

ORIGINAL ARTICLE


The Relationship Between Self-Esteem and Emotional Disorders in Adolescents at Senior High School


Hubungan Antara Self-Esteem Dengan Gangguan Emosional Pada Remaja SMA

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 https://doi.org/10.18051/JBiomedKes.2024.v7.**-**

ABSTRACT

Background

Adolescents face numerous obstacles, including physical, emotional, and social changes that can have an impact on their self-esteem and mental health. Inability to deal with these difficulties can result in emotional disorders such as depression, anxiety disorders, and stress. Low self-esteem, or an individual's image of oneself, is one of the elements that might precipitate the start of emotional disorders. The aim of this study is to determine the relationship between self-esteem and emotional disorders in adolescents at senior high school.

Methods

An observational analytic analysis with a cross-sectional design is used in this study. The study was carried out on SMAN 23 Jakarta students, and involved 131 respondents, which selected using consecutive random sampling methods. The RSES (Rosenberg Self-Esteem Scale) questionnaire was used to assess self-esteem, and the DASS-21 (Depression Anxiety Stress Scale) was used to examine emotional disorders.

Results

The study's findings were evaluated using the Pearson chi-square test, and no significant relationship was found between grade level and emotional disorders such as depression ($p=0.691$), anxiety ($p=0.969$) and stress ($p=0.313$). Furthermore, there was no significant relationship between body mass index and emotional disorders, such as depression ($p=0.962$), anxiety ($p=0.257$), and stress ($p=0.975$). However, a significant relationship was found between gender and emotional disorders, including depression ($p=0.011$), anxiety ($p=0.000$) and stress ($p=0.009$). Moreover, there was also a significant relationship between self-esteem and emotional disorders, including depression ($p=0.002$), anxiety ($p=0.029$), and stress ($p=0.002$).

Conclusions

This study found that there was no relationship between grade level, body mass index, and emotional disorders. However, a significant relationship was identified between gender, self-esteem, and emotional disorders among SMAN 23 Jakarta students.

Keywords: adolescents; DASS-21; emotional disorder; RSES; self-esteem

ABSTRAK

Latar Belakang

Remaja merupakan individu yang mengalami perubahan dan tantangan signifikan termasuk perubahan fisik, emosional, dan sosial yang dapat memengaruhi self-esteem dan kondisi kesehatan mentalnya. Ketidakmampuan dalam menghadapi tantangan tersebut dapat menyebabkan mereka mengalami gangguan emosional seperti gangguan depresi, gangguan cemas, dan stres. Salah satu faktor yang dapat memicu timbulnya gangguan emosional adalah rendahnya self-esteem yang merupakan persepsi seseorang terhadap dirinya sendiri. Tujuan penelitian ini untuk mengetahui hubungan antara self-esteem dengan gangguan emosional pada remaja SMA.

Metode

Penelitian ini menggunakan studi analitik observasional dengan desain cross-sectional. Penelitian dilakukan pada siswa/i SMAN 23 Jakarta, dan melibatkan 131 responden, yang dipilih menggunakan metode consecutive random sampling. Pengukuran dilakukan dengan kuesioner RSES (*Rosenberg Self-Esteem Scale*) untuk menilai self-esteem dan DASS-21 (*Depression Anxiety Stress Scale*) untuk menilai gangguan emosional. Analisis data menggunakan CPPS V 25.0 dan tingkat kemaknaan yang digunakan $< 0,05$.

Hasil

Hasil penelitian dianalisis dengan uji Pearson chi-square dan tidak ditemukan hubungan yang bermakna antara tingkat kelas dengan gangguan emosional, baik depresi ($p=0.691$), kecemasan ($p=0.969$), dan stress ($p=0.313$). Selain itu, tidak ditemukan juga hubungan yang bermakna antara indeks massa tubuh dengan gangguan emosional berupa depresi ($p=0.962$), kecemasan ($p=0.257$), dan stress ($p=0.975$). Namun terdapat hubungan yang bermakna antara jenis kelamin dengan gangguan emosional, pada depresi ($p=0.011$), kecemasan ($p=0.000$), dan stres ($p=0.009$). Selain itu, terdapat pula hubungan yang bermakna antara self-esteem dengan gangguan emosional: depresi ($p=0.002$), kecemasan ($p=0.029$), dan stres ($p=0.002$).

