

THE EFFECT OF MENTAL HEALTH LITERACY EDUCATION ON IMPROVING ADOLESCENTS' KNOWLEDGE AND ATTITUDES TOWARD MENTAL HEALTH

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ABSTRACT

Adolescence is a crucial developmental stage, marked by significant physical, emotional, and social changes that often impact mental health. Although adolescent mental health issues are increasing, awareness and understanding of these issues remain limited, particularly in areas with limited access to information and strong stigma, such as Polewali Mandar Regency, Indonesia. This study aimed to assess the effectiveness of mental health literacy education. A quantitative pre-experimental design with a single-group pretest-posttest was employed, involving 50 high school students aged 15–18 selected using purposive sampling. Participants completed a validated questionnaire to measure their knowledge and attitudes before and after participating in the program, which was delivered face-to-face or online. Educational materials were developed based on the Mental Health Literacy Framework and adapted to local cultural contexts. Data were analyzed using a paired sample t-test, which showed an increase in knowledge scores from 66.4 (pretest) to 84.2 (posttest), and attitude scores from 71.6 to 88.0 after the intervention, with statistical significance ($p < 0.001$). These findings indicate that mental health literacy education can significantly improve adolescents' knowledge and attitudes regarding mental health. Implementing mental health literacy education has an impact on improving adolescents' understanding and attitudes toward mental health issues. Integrating structured mental health education into the school curriculum, utilizing both face-to-face and digital learning methods, is crucial for increasing awareness of mental health and reducing stigma among adolescents.

ABSTRAK

Masa remaja adalah tahap perkembangan penting yang ditandai dengan perubahan fisik, emosional, dan sosial yang signifikan yang sering memengaruhi kesehatan mental. Meskipun prevalensi masalah kesehatan mental di kalangan remaja meningkat, kesadaran dan pemahaman mereka tentang masalah ini tetap terbatas, terutama di daerah dengan akses informasi yang terbatas dan stigma yang terus-menerus, seperti Kabupaten Polewali Mandar, Indonesia. Penelitian ini bertujuan untuk mengevaluasi efektivitas pendidikan literasi kesehatan mental dalam meningkatkan pengetahuan dan sikap remaja terhadap kesehatan mental. Desain pretest-posttest satu kelompok kuantitatif digunakan untuk melibatkan 50 siswa sekolah menengah atas berusia 15-18 tahun yang dipilih melalui purposive sampling. Peserta mengisi kuesioner yang divalidasi yang menilai pengetahuan dan sikap mereka sebelum dan sesudah berpartisipasi dalam program pendidikan literasi kesehatan mental yang disampaikan baik tatap muka maupun online. Materi pendidikan dikembangkan berdasarkan Kerangka Kerja Literasi Kesehatan Mental dan disesuaikan dengan konteks budaya setempat. Data dianalisis menggunakan uji-t sampel berpasangan. Hasil penelitian menunjukkan peningkatan skor pengetahuan yang signifikan dari rata-rata 66,4 (pretest) menjadi 84,2 (posttest), dan skor sikap dari 71,6 menjadi 88,0 setelah intervensi, dengan signifikansi statistik ($p < 0.001$). Temuan ini menunjukkan bahwa pendidikan literasi kesehatan mental dapat secara substansial meningkatkan pengetahuan dan sikap remaja tentang kesehatan mental. Pendidikan literasi kesehatan mental meningkatkan pemahaman dan sikap remaja terhadap kesehatan mental. Mengintegrasikan pendidikan kesehatan mental terstruktur ke dalam kurikulum sekolah dan memanfaatkan pendekatan pembelajaran langsung dan digital sangat penting untuk menumbuhkan kesadaran kesehatan mental yang lebih besar dan mengurangi stigma di kalangan remaja.

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Adolescence is a dynamic period marked by rapid physical, emotional, and social changes that often present stressors affecting mental health (Sawyer et al., 2018). Unfortunately, adolescents' understanding and awareness of mental health remain low (Gronholm et al., 2018). The increasing prevalence of mental health problems among adolescents is a global concern, including in Indonesia (Nahar et al., 2025; Astutik & Dewi, 2022). WHO reports that mental health conditions account for 16% of the global burden of disease among 10–19 year olds (WHO, 2024). In Indonesia, one in three adolescents has experienced mental health problems in the past year. However, only a small proportion seek professional help (Indonesian Ministry of Health, 2024). Limited mental health literacy is a key factor preventing early recognition and management of these issues (Gronholm et al., 2018).

