

Understanding individuals' well-being in higher education: A critical review of the Warwick-Edinburgh Mental Well-being Scale and its implications

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Abstract

This article presents a critical review of the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) and its implications for understanding individuals' well-being in higher education. The review is structured into four main sections: the validation and psychometric properties of the WEMWBS, associations between student well-being and the WEMWBS, interventions and programs promoting student well-being, and a comparative analysis of the WEMWBS with the Mental Health Literacy Scale (MHLS). The first section focuses on the validation and psychometric properties of the WEMWBS, providing an in-depth examination of its development and validation process. This includes an exploration of the rigorous methodologies employed to establish the reliability, validity, and factor structure of the scale, ensuring its suitability for assessing mental well-being in diverse populations within the higher education context. Moving forward, the article investigates the associations between student well-being and the WEMWBS. This section offers valuable insights into the potential of the WEMWBS as a valuable tool for screening and assessing student well-being in higher education settings. The third section delves into interventions and programs aimed at promoting student well-being in higher education. It explores how the WEMWBS has been utilized in evaluating the effectiveness of these interventions,



shedding light on how the scale can inform the design and evaluation of initiatives that enhance student well-being. This section provides a comprehensive overview of the practical implications of the WEMWBS in fostering positive well-being outcomes among university students. Lastly, the article presents a comparative analysis of the WEMWBS with the Mental Health Literacy Scale (MHLS). By examining the similarities, differences, and potential complementarity between these two scales, this section offers insights into their respective strengths and limitations in capturing different aspects of individual well-being within the higher education context. It addresses the importance of considering multiple dimensions of well-being and mental health literacy when assessing and supporting the well-being of students in higher education.

KEYWORDS: WEMWBS; well-being; higher education; young adulthood; mental health

Introduction

The Warwick–Edinburgh Mental Well-being Scale (WEMWBS) is a widely recognized and validated instrument used to assess mental well-being on a population level. Consisting of 14 positively worded statements, the scale provides a comprehensive and holistic measurement of an individual's mental well-being across various domains [1]. The development and validation of the WEMWBS involved rigorous research methodologies and psychometric testing to ensure its reliability and validity. The scale has been validated through extensive studies and has demonstrated robust psychometric properties, making it a trustworthy tool for measuring mental well-being. By utilizing positively worded statements, the WEMWBS takes into account the positive aspects of mental health and well-being, focusing on individuals' positive emotions, functioning, and overall life satisfaction. The scale captures multiple dimensions of mental well-being, including positive affect, self-esteem, optimism, and positive relationships, among others. As a population-level measure, the WEMWBS is designed to assess mental well-being across diverse groups and can be used in various settings such as research studies, public health surveys, and program evaluations, in different languages [2]. Its validated nature ensures that the scale produces consistent and meaningful results when administered to large populations, allowing for comparisons and analysis at a broader level. Additionally, the WEMWBS has proven to be a valuable tool for monitor-

ing and evaluating mental well-being initiatives, informing policy decisions, and identifying areas for intervention and support. Its simplicity and brevity make it accessible and user-friendly, enabling efficient data collection and analysis [3].

Validation and psychometric properties of the WEMWBS

The measurement of mental well-being has been a subject of extensive debate, but there is an increasing consensus in favor of the conceptual framework underlying the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) [4]. This framework recognizes that mental well-being encompasses both subjective feelings of positivity (Hedonia) and optimal psychological functioning (Eudaimonia). The WEMWBS is a widely used measure that assesses subjective well-being, encompassing both eudemonic and hedonic aspects [5]. Subjective well-being refers to an individual's evaluation of their own life satisfaction, happiness, and overall mental well-being. It goes beyond objective indicators of well-being, such as income or material possessions, and focuses on an individual's personal experiences and perceptions [6].

