

Adverse Childhood Experience Relationship With Depression In Adolescents



Nadya Puspita Adriana¹, Suryo Ediyono², Dipo Wicaksono³, Oktora Rinjani⁴

^{1,3}Faculty of Health Sciences, Kusuma Husada University Surakarta

¹Doctoral Program on Development Extension / Community Empowerment

²Faculty of Cultural Sciences, Sebelas Maret University, Surakarta

⁴Surakarta Batik High School

ABSTRACT: This study aims to determine the relationship between adverse childhood experience and depression in adolescents. This research uses quantitative method. The sampling technique used was random sampling, and analyzed by t-test with the Stata 13 program. The population in this study were teenagers who were in SMA Batik 1 Surakarta at the time this research was conducted, and were willing to be the sample in this study. So that the sample used in this study amounted to 150 respondents. Sample selection using random method. Data collection in this study was carried out using a questionnaire instrument. The data analysis technique used is simple linear regression analysis, then the data is processed using the SPSS 20 . software application. Based on the results of the analysis, it can be concluded that ACE has a positive and significant effect on depression experienced in adolescence. Status as the youngest child and aged between 15 years - 17 years, is an accompaniment to the onset of depression in adolescents. It was further stated that in this study family conditions were not the cause of depression in adolescents, from 150 respondents there were 125 respondents who came from divorced families and one or both of their parents remarried but experienced depression caused by ACE.

KEYWORDS: Adverse Childhood Experience, Depression, Adolescents

INTRODUCTION

Adolescence is a transitional phase from children to adults. In this phase there are biological, psychological, and social changes, so it is important to get more attention. Biological changes such as the maturation of some hormones can lead to changes in mood and behavior. In addition, with age, a person's psychology becomes more sensitive to various stressors that are received. So teenagers are more prone to depression.

The World Health Organization (WHO) states that many mental health problems arise in late childhood and early adolescence. Recent studies have shown that mental health problems, particularly depression, are the biggest cause of the burden of disease among individuals at an early age (WHO, 2019). Data from WHO also shows that depression is a major cause of illness and disability experienced by adolescents, with suicide being the third leading cause of death (WHO, 2019).

These data show that nowadays more and more teenagers are experiencing depression. Depression in adolescents is not just a feeling of stress or sadness as it just comes and goes, but is a serious condition that can affect the behavior, emotions, and ways of thinking of these teenagers, and is permanent in nature that requires serious treatment from various parties. overcome it. Starting from a stressful condition that if not resolved immediately can enter the depression phase.

Depression is a mental disorder that is generally characterized by feelings of depression, loss of interest or pleasure, decreased energy, feelings of guilt or low self-esteem, difficulty sleeping or decreased appetite, feelings of fatigue and lack of concentration. These conditions can become chronic and recurrent, and can substantially impair an individual's ability to carry out daily responsibilities. At its most severe level, depression can lead to suicide (WHO, 2019).

Depression is a disorder that has more than 300 million people in the world and adolescents are the age range most susceptible to depression (Rudolph, 2009). Depression is a mood or mood disorder characterized by symptoms

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such as persistent sadness, feeling hopeless and/or losing interest or interest in one or all activities for at least two consecutive weeks (Nevid, Rathus, & Greene, 2018). Symptoms of depression appear in a variety of behaviors, some showing unmotivated at school, not wanting to interact with peers, crying for no reason, or being very sensitive and irritable. Based on Dopheide's research (2016), it is known that some of the symptoms that arise are the presence of depressed mood or anhedonia, the number of somatic complaints, or changes in behavior such as bullying, aggression, or withdrawing from their social environment. Because the behavior shown does not have a particular characteristic, often these symptoms of depression are not detected by those around the teenager. Parents, family, or friends are often insensitive to the changes shown by depressed teens.

Depression in adolescents is usually undiagnosed early on and is only diagnosed after they experience serious difficulties at school and when adjusting to their peers (Lubis, 2019). This is thought to be caused by some responses to depression that are not too different from the characteristics of the emotional state of adolescents. Adolescence is described as a period of emotional turmoil (Santrock, 2003). They have a high sensitivity so easily become stressed and tend to have a low stress tolerance. That's why adolescence is also called the Storm and Stress period because of their emotional conditions that go up and down drastically, easily volatile and very vulnerable to conflict.

Depression is caused by several factors, including genetic, biological, environmental, and psychological factors. Previous researchers have found that melancholic depression, bipolar disorder, and postpartum depression are associated with increased cytotoxin levels in combination with decreased cortisol sensitivity (Brogan, 2014). While other studies have found that depression is not only caused by too little or too much of certain chemicals in the brain. The many possible causes of depression include impaired brain function related to mood regulation, genetic susceptibility, stressful life events, medications, and the presence of medical indications. It is believed that the interaction of these factors causes depression (Harvard Health Publication, 2009).

