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Demographic Variables of Age, Gender and Depression among University Students in Langata Constituency, Nairobi County, Kenya

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ABSTRACT

The demographic variables of age and gender have been found to have a correlation with depression among university students. Studies have shown that depression affects approximately 10% of the global population at some point in their lives, with university students being particularly vulnerable due to academic stress, financial pressures, and social isolation. The current study aimed to examine the relationship demographic variables of age, gender and depression among university students in Langata constituency, Nairobi Kenya. The study employed correlational research design. The study targeted a population of 1268 and through simple random sampling, a sample size of 235 participants were selected to participate in the study. The data was collected using demographic details and Depression Scale. The collected data was analyzed using descriptive statistics and Pearson correlation analysis with SPSS version 32. The results showed a weak negative correlation between age and depression ($r = -0.149$, $p = .023$), suggesting age may have no correlation with depression among university students. Additionally, gender and depression showed a strong negative correlation ($r = -0.211$, $p < .001$), indicating that female students are more susceptible to depressive symptoms compared to their male counterparts. The findings underscore the need for targeted mental health interventions within universities. There is a need for institutions of higher learning to integrate mental health education into curricula, expand counseling services, and establish peer-support networks to promote the mental well-being of university students. Addressing gender-specific mental health needs is crucial in mitigating depression among university students and fostering overall well-being.

Key words: Depression, Age, Gender, university Students, Nairobi, Kenya

INTRODUCTION

Depression is a spectrum disorder that manifests itself in many ways, varying in degree and symptoms among people. It is not only described by its symptoms but also social, biological,and psychological elements Moreover, depression should be viewed as a disorder that is impacted not only by medical or psychiatric diagnosis but also individual experience, context and particular life circumstances (De Jonge et al., 2015). Depression is a serious mental health condition that is often misdiagnosed (Croock et al., 2023). This is despite the fact it affects almost 10% of the world population at some point in their lives (Bhana et al., 2015). Symptoms of depression might differ greatly depending on the age group. Teenagers affected may experience irritation, social disengagement, or alterations in academic performance. On the other hand, it manifests itself in form of physical problems (such as aches and pains) or cognitive deterioration among older adults (Cardinell et al., 2019). Moreover, high levels of stress associated with school and job development may be linked to an increase in prevalence of depression in young adults aged between 18 and 25 years.

A study conducted by Heumann et al. (2024) showed that depression symptoms are present in at least 21.1% of college students. The study showed that the prevalence was significantly higher during the COVID-19 pandemic (30.6%) compared pre-pandemic (18.0%). The study also showed that female students were more affected than their male counterparts, with rates of 29.0% versus 23.1%, respectively. This heightened prevalence of depression among university students can be attributed to several interconnected factors. Some of these factors include; feelings of being overburdened by the high expectation to perform well in school, social isolation and lack of psychological support. Moreover, financial difficulties associated with high living expenses and tuition fees may worsen anxiety and sadness further contributing to students' depression (Brandy et al., 2015; Liu et al., 2022; Estrella-Proaño et al., 2024).

A meta-analysis study conducted by Weinberger et al. (2018) showed that depression rates among younger American populations have significantly increased from 2005 to 2015. An increasing trajectory was observed during the ten years of study. During 2020–2021 academic year more than 60% of college students in America had at least one mental health issue (Abrams, 2022). Furthermore, data collected by the Anxiety and Depression Association of America showed that at least 34% of American students have experienced depression (Bouchrika, 2024).

In America depression rates among women have continuously been higher compared to their male counterparts. About 27.3% of girls between age 12 and 17 reported having a major depressive episode in the year 2023, as compared to 9.4% of boys in the same age range (Vankar, 2024). Over time, this gender gap has continued to widen. For instance, it widened from 6.4% to 14.8% between 2009 and 2019 (Daly, 2022). The study also showed that with

prevalence of major depressive episodes was particularly higher among teenage females increasing from 11.4% to 23.4% contrasted to an increase of 5.0% to 8.6% among teenage males.

