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The Effect of Loneliness on Non Suicidal Self Injury in Adolescent

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Abstract – This study aims to determine whether there is effect of loneliness on suicidal self injury in adolescent. The sampling technique was conducted using non probability accidental sampling technique. The participants of this study were 349 adolescents ($\bar{x}$=15.46 and SD= 1.9). This study research measurement tools used two scales, namely the Inventory of Statement About Self Injury (ISAS) section II adapted from Klonsky & Glenn (2009) and the Loneliness scale developed by researcher based on Russel et al (2012). The data analysis technique used is simple regression analysis. There was a positive effect of loneliness on non suicidal self injury in adolescent with an effective contribution of 38.1%. The results of this study can be a reference for further research related to non suicidal self injury, loneliness in adolescent.

Keywords – Non Suicidal Self Injury, Loneliness, Adolescents.

I. INTRODUCTION

Adolescent is a transitional period characterized by physical and emotional changes from childhood to adulthood [1]. Adolescence is a critical period due to five universal periods of change, which include emotional, physical, interest, behavioral pattern, and value changes [2]. Some adolescents experience conflicts and difficulties during this transition period. Based on developmental tasks, adolescents are expected to place themselves according to societal expectations and achieve responsible social behavior while forming their identities, including becoming independent individuals and not living in the shadow of others. Failure to navigate this stage successfully can result in vulnerability to stress due to the ongoing turmoil within the adolescent's psyche. The period of storm and stress, occurring when adolescents search for their identities [3]. Adolescents are in the developmental phase towards adulthood, sometimes experiencing issues like storms or severe turbulence, which can lead to frustration and stress when contemplating their emotions. The adolescent phase is vulnerable to stress due to pressure and the desire for significant adjustments, acceptance, and independence. Adolescent stress is generally caused by family issues, school problems, peer pressure, and social factors [4]. Stress is defined as a negative emotional condition or experience when demands exceed one's response capacity [5].

According to data from the Ministry of Health of the Republic of Indonesia, mental health problems are very high as 20% of the overall 250 million people have the potential to experience mental health problems such as stress, anxiety and depression [6]. In addition, Basic Health Research data shows that adolescents in Indonesia experience mental emotional disorders in the form of stress as much as 9.8% of the total number of adolescents in Indonesia. Other research results show that out of 100 high school adolescents in Indonesia, 49% experienced mild stress and 51% experienced severe stress [7].

When adolescents are stressed, they will usually look for coping that is appropriate and has a good effect on them. The stress coping is a form of application that aims to reduce, tolerate, master and minimize the effects of stress. There are two kinds of coping, namely effective coping and ineffective coping [8]. Effective coping is an attempt to eliminate the source of stress or

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control the reactions produced by the stress, while ineffective coping is an attempt to eliminate the discomfort produced by stress but does not provide a long-term solution or can even make things worse Unfortunately, not all adolescents are able to use Effective coping. Some adolescents choose to use ineffective coping, one way is by self-harming [9].

The American Psychiatric Association explains the criteria for individuals to be said to be non suicidal self injury perpetrators if someone has been involved in self-harm for at least the last twelve months or on at least five different days. The actions mentioned involve moderate physical damage to the body, such as bruising, bleeding, or pain, which occurred for at least 5 days in the past year. Engaging in these behaviors is done with the expectation that positive consequences will occur soon, such as overcoming negative feelings, resolving interpersonal problems, or creating a more positive mood. Prior to the act, there is usually a negative experience such as sadness, depression, or obsession that is difficult to control. Non suicidal self injury then does not include behaviors involving tattoos or piercings. Neither do self-harm behaviors performed in a cultural or religious context, as well as common and mild behaviors such as nail biting or picking. Engagement in non-suicidal self-injurious behaviors may cause clinical suffering or problems in social or occupational functioning [10].

Furthermore, non suicidal self injury as self-harm without the intention of suicide, often used to alleviate emotional pain [11]. Another perspective defines non suicidal self injury as self-injury that causes direct harm to the body without suicidal intent, not accepted by society and culture [12]. Individuals engaging in non suicidal self injury believe that self-harm can alleviate their stress or make their emotional pain tangible by inflicting physical harm upon themselves [13].

Non suicidal self injury is quite an extreme way of relieving negative emotions. For non suicidal self injury practitioners, the more painful the wound, the more relieved they will feel as if they have healed the wound internally. However, this habit makes the body get used to the continuous pain, without realizing that the condition is getting worse. Although non suicidal self injury is not intended to be suicidal, excessive pain can lead individuals to critical conditions and pose a serious risk to their lives [11]. A recent study on non suicidal self injury in Southeast Asia indicates that self-harm most commonly occurs among young individuals aged 14 to 35. Prevalence rates range from 7.1% to 11.4% in community samples and from 20.7% to 75.9% in clinical samples [14].