According to Chapman, Dube, and Anda (2017), individual mental well-being can be achieved when developmental tasks are successfully completed. This means that everything that happens, from good things (positive) to things that cause hardship and misery (negative) that occurs in childhood contributes to mental well-being. McLaughlin et al (2019) found that unpleasant experiences in childhood were significantly associated with the appearance of symptoms of anxiety and mood disorders.

Childhood experience or what is known as Adverse Childhood Experience (ACE) refers to conditions of prolonged exposure to potentially traumatic events in childhood that may have a direct or lasting impact on a lifetime (Felitti, et al, 1998). . The experience is said to be an adverse childhood experience if it has five characteristics, namely, it is harmful for the experiencer (harmful), occurs repeatedly (chronic or recurring), causes feelings of distress (distressing), causes a cumulative impact and has a severity level that varies from start to end. mild to very heavy (Kalmakis & Chandler, 2018). The variety of events that fall under ACE can take the form of stressful experiences ranging from moderate to severe that occur before the age of 18, including physical, emotional and sexual violence; physical or psychological neglect; and dysfunction of the living environment, such as living with a family member who has mental disorders, has been in prison, or has consumed illegal drugs, has seen the mother being abused by others, and has experienced parental separation or divorce.

Based on research conducted by Hovens, et al (2010), a history of experiencing childhood trauma is associated with a higher risk of developing anxiety and depression as an adult. The experience of emotional neglect, psychological violence, and physical abuse was higher in people with anxiety and depression than those without anxiety and depression. Mersky, et al (2018) found that compared to participants who had never experienced ACE, participants who were exposed to two or more ACEs experienced more frequent symptoms of depression and anxiety. Merrick, et al (2017) also found that all forms of ACE except having lived with ex-convicts were significantly associated with depression in adulthood, with the biggest predictors being living with people with mental disorders, experiencing emotional violence and being emotionally neglected. When mental health problems such as anxiety and depression arise and there is no effort to anticipate or deal with them, these conditions can contribute to other long-term consequences of ACE, such as the emergence of physical health problems at the age of 24 years (Mersky, et al, 2013).

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METHODS

This research uses quantitative method. The sampling technique used was random sampling, and analyzed by t-test with the Stata 13 program. The population in this study were teenagers who were in SMA Batik 1 Surakarta at the time this research was conducted, and were willing to be the sample in this study. So that the sample used in this study amounted to 150 respondents. Sample selection using random method. Data collection in this study was carried out using a questionnaire instrument. The data analysis technique used is simple linear regression analysis, then the data is processed using the SPSS 20 . software application.

RESULTS AND DISCUSSION

1. Respondents Descriptive Analysis

Characteristics of respondents is the classification of respondents who are included or filled out questionnaires distributed by researchers. In this study, the characteristics of the respondents were divided into gender, age, order of children in the family and current family conditions.

a. Characteristics of Respondents by Gender

Table 1. Characteristics of respondents by gender.

Gender	Amount	Percentage (%)
Woman	97	64,70
Man	53	35,30
Total	150	100

Source: Primary data processed

Most respondents according to gender characteristics are women, which is 64.70% of the total respondents. While the large percentage of respondents who are male is 35.30% of the total respondents.

b. Characteristics of Respondents Based on Age

Table 2. Characteristics of respondents by age.

Gender	Amount	Percentage (%)
16 years	63	42,00
17 years	72	48,00
18 years	12	8,00
19 years	3	2,00
Total	150	100

Source: Primary data processed

The most respondents according to age characteristics were 17 years old, 72 respondents (48.00) and the lowest were those aged 19 years with 3 respondents (2.00%). This can be under that for students who are in high school / equivalent, the average age is 16-17 years.

c. Characteristics of Respondents Based on the Order of Children in the Family

Table 3. Characteristics of respondents according to the order of children in the family

Gender	Amount	Percentage (%)
Only child	17	11,30
Firstborn child	40	26,70
Middle Child	26	17,30
Youngest child	66	44,00
Total	150	100

Source: Primary data processed

The most respondents according to the characteristics of the order of children in the respondent's family in this study were the youngest children with a total of 66 respondents (44.00%) and the least were those with only child status, namely 17 respondents (11.30%).

d. Characteristics of Respondents Based on Family Conditions

Table 4. Characteristics of respondents according to family conditions.

Gender	Amount	Percentage (%)
Whole Family	4	2,70
Died/not remarried	13	8,70
Died / remarried	4	2,70
Divorced/not remarried	4	2,70
Divorce/ remarry	125	83,30
Total	150	100

Source: Primary data processed

Most respondents according to family conditions, almost all respondents have a complete family of 89.90% or a total of 125 respondents, so that from this data respondents get the attention of both parents simultaneously.

2. Classical Assumption Test

a. Normality test

The normality test is used to determine whether the distribution of the data used in the study is normally distributed or not. This test was carried out using the Kolmogorov Smirnov method. The summary of the results of the normality test is as presented in Table 5. below:

Table 5. Summary of Normality Test Results

Variable	Sample Size	Statistic	Significance Value (P)	Conclusion
ACE	150	0,657	0,05	Normal
Depression	150	0,392	0,05	Normal

Source: Primary data processed

Based on the calculation results of the Kolmogorov Smirnov test, it can be seen that the normality test results for ACE are 0.657 and for depression are 0.392. The p-value turned out to be greater than ($p > 0.05$), so it can be concluded that the respondent's statement has a normal distribution of data.

b. Multicollinearity Test.

