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Digital Well-Being among Learners in Higher Education: A Scoping Review Protocol

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ABSTRACT

The era of digitalisation has revolutionised the ways knowledge is acquired and disseminated. This fast spread and use of digital technology have altered how people interact with themselves, other people, and their surroundings. It will subsequently affect human well-being, prompting the need for further exploration and examination. This paper outlines a scoping review protocol to systematically map the functional elements of digital well-being among higher education learners over the past five years. This scoping review will be conducted using the Joanna Briggs Institute (JBI) scoping review guideline. The resource searching will be performed using the three-step search strategy introduced by JBI. Primary data from relevant studies from 2018 to 2023 will be searched. The scoping review will report on the functional elements influencing digital well-being and their association with general well-being issues. The review search, study selection and evidence charting will involve four independent reviewers. As secondary research, this review examines the breadth of literature regarding the digital well-being among learners in higher education, and therefore does not require ethical approval. This review will outline elements that influence digital well-being in the context of learners in higher education. The findings will be disseminated through journal publications and conference presentations targeting educators worldwide.

Keywords: *Digital well-being, Digital technologies, Higher education, Learners, Mental health*

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INTRODUCTION

The term “digital well-being” refers to an individual’s state of mind in a society, where digital media and technology permeate every aspect of daily life. It also refers to maintaining one’s well-being when immersed in a digital and technical setting (1, 2). In the context of higher education learning, digital well-being is an important consideration, given the increasing use of technology in learning and the potential adverse effects on student well-being.

Digitalisation has transformed higher education in general by changing how knowledge is acquired and shared. Online learning platforms and virtual classrooms have made education more accessible to all students, allowing them to access educational resources, lecture materials, and interactive simulations at any time. These platforms enable self-learning and more personalised study approaches (3). Furthermore, virtual reality (VR) and augmented reality (AR) technologies have enhanced training opportunities across various disciplines, such as engineering, architecture, medicine and beyond. For instance, in the medical field, VR and AR technologies provide engaging and realistic simulated environments for surgical training, anatomy education, and clinical skill development among learners (4).

Rapid spread and use of digital technology have fundamentally altered how people interact with themselves, other people, and their surroundings. Technology has become an integral feature of contemporary society, transforming every aspect of human life, including personal, professional, social and educational (5). In higher education, the information ecosystem and digital tools significantly influence the success of both students and training programmes. However, these advancements also raise valid concerns about the effects of digital technology on human health, which must be addressed (6).

Available literature emphasises the need for balanced technology use, with researchers focusing on interventions, such as the usage of digital well-being apps, digital platforms to improve learning outcomes, and the use of artificial intelligence (AI) and chatbots that aid in teaching and learning in higher education institutions (7–10). However, there is limited evidence on the general concept of digital well-being especially among higher education learners. Furthermore, the rapid shift to remote learning and the increased reliance on digital technologies during the COVID-19 pandemic have introduced new challenges and considerations that require further investigation (11). The literature lacks consensus on the definition of digital well-being, reliable and valid measurement tools, and formal models of digital well-being. Therefore, there is a need for a descriptive and rigorous theoretical development of digital well-being, grounded in the increasing importance of understanding the interplay between technology, mental health and social dynamics (12–14).

Hence, this scoping review aims to investigate the scope of literature on digital well-being in the context of higher education. The review will attempt to answer two research questions: (a) What are the functional elements that influence the negativity and positivity of digital technologies towards higher education learners' well-being?; and (b) How do these functional elements of digital well-being relate to overall well-being issues? The term "functional elements" here refers to any features or components of digital technologies that can positively or negatively impact the well-being of higher education learners. The findings will not only enrich our understanding of academic discourse but also provide practical implications for improving the quality of life in the digitalised world. The review findings may inform future technology design, intervention, and policymaking in shaping healthy digital habits.

METHODS AND ANALYSIS

This protocol was developed following the Joanna Briggs Institute (JBI) guideline for scoping reviews (15). Any modifications to the methodological approach will be updated and described in the final scoping review report.

Review Team

The reviewer team comprises three medical educationists and one psychiatrist from different medical institutions in Malaysia (FHMB, NSR, MSBY and NPTP) with experience in educational theory and well-being research.

