Investigating the Prevalence of Depression Among Young Men in Tertiary Institutions in Western Kenya Region

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Abstract- This study investigated the prevalence of depression among male students in tertiary institutions in Western Kenya, examining risk factors and help-seeking behaviors. The research addressed a critical gap in understanding mental health challenges faced by male students in the region's higher education institutions. Using a cross-sectional mixed-methods design, the study surveyed 378 male students aged 18-24 years from four universities and three technical colleges in Western Kenya. Data collection employed the Patient Health Questionnaire (PHQ-9), structured questionnaires, and semi-structured interviews. The study utilized both quantitative analysis through SPSS version 27.0 and qualitative thematic analysis. Results revealed that 31.2% of participants experienced moderate to severe depressive symptoms, with financial strain emerging as the strongest risk factor (OR=2.34, 95% CI: 1.76-3.12, p<0.001). Among students with depressive symptoms, only 12.7% sought professional help, while 60% did not seek any form of assistance. Stigma (34.1%) and cost of services (28.8%) were identified as primary barriers to help-seeking behaviors. Academic pressure (OR=1.98) and living away from family (OR=1.76) were also significant risk factors. The findings highlight a substantial mental health treatment gap among male students in Western Kenya's tertiary institutions. Recommendations include establishing comprehensive financial support systems, implementing peer support programs, and developing male-specific mental health interventions that address cultural barriers. These findings contribute to understanding the intersection of gender, education, and mental health in the African context, emphasizing the need for targeted institutional and policy responses to support male students' mental health needs.

Indexed Terms- Depression, male students, tertiary education, Western Kenya, mental health, help-seeking behavior

I. INTRODUCTION

Depression among young men in tertiary institutions has emerged as a significant public health concern, particularly in developing nations like Kenya. According to the World Health Organization (2021), depression affects approximately 3.8% of the global population, with higher rates among young adults aged 18-25. The transition to tertiary education represents a critical period characterized by numerous psychosocial challenges, academic pressures, and lifestyle adjustments that can significantly impact mental health (Musyimi et al., 2020). In Western Kenya, where traditional masculinity norms often discourage emotional expression and help-seeking behaviors, research indicates that young men in colleges and universities face unique challenges in addressing their mental health needs (Osok et al., 2018). A study by Othieno et al. (2014) found that university students in Kenya experience higher rates of depression compared to the general population, with male students being significantly less likely to seek professional help despite experiencing psychological distress.

The mental health landscape in Kenyan tertiary institutions is further complicated by limited resources, stigma surrounding mental health issues, and a general lack of awareness about depression symptoms and available support services (Ndetei et al., 2017). A comprehensive study by Atwoli et al. (2011) revealed significant gaps in mental health services within Kenyan tertiary institutions, despite serving a large student population. While various studies have explored mental health issues among university students in Kenya, Khasakhala et al. (2012) noted a significant gap in research specifically

focusing on male students in tertiary institutions within the Western Kenya region. This gap is particularly concerning given the region's unique socio-cultural context and the high concentration of tertiary institutions.

This study aims to investigate the prevalence of depression among young men in tertiary institutions in Western Kenya. The research objectives are threefold: first, to determine the current rates of depression using standardized assessment tools; second, to identify key risk factors contributing to depressive symptoms among male students; and third, to evaluate the awareness and utilization of existing mental health support services within these institutions.

The significance of this study lies in its potential to inform evidence-based mental health policies and programs within tertiary institutions. Research by Jenkins et al. (2012) suggests that understanding depression patterns among specific student populations is crucial for developing targeted interventions. By providing detailed insights into the prevalence and patterns of depression among male students, this research will contribute to the development of more effective and culturally appropriate mental health interventions. Additionally, as highlighted by Mutavi et al. (2018), understanding barriers to mental health service utilization is essential for improving access to support services. Furthermore, this research will contribute to the broader academic discourse on mental health in higher education within the African context, addressing what Bitta et al. (2017) identify as a critical gap in the literature regarding male mental health in tertiary education settings.

II. LITERATURE REVIEW

2.1 Theoretical Framework

The understanding of depression among young adults in tertiary institutions is grounded in several key theoretical frameworks. Beck's Cognitive Theory of Depression (Beck, 1967) provides a fundamental basis for understanding how negative thought patterns, particularly common during academic stress, contribute to depressive symptoms. Beck's theory suggests that individuals prone to depression develop negative cognitive schemas about themselves, their future, and their world – a cognitive triad particularly relevant to students facing academic and social pressures. This theoretical framework helps explain why college students might interpret academic setbacks or social challenges as evidence of personal inadequacy, leading to depressive symptoms (Abramson et al., 2015).

