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Case Study of KMTC Mombasa Campus**

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Abstract

Purpose: This study aimed to examine the prevalence, trend and effects of gambling on the students at the Kenya Medical Training College (KMTC) Mombasa Campus. As gambling is becoming more accepted via mobile and advertising, the research sought to evaluate the effects of gambling on student psychological health, academic achievement, and financial stability.

Methodology: The study was descriptive cross-sectional study conducted on 518 students in KMTC Mombasa Campus years 1-3. Structured questionnaires were used to gather data on demographics, gambling prevalence, types, frequency, and impacts. Chi-square tests and descriptive statistics were used to analyse associations between gambling behaviour and awareness of counselling services.

Findings: The prevalence rate was high (67.2%), and men (77.3%) were more involved in gambling than women (55.2%). Most popular types included sports betting (38.6%) and Aviator (16.6%). The most common consequences were psychological distress (79.1%), financial instability (75.4%), and academic disruption (33.1%). While 86.9% agreed that gambling was an addictive activity, only 31.7% of the gamblers knew about the KMTC counselling services. Gambling is a major public health and educational problem among the KMTC students at Mombasa campus, and there is some clear evidence of there being psychological, financial and academic cost. If no measures are taken, the situation will worsen, with detrimental effects on the well-being and professional growth of the students.

Unique Contribution to Theory, Practice and Policy: Counselling centres to be set up at Mombasa campus, peer education and awareness campaigns to mitigate these harms. Financial literacy and responsible money management programs should be implemented, which are to be accompanied by the improvement and training of staff's competencies and gender responsive outreach programs to respond to different gambling profiles.

Keywords: *Gambling, Sports Betting, KMTC Students, Psychological Distress, Academic Performance, Financial Instability, Public Health*

JEL Codes: *I12, I23, D14, L83*

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INTRODUCTION

In recent years, gambling has evolved from being played only in casinos to being in the palm of your hand. The availability of smartphones and internet connectivity, alongside technological advancements, has made entry into digital gambling platforms easier than ever. But behind this convenience, there is a growing addiction that is draining livelihoods, and most especially the youth. According to a GeoPoll report of 2019, Kenya had the highest number of youths who engaged in gambling in Sub-Saharan Africa, with the revenue for sports betting specifically being 2 billion, expected to rise to 5 billion by 2020 as demand grew significantly (GeoPoll, 2019).

There are different ways in which one can gamble, such as betting, slot machines, casino games, lotteries, Aviator, and so forth. According to the World Health Organization (2017), the biggest problem is not really losing the game, but rather winning (WHO, 2017). This is the paradox of the jackpot, as, inasmuch as losing is financially painful, winning is psychologically transformative, as people tend to believe that they have the ability to “Beat the house” despite the fact that it is the “house” that always wins (WHO, 2017; American Psychological Association, 2023; Lipinski et al., 2024;).

Gambling is legally available, normalized through new commercial associations. Televisions have now been used to advertise, with techniques such as celebrity advertisements and testimonials being used to publicize betting activities, ultimately resulting in the maximization of profits by the betting firms and the loss of focus for the young ones (Amutabi, 2018; Njonge & Ronoh, 2022; Madara & Chang’orok, 2024).

KMTC Student Profile and Vulnerability Factors

The Kenya Medical Training College (KMTC) is a state Corporation under the Ministry of Health, entrusted with training in various health disciplines to serve the local, regional, and international markets. The College aligns its strategies to those of the health sector, which in turn draws its focus from the national Agenda. Its mission is “to develop fit-for-purpose middle-level health professionals through transformative training, research, and consultancy” (KMTC, 2023). The youths at KMTC like any other institutions are not left out in engaging gambling activities which to lead to serious harms to health. These include financial stress, relationship breakdown, family violence, mental illness and suicide.

Many students in KMTC depend on the Higher Education Loans Board (HELB), parental support, or part-time employment to meet their educational expenses. Gambling leaves them financially susceptible to the false promise of gambling (Mbiriri, 2023; Simon, 2024). The extent of the problem has, however, not been explored, and hence, a cross-sectional descriptive case study was conducted among students to understand how much of a problem gambling is.

Statement of the Problem

Kenyan youth are increasingly hooked on gambling, including through their mobile devices, and this is largely fueled by intense marketing. A study conducted recently revealed that 67% of Kenyan youth are involved in gambling, with sports betting making up more than KES 200 billion in bets overall every year (Simon, 2024). For the university students, the prevalence of problematic gambling has been reported at 36%, and the main predictors included one's financial stress and influence from peers (Mbiriri, 2023). These statistics emphasize the fact that gambling is no longer a fringe activity and that it has become a behavior that has significant impacts.

