International Journal of Research in Education Humanities and Commerce

Volume 05, Issue 05 "September - October 2024"

ISSN 2583-0333

SOCIODEMOGRAPHIC RISK FACTORS OF MENTAL HEALTH AND ACADEMIC PERFORMANCE IN THE IN CONTEXT OF ADOPTION OF INNOVATIVE TECHNOLOGIES AT THE KENYAN MEDICAL TRAINING COLLEGES (KMTC): A CRITICAL REVIEW OF LITERATURE

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https://doi.org/10.37602/IJREHC.2024.5502

ABSTRACT

This study set out to inquire on the intricate relationships between sociodemographic risk factors of mental health and academic performance among the university students with specific interest in Kenya Medical Training College (KMTC). This underlies the importance of properly strategizing mental health promotion, prevention, and intervention in such transformed higher education environments that are increasing their scope with disruptive educational technologies.

Methodology: The study used a literature review technique to integrate previous studies on the distribution of mental health risk factors among university students and their influence on academic performance. It also assessed research on the deployment of e-learning technologies in higher education and their potential implications on students' learning outcomes, especially in the setting of mental health challenges.

Results: Initial outcomes revealed a substantial relationship between several sociodemographic risk factors (e.g., financial restrictions, lack of social support) and mental health concerns among KMTC students, which severely impacted their academic performance. Furthermore, the implementation of e-learning tools like YouTube shown promise in increasing learning outcomes. However, its efficacy varied depending on the students' mental health state and the inclusion of these technologies into the curriculum.

Conclusion: The research underlined the crucial need for inclusive mental health support systems in Kenya's higher education institutions. It also highlighted the likelihood of e-learning technologies to alleviate some of the drawbacks associated with mental health disorders, provided they are successfully incorporated into students' learning settings.

Keywords: Sociodemographic risk factors, mental health, transformative higher learning contexts, e-learning technologies, students' academic performance, mental health support systems.

1.0 BACKGROUND INFORMATION

Volume 05, Issue 05 "September - October 2024"

ISSN 2583-0333

The connection between sociodemographic risk factors for mental health and academic performance is an important field of research, especially in higher education institutions such as the Kenya Medical Training College (KMTC). The research seeks to assess how these risk factors affect students' academic performance and investigates the possibility of using disruptive educational technologies, such as e-learning, to improve learning outcomes given the prevalence of mental health issues.

Sociodemographic factors such as economic hardships, a lack of social support, and cultural disruptions have a substantial impact on mental health. A number of life events and personal characteristics might increase a person's risk of acquiring mental health problems (The World Health Organization, 2022). These concerns, if not addressed, may lead to decreased attention and motivation, jeopardizing students' ability to participate successfully in their academics (Mohamed Ibrahim et al., 2020; Mofatteh, 2020).

The worldwide prevalence of mental health illnesses, which affects over 450 million people, emphasizes the need of treating mental health as a public health priority (The World Health Organization, 2022). Mental diseases, such as depression, remain among the leading causes of disability globally, providing a substantial impediment to academic and professional performance (Mohamed Ibrahim et al., 2020).

Students in Kenya, especially those at KMTC, endure specific challenges that increase their risk of developing mental health troubles. These pressures include the demanding demands of medical education, financial restraints, and the transition to adulthood in a fast-changing socioeconomic context (Essien & Asamoah, 2020; Sequeira et al., 2022). The absence of proper mental health care utilities and professional assistance worsens the problem, leaving many students' mental health requirements unfulfilled (Memiah et al., 2022). KMTC's academic system, which includes a strict test policy and high-stakes evaluations, adds to students' stress levels. The institution's focus on earning a minimum pass score on tests demonstrates the high academic expectations imposed on students, with those who do not fulfill these requirements facing the risk of retaking exams or redoing courses (KMTC, 2019).

According to research, a considerable proportion of university students, including those at KMTC, are exposed to mental health risk factors, which have a direct association with academic performance (Mutiso et al., 2023). Reduced mental well-being may impact academic motivation, cognitive performance, and dropout rates, emphasizing the need of addressing students' mental health (Mutiso et al., 2023; Zając et al., 2023). The research recognizes the potential for e-learning platforms, such as YouTube, to improve educational results. These technologies provide novel methods to provide knowledge and engage students, thereby alleviating some of the academic obstacles associated with mental health disorders. However, the usefulness of these technologies depends on their incorporation into courses and the student's mental health situation.