Younger people are more susceptible to depression.16.9% of adolescents aged 12–17 and 17.2% of young people aged 18–25 had a major depressive episode in 2020 (Goodwin et al., 2022). The rising incidence of depression especially among young people necessitates focused mental health interventions. The pre-existing mental health issues among young people were worsened by COVID-19 pandemic. During the Pandemic there were higher levels of anxiety and sadness caused by factors such as social isolation, the shift to online learning, and health-related anxieties. The research showed that during the pandemic, students reported feeling more tired, upset, anxious, and depressed (Meade, 2021). This has necessitated educational institutions to reassess their support systems in response to the mental health crises. To de-stigmatize asking for help, initiatives such as improving counseling services, incorporating mental health education into curriculum, and supporting awareness campaigns have been initiated. However, these efforts have sufficiently addressed students increasing need for mental health support (Abrams, 2022).

The overall prevalence of depression among Chinese university students was 28.4%, according to a systematic review and meta-analysis that included 113 studies with a total of 185,787 participants (Gao et al., 2020). Additionally, Yuan et al. (2023) estimated the prevalence of depression to be 24.3% based on a meta-analysis of 51 studies encompassing 144,060 teenagers from mainland China. Furthermore, a different study by Li et al. (2019) showed that 22.2% of kids and teenagers had depressive symptoms at one point in their lives.

A study by Luo et al. (2024) showed that 72% of Chinese patients with depression below the age of 25 years, indicating that depression are more prevalent among young adults. However, research on gender differences in the prevalence of depression among Chinese university students has produced varyingfindings (Lei et al. (2016). While studies in Macau and Hong Kong show no discernible gender differences, other evidence suggests that depression is more common among male students in mainland China (Li et al., 2020). About 30 million people in Africa suffer from depression. For instance, in South Africa one in three persons suffer from either depression, anxiety, or a substance use disorder (Tolentino & Schmidt, 2018). A study by Croock et al. (2023) has shown that among South African university students, 12.4% had moderate to severe depression and 24.2% had mild depression. Persons who are either widowed, divorced, or separated, living in a city, and having only completed primary school are more likely to have depression and anxiety (Craig et al., 2022). The information that is currently available indicates that both undergraduate and graduate students suffer from considerable levels of depression. This is notwithstanding the lack of precise age-related prevalence rates (Mutinta, 2022).

Several Studies have reported that female students are more likely than their male counterparts to suffer from depression. Research by the University of Cape Town found out that, 36.4% of medical students had severe depression, with a higher frequency among female students. Van der Walt et al. (2020), found out that female students were 3.7 times more likely than male students to suffer from depression. Just like female students, older women are more likely to have depressioncompared to men of similar age. According to the South African Stress and Health research women have 1.75% times more likely than men to have depression (Tomlinson et al., 2009). The relationship between age and depression among students has been found to be complex. For instance, in South African studies on stress and health have reported that people aged 40 to 49 had a greater rate of lifetime severe depressive episodes, this age group does not often reflect the student population (Tomlinson et al. 2009). In the case of university students, age-related patterns are less obvious. This has been reported by research on depression among first-year students at a rural South African university that found no significant age differences within the student cohort (Pillay et al., 2020).

The rising incidence of depression among students has been attributed to a number of factors such as increased academic pressure, poor physical health and social media addiction. Higher incidence of depressive symptoms has been associated to increased academic pressure. (Luo et al., 2024). Moreover, students with poor physical health are also more likely to suffer from depression. Excessive social media usage has also been linked with increased rates of depression among students (Subbaraman, 2024). A study conducted at Gulu University in Uganda by Anyayo et al. (2022), found out that 31.19% of undergraduate students suffered from depression. Some of the contributing factors were: the year of study, the faculty of study, satisfaction with academic performance and quality of the performance. The results highlighted the necessity of psychoeducation, psychotherapy, and preventative mental health services in higher education. However, Nalugya-Sserunjogi et al. (2016), found out that the frequency of depression among Ugandan students has fluctuated significantly over time.