The profound impact of mental health disorders underscores a critical global health challenge, as these conditions represent a substantial portion of the overall disease burden during the formative years of adolescence (Mohammed et al., 2024). In Indonesia, the Ministry of Health noted that 9.8% of citizens over the age of 15 have mental and emotional disorders. However, only 9% of them receive appropriate treatment, indicating a large treatment gap (Biomedika et al., n.d.). Data from the Indonesia National Adolescent Mental Health Survey (I-NAMHS) in 2021 (Chantika Putri et al., 2023) show that one in three Indonesian adolescents have experienced mental health problems in the past 12 months, with only 2.6% of them seeking professional help, which underscores the low rate of help-seeking behavior among youth (Mkubwa et al., 2024). Low understanding of mental health is one of the main factors preventing adolescents from recognizing and dealing with their mental health problems, a barrier also observed in other low- and middle-income settings where stigma and lack of awareness reduce access to care (Tinsae et al., 2024).

This synthesis integrates global and regional data on adolescent mental health burden, treatment gaps, and barriers to care, emphasizing the urgent need for improved mental health literacy and accessible services for Indonesian adolescents.

In Polewali Mandar Regency, West Sulawesi, which is inhabited by around 495,371 people, the challenge of improving understanding of mental health among adolescents is increasingly difficult. Limited access to accurate information, lack of systematic education programs, and social stigma against mental health issues create significant barriers to raising mental health awareness among adolescents (WHO, 2024).

Education about mental health has been proven effective in increasing adolescents' knowledge and positive views on this issue. For example, research at SMAN 3 Batam showed a significant increase in students' mental health knowledge after receiving training on Mental Health First Aid (Mira Agusthial, 2023). In addition, the educational program implemented at SMP Negeri 2 Susut Bangli has also succeeded in helping students better understand the basic concepts of mental health (Nur Sutiawati et al., 2024). Similar findings have been reported internationally, such as in the UK, where peer education projects improved mental health knowledge and help-seeking intentions among adolescents (Russell et al., 2023), and in Japan, where school-based mindfulness education reduced depression and anxiety in junior high students (Kato et al., 2022). Innovative interventions like board games and comic books have also been shown to increase mental health literacy and reduce stigma among adolescents in Indonesia and Burkina Faso, respectively (Brandt et al., 2025).

Most programmes/interventions addressed one or more of the four components of mental health literacy (Reavley et al., 2014), with the knowledge of mental disorders and stigma reduction components being the most covered (Gabbidon et al., 2013) and showing statistically significant improvements in adolescents' mental health literacy level (Fretjan et al., 2021).

This research is relevant to efforts to improve mental health literacy among adolescents, as highlighted in a systematic review by Renwick et al., which found that mental health literacy interventions can improve adolescents' knowledge and attitudes about mental illness in low- and middle-

income countries, including studies evaluating the efficacy of similar programs in Vietnam and Malaysia (Renwick et al., 2024)

The urgency of this research is underscored by the significant burden of mental health conditions among adolescents, which demands immediate preventive intervention. In Indonesia, the National Adolescent Mental Health Survey highlights that one in three adolescents has experienced mental health issues in the past year, yet only 2.6% sought professional help (Chantika Putri et al., 2023).

This treatment gap is further evidenced by Ministry of Health (2024) data showing that while 9.8% of the population aged ≥ 15 years suffers from emotional mental disorders, a mere 9% receive appropriate care. This disparity is particularly acute in regions like Polewali Mandar, where pervasive social stigma and severely limited access to accurate information create formidable barriers to mental health awareness. Consequently, this study addresses a critical research gap by evaluating a culturally adapted mental health literacy education model designed to improve knowledge and attitudes from an early stage. These findings are expected to serve as a foundational strategy for designing localized educational interventions that can be scaled to regional and national levels.

METHOD

This research employs a quantitative strategy with a pre-experimental framework of one-group pretest-posttest. This approach was chosen because it best fits evaluating the shifts in knowledge and attitudes among adolescents after they have been taught through an educational intervention on mental health literacy. In this manner, the researchers can evaluate and measure the objective changes in the situation after the intervention is applied. The population of this study consists of students at the high school equivalent level in Polewali Mandar Regency, who are 15 to 18 years old. In this study, the adolescent age group may experience various levels of psychological stress but still has a limited understanding of mental health issues. This study utilized purposive sampling to recruit 50 high school students based on specific inclusion criteria, including their voluntary participation, access to digital devices for questionnaire completion, and the absence of a severe mental disorder diagnosis.

Data were collected through two main stages, before and after the intervention. The main tool used is a questionnaire about the knowledge and attitudes of the respondents toward mental health, all of which need to be validated and proven reliable in previous research. The questionnaire can cover a wide range of topics, including mental health problems, common symptoms of mental disorders, and methods of treatment of the mental disorder itself.