Non suicidal self injury factors can be divided into two, external factors and internal factors. External factors may include childhood experiences, poor parenting practices, negative peer influences and internal factors such as emotional dysregulation psychological distress and negative emotions [28]. Another factor of non suicidal self injury, namely emotion management, communication and low self esteem [29]. Individuals who have poor emotional management will usually have difficulty in conducting interpersonal relationships with others. Sometimes individuals have good interpersonal relationships in quantity but not in quality. Feeling not understood and ignored can make individuals feel lonely [26]. One of the factors that influence non suicidal self injury behavior is negative emotions such as loneliness [15].

Loneliness is a condition of emotional distress that occurs when individuals feel misunderstood, rejected, or alienated. In addition, this often occurs in individuals who do not have social partners according to their wishes, especially partners who have emotional intimacy with the individual [16]. Another opinion, psychological responses such as negative behavior and poor personal resilience can cause someone to experience loneliness [17]. There are two forms of loneliness based on social conditions, namely emotional loneliness and social loneliness. Emotional loneliness is a form of loneliness that arises when a person has almost no intimate relationship ties, for example a person who is left dead by a partner or divorced and so on. The second form is social loneliness as a form of loneliness that arises from not having an integrated involvement in himself. This is like not having an interest in joining or participating in a group or organization that involves cooperation, togetherness, activities that require the role of many individuals. This form of loneliness makes a person feel isolated, bored and anxious [18].

The results found that the influence of loneliness on non suicidal self injury in adolescents was 7.5%. In this study, it was found that individuals who have loneliness usually receive low and unsatisfactory social support so that they have no one else to turn to for help with their problems. The problem solving that arises is the desire to harm themselves [27]. Another study found that the contribution of the influence of loneliness to non suicidal self injury in adolescents in Malang City was 34.1%. This is seen from the high sense of loneliness making adolescents have a tendency to self-harm. The results of this study found that individuals who feel lonely make them think that they have no one else to help them find a way out of their problems, thus making non suicidal self injury a way to release these emotions [28]. Then the results of a study showed that loneliness had a greater influence on samples with non suicidal self injury behavior compared to samples without non suicidal self injury. [21] In contrast, research did not show a significant effect between loneliness and non suicidal self injury. In this study, it was found that feelings of loneliness could not distinguish people who did not have a history of non suicidal self injury from people who had a history of non suicidal self injury [22].

Based on the above exposition, it is evident that non-suicidal self-injury is an important issue that needs to be thoroughly examined using various methods. The difference between this study and previous research lies in the sample used. While other studies typically involve adults from early to late stages, this study focuses on testing the variable of loneliness on non-suicidal self-injury behavior among adolescents, as there is suspected increased non suicidal self injury behavior in this age group. Based on the discussion above, the researcher is interested in studying the "The Effect of Loneliness on Non-Suicidal Self-Injury Behavior among Adolescents."

II. PURPOSE AND METHODS

This study aims to determine the effect of loneliness on non suicidal self injury in adolescent. Participants in this study involved 349 adolescent. Sampling in this study used non probability accidental sampling technique. Data collection used two scales. First, the Inventory of Statement About self Injury (ISAS) section II adapted from Klonsky & Glenn [23] with confirmatory factor analysis and reliability of .94. Second, and the Loneliness scale developed by researcher based on Russel [24] with exploratory factor analysis and reliability of .85 .

Inventory of Statement About Self Injury (ISAS) of this research uses a likert scale with total of 18 items consisting of five answer choices, namely very often 5, often 4, several times 3, ralery 2 and almost never 1. Loneliness uses a likert scale with total of 15 items consisting of five answer choices, namely strongly disagree score 1, not agree score 2, uncertain score 3, agree score 4 and strongly agree score 5. he analysis technique used in this study is simple regression analysis.

III. RESULT AND DISCUSSION

Overview of Loneliness in Adolescents

The description of loneliness in adolescents can be seen based on the mean, standard deviation, minimum and maximum values of the research subjects. The study used a trial scale consisting of 15 items with a score range of 1-5. The results of the calculation of hypothetical data and empirical data can be seen in table 4.7 as follows:

The hypothetical minimum total score is 15 and the maximum total score is 75. While the empirical minimum score is 21 and the maximum score is 71. Furthermore, the hypothetical mean is 45 with a standard deviation of 10 and the empirical mean is 44.17 with a standard deviation of 10.30. Furthermore, to determine the high and low values of the research subjects, categorization is carried out on the loneliness variable.

Based on the categorization formula, it can be calculated the value of X ± 1.96 (1) = 1.96 or rounded to 2. The hypothetical mean score is 45, then the score limit for the high category starts from 45 + 2 = 47 and the score limit for the low category starts from 45 - 2 = 43. Furthermore, after getting the score categorization interval, the categorization norm is diagnosed from the score of each respondent from the loneliness scale.