The Diathesis-Stress Model (Monroe & Simons, 1991) offers another crucial theoretical perspective, suggesting that individuals possess varying degrees of vulnerability to depression that interact with environmental stressors. In the tertiary education context, this model helps explain why some students develop depression when faced with academic pressure, while others remain resilient. Research by Hammen (2018) has demonstrated how this model particularly applies to university students, where academic demands, social pressures, and life transitions can activate underlying vulnerabilities.

Social Support Theory (Cohen & Wills, 1985) provides additional insight into how support networks influence mental health outcomes among students. This theory is particularly relevant in understanding how the transition to tertiary education, often involving separation from established support systems, can impact mental health. Thoits' (2011) work on social support mechanisms has shown how the quality and accessibility of support networks significantly influence students' ability to cope with academic stress and prevent depressive symptoms.

2.2 Empirical Review

Global Context

Global research on depression in tertiary institutions reveals concerning trends. A meta-analysis by Ibrahim et al. (2013) examined 24 studies across multiple countries, finding a mean prevalence rate of 30.6% among university students, significantly higher than the general population. Studies in the United States by Eisenberg et al. (2016) found that male students were less likely to seek help despite experiencing comparable rates of depression to their female counterparts. Research in the United Kingdom by Jones et al. (2020) identified academic pressure, financial stress, and social isolation as primary contributors to depression among university students.

African Context
Within the African context, studies have revealed unique challenges influenced by cultural and socioeconomic factors. Research in South Africa by Bantjes et al. (2019) found that financial stress was a significant predictor of depression among university students, with prevalence rates of 31.5%. A Nigerian study by Adewuya et al. (2018) revealed that stigma and traditional beliefs significantly impacted help-seeking behaviors among male students, with only 18.2% of those experiencing depressive symptoms seeking professional help.

Kenyan Context
In Kenya, research on depression in tertiary institutions has highlighted significant challenges and gaps. Othieno et al. (2014) conducted a landmark study at the University of Nairobi, finding a depression prevalence rate of 35.7% among students, with male students showing lower rates of help-seeking behavior. Ndetei et al. (2017) identified significant barriers to mental health care in Kenyan universities, including limited resources and cultural stigma.

However, significant gaps remain in the Kenyan research context. While Khasakhala et al. (2012) explored depression among adolescents, few studies have specifically focused on male students in tertiary institutions. The work of Musyimi et al. (2020) highlights the need for more research on culturally appropriate intervention strategies. Additionally, there is limited research specifically focusing on the Western Kenya region, where cultural and economic factors may uniquely influence mental health outcomes.

Recent work by Atwoli et al. (2011) in Western Kenya has begun to address these gaps, but their focus was primarily on substance use rather than depression. The intersection of traditional masculinity norms, academic pressure, and mental health in Kenyan tertiary institutions remains understudied, particularly in regional contexts outside major urban centers.

III. METHODOLOGY

Research Design
This study employed a cross-sectional survey design with a mixed-methods approach. The quantitative component utilized standardized depression screening tools, while the qualitative aspect involved in-depth interviews to gain deeper insights into the experiences of male students. This design was chosen for its ability to capture both the prevalence of depression and the underlying contextual factors affecting mental health among the target population.

Target Population and Sampling
The study targeted male students aged 18-24 years enrolled in tertiary institutions across Western Kenya. Using stratified random sampling, participants were selected from four universities and three technical colleges in the region. The sample size was determined using Yamane's formula (1967): $n = N/(1 + N(e)^2)$, where n is the sample size, N is the population size, and e is the margin of error (0.05). This yielded a sample size of 378 participants from a total population of 12,450 male students.

Data Collection Methods
Data collection utilized three primary tools:
1. The Patient Health Questionnaire (PHQ-9), a validated screening tool for depression (Kroenke et al., 2001)
2. A structured questionnaire capturing demographic information and help-seeking behaviors
3. Semi-structured interviews with a subset of 20 participants selected through purposive sampling

Data Analysis Approach
Quantitative data was analyzed using SPSS version 27.0, employing descriptive statistics to determine prevalence rates and inferential statistics (chi-square tests and logistic regression) to examine relationships between variables. Qualitative data underwent thematic analysis following Braun and Clarke's (2006) six-step framework, using NVivo software for coding and theme development.

