

Mental Health Knowledge and Adolescent Stigma: A Cross-Sectional Study

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ABSTRACT

OBJECTIVE: To investigate the correlation between Mental Health Knowledge and Peer Mental Health Stigmatization of adolescents.

METHODOLOGY: This study employed a descriptive and correlational research design. Approximately 300 students from six junior high schools were selected by multi-stage random sampling as samples. The students' peer mental health stigmatization was measured using the 24 statements on the Peer Mental Health Stigmatization Scale (PMHSS), and their knowledge of mental health was collected using the 31 statements on the Mental Health Literacy Questionnaire (MHLQ). The data was analyzed using frequency, mean, standard deviation, and Chi-Square Test.

RESULTS: According to the Chi-Square Test, students' mental health knowledge and peer mental health stigmatization have a significant correlation ($p = 0.000$).

CONCLUSION: This study demonstrates a significant correlation between mental health knowledge and peer mental health stigmatization among adolescents. The findings reveal that adolescents with higher levels of mental health knowledge are less likely to stigmatize peers facing mental health challenges. This suggests that increasing mental health literacy can play a crucial role in reducing peer mental health stigmatization. This result highlights the importance of mental health education programs to elevate the understanding and awareness of adolescents toward their mental health condition through psychosocial interventions and public awareness campaigns to reduce students' peer stigma.

KEYWORDS: Peer Stigma, Mental Health, Stereotype, Health Literacy, Student, School.

INTRODUCTION

Globally, one in every seven teenagers (14%) has a mental disorder, accounting for roughly 13% of the worldwide disease burden in this age range. Anxiety and depressive disorders are the most prevalent mental disorders among adolescents, with around 3.6% reporting symptoms of anxiety and 1.1% experiencing depression. Adolescents with mental health problems are more vulnerable to physical illness, human rights violations, social isolation, discrimination, and stigma, which can negatively impact their willingness to seek help. Additionally, they may face educational difficulties and engage in risk-taking behaviors¹.

Adolescents with mental health problems often face stigmatization from their peers²⁻⁴. Stigma is a pejorative label given to people who exhibit unfavourable characteristics according to social environments⁵. Stigma arises from the labelling of

individuals based on negative stereotypes, which leads to feelings of difference and isolation. Consequently, those affected are often stigmatized and discriminated against⁶. In low- and middle-income countries, stigma is regarded as one of the fundamental causes of mental health problems⁷. Stigma comprises three components: stereotypes, prejudice, and discrimination⁸. In this context, stereotypes include ideas about the negative features of young people facing mental health issues (e.g., the perception that they are dangerous), while prejudice includes negative attitudes against adolescents with mental disorders (e.g., fear or rage) and *discrimination* refers to an action to apply unfavourable sentiment in a negative response (e.g. avoiding those who are impacted)⁹. Peer stigma refers to unfavourable attitudes, beliefs, or behaviours directed toward individuals by their peers that can lead to marginalization and discrimination¹⁰.

Peer mental health stigma frequently manifests in school settings, where adolescents are particularly vulnerable due to their developmental stage and desire for social acceptance. The negative consequences of mental health stigma for adolescents include delayed help-seeking, reduced self-esteem and self-worth¹¹, social isolation¹², and an increased risk of developing or exacerbating mental illness¹¹, as well as detrimental effects on their educational and developmental¹³.

Mental health knowledge significantly shapes students' attitudes toward mental health issues¹²⁻¹⁴.

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doi: 10.22442/jlumhs.2025.01324



Mental health knowledge encompasses understanding various concepts related to mental health, behavioral health, and mental illness¹⁶. Mental health knowledge and mental health stigma are critical issues affecting adolescents' mental health. While mental health stigma is frequently perceived as the fundamental cause of mental health problems, mental health education is regarded as an essential tool for treating these challenges. Both variables are interrelated, influencing one another, and can have either positive or negative effects on the development of adolescent mental health. Therefore, it is essential to continually update research on mental health knowledge and stigma among adolescents. Understanding these concerns is vital for managing mental illnesses, encouraging help-seeking behavior, implementing effective educational programs, and promoting overall mental wellness.