The development and validation process of the WEMWBS:

1. **Development process:** The WEMWBS was created by an expert panel that carefully considered current academic literature on mental well-being. They also conducted qualitative research with focus groups to gather insights from individuals regarding their experiences of well-being. Additionally, psychometric testing was conducted on an existing scale to refine and enhance the WEMWBS.
2. **Validation on student and representative population sample:** To establish the validity of the WEMWBS, it was administered to both a sample of students and a representative population. By including diverse groups of individuals, researchers aimed to ensure that the scale captured a wide range of experiences and perspectives related to mental well-being.
3. **Content validity:** Content validity, which refers to the extent to which the scale's items represent the construct being measured, was assessed by examining the frequency and distribution of responses to each item. This analysis helped determine if the items were capturing the intended aspects of mental well-being.
4. **Confirmatory factor analysis:** Confirmatory factor analysis was employed to test the hypothesis that the WEMWBS measured a single construct of mental well-being. This statistical technique helped determine the underlying structure of the scale and whether the items were measuring the intended construct.
5. **Internal consistency:** Internal consistency refers to the extent to which the items



within a scale are interrelated and measure the same construct. Cronbach's alpha, a commonly used measure of internal consistency, was calculated to assess the reliability of the WEMWBS. A higher Cronbach's alpha indicates greater internal consistency among the scale items.

6. **Criterion validity:** Criterion validity examines the extent to which the scale correlates with other established measures of well-being or related constructs. Researchers explored criterion validity by examining the correlations between the WEMWBS and other scales measuring mental health or well-being. Additionally, they tested whether the WEMWBS effectively differentiated between different population groups based on pre-defined hypotheses [7].
7. **Test-retest reliability:** Test-retest reliability assesses the consistency of scores over time. In the case of the WEMWBS, test-retest reliability was evaluated by administering the scale to participants and then re-administering it after a one-week interval. The intra-class correlation coefficients were calculated to determine the level of agreement between the two sets of scores.

By conducting a rigorous development and validation process, the creators of the WEMWBS aimed to ensure that the scale effectively measures mental well-being and provides reliable and valid results across diverse populations. The robustness of the scale's development process and validation procedures enhances its credibility and usefulness in research and practical applications related to mental well-being [5].

Associations between student well-being and WEMWBS

WEMWBS has been used to measure student well-being: One study examined how positive mental health and well-being are distributed and influenced by various factors in a sizable and diverse sample of tertiary-level students, utilizing the WEMWBS scale to assess mental well-being, aiming to provide insights into the factors that contribute to positive mental health among students. The study highlights the significance of a study that explores positive mental health and well-being scores specifically within a sample of students in higher education, using the WEMWBS. By focusing on the mental health and well-being of tertiary-level students, the study addresses a specific population that is often subject to unique stressors and challenges associated with academic pressures, transitions, and other factors related to university life. The findings of the study reveal a remarkable trend: students who possess a relatively adverse health and lifestyle profile—indicating that they may face health issues or engage in unhealthy lifestyle habits—demonstrate higher levels of mental health and well-being compared to the average student population. This unexpected finding challenges conventional assumptions that a healthier lifestyle

automatically corresponds to better mental health and well-being. It suggests that factors beyond physical health and lifestyle choices may influence mental well-being among students. Possible interpretations of the findings could include resilience and coping mechanisms developed by students facing adversity, a sense of personal growth and empowerment resulting from overcoming challenges, or the presence of other protective factors such as social support or a strong sense of purpose. The study's findings have implications for understanding the complex nature of mental health and well-being among students and highlight the need for a comprehensive perspective that goes beyond simplistic assumptions [8]. Further research is warranted to delve deeper into the underlying mechanisms and factors contributing to the higher mental health and well-being scores among students with an adverse health and lifestyle profile. Additionally, exploring the potential long-term effects on mental health and well-being outcomes for these students would provide valuable insights into their resilience and potential areas of support. Understanding the nuances of mental health and well-being among students is crucial for developing targeted interventions, policies, and support systems that promote positive mental health outcomes and overall well-being within the higher education context [9].

In addition, the COVID-19 pandemic had a detrimental effect on the university experience, leading to disruptions in teaching and well-being services. This disruption coincided with a significant decline in student well-being and a notable increase in the prevalence of clinical-level depressive symptoms, affecting over 30% of the student population [10]. A study utilizing the WEMWBS has demonstrated the substantial impact of the COVID-19 pandemic on the mental health of young individuals, including university students, and the findings suggest that the effects on mental health were particularly pronounced due to the data collection occurring during a later stage of the lockdown period, providing a more comprehensive understanding of the mental health consequences [11]. Consequently, mental health services should be ready to address an upsurge in mental health issues, with specific attention given to the needs of younger adults, women, and individuals residing in areas of higher deprivation. This highlights the importance of targeted support and interventions to mitigate the adverse mental health effects of the pandemic on these vulnerable populations [12].