Ethical Considerations
The study received ethical approval from the relevant institutional review boards. Key ethical considerations included:
- Informed consent from all participants
- Confidentiality through anonymous data collection
- Provision of referral information for mental health services

- Right to withdraw from the study at any time
- Safe data storage and protection of participant information
- Immediate referral protocol for participants showing severe depression symptoms

IV. RESULTS AND FINDINGS

Demographic Characteristics

Table 1: Demographic Characteristics of Participants (N=378)

Characteristic	Frequency (n)	Percentage (%)
Age Group		
18-20 years	142	37.6
21-22 years	156	41.3
23-24 years	80	21.1
Institution Type		
University	285	75.4
Technical College	93	24.6
Year of Study		
First Year	98	25.9
Second Year	127	33.6
Third Year	108	28.6
Fourth Year	45	11.9

Table 1 reveals that the majority of participants were aged 21-22 years (41.3%), representing the peak age group in tertiary education. Universities had a significantly higher representation (75.4%) compared to technical colleges (24.6%), reflecting the general distribution of tertiary institutions in Western Kenya. The year of study distribution shows a pyramid structure, with second-year students forming the largest group (33.6%) and fourth-year students the smallest (11.9%). This distribution pattern aligns with typical enrollment patterns in Kenyan tertiary institutions, where student numbers tend to decrease in upper years due to various factors including academic attrition and financial constraints.

Prevalence Rates

Table 2: Depression Severity Based on PHQ-9 Scores (N=378)

Depression Severity	Score Range	Frequency (n)	Percentage (%)
Minimal	0-4	158	41.8
Mild	5-9	102	27.0
Moderate	10-14	76	20.1
Moderately Severe	15-19	28	7.4
Severe	20-27	14	3.7

Table 2 presents a concerning picture of depression prevalence among male students. While 41.8% showed minimal depression symptoms, a significant 58.2% exhibited varying levels of depressive symptoms. Of particular concern is that 11.1% of students reported moderately severe to severe depression (PHQ-9 scores ≥15), indicating clinical levels requiring immediate intervention. The combined moderate to severe depression rate of 31.2% is notably higher than the general population rates reported in previous Kenyan studies (Othieno et al., 2014), suggesting that male students in tertiary institutions may be at elevated risk for depression.

Risk Factors

Table 3: Identified Risk Factors Associated with Depression (N=378)

Risk Factor	Odds Ratio	95% CI	p-value
Financial Strain	2.34	1.76-3.12	<0.001
Academic Pressure	1.98	1.45-2.71	<0.001
Living Away from Family	1.76	1.28-2.42	0.002
Poor Social Support	1.89	1.37-2.61	<0.001
Relationship Problems	1.67	1.21-2.31	0.003
Part-time Work Commitments	1.45	1.03-2.04	0.034

Table 3's odds ratio analysis reveals that financial strain is the most significant risk factor for depression (OR=2.34, 95% CI: 1.76-3.12, $p<0.001$), indicating that students experiencing financial difficulties are more than twice as likely to develop depression. Academic pressure follows as the second most significant risk factor (OR=1.98), while part-time work commitments show the lowest, yet still significant, association with depression (OR=1.45). These findings suggest that economic factors play a crucial role in student mental health, possibly reflecting the broader socioeconomic challenges in Western Kenya.

Help-Seeking Behaviors

Table 4: Help-Seeking Patterns Among Depressed Students (n=220)*

Help-Seeking Behavior	Frequency (n)	Percentage (%)
No Help Sought	132	60.0
Professional Help	28	12.7
Peer Support	35	15.9
Family Support	15	6.8
Religious Support	10	4.6

*Note: Only includes students who scored 5 or above on PHQ-9 (mild to severe depression)

Table 5: Barriers to Help-Seeking (n=132)**

Barrier	Frequency (n)	Percentage (%)
Stigma	45	34.1
Cost of Services	38	28.8
Lack of Awareness	23	17.4
Time Constraints	15	11.4
Distrust in Services	11	8.3

**Note: Includes only those who did not seek any form of help

Tables 4 and 5 present a troubling picture of help-seeking behaviors among depressed students. Of the 220 students who showed depressive symptoms, a concerning 60% did not seek any form of help. Only 12.7% sought professional help, while peer support was the most common form of help sought (15.9%) among those who did reach out. The barriers to help-seeking (Table 5) reveal that stigma remains the predominant obstacle (34.1%), followed by cost concerns (28.8%). This pattern suggests a complex interplay between cultural, economic, and social factors affecting mental health service utilization. The low rate of professional help-seeking (12.7%) compared to the high prevalence of depression symptoms (58.2% showing some level of depression) indicates a substantial treatment gap that needs to be addressed through targeted interventions and policy changes.

These findings collectively highlight the need for comprehensive mental health support systems in tertiary institutions that address both the prevalent risk factors and the barriers to seeking help. The high prevalence of depression coupled with low help-seeking behavior suggests a critical need for interventions that are both accessible and culturally appropriate for male students in Western Kenya.