As a population reliant on student loans (HELB), limited parental support, or part-time work, KMTC students represent a financially vulnerable group. Gambling places them at heightened risk of financial insecurity, mental health challenges, and academic disruption, all of which undermine their education and preparation as future healthcare providers. If left unchecked, this issue could produce financially unstable, stressed, and less motivated graduates whose compromised well-being will inevitably affect the quality of healthcare delivery in Kenya.

There are a number of studies that examined gambling in Kenya. The study by Simon (2024) examined the economic effects of mobile sports betting in Sub-Saharan Africa, highlighting its fast expansion and potential economic risks. The study conducted by Mbiriri (2023) examined the factors that predict problematic gambling and the prevalence of problematic gambling among students of public universities, which included financial stress and peer influence. Madara & Chang'orok (2024) examined the strategies of the betting companies in promoting addiction among the Kenyan youths. These studies, although very useful in looking at the economic, behavioural and marketing aspects of gambling, have not specifically looked at the prevalence and impacts of gambling among KMTC students at the Mombasa campus, a group whose professional training is likely to have a direct impact on public health. In light of the above, this study aims at providing empirical evidence on the behaviour, impacts, and awareness of support services among the students of KMTC, Mombasa campus.

LITERATURE REVIEW

Theoretical Review

Behavioral Economics Theory

The study is based on the Behavioral Economics Theory developed by Daniel Kahneman and Amos Tversky in 1979, the Prospect Theory, and continues and expands the theory in Kahneman's book *Thinking, Fast and Slow* (2011). The theory contradicts classical rational choice theory since people are driven by their cognitive biases (loss aversion, illusion of control, near miss effect). These are the reasons why gamblers continue to play even after they lose again and again, looking forward to winning.

This theory has been shown to be applicable in practice in a number of studies. According to the study by Mbiriri (2023), financial pressure and peer influence were found to be the main factors encouraging irrational gambling among 36% of students in public universities in Kenya. This is an illustration of the way a cognitive distortion works in conjunction with the socio-economic factors to keep the gambler going despite knowledge of potential dangers. Likewise, Mukabi (2022) demonstrated that the theory is supported by the fact that psychosocial factors like peer networks and stress strongly affected sports betting by students in Nairobi as they were not gambling due to rational gambling calculation. Mosley et al. (2014) have examined the patterns of youth gambling at a regional level in Sub Saharan Africa, and found that although some youth may be aware of financial losses, they enjoy gambling for a variety of reason, including the near miss effect and illusion of control. Bitanihirwe and Ssewanyana (2021) found that this is the case with gambling; a near miss effect and illusion of control are known biases that always contribute to persistent gambling even when individuals are aware of negative financial outcomes.

Behavioral Economics Theory is particularly successful in explaining the persistence in gambling despite knowledge of the risks, which makes it very predictive of youth gambling behavior. It has been noted by critics, however, that it gives short shrift to structural factors that influence vulnerability, including poverty, unemployment, and aggressive marketing. To

address this limitation, Public Health Theor, particularly the Social Determinants of Health framework offers a useful secondary perspective. While Behavioral Economics explains the individual's cognitive biases and decision-making distortions, Public Health Theory highlights the broader structural push factors such as the availability of betting platforms, targeted advertising, and socio-economic inequalities that shape gambling behavior. Even with these constraints, the theory is still very applicable to the present study. Mombasa campus students of KMTC, who often depend on HELB loans, are a vulnerable group when it comes to gambling, as gambling seems as though it is a good financial move in the short term, but has negative consequences in the long run. This linkage of these cognitive distortions with the variable of student gambling behavior makes Behavioral Economics Theory a strong framework for studying how psychological biases and socio-economic vulnerabilities interact to maintain gambling among medical trainees.

Empirical Review

Recent research indicates that gambling amongst youth is a global problem with diverse manifestations. Kapukotuwa et al. (2023), in a cross-sectional survey using a multi-theory approach to health behavior change, found that cognitive and behavioral factors strongly determined gambling initiation and persistence among university students. However, because the study was conducted at a single institution, its findings lacked generalizability and did not consider health training institutions. Manu et al. (2024) examined gambling and psychological distress among youth in Ghana, identifying strong associations with depression, anxiety, and stress, yet the study did not extend its scope to medical trainees whose academic and professional pressures may amplify vulnerability. Similarly, Daniel et al. (2025) reported high prevalence rates of sports betting among Nigerian undergraduates and linked gambling to poor academic performance, but the study excluded health training institutions, leaving a gap in understanding how gambling affects students preparing for healthcare roles.