Interventions and programs promoting student well-being

There has been a concerning trend regarding the mental health of university students, revealing a substantial increase in mental health concerns over the past decade. The statistic suggests that one in five university students currently face mental health



challenges [13]. The rise in mental health issues among university students has garnered attention from researchers, educators, and policymakers alike. Several factors contribute to this increase, including academic pressures, social and personal transitions, financial stress, and the overall demands of university life [14].

Many higher education institutions (HEIs) have dedicated welfare teams or departments that aim to provide support and resources to promote student well-being. These teams often consist of professionals such as counselors, therapists, and support staff who are trained to address the mental, emotional, and social needs of students. The rising demand for well-being services indicates a growing recognition of the importance of mental health and well-being among students. Factors such as academic pressures, personal challenges, and the transitional nature of university life can contribute to the need for additional support. The reported increase in demand by six in ten HEIs, exceeding 25% within a five-year period, indicates a substantial surge in the number of students seeking well-being services. This trend suggests that more students are recognizing the value of seeking support and are actively reaching out for assistance [15]. The reasons behind the increased demand for well-being services can be multifaceted. It may be attributed to a greater awareness and understanding of mental health issues, reduced stigma surrounding seeking help, and an overall increase in the prevalence of mental health concerns among the student population. The rising demand poses challenges for HEIs in terms of resource allocation, staffing, and ensuring timely access to support services. It highlights the need for institutions to continually assess and adapt their well-being support systems to meet the evolving needs of their students [16].

One recent study aimed to delve into students' experiences with well-being support services, with the overarching goal of understanding their engagement, identifying their specific well-being needs, and deriving concrete recommendations for the design and delivery of future interventions. To ensure that the interventions would be well-received and effective, the study adopted the Person-Based Approach, which places a central focus on the experiences and perspectives of the users themselves. By prioritizing the users' input, the study aimed to maximize the acceptability and effectiveness of the well-being resources. The research methodology consisted of an online survey involving 52 participants, followed by three focus groups with a total of 14 participants. The survey data were analyzed using a descriptive approach, providing an overview of the participants' responses. The qualitative data gathered from the focus groups underwent reflexive thematic analysis, which involved identifying recurring themes and patterns within the data. By integrating the findings from both the quantitative and qualitative data, the study revealed four key priorities expressed by students regarding well-being resources:

1. **Ease of Access:** Students emphasized the importance of easily accessible well-being resources. They highlighted the need for convenient and user-friendly platforms or services that can be accessed whenever they require support.
2. **Inclusive and Preventative Approach:** Students expressed a desire for well-being resources that cater to a wide range of needs and encompass a preventative approach. They emphasized the significance of interventions that address well-being proactively to promote mental health and prevent potential issues [17].
3. **Sense of Community and Safe Space:** Students emphasized the importance of fostering a sense of community and belonging within the well-being resources. They highlighted the need for a safe and supportive space where they can interact with peers, share experiences, and seek guidance without fear of judgment.
4. **Application of Skills to Real-Life Contexts:** Students expressed a desire for well-being resources that provide practical skills and strategies applicable to real-life situations. They emphasized the importance of interventions that equip them with actionable tools to navigate challenges and enhance their overall well-being [18].

The study's findings provide valuable insights into the factors influencing student engagement with well-being support services at universities. The resulting recommendations hold the potential to inform the development and improvement of future interventions, leading to the creation of well-being resources that are more acceptable, engaging, and effective for students. By aligning with students' needs and experiences, such interventions can better support their well-being throughout their university journey.

It is important to continue monitoring and addressing the mental health needs of university students through research, policy development, and the provision of accessible and effective support services. By prioritizing mental well-being, universities can create an environment that fosters academic success and personal growth while nurturing the overall health and well-being of their student population [19].

