# Determinant of Mental Emotional Disorder in Adolescent: A Cross-Sectional Study

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**Abstract:** *Objective*: Adolescence is a critical period for experiencing mental disorders because this age is a transition from adolescence to adulthood, this period is also a determinant of one's mental health in the future. According to survey data from the Indonesia National Adolescent Mental Health Survey (I-NAMHS), which examined the prevalence of adolescent mental disorders in the country reveal that 1 out of 20 (5.5%) adolescents aged 10-17 years in Indonesia were diagnosed with a mental disorder. This study aimed to investigate the degree of risk of poor self-concept clarity, low self-esteem, a lack of peer support, and victims of bullying on mental-emotional disorders incidence in adolescents.

*Methods*: This research is an observational study using a cross-sectional design. The sample in this study were high school students aged 15-18 years (n = 390) who were randomly selected from four high schools in Kotamobagu City, North Sulawesi Province, Indonesia. The data in this study were analyzed through the Chi-Square test and multiple regression test using the SPSS version 22.0.

*Results*: This research shows that poor self-concept clarity (adj OR = 5.760; 95%CI = 3.173-10.458; p<0.001), low self-esteem (adj OR =3.647; 95%CI = 1.950-6.818; p<0.001), and victims of bullying (adj OR = 4.204; 95% CI =1.525-11.589; p=0.006) are related to adolescents' mental-emotional disorders.

*Conclusions*: It was concluded that the factors that influence mental-emotional disorders in adolescents are poor self-concept clarity, low self-esteem, and being a victim of bullying.

**Keywords:** Mental Health, Self-esteem, Self-concept, Bullying.

## INTRODUCTION

Alterations in emotions, thoughts, behaviors, or a combination of these are all signs of mental health disorders. Mental disorders are associated with stress or problems regarding a person's functioning in social, work, or family activities [1]. Mental health is the primary domain and the most robust predictor in determining the quality of life, while other factors only explain 14% of subjective well-being; hence a decrease in mental health can cause a decrease in quality of life [2]. Public health will only be achieved if mental health, welfare, and community rights are guaranteed and fulfilled [3]. People who experience mental disorders tend to be more introverted, moody, lack self-confidence, sad, anxious, irritable, and annoyed. As a result, they frequently struggle in school or at work, have poorer physical health, and engage in risky behaviors like self-harm to suicide. JP Chaplin (1981) defines mental disorder as a person's inability to adapt it makes a person helpless [4]. Someone who experiences mental-emotional disorders if not treated quickly and appropriately will develop into a pathological state [5].

Adolescence is a transitional period from childhood to adulthood which is marked by various changes, such as hormonal changes in the body, physical, psychological, and changes in social life [6] which affect their thoughts, feelings, and behaviors, and these three factors influence one another [7]. The changes that occur in adolescents during this transition period often trigger conflicts within adolescents and the surrounding environment [8], because during this transitional period, adolescents tend to want to try new things to find their identity but often come into conflict with certain norms or rules that apply in their environment. One of the characteristics of adolescents is having emotional instability due to unstable hormonal conditions, which make them more vulnerable to being offended and furious; at this time, their emotions dominate them more than realistic thoughts [9]. Therefore, Adolescents are the age group most at risk of developing mental-emotional disorders.

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According to WHO data in 2019, 970 million people experienced mental disorders, 301 million were diagnosed with anxiety disorders, and 280 million people experienced depressive disorders. This number continues to grow due to the COVID-19 pandemic [10]. Moreover, the adolescent age group (15-19 years) is in second place for having the highest rate of mental-emotional disorders, with a prevalence of 14.7%. The most common mental disorders are anxiety, depression, attention-deficit/hyperactivity disorders, behavioral disorders, developmental disorders, bipolar, autism, eating disorders, and schizophrenia [10]. According to survey data from the Indonesia National Adolescent Mental Health Survey (I-NAMHS), which examined the prevalence of adolescent mental disorders in Indonesia, revealed that one out of three adolescents (34,9%) indicated having mental problems within 12 months, and 1 out of 20 (5.5%) adolescents aged 10-17 years in Indonesia was diagnosed with a mental disorder. This prevalence is equivalent to 13 million youth (experiencing mental health problems) and 2 million adolescents (experiencing mental disorders). The most common type of mental disorder suffered by adolescents in Indonesia is anxiety disorders [11]. These findings indicate that mental health is a very serious public health issue, especially in the adolescent age group.