At the local level, Momanyi and Njoka (2025) investigated socio-demographic predictors of gambling among employed youths in Kenya's banking sector, but their focus on working populations excluded students. Njonge and Ronoh (2022) explored the psychological wellness impacts of gambling among youth in Nakuru County, identifying stress and family conflict as key outcomes, yet they did not examine the relationship between gambling and academic disruption in medical training contexts.

Taken together, these studies highlight that gambling among youth is driven by cognitive biases, socio-economic pressures, and psychosocial factors. However, none specifically addressed medical trainees such as KMTC students, whose reliance on HELB loans, limited parental support, and demanding academic responsibilities create a unique vulnerability. This omission represents a critical gap: while general youth populations have been studied, the intersection of gambling with the financial precarity and professional preparation of medical students remains unexplored.

This research therefore focuses on gambling among KMTC students, framed as a zero-sum game, and is designed as a descriptive cross-sectional case study at the Mombasa Campus. By situating gambling behavior within the unique vulnerabilities of medical trainees, the study contributes new insights into how financial insecurity, psychosocial stressors, and academic pressures converge to shape gambling risks in a population whose well-being directly influences the future of healthcare delivery in Kenya.

METHODOLOGY

This study used descriptive cross sectional survey design to investigate the prevalence, predictors and effects of learners' gambling at Kenyan Medical Training College (KMTC), Mombasa Campus. A cross-sectional design was suitable, as it enabled the researcher to obtain quantitative data at a single point in time and to examine relationships between gambling and socio demographic and academic factors. Units of analysis were students who were undergoing training at KMTC Mombasa campus, the target population. A stratified random sampling technique was applied to achieve gender and year of study representation and the sample size was determined using Yamane (1967) formula with a 95% confidence level.

Structured questionnaires were used to collect primary data with 5-point Likert scale items to assess prevalence of gambling, socio demographic factors and academic impacts. The survey was supplemented by secondary data from institutional reports and regulatory publications. The instrument was pretested in a pilot study to guarantee reliability and validity, and Cronbach's alpha of ≥ 0.70 was used as criterion for internal consistency. Data analysis was performed with SPSS software, descriptive analysis (frequencies, percentages, means) were used to summarize the variables, and inferential analysis (chi square tests, logistic regression analysis) was used to analyze associations between socio demographic variables, behavioral biases, and gambling outcomes. Ethical approval was sought and secured from NACOSTI and KMTC administration while informed consent was sought from all participants in order to ensure confidentiality and voluntary participation.

FINDINGS

Demographic Profile

Table 1 depicts the demographic profile where the majority of respondents were young adults (18-24 years old; 87.5%) and this is consistent with the findings of Kapukotuwa et al. (2023) that university age students were most likely to initiate and persist in gambling because of their cognitive and behavioral characteristics. The slight predominance of male respondents (53.2%) is consistent with what was reported by Daniel et al. (2025) that male undergraduates are more prevalent to sports betting than the females in Nigeria. Overall, these findings indicate that there is a relationship between age and gender in the gambling behaviour of youth and confirm that the students at Mombasa Campus are more vulnerable as they heavily depend on their family as a source of support (86%).

Table 1: Respondents Demographic Profile

Category	Group	Count	Percentage
Gender	Male	277	53.2%
	Female	241	46.3%
Age Group	Between 18-24	456	87.5%
	Between 25-30	54	10.4%
	Between 31-35	8	1.5%
	35 and above	3	0.6%
Year of Study	Year 1	157	30.1%
	Year 2	236	45.3%
	Year 3	101	19.4%
Source of Income	Parents/Guardians	448	86.0%
	Part-time job	27	5.2%
	Helb	16	3.1%
	Others	30	5.8%