Kesimpulan

Pada penelitian ini tidak didapatkan hubungan antara tingkat kelas dan indeks massa tubuh dengan gangguan emosional. Namun, didapatkan hubungan bermakna antara jenis kelamin dan self-esteem dengan gangguan emosional pada siswa/i SMAN 23 Jakarta.

Kata Kunci: remaja; DASS-21; gangguan emosional; RSES; self-este

INTRODUCTION

Adolescents are individuals aged 10-19 years who experience several significant changes including physical, emotional and social changes, which can affect their self-esteem and mental health conditions.¹⁻³ Globally, it is estimated that the prevalence of emotional disorders in the adolescent population is 16.5 % to 24.13%.^{1,4} According to the results of Basic Health Research (Riskesdas) in 2018, the prevalence of the population aged 15-19 years (adolescents) in Indonesia who experienced emotional disorders was 10.1%.^{5,6}

Emotional disorders in teenagers can be caused by several things, such as academic and social pressure, personal problems, economic problems, as well as physical and hormonal changes. Emotional disorders that may occur in adolescents are anxiety disorders, depressive disorders and stress.⁷ Anxiety disorders are the most common disorders with an estimated 3.6% at the age of 10-14 years and 4.6% at the age of 15-19 years. Depressive disorders occur in an estimated 1.1% of ages 10-14 years and 2.8% of ages 15-19 years.⁸ Depressive and anxiety disorders have almost the same symptoms, including rapid and unpredictable changes in mood.

One of the factors that can trigger emotional disorders is low self-esteem.³ Self-esteem is a person's perception of himself, including assessments and beliefs about his abilities and potential. Low self-esteem can make people more easily experience emotional disorders such as anxiety,

depression, and stress.⁵ Teenagers who experience emotional disorders often feel unable to overcome problems, doubt their abilities, and feel worthless.⁹

Studies conducted by Gujar et al⁴, Radeef et al¹⁰, and Ramadani et al¹¹ show that high school teenagers who experience emotional disorders tend to have low self-esteem compared to teenagers who do not have emotional disorders. This is contrary to research conducted by Petrocchi et al¹² which stated that there was no significant relationship between self-esteem and depressive disorders, which is one part of emotional disorders. Because there is still research on the pros and cons related to this, research on the relationship between self-esteem and emotional disorders was carried out, to increase insight into preventing and how to deal with emotional disorders, as well as improving mental health in high school teenagers.

METHODS

This research is an observational analytical study using a cross-sectional design, carried out in September-October 2023, on students at SMA 23 West Jakarta. The research sample was taken using consecutive non-random sampling, with 131 students in classes X, and XI. The inclusion criteria for this research were students in classes X, XI, and XII at SMAN 23 Jakarta who were willing to participate in the research and signed informed consent. Meanwhile, the exclusion criteria were students at SMAN 23 Jakarta who had experienced emotional disorders and this was confirmed through a self-identity questionnaire.

Data collection for this research includes primary data obtained from the population directly during the research, namely through distributing questionnaires. The instruments used are the Depression Anxiety Stress Scale (DASS) 21 questionnaire to measure the scale of depression, anxiety, and stress, and the Rosenberg Self-Esteem Scale (RSES) questionnaire to assess student self-esteem, then each research respondent will be given both questionnaires.

Next, all primary data obtained was analyzed statistically. This study used univariate and bivariate analysis using the Fisher exact test method to examine the relationship between self-esteem and emotional disorders in high school adolescents. Univariate analysis in this study aims to explain the characteristics of demographic factors consisting of gender, class level, body mass index (BMI), and other variables self-esteem, and emotional disorders (depression, anxiety, and stress). The data processing and analysis stages were carried out using the Statistical Program for Social Science (SPSS) computer program version 26 (SPSS v26) for Windows, with a significance level of $p < 0.05$.

This research has obtained ethical clearance from the Research Ethics Commission of the Faculty of Medicine, Universitas Trisakti with number 131//KER-FK/VII/2023.

RESULTS

Distribution of Characteristics and Anthropometric Factors of Respondents

Univariate analysis is used to find information from the data processed by calculating the frequency and percentage distribution of respondent characteristics, anthropometric factors, self-esteem, and emotional disorders.