Inclusion Criteria

Types of participants

The scoping review will examine published primary research that describes the effects of digitalisation on the well-being of all learners in higher education institutes. These include undergraduates and postgraduate students in any field. Resources that describe the impact of digitalisation on the general population will be excluded from the review.

Concept

This scoping review will include primary resources that discuss the elements that impact digital well-being among higher education learners. The impacts on digital well-being can manifest in either positive or negative ways, shaping the overall experience in the digital realm. Positive digital well-being can be defined as the ability to maintain one's well-being when immersed in a digital and technical setting (1), contrasting with the adverse consequences associated with the negative impacts.

This review will also include articles that explore the impacts or relationship of digitalisation towards overall well-being issues that include mental, intellectual, emotional, professional, spiritual and physical aspects of well-being (2, 6, 16).

Context

This scoping review will focus on the context of higher education, encompassing both undergraduate and postgraduate learners across various knowledge fields within the realm of higher education. Any resources that focus on the general population or other than higher education will be excluded from this review.

Sources

This scoping review will include quantitative, qualitative or mixed-method original research papers and exclude all other research papers related to digital well-being in the context of higher education learners. This review will include articles in English language only, published during a span of five years, from January 2018 to October 2023 to ensure the authenticity and reliability of the resource data.

Search Strategy

This scoping review will be conducted using the three-phase search strategy based on the recommendation of the JBI Scoping Review guideline (15). The initial keywords are identified and selected based on the words contained in the title and the index terms to describe relevant reviews. The keywords will be identified using the Medical Subject Headings

(MeSH) and will be tested with several search terms with a Boolean combination. These search terms will be refined accordingly after multiple test searches. The initial keyword search terms will be "digital well being" OR "digital well-being" OR "digital wellbeing" AND "higher education" AND "learners".

A second search using all identified keywords and index terms will be performed across all included databases, namely Scopus, PubMed and Web of Science. The third phase includes searching the reference list of all included reviews.

Selection of Sources

All identified sources will be exported into Microsoft Excel, and duplicates will be removed. The record selection will be performed using the predefined inclusion criteria. A pilot testing will be conducted prior to the selection process, whereby two researchers (FHMB, NSR) will independently screen the titles and abstracts of the included records. Any disagreement will be resolved through another reviewer (MSBY). Once the reviewers are familiar with the selection process, the title, abstract and full-text articles of the included record will be screened using the inclusion criteria. Likewise, the selection process will be conducted independently by two researchers (FHMB, NSR), and any disagreement will be resolved by the involvement of the other reviewers (MSBY, NPTP). Records not fulfilling the inclusion criteria will be excluded from this study, and the reason for exclusion will be documented. The search profile of the selection process will be reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews (PRISMA-ScR) flow diagram (17).

Extraction of Data

The data of included records will be extracted using the data extraction form (Appendix 1). The data of interest that will be extracted include title, authors, year of publication, geographical distribution, age, participants category, digital components, well-being issues and remarks. The data extraction will be conducted independently by FHMB. To ensure the reliability and consistency of the process, another reviewer (NSR) will replicate the extraction strategy and conduct the data extraction process of five records as piloting. The outcome of data extraction will be evaluated with other reviewers.

Collating, Summarising and Reporting the Results

Using a thematic approach, the researchers will analyse the data with the help of ATLAS.ti version 23. The data will be thematically organised according to the functional elements of the digital components and the well-being issues that are related to the elements. The extracted data will then be presented in tabular form with frequency and percentage of geographical distribution, age and participant category. The functional elements of digital well-being will be mapped with their associated well-being issues or any relevant emerging theme that evolves from the review later. The scoping review findings will be reported in adherence to the PRISMA-ScR reporting standards (17).

CONCLUSION

This scoping review aims to systematically identify and map the key functional components of digital well-being among higher education learners, emphasising its importance in shaping their academic experiences and overall well-being. The insights gained will guide educators and policymakers in fostering supportive digital environments that encourage positive interactions with technology while mitigating potential adverse effects. This comprehensive understanding of digital well-being can be leveraged to develop informed strategies for incorporating digital literacy and well-being frameworks into higher education curricula.

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