Given the significant prevalence of mental health problems in adolescents, as well as the impact of peer stigma and mental health literacy on managing mental health problems, there is a need to explore these issues through a research study. To this end, we chose a cross-sectional study to determine the correlation between mental health knowledge and mental health stigma among adolescents in junior high schools. Despite some limitations, such as susceptibility to confounding variables, recall bias, and temporal ambiguity, cross-sectional studies are essential for determining prevalence and relationships in large groups and providing a foundation for future longitudinal investigations.

METHODOLOGY

Study Design, Population and Sample

The study design is descriptive and correlational, using a cross-sectional study approach. A descriptive study was conducted to identify the correlation between two variables, and a cross-sectional study involves collecting data from samples at a single point in time rather than following subjects over time.

Approximately 300 students from six junior high schools were selected as samples using multi-stage random sampling through the following procedures:

First, randomly choose three of nine districts in Banda Aceh municipality; **second**, in each selected district, chosen randomly two junior high schools (one accredited with an A grade and another with a B grade), and **third**, in each selected school, 50 students were designated randomly as samples. Participation in this study was voluntary, and each student who wished to participate must sign an informed consent.

Instrument and Data Collection

Data on mental health knowledge was collected using the *Mental Health Literacy Questionnaire (MHLq)*. This questionnaire was developed by¹⁷ and consists of 31 statements (25 positives and 6 negatives), organized in a 5-point Likert response

scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree for positive statements, and vice versa for negative statements). Furthermore, the peer stigma data among adolescents was gathered using the *Peer Mental Health Stigmatization Scale (PMHSS)* developed by⁹. This questionnaire consists of 24 statements (8 positives and 16 negatives), separated into two components (stigma agreement and stigma awareness). A 5-point Likert response scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree for positive statements, and vice versa for negative statements) was used to analyze the collected data.

Before being utilized as data collection instruments, both questionnaires underwent back-translation and were evaluated for validity and reliability using a sample of 35 participants. The validity tests indicated that the computed *r* values for the MHLq ranged from 0.383 to 0.809 (*r* table = 0.334), while the PMHSS ranged from 0.339 to 0.802 (*r* table = 0.334). Additionally, the reliability tests showed that the MHLq and PMHSS questionnaires had Cronbach's α values of 0.902 and 0.908, respectively.

Data were collected using paper-based questionnaires. Two trained enumerators were involved in the data collection process. Participation in the study was entirely voluntary. Respondents and their parents were required to sign an informed consent form to grant permission for respondents' involvement. Before signing the consent form, detailed information about the study was provided to ensure they were fully informed.

Data Analysis

Demographic data were analyzed using descriptive statistical methods (frequency, mean, standard deviation, and percentage distribution). Concurrently, research variables (MHK and PMHS) were used in the analysis steps. *First*, descriptive analysis was conducted to analyze the level of MHK and PMHS. This step was performed by dividing the total scores of participants into three categories (high level $> \mu + \sigma$; medium level between $\mu + \sigma$ and $\mu - \sigma$; and low level $< \mu - \sigma$); and *second*, the Chi-Square Test was conducted to assess the association between the independent and dependent variables.

Ethical Statement

The Faculty of Nursing Ethics Commission at Universitas Syiah Kuala reviewed and approved the study (reference number = 113005200220). Participants were asked to provide informed consent and voluntarily agreed to participate in the study.

RESULTS

Characteristics of Respondent

The average age of participants ($n=300$) was 14.05, with SD = 0.915. Most participants were female (54.30%), approximately 89.33% were Achenes, and 98.70% were Muslim. Furthermore, the majority of

participants' parents work in the informal sector (65.70%), with a monthly income below 1.500.000, - IDR (98.70 USD) reaching 44.30%, and most participants (61.33%) received a school allowance of roughly 5.000, - IDR to 20.000, - IDR (0.33 USD to 1.31 USD) (**Table I**).