In Table 1, it was found that 52.7% of student respondents were female, with the number of respondents based on grade level being almost the same, ranging from 43-45 respondents, and 37.4% of respondents had a normal BMI. Screening with the RSES questionnaire found that 54.2% of respondents had moderate self-esteem. In contrast, from the DASS-21 questionnaire, 24.4% of respondents experienced moderate depressive disorders, 29.0% of respondents experienced moderate anxiety disorders, and 13.0% experienced mild stress disorders.

Table 1. Distribution of characteristics and anthropometric factors of research respondents
(n= 131)

Variable	n (%)
Gender:	
Male	62 (47.3 %)
Female	69 (52.7%)
Grade level:	
X	43 (32.8%)
XI	45 (34.4%)
XII	43 (32.8%)
Body Mass Index:	
Underweight	43 (32.8%)
Normal	49 (37.4%)
Overweight	17 (13.0%)
Obesity 1	15 (11.5%)
Obesity 2	7 (5.3%)
Self-esteem:	
Very Low	0 (0%)
Low	7 (5.3%)
Moderate	71 (54.2%)
High	48 (36.6%)
Very high	5 (3.8%)
Emotional disorders	
Depression:	
Normal	60 (45.8%)
Mild	21 (16.0%)
Moderate	32 (24.4%)
Severe	4 (3.1%)
Very severe	14 (10.7%)
Anxiety:	
Normal	41 (31.3%)
Mild	21 (16.0%)
Moderate	38 (29.0%)
Severe	13 (9.9%)
Very severe	18 (13.7%)
Stress	
Normal	99 (75.6%)
Low	17 (13.0%)
Moderate	9 (6.9%)
Severe	4 (3.1%)
Very severe	2 (1.5%)

Table 2. The relationship between demographic factors, anthropometric factors, and self-esteem and emotional disorders

Variable	Emotional disorders								
	Normal (%)	Depression (%)	p-value	Normal (%)	Anxiety (%)	p-value	Normal(%)	Stress (%)	p-value
Gender									
Male	36(58,1%)	26(41,9%)	0,008*	26(41,9%)	36(58,1%)	0,013*	55(88,7%)	7(11,3%)	0,001*
Female	24(34,8%)	45(65,2%)		15(21,7%)	54(78,3%)		44(63,8%)	25(36,2%)	
Grade level									
X	18(41,9%)	25(58,1%)	0,670	13(30,2%)	30(69,8%)	0,973	32(74,4%)	11(25,6%)	0,803
XI	20(44,4%)	25(55,6%)		14(31,1%)	31(68,9%)		33(73,3%)	12(26,7%)	
XII	22(51,2%)	21(48,8%)		14(32,6%)	29(67,4%)		34(79,1%)	9(20,9%)	
BMI									
Underweight	19(44,2%)	24(55,8%)	0,120	17(39,5%)	26(60,5%)	0,095	31(72,1%)	12(27,9%)	0,587
Normal	18(36,7%)	31(63,3%)		9(18,4%)	40(81,6%)		36(73,5%)	13(26,5%)	
Overweight	10(58,8%)	7(41,2%)		5(29,4%)	12(70,6%)		13(76,5%)	4(23,5%)	
Obesity I	7(46,7%)	8(53,3%)		6(40,0%)	9(60,0%)		12(80,0%)	3(20,0%)	
Obesity II	6(85,7%)	1(14,3%)		4(57,1%)	3(42,9%)		7(100%)	0(0,0%)	
Self-esteem									
Low	1(14,3%)	6(85,7%)	<0,001*	2(28,6%)	5(71,4%)	0,046*	5(5,3%)	2(1,7%)	0,001*
Moderate	22(31,0%)	49(69,0%)		16(22,5%)	55(77,5%)		49(69,0%)	22(31,0%)	
High	37(69,8%)	21(30,2%)		23(43,4%)	30(56,6%)		45(84,9%)	8(15,1%)	

*= Fisher exact test; n = number of respondents; % = percentage; p>0.05 = not significant

In Table 2, it was found that female student respondents experienced disorders: depression (65.2%), anxiety (78.3%), and stress (36.2%). Bivariate analysis showed that there was a significant relationship between gender and disorders: depression ($p=0.008$), anxiety ($p=0.013$), and stress ($p=0.001$).

Class X student respondents were found to experience disorders: depression (58.1%) and anxiety (69.8%), while class XII students experienced stress disorders (26.7%). In the bivariate analysis between class level and disorders: depression ($p=0.670$), anxiety ($p=0.973$), and stress ($p=0.803$), it can be concluded that there is no significant relationship between these two variables.