Riskesdas 2018 reports that the prevalence of sufferers of mental-emotional disorders among people aged ≥15 years in Indonesia is 9.8%. North Sulawesi Province is ranked 16th with the most sufferers of mental-emotional disorders out of 34 Provinces in Indonesia with a prevalence of 10.9% which is higher than the national average [12]. But in 2020, these numbers continue to increase as a result of the COVID-19 pandemic. Kotamobagu City is one of the cities in North Sulawesi Province, based on an initial survey conducted by the author in December 2022 in Kotamobagu City using the Self Report Questionnaire (SRQ-20) which is also the instrument used in the Riskesdas 2018 for assessing mental-emotional disorders, found that 70% of a total of 132 youth aged 15-18 years in Kotamobagu City experienced mental-emotional disorders. This figure is higher than the number of adolescents aged 15-18 years who experience mental health problems in the City of Bandung, West Java Province, which is 59.5% [13].

The quality of life at home, relationships with peers, sexual abuse and intimidation, strict parenting, and socioeconomic issues are a few risk factors for mental health that can lead to stress during adolescence [14].

According to Esquirol and Wilhelm Griesinger in the theory of *"Des Maladies Mentalies"*, there are three factors that influence children's mental disorders, namely the child itself, parenting style, and the environment [15]. Therefore, this study aims to investigate the degree of risk of poor self-concept clarity, low self-esteem, a lack of peer support, and victims of bullying on mental-emotional disorders incidence in adolescents. The magnitude of the influence is essential to carry out preventive interventions following the urgency of the problems that arise in the field.

## METHODS

### Study Design and Participants

This study was conducted from February to March 2023 in Kotamobagu City, North Sulawesi Province, Indonesia. This research is an observational study using a cross-sectional design. 390 high school students from four high schools in Kotamobagu City were selected for this study using the Slovin sample size formula and accidental sampling. Adolescents between the ages of 15 and 18 who were raised by both parents since childhood met the inclusion criteria for this study, whereas those with a history of chronic illness or physical disability were excluded. Furthermore, data were collected by distributing questionnaires via Google form and sending the link to students who had previously received researchers' instructions on how to complete them. Please be noted that all participants gave their consent to take part in this study.

### Tools

#### *Dependent Variable*

Emotional mental disorder is measured by Self-Report Questionnaire (SRQ-20), a questionnaire for screening psychiatric disorders developed by WHO. The SRQ-20 contains 20 question items that are scored 0 for 'no' answers and 1 for 'yes' answers to measure symptoms that are more suggestive of neurosis, namely depressive symptoms, anxiety symptoms, somatic symptoms, cognitive symptoms, and decline symptoms experienced by the respondent in the last 30 days (WHO, 1994). Cronbach's Alpha value for this scale is 0.0919.

#### *Independent Variables*

Self-concept clarity is measured by Self-Concept Clarity Scale (SCCS). SCCS is a measuring tool used

to assess the self-concept clarity scale developed by Campbell *et al*. (1996), which consists of 12 self-report items that measure stability, consistency, and clarity regarding self-confidence. Self-esteem is measured by Rosenberg Self-Esteem Scale (RSES) developed by Morris Rosenberg (1965). RSES is an instrument that is often used to measure a person's level of self-confidence, which consists of 10 items. Peer support is measured by the Peer Questionnaire which consists of 10 statement items that include three indicators, namely emotional support, instrumental support, and informational support. Victims of Bullying are assessed by the modification of the Olweus Victim Questionnaire consisting of 15 question items.

The questionnaire items were presented with four answer options, ranging from a score of 4 for "strongly agree" to a score of 1 for "strongly disagree". To ensure the validity and reliability of the questionnaire, content validity was conducted, and reliability tests were carried out involving responses from 50-70 adolescents selected for pretesting and not included in the final analysis. The validity test showed that all questionnaire items were valid and reliable, with Cronbach's alpha coefficients of 0.949 for self-concept clarity, 0.947 for self-esteem, 0.716 for peer support, and 0.881 for bully-victims. Therefore, all questionnaire items were deemed suitable for measuring the research variables.

The acquired data in this study were analyzed using the Statistical Package for Social Science (SPSS) version 22 program. Univariate analysis was used to determine descriptive descriptions of the characteristics of the respondents and the variables studied. Bivariate analysis was performed using the Chi-Square test. Multivariate analysis was performed using multiple logistic regression tests to determine the impact of each variable and the risk factors associated with adolescents' mental-emotional disorders. This study received ethical approval from the Health Research Ethics Commission, Faculty of Public Health, Universitas Hasanuddin on 28 December 2022, number: 15629/UN4.14.1/TP.01.02/2022.