Research conducted in 2016 among secondary school students in Uganda,Mukono district found that 21% had major depression symptoms. In contrast, during the COVID-19 panemic, a 2021 online poll found an alarming increase, with 80.7% of university students feeling depressed (Najjuka et al., 2021). This rise demonstrated the pandemic's severe influence on student mental health. Gender has been recognized as a significant determinant of depression rates among students. Multiple studies have repeatedly revealed that female students have higher rates of depression than their male counterparts. For example, data shows that depression is more common in women than in men, and more women have contacted and used mental health services (Amone-P'Olak et al., 2023). Furthermore, among urban refugee youth in Kampala young women displays considerably higher depression symptoms than young men (Logie et al., 2020).

Teenagers aged 14-16 in central Uganda had a 21% prevalence of serious depression symptoms (Nalugya-Sserunjogi et al., 2016). Another study among medical students at Makerere University, with a mean age of 23.5 years, found a 21.5% prevalence of depression (Olum et al., 2020). These data indicate that both younger and older student populations are vulnerable to depression, emphasizing the importance of age-inclusive mental health interventions. A study from Ghana found out that 57% of students reported mild to severe depression. The study highlighted the need social support from friends and family in lowering students' depression levels (Kugbey et al., 2015). According to study, depression rates differ among Ghanaian students. In a 2023 research of senior high school students, Obeng-Okon et al. (2024) found a frequency of 68.9%. In contrast, earlier studies among university students

revealed 39.2% prevalence of depression (Asante &Andoh-Arthur, 2015). These variances could be related to disparities in educational levels, evaluation tools, and socioeconomic status.

A study Obeng-Okon et al. (2024) found out that female students were more likely than male students to experience depression, with a ratio of 1.74%. This finding is consistent with broader data demonstrating a higher depression frequency among females in many populations. additionally, age has been established as a risk factor for depression. The same study revealed that older students were more likely to experience depression (1.41%) compared to their young counterparts (Obeng-Okon et al., 2024). This shows that as students get older, their risk of depression rises. A study by Othieno et al. (2014) at the University of Nairobi in Kenya, found that 5.6% of students had severe depression and 35.7% of students had moderate depressive symptoms. Higher levels of depression were substantially correlated with factors such being in the year of study, marital status, financial difficulties, and out campus residence. Similarly, a study conducted by Otieno et al. (2024) at the Technical University of Mombasa discovered that 57.7% of students had depression. The study found that depression levels were significantly influenced by family, the school environment, and economic factors. Furthermore, drug abuse is also associated with a higher rate of depression.

The youth's mental health issues were worse by the COVID-19 pandemic. According to a study conducted on students between the ages of 15 and 24, during the pandemic, about one in four teenagers and young adults had depression related symptoms. This highlighted how vulnerable this age group is to mental health problems during emergencies (Gichangi et al., 2024). According to Mutiso et al. (2023), stress patterns among Kenyan students show that female students often face greater stressors than male students. This may be result from women's tendency to internalize stress. The current study aimed to examine the relationship demographic variables of age, gender and depression among university students in Langata constituency, Nairobi Kenya.

METHODOLOGY

The study employed correlatinal research design to establish the relationship between demographic variables of age, gender and depression among university students in Nairobi County, Kenya. The study was conducted with University students within Nairobi County. The target population was 1268 students studying in one of the universities within Nairobi. Due to young age, university students are prone social media addiction. Through simple random sampling, a sample size of 235 students was selected to participate in the study. The data was collected using the demographic information of age and gender provided by the participants and depression scale. The scoring for the responses was Strongly Disagree:1, Disagree:2, Neither Agree or Disagree, Agree: 3, and Strongly Agree: 4. The data was analyzed using descriptive statistics particularly percentages and Pearson correlation analysis.

RESULTS AND DISCUSSION

The study investigated the relationship between demographic variables of age, gender, and depression among university students in Nairobi County, Kenya. Based on the demographic characteristics, majority of participants were aged 23–27 years (30.6%)**,** followed by 18–22 years (25.5%)**.** Participants aged 28–32 years accounted for 14.5%**,** and smaller percentages were observed in older age groups, with the lowest being 53–57 years (1.3%)**.** Additionally, the data indicates that the majority of the participants were male (60.9%), while females constituted 39.1% of the respondents.