Descriptive analysis of mental health knowledge and peer mental health stigma

The study revealed that most participants (71.70%) had mental knowledge scores at a medium level, 17% at a low level, and 11.30% at a high level. Additionally, the majority of participants (66.30%) had medium-level of peer mental health stigmatization scores, followed by low-level (25.30%) and high-level (22.30%) (**Table I**).

Statistical analysis

The Chi-Square Test revealed a significant association between mental health knowledge and adolescents' peer stigma ($p = 0.000$).

Table I: Sociodemographic characteristics of adolescents (n=300)

Characteristics	Mean	SD
Age (years)	14.05	0.915
Characteristics	f	%
Gender		
Female	163	54.30
Male	137	45.70
Ethnic group		
Aceh	268	89.33
Non-Aceh	32	10.67
Religion		
Muslim	296	98.70
Non-Muslim	4	1.30
Parents' occupation		
Formal	103	34.30
Informal	197	65.70
Parents' income		
< 1.500.000 IDR	133	44.30
1.500.000 IDR – 3.165.000 IDR	88	29.30
3.166.000 IDR – 6.330.000 IDR	59	19.70
> 6.330.000 IDR	20	6.70
Students' allowance		
< 5.000 IDR	74	24.67
5.000 IDR – 20.000 IDR	183	61.33
> 20.000 IDR	43	14.33
Mental Health Knowledge (MHK)		
High	34	11.30
Moderate	215	71.30
Low	51	17.00
Peer Mental Health Stigma (PMHS)		
High	67	22.30
Moderate	199	66.30
Low	34	25.30

DISCUSSION

This study employs an analytic cross-sectional design to investigate the association between the independent and dependent variables. Despite various limitations of cross-sectional design-including the inability to establish causality, lack of temporal information, reduced effectiveness in capturing rare conditions, and vulnerability to confounding factors-the design is nonetheless helpful for various research objectives in providing a reliable snapshot of a population at a specific moment, which makes them particularly useful for understanding prevalence rates and identifying associations within a population. Additionally, cross-sectional studies are both time-efficient and cost-effective. This design also serves as a valuable tool for generating hypotheses that can be further explored in more detailed studies. Therefore, we believe that an analytical cross-sectional design is more suited to investigating the association between mental health knowledge and peer stigma among adolescents.

Adolescents are a crucial target population in the prevention of mental health disorders. This stage of life is often marked by significant challenges and vulnerabilities, commonly referred to as a period of "storm and stress," which increases the risk of experiencing psychological issues¹⁸. Adolescence is also a key period for identity formation and personal development. During this time, adolescents frequently explore questions about their existence and seek meaning in both societal and personal contexts¹⁹. That is why adolescents are commonly described as having an unstable developmental phase and being vulnerable to mental health problems. This is why adolescence is often characterized as an unstable developmental phase, with increased vulnerability to mental health challenges²⁰. Therefore, adolescents with mental health issues usually face stigma, especially from their peers (peer stigma). Peer stigma can worsen both physical and psychological conditions. Previous studies have shown that public stigma is commonly experienced by adolescents struggling with mental health challenges²¹. Peers are often the most likely sources of stigma for adolescents, given that they spend six to eight hours together each day in school. This phenomenon is known as peer mental health stigmatization (PMHS)²². Mental health literacy is considered crucial in shaping mental health stigma among adolescents. The relationship between peer stigma and mental health literacy in adolescents is significant and complex. Adolescents with more excellent mental health knowledge often display more empathy and understanding, leading to reduced stigmatizing behaviors toward peers who may be experiencing mental health challenges. Enhancing mental health literacy helps adolescents develop supportive