Type of Research

A quantitative approach with a pre-experimental design can be carried out in this study using pre-posttests; this allows researchers to compare conditions before and after the intervention in a more objective and measurable way. This method was chosen because it is suitable for measuring changes in adolescents' knowledge and attitudes after administering a mental health literacy intervention. This method enables researchers to quantify and compare conditions before and after the intervention objectively. The primary objective of this study, which is to measure the impact of a treatment systematically and empirically, explains why a quantitative approach was chosen.

Place and Time of Research

This research was conducted in Polewali Mandar Regency, West Sulawesi, from February 2 to March 3, 2024.

Population and Sample

This study involved students from high schools in Polewali Mandar Regency, aged 15 to 18 years. This group was chosen because this age range represents adolescents who may experience psychological distress but do not fully understand the concept of mental health. Purposive sampling was used to select participants. To be part of the sample, individuals had to be willing to participate in a learning program, have a device to fill out questionnaires, and not have a diagnosis of a severe mental disorder. This study involved 50 adolescents who were high school students in Polewali Mandar Regency and participated in educational programs on mental health literacy.

Data Collection

Data were collected in two stages, pre-test and post-test, using a questionnaire on knowledge and attitudes toward mental health. The validity of the instrument used the Pearson Product Moment correlation ($r > 0.30$) and showed high reliability with Cronbach's Alpha values of 0.82 for knowledge and 0.85 for attitude, indicating strong internal consistency (Sugiono, 2019). The material was developed through the Mental Health Literacy Framework and can be adapted to the local cultural context, delivered both face-to-face and online to 50 secondary school students in Polewali Mandar. The collected data were then statistically analyzed to test differences in knowledge and attitude scores before and after the intervention.

Data Analysis and Processing

The data analysis process was carried out using paired t-tests to determine significant differences in adolescents' knowledge and attitudes before and after the mental health literacy intervention, and processing was conducted through SPSS (IBM Corp.). The paired t-test was chosen because the data are numerical and come from the same group and can be measured at two different times (pre-test and post-test). The aim is to assess empirically and systematically the effects of the educational intervention on increasing literacy and improving adolescents' mental health attitudes. This research was approved by the Health Research Ethics Committee of STIKes Nani Hasanuddin with approval number 587/STIKER-NH/KEPK/VII/2024, and all participants provided informed consent before participating in this study.

RESULT

This research involved 50 adolescents at the secondary school level in Polewali Mandar Regency who participated in the Mental Health Literacy education program. Data were collected through pre-test and post-test during the implementation of the program, using questionnaires that have been proven to be valid and reliable. Measurement focused on two main variables, namely knowledge and attitude.

1. Changes in Adolescent Knowledge Levels After Educational Intervention

These results showed a significant improvement in adolescents' knowledge scores after participating in this educational program. Before the intervention, the average knowledge score was 66.4, which was in the low category. After the intervention, the average became 84.2, which is in the high category.

Table 1. Frequency Distribution of Respondent Characteristics (n=50)

Statistics	Knowledge Pretest	Posttest Knowledge
Average (Mean)	66.4	84.2
Standard Deviation	9.5	7.8
Minimum Score	50.0	70.0
Maximum Value	78.0	95.0
Paired T-Test results	t = 8.73; p < 0.001	

From the results of the paired t-test, $p < 0.001$ was obtained, showing that the mental health literacy education program has a significant influence on efforts to improve adolescent knowledge.

2. Changes in Adolescent Attitudes toward Mental Health

This study also examined the change in adolescents' attitudes toward mental health problems. The average attitude score before the intervention was 71.6, which reflects a neutral attitude tending toward negative. After the intervention, the average increased to 88.0, indicating a more positive and open attitude.

Table 2. Frequency Distribution of Respondent Characteristics (n=50)

Statistics	Attitude Pretest	Attitude Posttest
Average (Mean)	71.6	88.0
Standard Deviation	8.3	6.9
Minimum Score	60.0	75.0
Maximum Value	85.0	95.0
Results of the t test	t = 7.45; p < 0.001	

The results of statistical analysis for attitude showed $p < 0.001$, indicating that education has a significant influence on efforts to increase adolescents' positive attitudes toward mental health problems.