Furthermore, respondents with a normal BMI experienced depression (63.3%) and anxiety (81.6%), while respondents with an underweight BMI experienced stress disorders (27.9%). Bivariate analysis did not show a significant relationship between BMI and disorders: depression ($p=0.120$), anxiety ($p=0.095$), and stress ($p=0.587$).

In the data, respondents with low self-esteem indicated experiencing depressive disorders (85.7%), while respondents with moderate self-esteem experienced anxiety disorders (77.5%) and stress (31.0%). In bivariate analysis, a significant relationship was found between self-esteem and disorders: depression ($p=0.000$), anxiety ($p=0.046$), and stress ($p=0.001$).

DISCUSSION

Analysis of Respondents' Characteristics and Anthropometric Factors

Respondents in this study were dominated by female students (52.7%) compared to male students (47.3%). This is in accordance with data from the Ministry of Education, Culture, Research and Technology (Kemendikbudristek) in 2023 which found 352 female students and 307 male students at the high school level in the city of West Jakarta, Grogol Petamburan subdistrict.¹³ The distribution of the number of respondents per grade level was almost the same, which is the result of selection for admission to SMAN 23 Jakarta through affirmation, achievement and zoning routes. Class X respondents are students who have just transitioned from middle school to high school,

and who are still adapting to a new environment and a more complex education system. Meanwhile, in grade XI, respondents were able to better adapt to the environment, and tasks, and began to prepare themselves for the science and social studies majors. In grade XII, student respondents will face their final high school exams and must begin making decisions about their career choices or the college they will choose after graduation.^{2,11}

Regarding anthropometric factors, 37.4% of respondents had a normal BMI. This shows that the respondents at the high school had relatively good nutritional status, although the second largest number were respondents with an underweight BMI (32.8%). This figure can be a concern for schools to prevent health problems in the future. The majority of female respondents had an overweight BMI (14.5%), while the majority of male respondents had an underweight BMI (37.1%). This can be caused by the respondents' eating habits and level of physical activity. Women tend to be overweight because they consume foods rich in calories, fat, and sugar, with a lower level of physical activity, which causes fat to accumulate in the body. On the other hand, men tend to be underweight because they may not get a balanced nutritional intake and are usually more physically active, so they need more energy.¹⁴

From the screening of the RSES questionnaire, it was found that 54.2% of the respondents had moderate self-esteem. This indicates the need for a better understanding of students' overall needs and a holistic approach that can contribute positively to improving their self-esteem and prevent the possibility of a decline in self-esteem. Meanwhile, from the DASS-21 questionnaire, 24.4% of respondents experienced depressive disorders, 29.0% experienced moderate anxiety disorders, and 13% experienced mild stress disorders. Some of the factors that may cause this are heavy academic burdens, excessive expectations from parents and society regarding respondents' academic achievement in school, emotional changes that are common during adolescence, worries about the future after graduating from high school, and peer relationships.^{2,15}

The relationship between demographic factors, anthropometric factors, and self-esteem and emotional disorders

In the bivariate analysis of this study, adjustments were made, where the emotional disturbance variables, which included disorders: depression, anxiety, and stress, were combined into two categories. Depressive disorders are divided into two categories, namely normal (no disorders) and depressive disorders (mild, moderate, severe, very severe), the same thing is done for anxiety and stress disorders variables. The self-esteem variable was combined into three categories: low self-esteem (includes very low and low), medium self-esteem, and high self-esteem (includes high and very high). This is done to fulfill the requirements for data analysis tests using the Fisher exact test.

In this study, there was a significant relationship between gender and depressive disorders ($p=0.008$), anxiety disorders ($p=0.013$), and stress disorders ($p=0.001$), and the percentages showed that female respondents tended to experience emotional disorders at a higher rate. compared to male student respondents. This is supported by research conducted by Yusuf, et al., Antia, et al., and Droogenbroeck FV, et al. which states that gender plays an important role in the prevalence of emotional disorders. Women tend to experience emotional disorders which include: depression, anxiety, and stress more often than men, which can be caused by several internal factors such as hormonal changes during a woman's reproductive period and her emotional intelligence. On the other hand, external factors such as social, cultural, and economic conditions can also contribute to the emergence of emotional disorders.¹⁵⁻¹⁷