Gambling Engagement

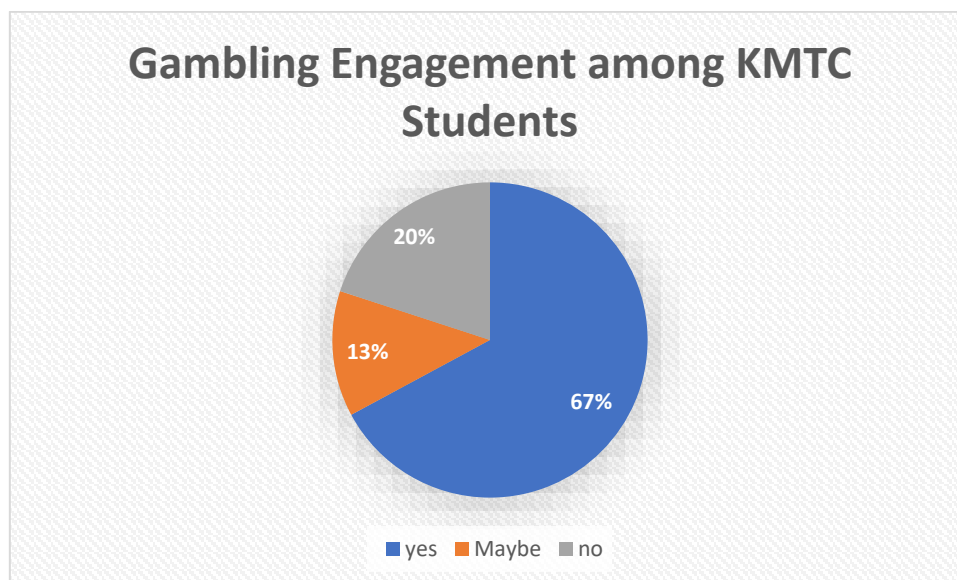


Figure 1: Gambling Engagement among KMTC Students at Mombasa Campus

From the data presented in Figure 1, 350 out of 521 respondents (67%) reported engaging in gambling at least once in the past 12 months. In contrast, 104 students (20%) indicated they had not engaged in gambling, while 67 students (13%) responded “Maybe.” These results show that gambling is a common activity among students, with only a minority reporting no engagement at all. The fact that nearly seven out of ten students have gambled in the past year suggests that gambling is part of everyday student life rather than an isolated behavior. The “Maybe” responses point to uncertainty or hesitation in disclosure, which may reflect stigma or lack of clarity about what counts as gambling.

Onset of Gambling Behavior

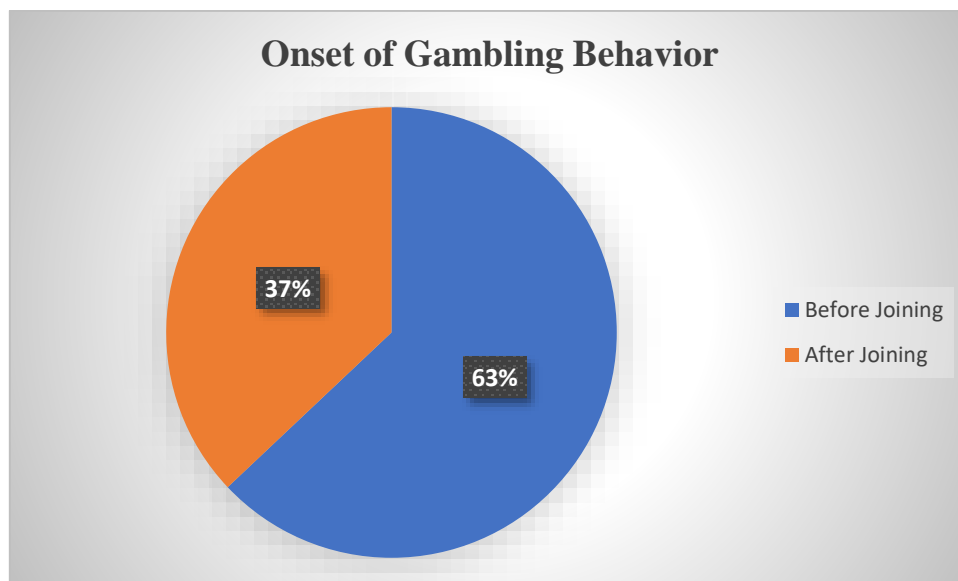


Figure 2: Onset of Gambling Behavior among KMTc Students at Mombasa Campus

As shown in Figure 2, among the 521 respondents who reported gambling in the past 12 months, 328 students (63.0%) indicated they had begun gambling before joining campus, while 193 students (37.0%) reported initiation during campus.

This distribution shows that most students were already exposed to gambling prior to entering KMTc, suggesting that gambling behaviors are often established earlier in adolescence or young adulthood. However, more than one-third of students-initiated gambling during campus, pointing to the influence of peer networks, digital accessibility, and the campus environment in shaping gambling onset.