3. Change Visualization (Graph)

The following is a comparison chart of pretest and posttest scores on both variables:

[Two-Variable Bar Chart]

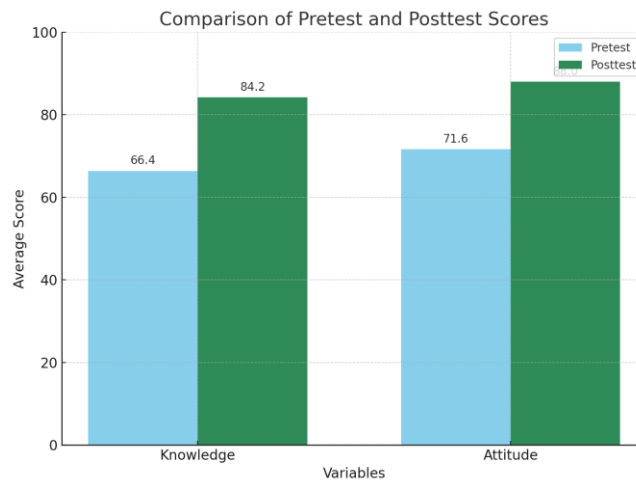
Title: Comparison of Pretest and Posttest Scores

X-Axis: Variables (Knowledge, Attitudes)

Y-Axis: Average Score

Bar 1 (Pretest): Knowledge = 66.4; Attitude = 71.6

Bar 2 (Posttest): Knowledge = 84.2; Attitude = 88.0



(Renwick et al., 2024)

DISCUSSION

The results of this study demonstrate that mental health literacy education significantly improves both knowledge and attitudes among adolescents in Polewali Mandar Regency. To provide a comprehensive understanding of these findings, the discussion is organized into the following thematic areas:

1. Enhancement of Mental Health Knowledge

The intervention led to a statistically significant increase in knowledge scores, rising from an average of 66.4 to 84.2 ($p < 0.001$). This improvement aligns with the findings of Renwick et al., (2024), which suggest that structured literacy programs are effective in low- and middle-income countries. A key factor in this success was the use of interactive and engaging methods such as group discussions, role-playing, and digitized content rather than traditional lectures. These

approaches allow adolescents to actively participate and relate the material to their daily lives, which has been shown to be more effective in fostering a deep understanding of mental health concepts.

2. Transformation of Adolescent Attitudes

In addition to knowledge, the program successfully shifted adolescent attitudes from a neutral or negative baseline (71.6) to a more positive and open outlook (88.0). Consistent with the Health Belief Model (HBM), the acquisition of accurate information serves as the foundational step for developing inclusive attitudes and reducing discriminatory behavior. By incorporating the Mental Health Literacy framework by Jorm et al. (1997), the education empowered students to better recognize mental disorders and understand the critical importance of seeking professional help. This shift is vital because adolescents are often the first source of support for their peers; thus, fostering empathy and help-seeking intentions can prevent more serious psychological issues in the future.

3. Local Context and Strategic Relevance in Polewali Mandar

The impact of this study is particularly significant given the socio-cultural landscape of Polewali Mandar Regency, which is characterized by strong social stigma and severely limited access to mental health services. The program provided a "safe space" for adolescents to openly discuss topics they typically avoid due to social pressure. By using culturally adapted materials, the intervention was able to bridge the information gap while building the confidence necessary for adolescents to overcome cultural barriers to mental health support. These findings underscore the importance of school-based programs as a primary tool for mitigating the effects of stigma and limited infrastructure in rural Indonesian settings.

CONCLUSION AND SUGGESTION

CONCLUSION

Mental health literacy education significantly improves both knowledge and attitudes among adolescents in Polewali Mandar Regency ($p < 0.001$). These findings demonstrate that structured educational interventions are effective in bridging the information gap and mitigating the pervasive social stigma often found in regions with limited mental health resources. Consequently, integrating mental health literacy into the school curriculum is a vital strategic step toward fostering a more supportive environment and enhancing early help-seeking behavior among the adolescent population.

SUGGESTION

Some of the suggestions obtained from this study include:

1. Curriculum Integration: Schools should incorporate structured mental health literacy into formal curricula or extracurricular activities using interactive methods such as peer discussions and educational digital content.
2. Stakeholder Collaboration: Multi-sectoral partnerships involving educators, parents, and regional policymakers are essential to ensure the sustainability and effectiveness of mental health support systems.
3. Future Research: Subsequent studies should utilize qualitative and longitudinal designs to gain deeper insights into adolescent experiences and evaluate the long-term behavioral impact of literacy interventions.
4. Cultural Adaptation: Educational materials must be culturally tailored to the specific context of Polewali Mandar to enhance relevance, understanding, and community acceptance.
5. Digital Optimization: Leverage technology and social media platforms more effectively to deliver engaging, accessible, and age-appropriate mental health education to the adolescent demographic.

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