered gamblers constituted 7.5%. Non-disordered gamblers comprised of 30.7% as shown in Table 2.

Levels of gambling disorder	Frequency	Percentage
Non- disordered gambling	70	30.7
Mild gambling disorder	70	30.7
Moderate gambling disorder	71	31.1
Severe gambling disorder	17	7.5
Total	228	100

Table 2: Prevalence of gambling disorder

3.4 Gambling Frequency

The study also sought to find out how often the participants gambled in a week. The results revealed that most (68.9%) of the participants gambled more than once in a week. A majority (36.4%) gambled 2-3 times while 14.9% gambled more than five times as shown in Table 3.

Times gambled per week	Frequency	Percentage	
Once	71	31.1	
2 -3 times	83	36.4	
4-5 times	40	17.5	
More than 5 times	34	14.9	
Total	228	100.0	

Table 3: Gambling Frequency

3.4 Typical amount placed per bet

On the typical amount placed per bet, the study found that a majority (56.6%) typically placed 51-100 Kenyan shillings per bet while 14.9% staked more than 200 per bet. As shown in Table 4.

Amount per bet (Ksh)	Frequency	Percentage
Less than 50	9	3.9
51-100	129	56.6
101-150	28	12.3
151-200	28	12.3
more than 200	34	14.9
Total	228	100.0

Table 4: Typical amount placed per bet

3.5 Selected predictors of gambling disorder

Analysis was conducted to determine whether gambling frequency and typical amount placed per bet predicted gambling disorder. The results revealed that frequency of gambling was a positive significant predictor of gambling disorder, B=.274, p=.000. On the other hand typical amount placed per bet was not significantly predictive of gambling disorder, B=.062, p=.365 as shown in Table 5.

Table 5: Multiple regression model analysis of key factors of gambling

Mode	el	Unstandardized		Standardized	t	Sig.
		Coeffi	cients	Coefficients		
		В	Std. Error	Beta		
	(Constant)	3.823	.426		8.969	.000
1	Frequency of gambling	.619	.154	.274	4.005	.000
	Amount placed per bet	.122	.135	.062	.909	.365

a. Dependent Variable: gambling disorder scores

4.0 DISCUSSION

The finding that a majority of the respondents were male was hardly surprising since most studies indicate that young males are at a higher risk of gambling disorder compared to their female counterparts (Labrador, & Vallejo-Achón, 2019; Elliot, 2019). Watching football especially the European leagues is popular among many young males. Advertisements and inducements to gamble are pervasive in football which influences many football fans to be involved in gambling (Cassidy & Ovenden, 2017). More third years and fourth years volunteered in the study for two possible reasons. Firstly, they have been in university long enough and hence understand the dynamics of scientific research and are much more willing to participate in a research. Secondly, third and fourth year students would probably have higher gambling involvement because they are generally older than their counterparts hence have gambled for longer.

Analysis of data on respondents' gambling disorder symptoms revealed that most (91.7%) of the respondents were pre-occupied with gambling with 65.8% often needing to gamble with more money. Money is the main motivation for gambling (Okoti, 2019) hence the findings that almost all participants were preoccupied with making money through gambling is not surprising. The high

percentage of students who are pre-occupied with gambling is an indication of its addictive nature especially when it is viewed as an alternative form of making ends meet. Whereas gambling is meant to be a recreational activity, it is not viewed as such by many university students but rather as a way of increasing income. This mindset is constantly reinforced by gambling providers through advertisements. Pervasive marketing and inducements have normalised betting as a desirable activity among young people (Deans et al., 2017). A morbid focus on becoming wealthy through gambling is likely to lead to disordered gambling among many university students (Tabri, et.al., 2017).

The results of the study also revealed that 78.9% gambled to recover their lost money. This means that a significant proportion of those who gamble chase losses. The results are similar to Lister et al., (2016) who found that 55.4% chase their losses. Chasing losses is one of the key symptoms of gambling disorder that not only perpetuates the addiction but also leads to significant financial difficulties (Nigro, et al., 2018). Many university students are unemployed and therefore do not have much disposable income for gambling. They are therefore likely to get into financial difficulties. This is evidenced by the finding that 61% of the respondents had borrowed money to relieve desperate financial situations occasioned by their gambling. Similar findings have been reported by Oksanen, et al., (2019) and Moghaddam, et al., (2015). Indeed the government of Kenya is concerned with financial difficulties occasioned by gambling among youth as the Cabinet Secretary for Interior lamented that over half a million youths were blacklisted by the credit reference bureau for defaulting on loans borrowed for gambling (Gamonde, 2019). University students in Kenya can easily access credit through their mobile phones (Otieno, 2019). This may increase the likelihood of them borrowing to gamble or to cater for other financial needs that are affected because the money meant for such needs was used in gambling.

The findings that 60.5% of participants had made repeated unsuccessful attempts to reduce their gambling was an indication that many were concerned about the habit and had attempted to cut down albeit unsuccessfully. A key reason why many are unable to quit gambling is the persistent nudging by the gaming operators that encourage the gambler to keep placing bets (Newall, 2019). Constant reminders, offers of "free" bets, attractive bonuses, misleading advertisements and multiple combinations to place bets are some of the "dark nudges" that the gambling operators use to encourage gamblers to keep gambling.

The findings of the study also reveal that almost 70% of students who gambled met the criteria for gambling disorder. This is an indication of a serious mental health issue among university students. The high prevalence of gambling disorder can be attributed to the fact that online sports' betting poses higher risk for gambling disorder (Lee et al 2014). University students in Kenya have a round the clock access to gambling opportunities and credit on their smart phones. Considering that many of them desire to make money through gambling and have free time, their propensity to gamble is high hence the likelihood of becoming disordered gamblers. Poor mental health and wellbeing as a result of gambling disorder affects not only students' academic performance but also leads to tragic circumstances such as suicide which has been on the rise among young adults in the recent past (Thorley, 2017).

