

Role of Artificial Intelligence in Supporting Student Wellbeing in Higher Education Institutions

Mr. Sudhir Soman^{1*}, Mr. Arindam Das²

1 Assistant Professorm Department of Computer Science, Tilak Maharashtra Vidyapeeth,
Pune

2 Subject Expert, Department of Digital Arts, Tilak Maharashtra Vidyapeeth, Pune,
Maharashtra, India

Abstract: In today's rapidly evolving technological environment, students and other stakeholders in the education system are experiencing increasing challenges related to mental health, stress, and maintaining a balanced state of body, mind, and spirit. Issues related to psychological wellbeing and overall wellness have become critical areas of concern within higher education institutions. A variety of digital mental health tools are now available to provide students with continuous, round-the-clock support for managing anxiety, depression, and stress. Artificial intelligence (AI) has emerged as a promising technological solution that can assist institutions in addressing the growing mental health concerns among college students. The integration of AI-based mental health tools within higher education systems has the potential to enhance accessibility, early detection, and timely intervention, thereby contributing to improved student wellbeing.

Keywords: Mental Health, Artificial Intelligence, Student Wellbeing, Online Therapy, Higher Education, Digital Mental Health

INTRODUCTION

Mental health and wellbeing have become significant concerns in higher education institutions worldwide. Increasing academic demands, technological changes, and social pressures have created additional stressors for students, resulting in a growing need for effective mental health support systems. Campus counselling services and student wellness programs are experiencing increased demand, often exceeding available resources. As a result, higher education leaders are exploring innovative approaches to enhance student support services.

Artificial intelligence (AI) is emerging as a promising technological tool that can support mental health initiatives in educational environments. Although AI cannot replace human empathy and professional counselling, it can serve as an effective complementary tool to traditional support systems. AI-powered applications can help students access appropriate resources, monitor their emotional wellbeing, and manage daily stress through personalized

recommendations. In addition, these systems can assist institutions in identifying early signs of mental health challenges, allowing timely intervention before problems become severe.

Several higher education institutions have already begun integrating AI technologies into their student support frameworks. These technologies include chatbots, virtual counselling assistants, digital therapy platforms, and mindfulness applications designed to enhance student engagement and emotional resilience. Despite these advancements, institutions continue to face challenges related to ethical considerations, data privacy, accessibility, and acceptance of digital mental health solutions.

This paper examines the role of artificial intelligence in supporting student mental health and wellbeing in higher education institutions. It reviews existing digital mental health tools, explores their benefits and limitations, and discusses strategies for integrating AI-based solutions into institutional mental health frameworks.

LITERATURE REVIEW

In the research paper “An Overview of Chatbot-Based Mobile Mental Health Apps: Insights From App Description and User Reviews” the authors focus on digital mental health solutions, AI-powered apps and platforms which are bridging treatment gaps for students by providing twenty-four hours accessible support for anxiety, depression, and stress management. They mention some key digital mental health tools for students like “AI Chatbots & Conversational Agents” means applications such as “Wysa” which provides immediate emotional support and cognitive reframing without appointments, offering self-help and guided referrals. “Mindfulness and wellness” platforms like “Calm” and “Headspace” which use AI to personalize meditations, sleep stories, and breathing exercises to improve student relaxation and sleep. “Digital Therapeutics (DTx)” a Specialized apps such as “EndeavorRx” for Attention-deficit / Hyperactivity disorder and “DaylightRx” for anxiety offer validated, often prescription-based, digital treatments and AI-powered monitoring an emerging tools like “MindLift” to analyze student behavior and emotional patterns to provide real-time assessment and intervention, aimed at creating a proactive school environment.^[1]

In the paper “Student well-being in higher education: Scale development and validation with implications for management education” the authors talk about student wellbeing

(SWB) which encompasses physical, psychological, and social wellness of students and the aspects which are increasingly at risk in the high-pressure environment of higher education. They state that because of intense workloads, unmet expectations, and uncertainties around degree completion and employment, the higher education sector faces a growing challenge in maintaining and enhancing student wellbeing. They believe their research bears profound societal implications, underlining the imperative of nurturing the well being of the leaders and changemakers of tomorrow.^[2]