## RESULTS

As shown in Table **1**, the majority of respondents were aged 15-16 namely 256 students (67.7%), and most of the respondents were female with 299 students (76.7%).

As shown in Table **2**, the majority of respondents experienced mental-emotional disorders namely 302 students (77.4%), 298 students (76.4%) had poor self-

concept clarity, 197 students (50.5%) had low self-esteem, 22 students (5.6%) had lack of peer support, and most of the students had been victims of bully namely 366 students (93.8%).

**Table 1: Frequency Distribution of Respondents' Characteristics (n=390)**

| Characteristics | n | % |
|---|---|---|
| **Aged (Years)** | | |
| 15-16 | 264 | 67.7 |
| 17-18 | 126 | 32.3 |
| **Gender** | | |
| Male | 91 | 23.3 |
| Female | 299 | 76.7 |

Source: Primary data 2023.

**Table 2: Distribution of Mental Emotional Disorders, Self-Concept Clarity, Self-Esteem, Peer Support, and Victims of Bullying (n=390)**

| Variables | n | % |
|---|---|---|
| **Mental Emotional Disorders** | | |
| Yes | 302 | 77.4 |
| No | 88 | 22.6 |
| **Poor Self-concept clarity** | | |
| Yes | 298 | 76.4 |
| No | 92 | 23.6 |
| **Low Self-esteem** | | |
| Yes | 197 | 50.5 |
| No | 193 | 49.5 |
| **Lack of Peer Support** | | |
| Yes | 22 | 5.6 |
| No | 368 | 94.4 |
| **Victims of Bullying** | | |
| Yes | 366 | 93.8 |
| No | 24 | 6.2 |

Source: Primary data 2023.

Bivariate analysis results with the Chi-Square test shown in Table **3**, indicate that poor self-concept, low self-esteem, and victims of bullying showed significant values, with p-value <0.05.

Table **4** shows that based on the result of multiple logistic regression analysis of determinants of mental-emotional disorder in adolescents, show that all independent variables included in the multivariate analysis were observed as significant risk factors for

**Table 3:** The Relationship between Poor Self-Concept, Low Self-Esteem, a Lack of Peer Support, and Victims of Bullying with Emotional Mental Disorders in Adolescents

| Factors | Mental Emotional Disorders | | | | p-value |
|---|---|---|---|---|---|
| | Yes | | No | | |
| | n | % | N | % | |
| **Poor Self-concept** | | | | | |
| Yes | 262 | 87.9 | 36 | 12.1 | <0.001* |
| No | 40 | 43.5 | 52 | 56.5 | |
| **Low Self-esteem** | | | | | |
| Yes | 180 | 91.4 | 17 | 8.6 | <0.001* |
| No | 122 | 63.2 | 71 | 36.8 | |
| **Lack of Peer Support** | | | | | |
| Yes | 19 | 88.4 | 3 | 13.6 | 0.442 |
| No | 283 | 76.9 | 85 | 23.1 | |
| **Victims of Bullying** | | | | | |
| Yes | 293 | 80.1 | 73 | 19.9 | <0.001* |
| No | 9 | 37.5 | 15 | 62.5 | |

Source: Primary Data 2023.

**Table 4:** Determinants of Emotional Mental Disorders in Adolescents

| Variable | AOR | 95% CI | P value |
|---|---|---|---|
| Poor self-concept | 5.760 | 3.173-10.458 | <0.001 |
| Low self-esteem | 3.647 | 1.950-6.818 | <0.001 |
| Victims of Bullying | 4.204 | 1.525-11.589 | 0.006 |

Source: Primary Data 2023.

the mental-emotional disorder, namely poor self-concept, low self-esteem, and victims of bullying. It was observed that adolescents with poor self-concept were about 5.760 times higher risk of experiencing mental-emotional disorders than those with sufficient self-concept clarity. Adolescents with low self-esteem were 3.647 times higher risk of experiencing mental-emotional disorders than those with high self-esteem. Adolescents who have experienced being victims of bullying were 4.204 times higher risk of experiencing mental-emotional disorders than those who were not. Self-concept retained the highest risk value among other variables.

**DISCUSSION**

During adolescence, aspects of self-identity have very important implications in the process of adjustment and well-being of adolescents [16]. Adolescents who have clear ideas about themselves have the ability to regulate emotions when faced with difficult situations in life [17]. Self-concept is a belief about oneself which includes behavior, abilities, and character [18].