Considering the complicated interaction between sociodemographic characteristics, mental health, and academic performance, this research aims to emphasize the need of building strong mental health support systems in Kenya's higher education institutions. Meeting students' mental health needs and harnessing the advantages of e-learning technology offers a chance to enhance academic performance while also supporting the well-being of future healthcare professionals:

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2.0 PROBLEM STATEMENT

In the dynamic setting of Kenyan Medical Training Colleges (KMTC), students confront intricate challenges arising from sociodemographic factors, including financial constraints, limited social support, and cultural diversities (Menecha, J., & Muriungi, S., 2020). Approximately 65% of learners experience financial limitations, impeding access to essential academic resources, while 40% grapple with insufficient social support, exacerbating the demands of the rigorous medical curriculum (Zając, T. et. al., 2023). Cultural disruptions, manifested in diverse backgrounds, add complexity to the educational journey (Sequeira, M., Singh, S. et. al., 2022).

This sociodemographic scenario intertwines with concerning mental health issues; surveys indicate 55% of students experience high stress, 30% report anxiety symptoms, and 20% exhibit signs of depression (W.M. Gichohi, N., 2019). Stringent testing policies contribute to heightened anxiety, with 70% of students expressing fear of academic repercussions (Wiedermann, C. J. et. al., 2023). While commendable interventions exist, such as counseling services and stress management seminars, the effectiveness of these programs is constrained by a lack of personalized attention (World Health Organization., 2022).).

Government interventions, though present, face scrutiny; 60% of students express dissatisfaction with the accessibility and impact of these initiatives (W.M. Gichohi, N., 2019). Simultaneously, disruptive educational technologies like YouTube offer promise, but their utilization is hindered by inconsistent technology access (45% with reliable internet) (Osborn, T. L. et. al., 2019).). Pedagogical skills for maximizing these technologies' benefits remain underdeveloped, limiting impact on student engagement and outcomes (Merkle, A. C. et. al., 2021).

This research aims to comprehensively examine the interplay between sociodemographic factors, mental health challenges, and academic performance among KMTC students. By quantitatively evaluating disruptive educational technology and pedagogical skills, the study seeks to identify specific gaps within existing interventions (KMTC, 2019). The goal is to provide tailored mental health support strategies addressing individual needs, fostering student well-being and academic success in the transformative higher education landscape.

2.1 Objectives

1. To examine the influence of sociodemographic risk factors for mental health on KMTC students' academic performance in a transformative higher education context, providing actionable insights for tailored support systems.
2. To quantitatively evaluate the effectiveness of disruptive education technology and pedagogical skills in use of e-learning tools like YouTube, on the academic performance of KMTC students, considering their mental health status.
3. To determine and recommend holistic mental health support strategies in Kenyan higher education, integrating disruptive educational technology and pedagogical skills to promote student well-being and academic performance.

2.2 Research Questions

1. How do sociodemographic risk factors, such as financial constraints and limited social support, influence the mental health of KMTC students and subsequently impact their academic performance in the transformative higher education context?
2. To what extent does the integration of disruptive education technology, specifically e-learning tools like YouTube, coupled with the application of pedagogical skills, quantitatively impact the academic performance of KMTC students, taking into consideration their varying mental health statuses?
3. What comprehensive and integrated mental health support strategies can be recommended for Kenyan higher education institutions, specifically KMTC, that effectively combine disruptive educational technology and pedagogical skills to enhance student well-being and promote optimal academic performance?

3.0 THEORETICAL FRAMEWORK

This study's theoretical approach is based mostly on Albert Bandura's Social Cognitive Theory (SCT). This theory, first published as Social Learning Theory in 1960 and then renamed SCT in 1986, offers a complete view of the interplay of human actions, psychological variables, and environmental effects. It emphasizes the dynamic and reciprocal interactions that form social learning, with a focus on observational learning, imitation, and modeling (Irie et al., 2019). This approach is useful for understanding how mental health issues, like as stress and depression, might impair medical students' academic performance at KMTC. It contends that learning is not a passive process but rather happens via active observation of others, emphasizing the need of taking into account the social and environmental circumstances within which students' function on matters education.

A systematic review supports the application of this hypothesis, revealing a medium association between cognitive behavioral variables (behavior, attention, and thinking) and mental health outcomes (Irie et al., 2019). This association is critical in understanding how students' mental health state affects their academic achievement. SCT's emphasis on the interplay of cognitive elements (such as thoughts and attention) and behavioral outcomes is consistent with the goals of this research, which seeks to investigate the complex links between mental health and academic accomplishment in higher education.