In the latest report on student mental health from “Healthy Minds” which reveals motivating data as well as emphasizes the complex nature of the persistent problem and the ongoing need for comprehensive support. The authors conclude that artificial intelligence has a potential to be a powerful tool for helping institutions to address rising mental health concerns among college students. The institutions consider many ways to leverage AI, for that they must move beyond historic approaches and build resources which are integrated into college experience for creation of the best experience for every student. Their effort comes with ensuring the concerns of data privacy, transparency and biases which are addressed and considering changes in requirement for mental health services. As AI will evolve, institutions of higher education may continue to find innovative ways to meet the needs of students and improve their rising mental health challenges.^[3]

In the article “Mental Health and Wellbeing: Educational Perspectives” the authors focus on cultural issues, relationships focus, individual characteristics as a target for intervention, pedagogy and student wellbeing, teacher education and wellbeing, the role of evidence and educational implications.^[4]

In the paper “Holistic Faculty Development for University Mental Wellbeing: a Narrative Review” the authors talk about evidence of positive applications of holistic approaches to faculty development, their study seeks to contribute to the advancement of mental health literacy courses in an Italian online context. They state that by adopting best practices in inclusive and systematic faculty development, where staff members serve as mental health gatekeepers and students actively participate in shaping university policies, institutions can implement a comprehensive, whole-university approach to wellbeing. As the role of universities expands in promoting mental health and preventing related challenges, such wellbeing initiatives can create a ripple effect across higher education institutions, leading to sustainable and meaningful change. While recognizing the limitations associated with a

single case study, future research can contribute to the development of a robust pedagogical framework aimed at fostering mentally healthy and thriving academic communities.^[5]

In the paper “Intention to use digital mental health solutions: A cross-sectional survey of university students attitudes and perceptions toward online therapy, mental health apps, and chatbots” the Authors have used a method of online survey to assess experience with, attitudes and perceptions and intentions to use, digital mental health solutions. They conducted an exploratory factor analysis to identify factors underlying attitudes and perceptions, and then used multivariate ordinal regression analysis to investigate the factors association with university students from four South African universities and completed intention to use digital mental health solutions. The result were largely positive. Their analysis shows that 12.6% of users were ready to utilize digital mental health solutions but they were not ready to use **in person therapy or counselling they concluded that** south african university students have already engaged with digital mental health solutions. Their intention is high. Their certain attitudes and perceptions concerning effectiveness, utility and safety, which carries willingness to engage with the solutions, providing potential targets for interventions to increase uptake.^[6]

In the research paper “In investigating mental wellbeing self-care in higher education using BERTopic modelling” they talk about the urgency in Addressing mental wellbeing of higher education students. The rising distress rates and significant help-seeking gaps. The students face many life challenges like academic pressure, career concerns to global issues like climate change which may negatively impact their mental wellbeing. They conclude that they have uncovered challenges in higher education, from depression to the repercussions of the COVID-19 pandemic. They say that the challenges highlight the complex emotional and psychological issues which current generation of students face. Thy say that the challenges are serious but it is also clear that the community is resourceful. Students actively seek self care methodologies, particularly online, looking for methods which are peer recommended, dependable, economical, and easily applicable in their lives. With a greater understanding of these issues, future technologies can be tailored more finely to resonate with the students’ realities, offering them avenues for self-improvement, growth, and coping.^[7]

In the article “Sociological perspectives on the mental health and wellbeing agenda in education” the authors state that in recent years, they have seen the growth of interdisciplinary field of Mad Studies which aims to bring together the critical social theorizing of the

psychiatric survivor movement, while also drawing in other critical theoretical work in the field of mental health, Mad Studies themes include critiques of dominant epistemologies in bureaucratic institutional regimes for excluding personal experience and emotion and of the ways in which prevailing ideologies of mental illness, which leak into educational settings, work to delegitimise and devalue experiences of emotional distress and madness, they state that the field of study includes an ‘interrogation of the construction of normalcy’ in everyday life and challenges to sadism the inequality, prejudice and discrimination faced by people who are constructed as “crazy” within dominant culture’. They talk about The special issue brings together articles which were first presented at a day conference on the theme of sociological perspectives on the mental health and wellbeing agenda in educational settings, hosted by the University of Wolverhampton Education Observatory and British Sociological Association Sociology of Mental Health Study Group, which was held online on 9th June 2021.^[8]

OBJECTIVES OF THE STUDY

The present study aims to explore the role of artificial intelligence and digital technologies in enhancing mental health support within higher education institutions. The specific objectives of the study are:

1. To examine the growing mental health challenges faced by students in higher education institutions.
2. To study the role of artificial intelligence in supporting student mental health and wellbeing.
3. To identify various digital mental health tools and platforms available for students.
4. To analyze the benefits and limitations of AI-based mental health solutions in educational settings.
5. To suggest strategies for integrating digital mental health tools into higher education systems effectively.