This study found that self-concept clarity is less reported to be the most influential factor on adolescent mental-emotional disorders in Kotamobagu City compared to other factors. These findings are in line with a previous study, which found that self-concept is related to the risk of mental health problems in college students in Taiwan [19]. Research conducted on students in China found that self-concept is negatively related to depression and anxiety: any increase in self-concept will decrease the incidence of depression and anxiety, and any decrease in self-concept will increase the incidence of depression and anxiety [20]. Other studies have also revealed that adolescent self-concept relates to responsibility, stability, and mental strength [21].

Poor self-concept will make adolescents have an inaccurate view of themselves and can affect their self-

confidence [22]. Adolescents who do not have a clear view of themselves tend to have difficulty making important choices in their lives so they have a high probability of making mistakes in making choices in their lives [23], which will ultimately affect mental well-being. One of the clear self-concepts is influenced by communication with parents, open communication between parents and adolescents can increase the clarity of adolescent self-concept [24]. In this study, it was also found that the majority of adolescents in Kotamobagu City, namely 309 students had parents who often forced their will to be obeyed by children, and demanded that children obey and fulfill parents' expectations. Therefore, researchers assume that the lack of clarity of self-concept of adolescents in Kotamobagu City is also influenced by parenting styles which tend not to give freedom to children to explore themselves and their environment so adolescents experience difficulties in finding their identity.

Self-esteem is a feeling of self-worth and ability that is fundamental to individual identity. Self-esteem has a direct relationship with mental health and is a determining factor for overall mental and emotional well-being [25]. Adolescents who have low self-esteem will be very vulnerable to experiencing depression [26]. Meanwhile, adolescents who are optimistic about their own abilities will find it easier to undergo obstacle after obstacle they face toward an independent life [27]. However, one thing that must be underlined is that one's feelings towards self-esteem are not necessarily accurate or inaccurate, because self-esteem reflects more perception than reality [28].

Our present results indicate that low self-esteem is one of the factors that influence adolescent mental-emotional disorders in Kotamobagu City. These findings align with research conducted on students in Norway, which found that students with low self-esteem are susceptible to depression and anxiety [29]. Another study conducted in Chile also found that self-esteem has a reciprocal relationship with anxiety and depression [30]. In addition, other studies have shown self-esteem to significantly affect students' quality of life and suicidal thoughts [31].

According to data from Global Burden of Disease (2019), bullying has been highlighted as a significant risk factor for mental health issues [32]. This study found that victims of bullying are correlated with mental-emotional disorders. These findings align with meta-analysis studies showing that bullied adolescents have a 2.77 times higher risk of experiencing depression than those who are not [33]. Another study on adolescents in China showed that experience of in-bully positively correlated with anxiety and depression: The severity of anxiety and depression that adolescents experience depends on how frequently they get bullied [34]. Additionally, a study conducted in Bukittinggi City, West Sumatra, showed that adolescents who experienced bullying are 3.445 times more likely to experience depression than those who have never experienced bullying [35]. Moreover, a study conducted on students in Spain showed that teenagers who had been victims of bullying or cyberbullying have emotional problems and high levels of stress [36].

Lack of peer support was found to have no significant relationship with mental-emotional disorder. This can be seen from the p-value which is more than 0.05. Most respondents were close enough to their peers namely 368 students, despite most also experiencing mental-emotional disorders (77.4%). Peer relationships have three aspects in supporting adolescents: emotional support by paying attention and entertaining them; instrumental support by offering help, services, and goods; and informational support by giving advice and guidance [37]. However, as adolescents grow older, the requirement for attachment relationships to obtain social support changes, and this attachment will typically be higher in connection to certain types of people [38]. Late-phase teens or young adults need more attachment to a spouse to offer support and affection [39]. Previous research revealed that attachment to a partner had been shown to replace the attachment to friends [40].

## LIMITATIONS OF THE STUDY

This study has several limitations, including using an online form for data collection which may allow selection bias to occur because students who do not have internet access cannot fill out the questionnaire. In addition, students among themselves can discuss and alter the answers accordingly.

## CONCLUSIONS

Three main factors influencing mental-emotional disorders in adolescents were poor self-concept clarity, low self-esteem, and victim bullying. The most significant factor influencing mental and emotional illnesses was self-concept clarity. Therefore, joint efforts from the government, educators, and health workers are crucial. This can be achieved by 1)

developing self-development programs to increase adolescents' positive self-identity, 2) conducting mental health screening for students and facilitating them to access mental health services, and 3) applying strict regulations to follow up on bullying in schools.

## ACKNOWLEDGEMENTS

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