Relationship between Demographic Variables and Depression among University Students

A Pearson correlation analysis was run to establish the relationship between the demographic variables of age, gender and depression among the university students. The results are presented in table 1.

Table 1: Correlation between Age, Gender and Depression among University Students

Variables		Age	Gender
Depression	Pearson Correlation	-0.149	-0.211
	Sig.	.023	.001

** Correlation is Significant at the 0.001 Level (2-tailed).

** Correlation is Significant at the 0.05 Level (2-tailed).

Results from Pearson correlation analysis in table 1 showed a weak negative relationship between age and depression (r = -0.149, p =.023), suggesting that age may have no correlation with depression among university students. Furthermore, the findings revealed a strong negative correlation between gender and depression among the university students (r=-0.211, p=.023). This means there is significance difference between gender and depression among the university students.

The findings showed a weak negative relationship between age and depression (r = -0.149, p =.023), suggesting that age may have no correlation with depression among university students. The findings contradicted earlier findings indicating that younger populations are more susceptible to depression (Goodwin et al., 2022). For instance, in 2020, 16.9% of adolescents aged 12–17 and 17.2% of young adults aged 18–25 experienced a major depressive episode (Goodwin et al., 2022). Furthermore, the impact of the COVID-19 pandemic exacerbated mental health issues among younger individuals, with increased levels of anxiety, isolation, and academic stress (Meade, 2021). This difference could be attributed to maturity. By fact that adolescents are at

puberty stage whereby they are going through turmoil because of changes and search for their identity, they are likely to experience depression compared to university students who have advanced in emotional maturity. On the other hand, the findings were consistent with the findings of Tomlinson et al. (2009) who conducted a study in South Africa reported higher lifetime rates of severe depression among individuals aged 40–49. This means all the populations are susceptible to depression despite of the age factors. This could be attributed to psychological factors such as stress that different people across their lifespan. This claim is also supported by Pillay et al. (2020) who argued that among university students, age-related patterns in depression remain inconclusive. These inconsistencies suggest that depression prevalence may be influenced by additional factors such as social context, academic stress, and coping mechanisms.

The findings reported a significant negative correlation between gender and depression ($r = -.211$, $p < .001$), indicating that that gender has a role to play in regard to depression among the university students. The findings of the current study were consistent with previous studies in that depression rates are higher among females compared to their male counterparts. For instance, in the U.S., 27.3% of adolescent girls aged 12–17 reported experiencing a major depressive episode in 2023, compared to only 9.4% of boys (Vankar, 2024). Similarly, the gender gap in depression has widened over time, increasing from 6.4% to 14.8% between 2009 and 2019 (Daly, 2022). Similar trends have been observed in Africa. A study in South Africa found that female medical students were 3.7 times more likely to experience depression than their male counterparts (Van der Walt et al., 2020). The South African Stress and Health study also reported that women were 1.75 times more likely to suffer from depression than men (Tomlinson et al., 2009). In Uganda, female students and urban refugee youth displayed significantly higher depression symptoms than male students (Logie et al., 2020). These findings suggest that gender plays a crucial role in mental health outcomes, necessitating targeted interventions for female students.

CONCLUSION

The study concluded that there was a weak negative relationship between age and depression suggesting that age may have no correlation with depression among university students. In addition, there was a strong negative correlation between gender and depression among the university students. This means there is significance difference between gender and depression among the university students. Female students continue to experience higher depression rates than their male counterparts, and younger individuals are more susceptible to depressive symptoms. The global and regional variations in depression prevalence highlight the need for context-specific mental health interventions. Universities should prioritize mental health programs that target high-risk groups, including female students and those experiencing financial difficulties. Additionally, educational institutions must integrate mental health education into their curricula and develop peer-support networks to reduce stigma and encourage students to seek help.

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