

Review

Education and Digital Media as Effective Approaches to Mental Health Literacy

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ABSTRACT

Mental health is an essential aspect of an individual's life that affects adaptability to stress, productivity and overall well-being. Improving mental health literacy is an important preventive strategy in dealing with psychological challenges, including promoting positive attitudes, self-efficacy, and help-seeking behavior. This study aims to identify educational and digital technology-based interventions and evaluate their effectiveness in improving mental health literacy. The method used was a traditional literature review of ten relevant scientific articles, obtained through a rigorous selection process from PubMed and Google Scholar databases. The initial search yielded 1,524 articles from PubMed and 201 from Google Scholar. Articles were obtained using a combination of keywords such as "mental health promotion", "intervention", 'adolescents' and "mental health education". The analysis showed that different forms of interventions, such as online trainings, mental health curricula, digital self-efficacy training, and audiovisual media, were effective in increasing understanding, positive attitudes, self-efficacy, and propensity to seek professional help. The success of interventions relies heavily on contextualized, interactive and active participation-based designs, as well as integration with social support. Therefore, the development of adaptive, inclusive, and sustainable intervention models is crucial in strengthening efforts to promote and prevent mental health problems.

1. Introduction

Mental health is an important component of human life. The World Health Organization (WHO) defines mental health as a state of mental well-being that enables individuals to cope with life's stresses, recognize their potential, learn effectively and work productively, and contribute to their communities (WHO, 2022). Mental health encompasses dimensions of a person's emotional, psychological, and social well-being, which can affect how an individual thinks, feels, and acts.

Individuals with good mental health have the ability to think, feel, and act optimally in facing life's challenges (Artati & Herdi, 2023).

In the modern era that continues to develop, mental health issues are becoming an increasingly significant global concern. Mental health problems such as stress, anxiety, and depression continue to increase and have a strong potential to threaten quality of life and future direction. Groups that have a high vulnerability to mental health problems include various characteristics, including age (such as adolescents and the elderly), gender (especially women), unfavorable socioeconomic conditions, pre-existing physical and mental health status, a history of traumatic experiences in childhood, and individuals who come from minority groups or are vulnerable to social discrimination.

Mental health problems often receive less attention due to the strong negative stigma that develops in society. WHO estimates that one in eight people in the world experience mental disorders (WHO, 2022). According to (Cuijpers et al., 2023), mental disorders are the leading cause of "years lived with disability" (YLD) across all types of disorders. The Indonesian Basic Health Survey in 2023 showed that 2% of the population aged ≥ 15 years experienced mental health problems (KEMENKES, 2024).

A factor that contributes to the level of individual mental health is knowledge or understanding related to mental health. Knowledge and understanding of how to maintain good mental health is considered more effective in overcoming psychological stress and preventing mental disorders (Estherita & Novianty, 2021). This understanding becomes the foundation for developing positive attitudes towards mental health issues, such as overcoming stigma, recognizing the importance of psychological support, and encouraging healthy behaviors such as managing stress and maintaining emotional stability (Wei et al., 2013). Therefore, mental health literacy plays a crucial role as a foundation in shaping individuals' understanding, attitudes and responses to psychological issues, as well as an important element in various promotive and preventive interventions in the field of mental health.

Mental health literacy is the understanding and beliefs about mental disorders that help recognize, manage, or prevent these disorders (Jorm, 2000). Research conducted (Septiana et al., 2024) shows that low mental health literacy can affect levels of anxiety, stress, withdrawal, openness difficulties, destructive behavior, and self-harm. Weak mental health literacy can also affect social resilience which includes negative stigma and lack of social support.

According to previous studies, there are various categories of interventions to improve mental health literacy. Effective interventions in improving mental health literacy may consist of structured educational programs in the school context, the use of information technology, and community-based approaches in mental health improvement efforts. According to (Harte & Barry, 2024). According to research (Arif P & Wardaningsih, 2023), all audiovisual media intervention models/forms such as Tele Mental Health/ Teletherapy/ Digital Mental Health; Boca Norte (audiovisual narrative/ digital teen series); Bibliodrama/ experience of death education; Video; the face-to-face teen; Online Discussion Group; and What's Up With Everyone/ WUWE are influential in improving mental health knowledge. In addition, research shows that support from family and

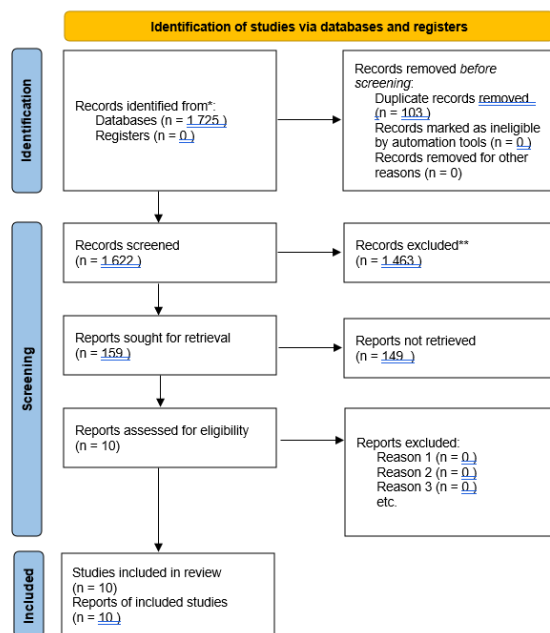
neighborhood plays an important role in improving mental health, so interventions that focus on interpersonal relationships can be particularly effective (Wang et al., 2024).