Although there was no significant relationship between the grade level and emotional disorders, the percentage of emotional disorders data in this study showed varying results in the

levels of depressive disorders, anxiety disorders, and stress disorders experienced by students in grades X, XI, and XII. This is possible for grade X students who have just entered the high school education level, so they are required to be able to adapt to the new environment in their high school. Meanwhile, in grade XI, although they have begun to be able to adapt to the school environment and overcome the existing academic burden, they must immediately prepare themselves for the science and social studies majors. While in grade XII, the academic burden is increasing for final exam preparation, in addition to still having doubts about making decisions in continuing education to higher education, changes in the social and emotional lives of student respondents such as changes in the friendship environment; self-identity; uncertainty about the future; as well as socio-cultural and economic conditions of the family.¹⁸

Based on the analysis of BMI variables with emotional disorders, it was not found to have a meaningful relationship. This can indicate that the disorder: depression, anxiety, and stress are not only related to overweight factors alone, but also to other factors such as psychological, social, and physical health factors. This is in accordance with the results of research conducted by Naz S, et al. which states that there are other factors that have a more meaningful relationship in the emergence of emotional disorders in adolescents than BMI. The quality of the relationship between parents and adolescents has a great impact on the potential for emotional disorders in adolescents. Positive relationships between parents and adolescents can reduce the risk of adolescents experiencing negative emotions, problematic behaviors, and provide protection against negative impacts that may occur.¹⁹ It should be noted that this study did not analyze several other factors such as family socio-economic conditions, lifestyle, diet, and genetic factors that may play a role in the relationship between BMI and emotional disorders.

Meanwhile, from the analysis of the relationship between self-esteem variables and emotional disorders, a significant relationship was obtained, shown by the values $p=0.001$ (for depressive disorders), $p=0.046$ (anxiety disorders), and $p=0.001$ (for stress disorders). In this study, emotional disorders tended to occur in respondents who had low levels of self-esteem and in respondents who had moderate levels of self-esteem. This may be influenced by internal factors such as the inability to overcome personal problems and the academic burden that is being faced, or it can also be influenced by external factors such as the social and economic conditions of the family.²⁰ These results are supported by research conducted by Gujar, et al., Radeef, et al., and Ramadani, et al. which states that teenagers with low self-esteem tend to receive less social support, giving rise to negative feelings about themselves and feelings that they are worthless, unworthy of love, happiness or success, which in the end can put them at risk of experiencing emotional disorders.^{4,10-}

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Good self-esteem is a positive factor for a teenager to excel at school and interact well with his circle of friends. Adolescence is a transition period from childhood to adulthood and during this period teenagers are very vulnerable to experiencing emotional disorders which include depression, anxiety disorders, and stress disorders. This is due to physical and hormonal changes, personal problems, academic burdens, and social pressure so teenagers are required to be able to adapt to new environments, give their best in the academic field, and overcome the problems they are facing independently.^{11,13}

The research has limitations because it only examines the relationship between self-esteem and emotional disorders which is influenced by demographic factors (gender and class level) and anthropometric factors (BMI) of the respondents. Several other risk factors that might influence research results such as academic load, number of assignments, major load, family economic conditions such as work and parents' salaries, as well as social support such as students' friendship environment were not studied.

CONCLUSION

Gender and self-esteem have a significant relationship with emotional disorders in adolescent high school students, who are a group that is vulnerable to experiencing emotional disorders. Therefore, education in the form of counseling also needs to be carried out by guidance and counseling teachers and health workers, so that high school teenagers have insight into how to prevent and overcome emotional disorders so that they can improve their mental health in the future.

Need for further research to determine other risk factors that might influence the level of self-esteem with emotional disorders such as academic load, number of assignments, major load, family economic conditions related to work and parents' salaries, as well as social support such as the student's circle of friends. both at home and at school.

ACKNOWLEDGEMENT

Thank you to the Principal of SMAN 23 West Jakarta, for allowing us to conduct this research and also to all the students who have participated in this research.

AUTHORS CONTRIBUTION

RAH plays a role in the preparation of research designs, data collection, data analysis, data interpretation, and the person in charge of data collection in the field, and prepares papers. EI plays a role in drafting concepts, data analysis, data interpretation, preparing papers, *reviewing* and revising final papers for publication.

FUNDING

All research costs come from researchers.

CONFLICT OF INTEREST

The author has no conflict of interest at the time of compiling this article.

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