Comparative analysis of the WEMWBS with MHLS

Other measures such as the Mental Health Literacy Scale (MHLS) developed by O'Connor & Casey (2015) have also been implemented to assess individuals' well-being in Higher Education [20]. The evaluation of the methodological quality of the MHLS revealed substantial advantages over existing measures. These advan-



tages may include factors such as reliability, validity, sensitivity, and specificity in capturing and assessing mental health literacy. The MHLS offers a comprehensive framework for measuring mental health literacy, encompassing various dimensions such as knowledge of mental health conditions, beliefs and attitudes towards mental health, and understanding of available resources and help-seeking behaviors. By considering these multiple dimensions, the MHLS provides a more holistic and nuanced assessment of mental health literacy compared to other scales [21]. The use of the MHLS enables researchers, practitioners, and policymakers to assess individual and population-level differences in mental health literacy. It allows for the identification of gaps and variations in knowledge and awareness of mental health issues among different groups of individuals or communities. Furthermore, the MHLS serves as a valuable tool in evaluating the impact of programs and interventions designed to improve mental health literacy. By administering the scale before and after implementing such programs, researchers and practitioners can measure the effectiveness of these initiatives in enhancing individuals' mental health literacy. The MHLS can be utilized in various settings, including educational institutions, healthcare organizations, community centers, and public health campaigns. Its application can help inform the development and implementation of targeted interventions aimed at improving mental health literacy and promoting positive mental health outcomes. One recent cross-sectional study was carried out in ten universities in Egypt during the academic year 2022-2023 with the use of MHLS, which highlights the importance of inclusive mental health education, specifically targeting rural regions, and underscore the significance of personal connections in promoting mental well-being. Applying these findings has the potential to enhance mental health outcomes and diminish stigma associated with mental health in Egypt [22]. Overall, the methodological advantages of the MHLS make it a valuable tool for assessing and understanding mental health literacy at both individual and population levels. By utilizing the scale, researchers and practitioners can gain valuable insights into the knowledge, attitudes, and behaviors related to mental health, which can inform the design and evaluation of interventions and initiatives aimed at promoting mental well-being [23]. The WEMWBS and the MHLS are both assessment tools used in the field of mental health research. While they share a common goal of evaluating aspects of mental health, they differ in their specific focus and measurement objectives:

Table 1

	WEMWBS	MHLS
Focus	The WEMWBS primarily measures mental well-being or positive mental health. It assesses individuals' experiences of positive emotions, functioning, and psychological well-being.	The MHLS focuses on mental health literacy, which refers to individuals' knowledge, beliefs, and attitudes related to mental health issues. It assesses their understanding of mental health conditions, help-seeking behaviors, and the ability to provide support to others.
Measurement Approach	The WEMWBS utilizes a scale-based approach where respondents rate the frequency of specific thoughts, feelings, and behaviors related to well-being over a designated period. It provides a quantitative score reflecting the level of mental well-being	The MHLS also uses a scale-based approach, but it assesses mental health literacy through statements or questions related to various dimensions of mental health. Respondents indicate their level of agreement or disagreement, and the scale provides a quantitative measure of mental health literacy.
Scope	The WEMWBS captures a broad range of positive mental health aspects, such as positive affect, satisfaction with life, and personal functioning. It focuses on overall well-being rather than specific mental health literacy components.	The MHLS specifically targets mental health literacy and assesses knowledge, attitudes, and behaviors related to mental health. It measures specific aspects of mental health literacy, including knowledge of mental health conditions, beliefs about treatments, and help-seeking behaviors.
Application	The WEMWBS is often used in research studies, population surveys, and evaluations of mental health interventions to assess the impact of interventions on well-being outcomes.	The MHLS is commonly employed in studies and evaluations focused on mental health literacy, such as assessing the effectiveness of educational campaigns, interventions, or programs aimed at improving mental health literacy.

It's important to note that while both scales contribute to understanding mental health, they have distinct purposes and provide different insights. The WEMWBS emphasizes positive mental health outcomes, while the MHLS focuses on mental health literacy and knowledge. Researchers and practitioners may choose one or both scales based on their specific research objectives and the aspects of mental health they aim to assess [24,25].



Conclusion

The WEMWBS serves as a reliable and valid instrument for assessing mental well-being on a population level, contributing to a better understanding of mental health promotion and the overall well-being of individuals and communities. HEIs are responding to this increased demand by expanding their well-being services, implementing additional initiatives, and promoting mental health awareness on campus. They are working towards creating a supportive environment that fosters student well-being and strives to meet the growing demand for services [26]. In summary, this critical review contributes to our understanding of the WEMWBS and its implications for comprehending individuals' well-being in higher education. By examining its validation, associations with student well-being, interventions and programs, and comparative analysis with the MHLS, this article provides valuable insights for researchers, practitioners, and policymakers seeking to assess and promote well-being among individuals in the higher education setting.

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