Loneliness categorization is made in two categories, namely low and high based on the fluctuation formula [25]:

Tabel 2. *Categorization of loneliness*

Value Range	*Categorization*	N	Percentage
X <43	Low	4	1.1%
X ≥ 47	High	255	73.1%

Based on Table 2 above, it can be seen that the research subjects have low loneliness as many as 4 subjects (1.1%). Research subjects who have high loneliness are 255 subjects (73.1%). The rest cannot be classified because there are only two categories of loneliness, namely low and high.

Result

The results of statistical analysis on the first hypothesis, the influence of loneliness on non suicidal self injury. This hypothesis was tested and analyzed through simple linear regression using JASP .16.

Table 3. Analysis of the Effective Contribution of the influence of loneliness on non suicidal self injury

Model Summary – NON SUICIDAL SELF INJURY						
						Durbin-Watson
Model	r	r^2	Adjusted R^2	RMSE	Autocorrelation	Statistic
H_1	.617	.381	.379	13.973	.034	1.920

Based on the table above, the coefficient of determination (r^2) is .381. This value indicates that the effective contribution of the effect of loneliness on non suicidal self injury is 38.1%. F statistic value F (1,347) is 195.247, with a significance value of p<.001 (p<.05), so H1 is accept. This shows that there is a significant effect of loneliness on non suicidal self injury.

Table 4. Analysis of the Direct Role of Loneliness on Non suicidal self injury

Model		*Unstandardized*	*Standard Error*	*Standardized*	T	P
H_1	(Intercept)	-11.150	3.320		-3.359	< .001
	Loneliness	1.070	.073	.617	14.608	< .001

Based on the table above, the standardized value is .617 with a t of 14.608 and a significance value of .001 (p < .05). The regression equation obtained Y= -11.150+1.070X1, meaning that every loneliness increases by 1 unit, non suicidal self injury will increase to 1.070. This shows that loneliness has a positive effect on non suicidal self injury.

Discussion

The main results of data analysis show that the first hypothesis is accepted with the value of R square = .381 and p value <.001. This means that there is a positive influence of loneliness on non suicidal self injury in adolescents. Thus, the higher the loneliness, the more non suicidal self injury increases. The influence given by both variables, namely loneliness on non suicidal self injury, is high with an effective contribution value of 38.1%, the rest is influenced by other factors not examined in this study. In line with previous research, there are various findings that explain the effect of loneliness on non suicidal self injury. In previous studies, it was found that there was a positive effect of loneliness on non suicidal self injury with various effective contributions. The results of research [27] found a contribution of the influence of loneliness on non suicidal self injury in adolescents of 7.5%. In this study, it was found that individuals who have loneliness usually receive low and unsatisfactory social support so that they have no one else to turn to for help with their problems. Finally, the problem solving that arises is the desire to harm themselves. Another study found that the contribution of the influence of loneliness to non suicidal self injury in adolescents in Malang City was 34.1%. This is seen from the high sense of loneliness making adolescents have a tendency to self-harm. The results of this study found that individuals who feel lonely make them think that they have no one else to help them find a way out of their problems, thus making non suicidal self injury a way to release these emotions [28].

The loneliness variable was found to be greater in the high category at 73.1%. The loneliness category is divided into two, namely low-level loneliness and high-level loneliness. The subjects who are in the high category indicate that individuals feel feelings of dissatisfaction with important aspects of their relationships (for example, relationship quality; lack of certain types of relationships, such as romantic relationships) so that they experience feelings of loneliness. Meanwhile, feelings of loneliness that are classified as low mean that individuals already have feelings of satisfaction in the quality of relationships but still feel lacking or changes in the quality of certain relationships, for example adolescents have a close relationship with friends but do not have a close relationship with family or partners [26]. Research showed the largest categorization results in the high category, namely 73.8%. Adolescence is a period that is often accompanied by increased life stress experiences. When adolescents feel incomprehensible, loneliness arises such as great awareness of self and social anxiety, high feelings of shame and impartiality, great social isolation, lack of altruism, and lack of acceptance of others [28]. Individuals who have high social anxiety will create a desire to do non suicidal self injury [23].

IV.CONCLUSION

Based on the results of research conducted on 384 adolescent, the main results of the data analysis showed that the first hypothesis is accepted with R value = .617, R square = .381, F value (1,347) = 195.247, and p value <.001 (p <.05). This means, loneliness has a positive and significant effect on non suicidal self injury which is in the high category with an effective contribution of 38.1%. Previous research, found that loneliness contributed to non suicidal self injury in adolescents by 7.5%. In this study, it was found that individuals who have loneliness usually receive low and unsatisfactory social support so that they have no one else to turn to for help with their problems. Finally, the problem solving that arises is the desire to harm themselves.

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