These findings resonate with Kapukotuwa et al. (2023), who demonstrated that cognitive and behavioral factors strongly influence gambling initiation and persistence among university students. They also align with Manu et al. (2024), who found that gambling severity among Ghanaian youth was closely linked to psychological distress, and Daniel et al. (2025), who reported high sports betting engagement among Nigerian undergraduates with negative academic consequences. Together, this evidence underscores that gambling initiation among KMTc students reflects both pre-existing vulnerabilities and campus-specific pressures, reinforcing the need for interventions that address risks before entry and during training.

Frequency of Gambling

Table 2: Frequency of Gambling among KMTc Students at Mombasa Campus

Statistic	Value
Median	3 (Occasionally)
Range	1-3 (Daily to Occasionally)

As shown in Table 2, of the 350 respondents who reported gambling in the past 12 months (N/D = 350/521), the median frequency was 3 (Occasionally), with responses ranging from 1 (Daily) to 3 (Occasionally). This shows that the typical student gambled occasionally, though a smaller proportion reported weekly or daily gambling. The use of the median and range provides a clear summary of the distribution, avoiding distortion that would arise from attempting to calculate a mean on categorical data.

Gambling Rate by Gender

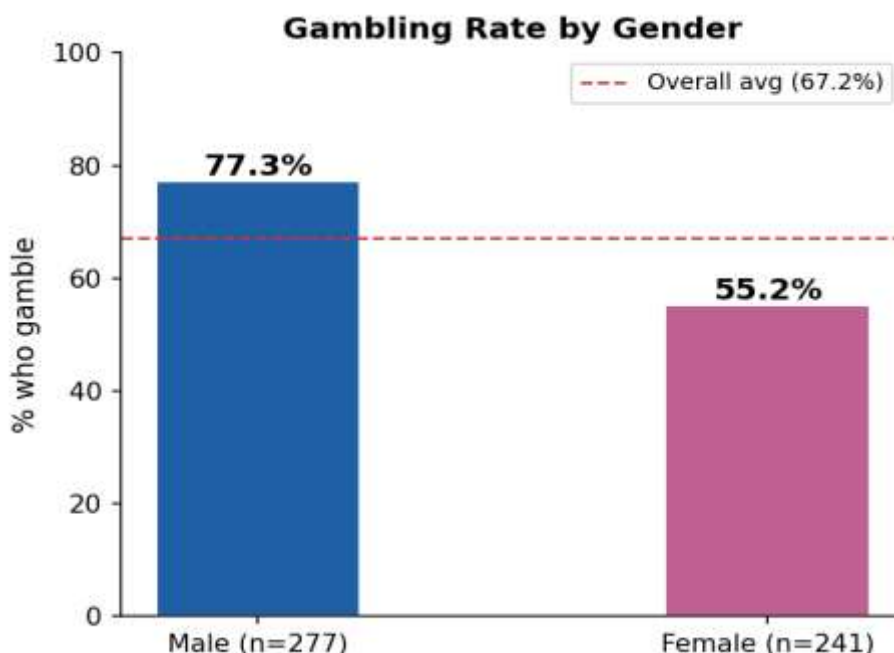


Figure 3: Gambling Rate by Gender

Gender was determined as the biological nature of being male or female. The above indicates that there is a gender dimension to gambling since male students had a higher prevalence of 77.3% than female students who had a prevalence of 55.2% (Figure 3). In line with the findings of Daniel et al. (2025), it was observed that males had a higher prevalence of sports betting than females, thus highlighting gender differences in gambling activities.