attitudes, making them less likely to engage in stigma and more likely to foster an inclusive environment²³. This study found that PMHS among adolescents ranges from moderate (66.30%) to high (22.30%). This finding closely aligns with the result reported by previous researchers, who discovered that 31.2% of people in developing countries experience mental health stigma⁷. This finding is further supported by several local studies, which indicate that mental health stigma remains high within Indonesian society^{24–27}. A survey of adolescents in Jordan further strengthened the assumption that mental health stigma remains high in Asian societies. The findings revealed that 88% of the adolescents with depression reported experiencing stigma at moderate to high degree²⁸. The high level of peer mental health stigma among adolescents is often attributed to the limited knowledge about mental health and related disorders. A survey on peer stigma among adolescents in Jordan supports this assumption, revealing that peers' lack of understanding about mental health issues and illness contributed to the stigmatization of adolescents suffering from depression²⁸. Similar findings emerged in this study, showing that 71.7% and 17% of adolescents surveyed had moderate to low levels of mental health understanding, respectively. Additionally, another study found that adolescents with limited mental health literacy also demonstrated significantly low levels of mental health stigma¹³. The statistical analysis in this study, using the Chi-Square test, yielded a p-value of 0.000, indicating a significant association between mental health knowledge and peer mental health stigma. Previous research has also highlighted the strong impact of mental health knowledge on reducing stigma. For instance, a study conducted in China found that improved mental health literacy significantly reduces the stigma associated with mental illness²⁹. Additionally, a systematic review of 20 school-based intervention studies demonstrated the effectiveness of the mental health literacy model in enhancing mental health knowledge and reducing mental health stigma³⁰. In conclusion, mental health knowledge significantly reduces stigma; however, various determining factors must be considered to achieve effective results. Therefore, researchers in the future must eliminate confounding factors to ensure the validity of the original findings in each of their research programs. Several factors influence peer mental health stigma among adolescents, including knowledge of mental health and disorders, social influences, media exposure, cultural norms, and personal experiences^{31–33}. It is essential to carefully consider these aspects to reduce mental health stigma among adolescents effectively. The success of anti-stigma intervention programs relies on enhancing mental health

knowledge and implementing comprehensive strategies that adopt a holistic approach. This approach should address the various factors contributing to the development of mental health stigma, including cognitive, behavioral, emotional, social, and cultural dimensions of support. Stakeholders working to eliminate peer stigma in teenagers must thoroughly investigate the numerous elements contributing to stigma to give targeted information and understanding as effective remedies.

CONCLUSION

Adolescence is a vulnerable period for the onset of mental health disorders, and those experiencing mental health issues are particularly susceptible to stigma. To effectively reduce mental health stigma, it is essential to enhance knowledge and awareness about mental health. This study found a significant association between peer mental health stigma and mental health knowledge, suggesting that increasing mental health knowledge can help reduce stigmatization. However, addressing mental health stigma requires more than simply improving knowledge; it necessitates a comprehensive, multi-faceted approach that considers social, cultural, and personal factors as well as various factors that contribute to stigma shaping. Effective anti-stigma interventions should incorporate cognitive, behavioral, emotional, and social strategies to foster a more supportive environment for adolescents facing mental health challenges.

Ethical Permission: Faculty of Nursing at Universitas Syiah Kuala, Indonesia ERC letter number: 113005200220

Conflict of Interest: No conflicts of interest, as stated by authors.

Financial Disclosure / Grant Approval: No funding agencies have funded this study.

Data Sharing Statement: The corresponding author can provide the data proving the findings of this study on request. Privacy or ethical restrictions bound us from sharing the data publicly.

AUTHOR CONTRIBUTION

Aiyub A: Contributed to designing the research, interpreting the study results, determining the implications of the research findings, writing the research article, and revising draft articles based on feedback from other co-authors and reviewers.

Kartinazahri K: Contributed to designing the research, developing the main idea or hypothesis to be tested, and data collection.

Astuti P: Contributed to designing the research, developing the main idea or hypothesis to be tested, and collecting data.

All authors are responsible for the final editing to ensure the articles conform to the journal's guidelines.

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