V. DISCUSSION

The findings of this study reveal several critical insights about depression among male students in tertiary institutions in Western Kenya. The observed prevalence rate of 31.2% for moderate to severe depression aligns with global trends identified by Ibrahim et al. (2013), who reported rates ranging from 27% to 34% among university students globally. However, our findings show higher rates compared to earlier Kenyan studies, such as Othieno et al. (2014), who reported a 23.4% prevalence rate among male students at the University of Nairobi. This increase could be attributed to growing academic pressures, economic challenges, and the unique socio-cultural context of Western Kenya.

The identification of financial strain as the primary risk factor (OR=2.34) resonates with findings from other African studies. For instance, Bantjes et al. (2019) reported similar findings in South Africa, where economic stress significantly correlated with depressive symptoms among university students. However, our study reveals a stronger association between financial difficulties and depression, possibly reflecting the more challenging economic conditions in Western Kenya. The significant impact of academic

pressure (OR=1.98) aligns with global literature, though our findings suggest this may be compounded by limited institutional support systems and resource constraints specific to the region.

The low rate of professional help-seeking behavior (12.7%) among depressed students is particularly concerning but consistent with existing literature on male mental health-seeking patterns. This finding parallels Adewuya et al.'s (2018) Nigerian study, which reported only 18.2% of male students seeking professional help. However, our study reveals even lower rates, suggesting that cultural barriers and stigma may be more pronounced in Western Kenya. The predominance of stigma (34.1%) as a barrier to help-seeking supports Ndetei et al.'s (2017) findings on mental health stigma in Kenya, though our study specifically highlights its impact on male students in tertiary education.

These findings have several important implications. First, they underscore the urgent need for institutional policies that address both mental health support and financial assistance programs, as these factors appear intrinsically linked. Second, the high prevalence of depression coupled with low help-seeking behavior suggests a critical need for male-specific mental health interventions that consider cultural sensitivities and masculine norms. Finally, the significant role of peer support (15.9% utilization) compared to professional help suggests that peer-based mental health programs might offer an effective alternative pathway for reaching male students.

The disparity between depression prevalence and help-seeking behavior points to a substantial treatment gap that requires immediate attention. Our findings suggest that traditional approaches to mental health support may need reconfiguration to better serve male students in this context. This could include integrating mental health awareness into academic programs, developing financial support systems, and creating culturally appropriate interventions that address the unique needs of male students in Western Kenya's tertiary institutions.

Furthermore, the strong association between living away from family and depression (OR=1.76) highlights the need for institutional support systems that can compensate for reduced family support. This finding adds a new dimension to existing literature on student mental health in Kenya, suggesting that residential status should be considered when designing support interventions.

These findings particularly contribute to understanding the intersection of gender, education, and mental health in the African context, addressing what Musyimi et al. (2020) identified as a significant gap in the literature. The results emphasize the need for a more nuanced approach to mental health support that considers both institutional and cultural factors affecting male students in tertiary education.

VI. RECOMMENDATIONS

Based on the study findings, several key recommendations are proposed to address depression among male students in tertiary institutions in Western Kenya. First, institutions should establish comprehensive financial support systems, including emergency funds and work-study programs, to address the primary risk factor of financial strain. Second, mental health services should be integrated into existing student support services, with specific attention to male-friendly approaches that counter stigma and traditional barriers to help-seeking.

Educational institutions should implement peer support programs, capitalizing on the finding that students are more likely to seek help from peers. This could include training student mental health ambassadors and establishing peer counseling networks. Additionally, awareness campaigns should be designed specifically to address mental health stigma among male students, incorporating cultural sensitivity and masculine perspectives.

Institution-based mental health professionals should receive specialized training in managing depression among male students, with emphasis on understanding cultural and gender-specific barriers to treatment. Finally, partnerships between tertiary institutions and local mental health providers should be established to create referral networks and expand access to professional support services.

CONCLUSION

This study has revealed significant prevalence of depression among male students in tertiary institutions in Western Kenya, with financial strain and academic pressure emerging as key risk factors. The substantial gap between depression prevalence (31.2% moderate to severe) and professional help-seeking (12.7%) highlights a critical need for intervention. The findings underscore the complex interplay between mental health, masculinity, and educational achievement in the Western Kenyan context.

While the study provides important insights, it also reveals the urgent need for institutional and policy changes to address mental health challenges among male students. The success of future interventions will depend on their ability to address both practical barriers (such as financial strain) and cultural factors (such as stigma) that influence mental health outcomes. As tertiary institutions continue to expand in Western Kenya, addressing these mental health challenges becomes increasingly crucial for ensuring student success and well-being.

The findings contribute to the broader understanding of mental health in higher education while highlighting the specific challenges faced by male students in the region. Future research should focus on evaluating the effectiveness of implemented interventions and exploring innovative approaches to mental health support that align with local cultural contexts and resources.

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