Types of Gambling that Students Engage In

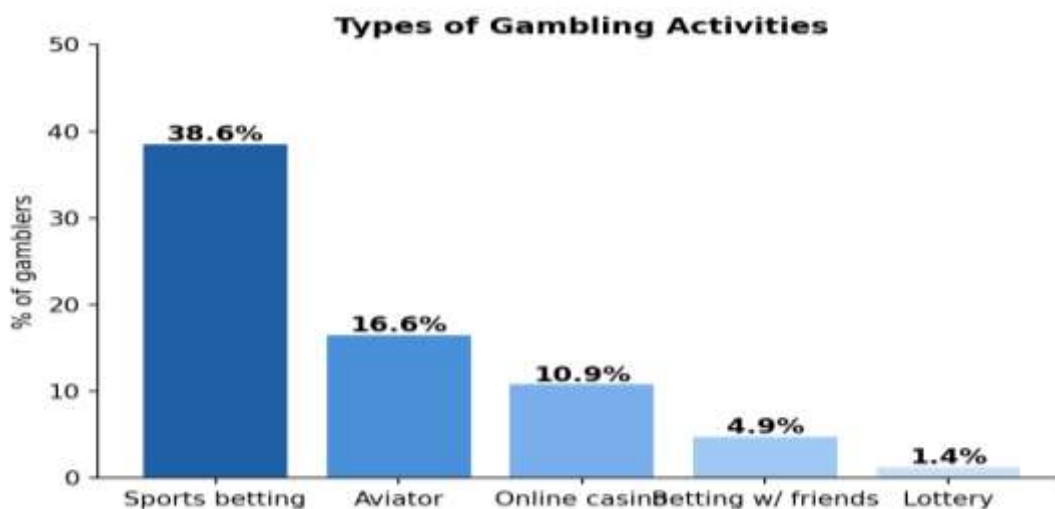


Figure 4: Types of Gambling Activities

As shown in Figure 4, it is clear that most students preferred sports betting (38.6%), aviator (16.6%), online casinos (10.9%), betting with friends (4.9%), and lottery (1.4%). This is similar

to Daniel et al. (2025) who reported that sports betting was the most popular gambling endeavor among Nigerian undergraduates, which is associated with greater excitement and negative academic performance. Gambling severity among youth in Ghana was also found to be strongly associated with psychological distress in a similar finding by Manu et al. (2024) which highlights how activities like sports betting can have an emotional appeal and trigger risky choices that can lead to negative outcomes.

Gambling Prevalence and Frequency

Table 3: Gambling Prevalence and frequency Results

AGE GROUP × GAMBLING FREQUENCY				
Age Group	Daily	Occasionally	Weekly	Total
35 and above	0	3	0	3
Between 18-24	53	195	53	301
Between 25-30	7	22	12	41
Between 31-35	1	4	0	5

The demographic distribution of students across the age groups shows that the age group of 18-24 years had the highest population proportion representing the average age of KMTC Mombasa Campus students and were the most involved in gambling behaviour with highest average scores for all measures, as presented in Table 3. This is in line with Kapukotuwa et al. (2023), which found that university age participants were most likely to initiate gambling and persist in doing so because of cognitive and behavioural factors. It also aligns with the results of Manu et al. (2024) which revealed a significant amount of psychological distress in Ghanaian youth at high levels of gambling severity. These findings point to the need for intervention at a young age, in order to avoid missing this highly critical segment of the population.

Effects of Gambling: Psychological and Academic

Gamblers were asked to rank how much gambling had impacted different facets of their lives. Below are the percentages of people who agree or strongly agree.