PROBLEM STATEMENT

Mental health issues such as anxiety, depression, stress, and emotional imbalance are increasingly affecting students in higher education institutions. Academic pressure, career

uncertainty, social challenges, and rapid technological changes contribute significantly to psychological distress among students. Traditional counselling services in universities often face limitations such as insufficient staff, limited availability, and accessibility barriers.

Although digital mental health tools and artificial intelligence technologies offer promising solutions, many institutions still lack structured frameworks for integrating these technologies into their mental health support systems. Additionally, concerns related to data privacy, ethical use of artificial intelligence, and technological accessibility remain significant challenges. Therefore, there is a need to explore the potential of artificial intelligence-based mental health solutions and develop strategies to effectively implement them within higher education institutions.

RESEARCH METHODOLOGY

The present study is based on a qualitative and descriptive research methodology that focuses on reviewing and analyzing existing literature related to artificial intelligence and digital mental health tools in higher education.

The study primarily uses secondary data sources, including:

- Research papers published in national and international journals
- Academic articles related to student mental health and artificial intelligence
- Reports from educational and mental health organizations
- Scholarly publications on digital mental health platforms

The collected literature was carefully reviewed to identify emerging trends, benefits, limitations, and future directions related to AI-based mental health solutions. The study also compares different digital mental health tools and their applications in supporting students' psychological wellbeing.

SCOPE OF THE STUDY

This study focuses on the application of artificial intelligence and digital mental health tools within higher education institutions. It primarily examines technologies such as AI chatbots, online therapy platforms, mindfulness applications, and digital therapeutics designed to support student mental health.

The study covers:

- Mental health challenges faced by students in higher education
- Use of artificial intelligence in mental health support
- Digital platforms for stress management and emotional wellbeing
- Institutional approaches to improving student mental health

However, the study is limited to the analysis of existing literature and does not include primary data collection or experimental implementation.

CONCLUSION

Mental health and wellbeing have become critical concerns in higher education, particularly in the context of increasing academic pressure, technological transformation, and evolving student expectations. The literature reviewed highlights the growing role of artificial intelligence and digital mental health tools in addressing psychological challenges such as anxiety, depression, and stress among students. AI-powered applications, online therapy platforms, mindfulness tools, and digital therapeutics are emerging as accessible and scalable solutions that provide timely support and personalized interventions.

However, while digital mental health technologies offer significant advantages, they cannot fully replace human interaction, empathy, and professional counselling. Instead, they should be integrated as complementary tools within existing campus counselling systems and institutional wellness programs. Institutions must also address critical challenges related to data privacy, ethical use of artificial intelligence, transparency, and technological bias to ensure safe and equitable implementation.

Furthermore, adopting a holistic and whole-university approach involving faculty, staff, administrators, and students can strengthen mental health support systems and promote a culture of wellbeing across campuses. Future research should focus on developing structured pedagogical frameworks and evidence-based institutional policies that effectively combine artificial intelligence with traditional mental health services. Such integrated approaches have the potential to enhance student wellbeing, improve academic outcomes, and create resilient and mentally flourishing academic communities.

References

1. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10242473/>
2. <https://www.sciencedirect.com/science/article/pii/S1472811724000041>
3. <https://www.higheredtoday.org/2024/10/16/ai-student-mental-health/>
4. https://www.researchgate.net/publication/280093843_Mental_Health_and_Wellbeing_Educational_Perspectives
5. <https://conference.pixel-online.net/files/foe/ed0015/FP/9180-DEV7417-FP-FOE15.pdf>
6. <https://pmc.ncbi.nlm.nih.gov/articles/PMC10693229/>
7. <https://link.springer.com/article/10.1007/s44192-025-00323-1>
8. <https://www.tandfonline.com/doi/full/10.1080/02671522.2023.2238360>