Analysis of frequency of gambling per week revealed that almost 70% of the respondents gambled more than once a week. Of this number almost 15% gambled more than five times a week. This is an indication that gambling is one of the significant activities in the life a student gambler. The results support Gainsbury (2013) who reported high frequency of gambling among online gamblers in Australia. In Kenya, gambling activity is largely unregulated. For example, individuals can register with multiple gambling sites and the gamblers can place bets on different platforms at the same time. There are over 20 firms offering betting services and there is no limit to the number of times an individual can bet in a day. The limitless opportunities to gamble put many university students at risk of spending much of their time placing bets. Valuable time is lost not only in placing bets but also in analyzing bets and odds. Also, inducements such as placing bets as the match progresses means that a lot of time is lost in the process of gambling.

On the typical amount placed per bet, the results showed that most (56.6%) of the students spent between 51-100 Kenya shillings (KES) (1 USD) while almost 15% staked more than 200 KES per bet. Although gamblers can place bets as high as 500, 000 KES it appears many university students are more likely to spend between 50 and 100 KES. If an assumption that placing bets is a rational activity, then it means that university students have a disposable income of less than 100 shillings that they use in betting. Considering that most of the students bet more than once in a week it means that they spend on average 1000 KES per month. This assertion supports Elliot (2019) finding that Kenyans aged 18-29 years on average spent 1550 KES per month on gambling. This may have a negative implication on disposable income for other expenses or recreational activities. Anchoring heuristic can also explain the typical amount placed per bet. When sports betting started in Kenya, the typical minimum bet that gamblers could place was 50 shillings, although the mount has reduced over the years with increased competition among betting companies, the heuristic of 50-100 shillings per bet seems to have stuck among university students. It is however important to note that 14.9% of the students who gamble placed typically placed more than 200 shillings. This could mean that they are heavy gamblers with higher appetite for risk or they could be students who have a higher disposable income. Nevertheless, According to Macharia (2018) significant amount of the students' income is spent on gambling which may affect money meant for other necessities such as food and clothing

Further analysis showed that frequency of gambling was a positive significant predictor of gambling disorder while typical amount placed per bet was not significantly predictive of gambling disorder. The results support Gainsbury et al (2013) who found that frequent gambling was associated with higher gambling severity. University students who gamble more often are likely to experience more disordered gambling. When university students gamble multiple times in a week, they end up spending a significant part of their day analysing bets and waiting for the outcome of the bets. This leads to loss of time that could be spent studying or other productive activities (Bonnaire, 2012). The finding that typical amount placed per bet does not predict the severity of gambling disorder suggests that disordered gambling is not influenced by how much one places per bet but how often one places bets. This suggests that the most addictive aspect of online sports betting is not necessarily the amount one wagers but how often one wagers. In Kenya sports betting is typically conducted on the internet through mobile phones. One can place as low as 1 KES (0.01 USD).

Placing bets of low amounts diminishes the salience of the risk hence is attractive to the university student. However, such an individual is likely to bet more frequently hence becoming a disordered gambler.

5.0 CONCLUSION OF THE STUDY

Gambling disorder is a silent epidemic that is ruining the mental health of many university students with far reaching consequences on their academic performance, relationships, financial and overall wellbeing. With many university students who gamble experiencing symptoms of gambling disorder, there is need for urgent intervention measures. The harms associated with gambling disorder not only affect the individual involved but also the society as a whole. The disordered gambler therefore needs support in terms of interventions to help him or her overcome the addiction. Concerted efforts need to be put in place to minimize the risks and harms caused by gambling disorder among university students. Specific interventions to assist gamblers reduce their frequency of gambling can help in mitigating the negative effects of disordered gambling. Easy access to gambling opportunities, fast mobile money loans, constant "dark" nudging by the gaming operators and a morbid perception of gambling as means of making money put the Kenyan university gambler at high risk of disordered gambling. The government regulator needs to come up with a regulatory framework that is aimed at protecting young people from the negative effects of gambling. The framework should address issues such as gambling advertisements, awareness on harms caused by gambling and treatment for individuals with gambling disorder. Interventions such as self exclusion, minimum amount to place per bet and limit on how often one places bets can also be considered.

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APPENDIX – I GAMBLING EXPERIENCES QUESTIONNAIRE

Section A

The following questions relate to your gambling behaviour in the past 8 weeks. There is no right or wrong answer. Kindly answer them as honestly as possible.

In the past 12 months,

	QUESTION	YES	NO
1.	Have you often found yourself thinking about		
	Reliving past gambling experiences,		
	planning the next time you will gamble,		
	thinking of ways to get money to gamble		
2.	Have you needed to gamble with more and more money to get the		
	amount of excitement you are looking for?		
3.	Have you become restless or irritable when trying to cut down or stop		
	gambling?		
4.	Have you gambled to escape from problems or when you are feeling		
	depressed, anxious or bad about yourself?		
5.	After losing money gambling, have you returned another day in order to		
	get even?		
6.	Have you lied to your family or others to hide the extent of your		
	gambling?		
7.	Have you made repeated unsuccessful attempts to control, cut back or		
	stop gambling?		
8.	Have you risked or lost? : a significant relationship because of gambling,		
	educational opportunity because of gambling a job or career opportunity		
	because of gambling,		
9.	Have you sought help from others to provide money to relieve a		
	desperate financial situation caused by gambling?		

Section B

10. How often do you bet in a week?

 Once
 2-3 times
 4-5 times
More than 5 times
w much do you typically place per bet?