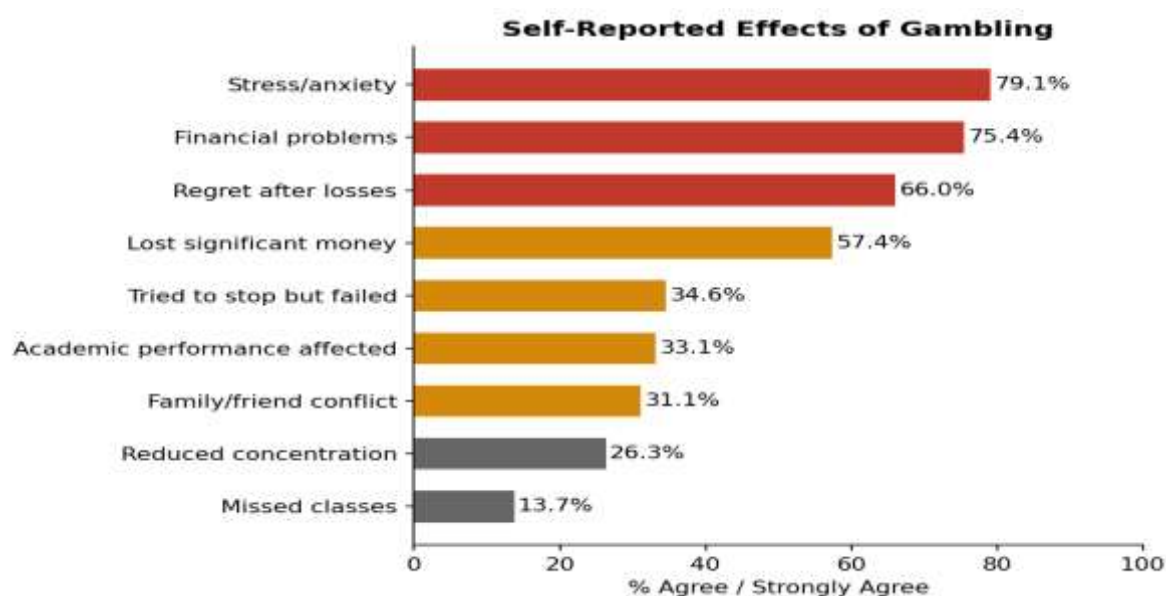


Figure 5: Effects of Gambling

The most striking effects of gambling among the KMTC Mombasa Campus students from the above findings (Figure 5) include the psychological which is represented by 79.1% of the students, stress or anxiety and financial problems which are represented by 75.4% of the students. Academic disruptions were also seen, with 33.1% seeing a drop in performance, 26.3% lower concentration and 13.7% absenteeism. The findings are aligned with the results of Manu et al., (2024), who reported that psychological distress was strongly related to gambling severity among youth in Ghana and Daniel et al., (2025), who noted that undergraduates in Nigeria gambling on sports were associated with poor academic performance. Evidence shows that gambling among youth has important psychosocial, financial and academic impacts overall.

Problem Gambling Indicators

Despite 86.9% of gamblers acknowledging that gambling is addictive, harmful behaviours are widespread:

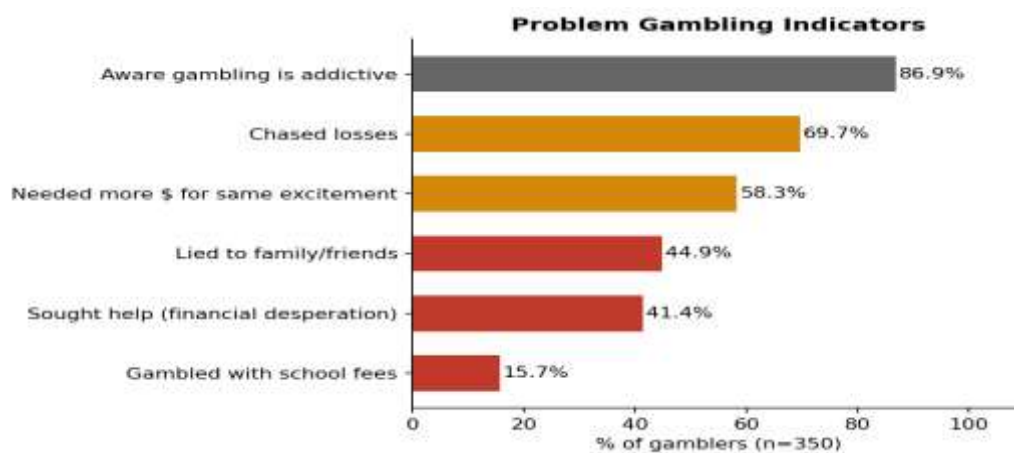


Figure 6: Problem Gambling Indicators

- Chased losses, a classic indicator of gambling disease, had occurred in 69.7% of cases.
- 58.3% needed to increase their bets in order to have the same level of excitement (tolerance).
- 44.9% of people have lied about their gambling to friends or family.
- 41.4% have sought assistance because of gambling-related financial desperation.
- 15.7%, or roughly one in six gamblers, have used their school funds to gambling.

Awareness of KMTC Counselling Services

The students were questioned about their knowledge of counselling or awareness programmes on gambling offered by KMTC Mombasa Campus. The results show a significant gap in awareness, especially amongst gamblers compared to non-gamblers.