3.1 Methodology

This investigation used a literature review technique to summarize previous research on the influence of sociodemographic mental health risk variables on academic performance among KMTC students, as well as the significance of e-learning technologies in higher education.

4.0 RESULTS

4.1 Mental Health and Academic Performance

The literature study reveals a strong link between mental health concerns, such as anxiety and depression, and academic performance among university students, especially in medical school settings such as the Kenya Medical Training College (KMTC). Research, including one done at the Technical University of Kenya, demonstrate a significant positive link between mental health issues and academic underperformance, with high rates of test retakes and failures

attributable to stress and anxiety (W.M. Gichohi, 2019). Additionally, evidence shows that health issues such as anxiety and depression may degrade cognitive capacities, increase the chance of academic failure, and have a detrimental influence on students' self-perceptions of their academic ability (Selamu and Singhe, 2018). Research on KMTC students discovered that 48.5% suffered from severe depression and 32.1% from severe anxiety, with a substantial relationship between these disorders and academic performance (Menecha & Muriungi, 2020).

4.2 Sociodemographic Risk Factors and Mental Health

The analysis of sociodemographic risk factors reveals their significant significance in determining the mental health landscape among college students. Substance addiction, in particular, has surfaced as a widespread problem, with data from Eldoret and Kilifi County in Kenya indicating high use rates among students and a clear relationship to increased suicidal inclinations (Kinyanjui & Sum, 2023; Masha, 2022). Furthermore, a study on Kenyan high school students revealed an elevated incidence of depression and anxiety symptoms, which were influenced by various sociodemographic factors such as age, gender, and socioeconomic status, emphasizing the intricate relationship between these factors and mental health (Osborn et al., 2019).

4.3 E-Learning Technologies and Mental Health

The incorporation of e-learning technology into educational curriculum has demonstrated promise in establishing adaptable and accessible educational contexts that may meet the different requirements of students with mental health issues. These digital platforms provide chances for tailored learning experiences, access to mental health services, and student participation that extend beyond typical classroom limits. Although the literature on the direct impact of e-learning technologies on mental health outcomes is still developing, the potential for these tools to improve academic participation and assistance for students dealing with mental health issues is an exciting area for further investigation and application in higher education contexts (Merkle et al., 2021; Wiedermann et al., 2023).

4.5 Study Implications

According to the outcomes of this research, higher education institutions, especially those focusing on medical training such as KMTC, should build holistic mental health support systems.

To address students' common mental health difficulties, these systems should include open counselling services, mental health awareness initiatives, and stress management seminars. Furthermore, using e-learning technologies as additional educational tools might provide adaptable and individualized learning experiences, thereby minimizing the negative consequences of mental health difficulties on academic achievement. Institutions can also explore forming collaborations with mental health specialists to offer frequent mental health exams and therapies customized to the specific requirements of their student population.

4.6 Further Research

More research should look at the long-term effects of integrated mental health support systems and e-learning technologies on academic achievement in medical education settings. Studying the efficacy of certain e-learning tools and platforms in improving learning outcomes for students with varied mental health disorders might provide useful results. Additionally, longitudinal studies that look at how sociodemographic variables affect student mental health and academic achievement over time may provide a better understanding of these complicated linkages. Research concentrating on the creation and assessment of tailored intervention programs based on study results such as this one would make a substantial contribution to the area of educational psychology and mental health in higher education.

5.0 CONCLUSION

This research shed light on the complex interaction between sociodemographic risk variables for mental health and academic performance, with a particular emphasis on students at the Kenya Medical Training College (KMTC). The results demonstrated a significant relationship between mental health concerns and academic difficulties, underlining the need for effective ways to enhance mental health, prevention, and intervention in the context of higher education. In closing, this paper underscores the crucial need of comprehensive mental health support systems in Kenya's higher education institutions. It also discusses the possible advantages of e-learning technology in addressing some of the academic obstacles connected with mental health conditions. These results add to our knowledge of how mental health and learning interact in higher education, laying the groundwork for designing methods to improve student well-being and academic achievement. Future research should investigate these links further, with an emphasis on developing and evaluating tailored treatments to improve both mental health and educational performance for students in transformational higher learning situations.

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