This study aims to examine the forms of mental health interventions. Specifically, it identifies types of interventions, and evaluates their effectiveness in improving knowledge, positive attitudes, mental health literacy, help-seeking behavior and self-efficacy towards mental health issues.

2. Method

This study uses a literature review method that follows the PRISMA guidelines (The Preferred Reporting Items for Systematic Reviews and Meta Analyses) Scientific articles were collected from the PubMed and google scholar databases using keywords tailored to the research focus. The initial search yielded 1,524 articles from PubMed and 201 from google scholar. Articles were obtained using a combination of keywords such as “mental health promotion”, “intervention”, ‘adolescents’ and “mental health education”. The screening process was conducted in several stages to ensure relevance and suitability to the review topic. The initial stage was carried out by selecting articles that fit the main topic of the study. Next, selection was made based on the inclusion criteria, namely: research published within the last 10 years, focusing on adolescent and early adult populations, focusing on intervention programs or program evaluation, English or Indonesian language. And the exclusion criteria that have been determined are: not focusing on adolescents and young adults and studies in the form of narrative opinions, literature reviews, not full-text. Successful articles were then screened again through title and abstract review, and in the final stage a full-text review was conducted to ensure eligibility for inclusion in the review. Through this process, 10 articles were found to be the most relevant and in-depth in addressing the topic under study.

Image 1. PRISMA: Preferred Reportig Items for Systematic Review and Meta Analyse



3. Results & Discussion

The table below presents 10 articles that have gone through several screening stages and meet the predetermined criteria. Based on the literature search process that has been carried out, a number of articles are obtained that are relevant to the focus of study in this study. The selection of articles is done selectively based on suitability to the topic and purpose of the literature review, so that only articles that meet the criteria are further analyzed as material for synthesizing the findings in the following table:

Table 1. *Description of Research Data*

Study	Research Objectives	Participant	Method	Findings
(Syafitri & Rahmah, 2021)	To determine the effect of online peer counselor training on improving students' mental health literacy at XY Islamic High School, Semarang.	20 participants who met the specified criteria	<i>Quasi experiment</i> with One Group prepost test design	In general, the results of this study indicate that online peer counselor training can improve participants' mental health literacy.
(Hassen et al., 2022)	Evaluating the effectiveness of a mental health curriculum intervention using social media in improving mental health literacy among adolescents.	Teenagers who have mental health problems	<i>Quasi experiment</i> with a control group	Mental Health curriculum interventions implemented through social media can effectively increase mental Health literacy among adolescents.
(Saboochi et al., 2025)	Evaluating the effectiveness of a mental health literacy curriculum adapted and implemented among secondary school students in Iran. This study focused on improving attitudes and help-seeking intentions regarding mental health issues in adolescents.	200 teenage girls from high schools in Iran	Semi-experimental	An adapted mental health literacy curriculum-based intervention had a positive impact on intention to seek help.
(Rohde et al., 2024)	Exploring the potential of whether digital-based interventions (self-efficacy training) can increase self-efficacy in a student population	93 Swiss University students experiencing stress problems	RCT (Randomized Controlled Trial)	Digital self-efficacy training applied to students experiencing stress had a significant impact on increasing self-efficacy and reducing levels of anxiety and hopelessness.
(Harrer et al., 2018)	Evaluating the effectiveness of internet-based and app-based interventions focused on reducing symptoms of common mental disorders such as depression and anxiety in college students.	Students who experience high levels of stress and meet the criteria for experiencing symptoms of mental disorders, such as depression and anxiety	RCT (Randomized Controlled Trial)	Internet-based and app-based interventions have significant positive effects in reducing symptoms of stress, anxiety, and depression among college students experiencing high levels of stress.
(Hayes et al., 2019)	This research focuses on the development and	144 junior secondary	<i>Parallel cluster group</i>	The study found that the YAM program focused on addressing