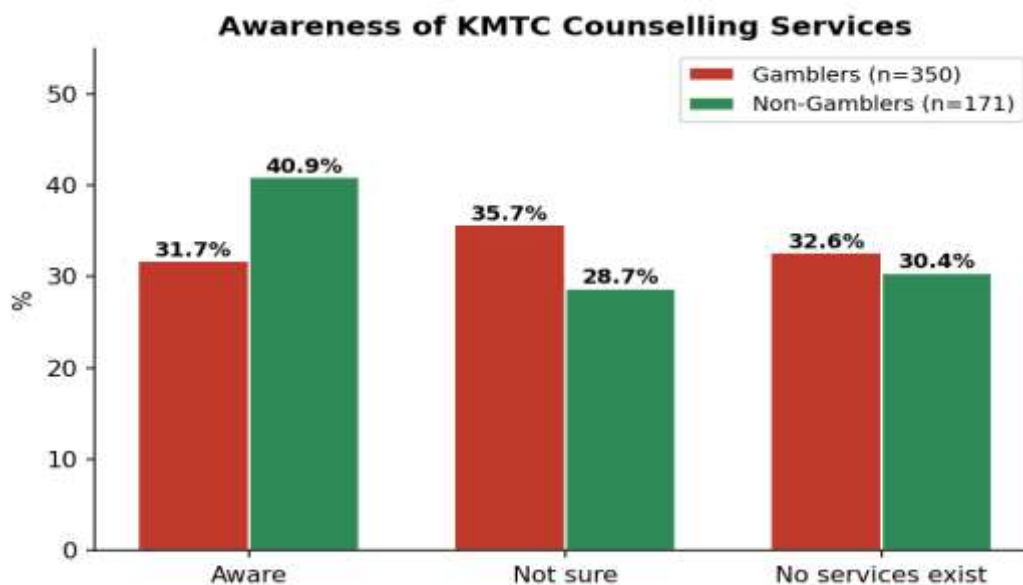


Figure 7: Awareness of KMTC Counselling Services

In terms of awareness, the difference between non-gamblers (40.9%) and gamblers (31.7%) is 9.2 percentage points as shown in Figure 7. Chi square testing ($\chi^2 (2) = 4.69, p = 0.096$) however, shows this difference is not statistically significant at 0.05 so there is a general lack of awareness across the two groups. Of the 350 gamblers, 31.7% recognize some form of support services, 35.7% doubt there is any, and 32.6% think there is no support services at KMTC Mombasa Campus. This reveals that nearly two-thirds of the people who need the most support are not aware of where to get support. The results are similar to those found by Njonge and Ronoh (2022) who reported that although high levels of stress and lower well-being among youth in Nakuru County were associated with gambling, few youths were aware of support services available. The findings highlight the pressing need for counselling and intervention services to have greater visibility, accessibility, and communication within the Mombasa Campus.

Cost of Inaction

The above data shows that as an organisation of KMTC fraternity we can no longer stand aside and wait for things to happen as they are happening now. Gambling as a means of livelihood has become commonplace and that is a bad precedent. If left to its own devices, it will be troubling. Finally, students who develop gambling addictions will have later life consequences including mental health issues, economic instability and loss of professional judgment. This ultimately has an impact on their care of patients, their ability to work and on public health.

The duty of care and the responsibility of KMTC to the Kenyan public to ensure that its graduates are mentally healthy, financially stable and ethically grounded.

Strategies to Implement

1. Set up counselling centres to assist those with the problem
2. Come up with a Peer Education and Awareness Campaign
3. Financial Literacy and Responsible Money Management programs to be developed
4. Staff Capacity Building
5. Gender-sensitive outreach strategies should be developed, given the distinct gambling profiles of male and female students.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The mental health of KMTC Mombasa Campus students is seriously and measurably affected by gambling, which is depleting their resources, disrupting their studies, and jeopardizing their careers. Two out of every three students have bet once; one out of seven students bet every day. Three out of four say that they experience stress and anxiety related to gambling. Less than one third are aware of the support that KMTC provides.

This is a problem which is not going to resolve itself. Predatory betting sites are inevitable because of the same digital infrastructure that allows students to access mobile banking. If no deliberate, planned, and adequately resourced intervention, it will get worse with each successive cohort of students.

Recommendations

The study recommends KMTC Mombasa Campus to establish a specialized counselling centre to provide students affected by gambling with easy access to support. Peer education and awareness campaigns should be intensified to raise awareness among students about the potential dangers of gambling and the available intervention options. Financial literacy programs, including webinars, are crucial to help students develop practical skills in managing scarce resources and to make gambling less attractive as an income strategy. Staff capacity-building initiatives should be prioritized to strengthen institutional response and enable teachers and administrators to identify and assist at-risk students.

In addition, enhancing alternative recreation opportunities would provide healthier outlets for leisure, while environmental interventions such as regulating gambling opportunities around the campus would reduce exposure. Referral networks linking students to specialized services and close monitoring mechanisms would further reinforce the effectiveness of interventions. Gender-sensitive approaches remain essential to ensure inclusivity and effectiveness. Some measures, such as peer education and awareness campaigns, are already being implemented at KMTC Mombasa Campus, but the findings highlight the need to scale them up and integrate them more systematically into campus life.

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