Multicollinearity means that there is a perfect relationship between several independent variables in the regression model. This test is carried out to find out if there is a perfect correlation in the model between each of the independent variables. Variables that do not cause multicollinearity can be seen from the value of VIF (Variance Inflation Factor) which is smaller than 10. In addition, it can also be seen that there is no multicollinearity if $R^2 < 0.9$. From the results of the analysis of the coefficient of determination, it was found that the value of $R^2 < 0.9$.

Table 6. Summary of Multicollinearity Test Results

Variable	Tolerance	VIF	Conclusion
Depression	0,10	10	do not occur

Source: Primary data processed

Based on Table 6 above, it appears that the regression model does not have multicollinearity because the VIF value is < 10 and the tolerance is > 0.1 ; and strengthened by the results of the coefficient of determination test which shows that the value of R^2 is 0.876 so it does not exceed 0.9.

3. Hypothesis Test

a. Multiple Linear Regression Analysis (Multiple Linear Regression analysis)

Analysis of the data used is simple linear regression analysis (simple linear regression analysis) with SPSS software. Simple linear regression analysis can be done, because between one variable X and one variable Y there is a causal or

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functional relationship. This analysis was used to determine the effect of ACE ability (X1) on depression (Y). The results of the analysis using the simple linear regression analysis formula are as follows:

$$Y = 55,697 + 1,094X_1$$

From the above equation, the following explanation can be obtained:

- 1) The constant value of 55.697 means that if the independent variable Adverce Childhood Experience (ACE) does not change or is constant, then depression will change to 55.697.
- 2) If X1 (Adverce Childhood Experience (ACE) there is an increase of 1, then Y (depression) will increase by 1.094. Or it can be interpreted if in that population there is a change in Adverce Childhood Experience (ACE) not by 1, there will be a change in depression of 1,094.

b. Coefficient of Determination Test (R2).

The coefficient of determination (R2) test is used to measure the magnitude of the ability to explain from the independent variable to the dependent variable in a regression model (goodness of fit) from the regression equation. The value of R2 ranges from $0 < R2 < 1$. If R2 is getting closer to 1, it means that the model is more accurate. If the value of $R2 = 1$, it means that the model is very perfect, because the contribution of the independent variables to the dependent variable is 100%. A model cannot be used to make forecasts if $R2 = 0$.

The results of calculations carried out by statistical analysis of 100 respondents with questionnaires obtained a value of R Square (R2) 0.678 and the value of Adjusted R Square (Adjusted R2) 0.666. The results of these calculations can be concluded that the model used the independent variables provide a positive contribution that is equal to 67.80% of the dependent variable, the remaining 28.20% is influenced by other variables not included in the study.

c. Model Accuracy Test (F Test/Overall Test).

The model accuracy test (F test / overall test) was used to test the significance of all independent variables simultaneously or together on the dependent variable. If the results obtained from the test are the value of $F\text{-count} > F_{table}$, then the independent variable has an effect on the dependent variable. On the other hand, if the results obtained are $F_{count} < F_{table}$, then the independent variable has no significant effect on the dependent variable.

Table 7. The Effect of Jointly Given Independent Variables on the Dependent Variable

Variable	F _{count}	F _{table}	Conclusion
ACE	6,258	2,70	Influence

Source: Primary data processed

The results of the calculations shown in Table IV.7 above, it can be concluded that the independent variable Adverse Childhood Experience (ACE), simultaneously, has a significant effect on the dependent variable (depression). The t test is used to determine the significance of the effect of the independent variable (X) on the dependent variable (Y) partially. From the results of the analysis carried out, the results for the t test are obtained as listed in table 8 below.

Table 8. Effect of Independent Variables on the Bound Variable

Variable	t _{count}	t _{table}	Conclusion
Adverce Childhood Experience(ACE)	2,70	2,70	Influence

Source: Primary data processed

The results in Table IV.8 turned out to be the value of $t\text{-count} > t_{table}$. This means that the Adverce Childhood Experience (ACE) variable has an effect on depression. From the results of data analysis, it can be seen that the Adverse Childhood Experience (ACE) causes trauma to date and is one of the causes of depression. Adolescent depression is a serious mental health disorder that causes feelings of sadness and loss of interest in activities in adolescence. This condition affects the patterns of thinking, feelings, and behavior, so it can cause emotional, functional, and physical problems.

CONCLUSION

Based on the results of the analysis, it can be concluded that ACE has a positive and significant effect on depression experienced in adolescence. Status as the youngest child and aged between 15 years - 17 years, is an accompaniment to the onset of depression in adolescents. It was further stated that in this study family conditions were not the cause of depression in adolescents, from 150 respondents there were 125 respondents who came from divorced families and one or both of their parents remarried but experienced depression caused by ACE.

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