Study	Research Objectives	Participant	Method	Findings
	evaluation of a school-based intervention designed to increase students' understanding of mental health, reduce the stigma associated with mental disorders, and encourage help-seeking behavior among adolescents.	schools in England	<i>randomized controlled trial comparing two different interventions.</i>	depressive symptoms, while The Guide program aimed to improve help-seeking behavior. However, the study also identified positive changes in several other areas, including psychological well-being, problem behaviors, perceived school support, and improved knowledge, attitudes, and behaviors related to stigma and mental health first aid.
(Brooks et al., 2021;	Developing an intervention that positively impacts children's knowledge and skills in managing their mental health. Through collaborative methods, involving input from the Patient and Public Involvement (PPI) group and experience-based education, this research seeks to create a safe space for children and adolescents to discuss mental health.	A total of 43 children and adolescents, 19 parents of children with a history of mental health problems, and 25 education and health professionals participated in this study.	Mix Method	An intervention aimed at improving mental health literacy among adolescents aged 11–15 in Java, Indonesia, yielded positive results. The study indicates that children and adolescents' participation in the IMPeTUs intervention, designed collaboratively with various stakeholders, successfully improved their ability to recognize mental health problems, understand their causes, and understand available support options.
(Khadijah et al., 2024)	Exploring the effects of education in reducing stigma associated with depression and self-harming behavior in adolescents.	70 2nd grade junior high school students in Surakarta	Quantitative Pre-Experimental one group prepost test design	Educational interventions in the form of audiovisuals have a significant impact in reducing the stigma associated with depression and self-harming behavior among adolescents.
(Cahyanti et al., 2024)	Exploring the effectiveness of website-based participatory learning methods in improving health literacy among students during the COVID-19 pandemic.	Undergraduate students at six universities in Solo	Experimental approach, pretest-posttest control group with randomization design.	Interventions using website-based participatory learning methods significantly improved health literacy among students during the COVID-19 pandemic.
(Febi et al., 2023)	Evaluating the influence of animated videos on improving mental health literacy among adolescents at Muhammadiyah Special Program Middle School Pracimantoro.	Students of Muhammadiyah Middle School Special Program Pracimantoro	Quantitative pre-experimental one group pretest posttest design	The intervention significantly impacted adolescent mental health literacy. This study also concluded that improving mental health literacy through the delivery of engaging information can contribute to better responses to mental health issues among adolescents.

This study examines the forms of interventions that have been carried out or developed based on a literature review sourced from several articles. The forms of intervention that have been reviewed include various approaches including: (1) online-based peer counselor training, (2) mental health literacy curriculum in schools, (3) digital-based self-efficacy training, and (4) the use of online

video and animation-based applications or platforms. Other interventions include school-based approaches as well as participatory and co-design-based learning methods. In general, these interventions can be categorized into two main approaches, namely institution-based education or curriculum, and interactive and accessible digital technology/media interventions.

A study conducted by (Martha & Zulherman, 2022) showed that an animated video-based learning model significantly contributed to increasing students' self-efficacy. This finding supports the results of this study, especially in the context of the effectiveness of digital-based self-efficacy training interventions and approaches oriented towards strengthening positive attitudes towards mental health issues. This is in line with the findings in this study, which emphasize that the use of online video and animation-based applications or media is an effective and inclusive strategy in mental health interventions, especially in increasing participant engagement and expanding educational outreach to the adolescent population.

In general, the results show that the mental health interventions analyzed contribute positively to various psychological aspects of adolescents. The interventions consistently contributed to improving mental health-related knowledge and literacy, which in turn led to a better understanding of psychological issues. In addition, the interventions also encouraged attitudinal changes in a more positive direction, including an increased tendency for individuals to seek help when facing mental problems. The effectiveness of the interventions was also reflected in an increase in participants' self-efficacy and psychological well-being. In addition, some forms of intervention contributed to reducing negative stigma towards mental illness and strengthening awareness of the importance of support, both through formal and informal channels.

However, the effectiveness of the interventions found was generally short-term and highly influenced by the level of active participation of the participants. This suggests that the success of an intervention is not only determined by the content or form of the program, but also by the extent to which participants are meaningfully involved in the implementation process. Therefore, it is necessary to design more adaptive and sustainable intervention strategies, taking into account aspects of personalization, interactivity, and the involvement of a comprehensive social support system.

The findings in this review suggest that digital interventions have great potential to support improvements in adolescent mental health, especially when designed with cultural relevance, active participant engagement, and sustainability in mind. A collaborative approach between developers, practitioners and end-users, as exemplified in the study (Brooks et al., 2021), results in a more meaningful impact as it addresses the real needs and specific experiences of the target population. In the Indonesian context, the results of this study can serve as a basis for the development of interventions based on social media, digital applications, or online learning platforms that not only focus on increasing knowledge, but also strengthen positive attitudes, help-seeking ability, and self-efficacy of adolescents in facing mental health challenges.

4. Conclusion

The results of this study indicate that educational and digital technology-based interventions have a significant contribution in improving mental health literacy. Approaches such as peer counselor training, mental health curriculum implementation, digital-based self-efficacy training, as

well as the use of audiovisual media, proved effective in improving knowledge, adaptive attitudes, self-efficacy, and help-seeking behaviors related to psychological issues.

The effectiveness of the interventions was substantially influenced by the level of active participation, contextual and interactive program design, and integration with social support. Interventions that were designed in a participatory and collaborative manner, with attention to cultural relevance and end-user needs, showed more meaningful and sustainable impacts.

Thus, these findings reinforce the urgency of developing intervention strategies oriented towards sustainability, personalization, and technology-based multisectoral approaches, to support the promotion and prevention of mental health problems on a broader scale.

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