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The Relationship between Socioeconomic Status and Personality Type with Depression in Adolescents

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ABSTRACT

This study aimed to identify the relationship between socio-economic status and personality type in relation to the occurrence of depression in adolescents. The samples of this study were high school students, as many as 248 persons. The study was carried out in six high schools in Bukittinggi City, Indonesia. This study applied a mixed methodology using a sequential exploratory design. The quantitative study was conducted using questionnaires with a correlational design and the cross-sectional approach. The qualitative study used an in-depth interview as the data collection method. The independent variables in this research were the personality type and socio-economic status. Meanwhile, the dependent variable was depression. The data was analysed using Chi-square analysis. The odd ratio was applied to identify the relationship significance of the independent and dependent variables. The results shows that there were significant relationships between socioeconomic status and depression ($p=0.002$; OR 2.241) and between personality type and depression ($p=0.000$; OR=1.935). The incidence rate of depression within adolescents relates closely to the factor of socioeconomic status and personality type. Therefore, adolescents are expected to understand themselves further to not trigger depressive incidents.

Keywords: *depression, personality type, socio-economic status.*

INTRODUCTION

Depression has attracted global concern in recent decades. Depressive people usually have lower productivity. They will have a negative impact on society, the nation, and the country if it is in a developing stage ¹. Depression is the primary cause of suicide and it is ranked in 6th position concerning the primary mortality causes in the United States ².

On a global scale, depression is the top cause of disease and vulnerability in adolescents aged 10-19 years old ³. The World Health Organisation predicted that depression will be second of world health problem in 2020 ⁴. The prevalence of depressive disorder in

adolescents generally stands at around 3-9% and this rises to 20-25% in the late stage of adolescence ⁵. The results of the CDC survey in the United States mentioned that during 2009-2012, the incidences of depression aged between 12-17 years old stood at 7.6% ⁶2009-2012. During 2009-2012, 7.6% of Americans aged 12 and over had depression (moderate or severe depressive symptoms in the past 2 weeks).

The Indonesian Basic Health Research (2013) unveiled that the percentage of the population who experience a high-level mental disorder (psychosis/schizophrenia) in Indonesia totalled 1,728 individuals. The prevalence of Indonesian citizens with a high-level mental disorder was 1.7 per-mille. In North Sumatra, the prevalence of residents who experienced high-level mental disorders was 1.9 per-mille, higher than national value. Meanwhile, in Bukittinggi, the prevalence of high-level mental disorder incidents was 0.7 per-mille ⁷.

In addition, the prevalence of emotional mental disorders in Indonesia in residents aged between 15-24 years old stood at 6%. Meanwhile, for the area of

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North Sumatra, for residents aged 15-24 years old who experienced emotional mental disorder in Bukittinggi city, the prevalence was 1.1%⁷.

Emotional mental health of adolescents needs to be taken into attention⁸. Once neglected, it will trigger major vulnerability in relation to stress and life pressure. Henceforth, the adolescents may experience social, emotional and behavioural issues such as depression, learning troubles, adolescent delinquency, and drug addiction⁹.

Depression is a common mental disorder which has the symptoms of sorrow, a loss of interest or joyfulness, guilt, sleep disorders, a decrease or increase of appetite, tiredness, and a loss of concentration⁴. If the symptoms of depression are not identified as early as possible, it will inflict heavier emotional mental problems including social function and quality of life disorders as well as suicide-based mortality¹⁰.

Adolescents who experience depression will continue to suffer repeatedly into their adult life stage if they are not healed. Depression is characterised by chronic symptoms. Major depression disorder or heavy depression is distinguished by symptoms which interrupts the ability of someone to work, sleep, study, eat, and to enjoy delightful activities¹¹.

The research carried out in Turkey unveils that the middle-lower socio-economic group possess a lower depression level significantly compared to the middle-upper class. Mothers with low and high social levels spend less time with their adolescent children¹².

Considering these issues, this study aimed to identify the relationship between socio-economic status and personality type with the occurrence of depression in adolescents.

METHODS

This study applied a mixed methodology with a sequential exploratory design. The quantitative study was conducted using questionnaires with a correlational design and cross-sectional approach. Meanwhile, the qualitative study used an in-depth interview, also known as an informant-based interview. The sample of this research was adolescents residing in Bukittinggi City from six different schools, as many as 248 correspondents. The collection of the data in this research was using questionnaires. The variable of depression was measured using *Inventori Depresi*

Remaja or Adolescence Depression Inventory scale, while personality type was measured using Jung's Type Indicator Test to find extrovert or introvert personalities.

RESULTS

Table 1: Respondent's Demographic Character (n = 248)

Respondent's Character		f (n=248)	%
Mother's Education			
a.	Elementary Dropped Out	6	2
b.	Elementary	24	10
c.	Middle	25	10
d.	High School	102	41
e.	Diploma	33	33
f.	Bachelor	47	19
g.	Master	6	2
h.	Doctorate	5	2
Father's Education			
a.	Elementary Dropped Out	6	2
b.	Elementary	25	10
c.	Middle	30	12
d.	High School	116	47
e.	Diploma	13	5
f.	Bachelor	42	17
g.	Master	12	5
h.	Doctorate	4	2
Mother's Occupation			
a.	Housewife	146	59
b.	Civil Servant	50	20
c.	Entrepreneur	31	13
d.	Farmer/Labour	5	2
e.	Etc.	16	6
Father's Occupation			
a.	Unemployed	9	4
b.	Civil Servant	56	23
c.	Entrepreneur	98	40
d.	Farmer/Labour	41	17
e.	Etc.	44	18
Housemate/Guardian			
a.	Parents	206	83
b.	Boarding House/House Rent	25	10
c.	Relative	17	7

Conted...

Parental Status			
a.	Complete accompanied	202	81
b.	Complete unaccompanied	26	11
c.	Incomplete	20	8

1. Univariate Analysis

Table 2: Frequency Distribution of the Respondent's Characteristics

Variable		Frequency (n=248)	%
Depression			
a.	Depressed	150	60.5
b.	Undepressed	98	39.5
Personality type			
a.	Extrovert	130	52.4
b.	Introvert	118	47.6
Socio-Economic Status			
a.	High	122	49.2
b.	Low	126	50.8

2. Bivariate Analysis

Table 3: The Relationship between Personality Type and Depression

Variable	Depression				Total	
Personality	No		Yes			
	f	%	f	%	F	%
Extrovert	61	46.9	69	53.1	130	100
Introvert	37	31.4	81	68.6	118	100
Total	98		150		248	

Table 4: The Relationship between Socio-Economic Status and Depression

Variable	Depression				Total	
Socio-Economic Status	No		Yes			
	f	%	f	%	f	%
	High	60	49.2	62	50.8	122
Low	38	30.2	88	69.8	126	100
Total	98		150		248	

3. Multivariate Analysis: Multivariable analysis was used to oversee the relationship between the independent variable and dependent variable

simultaneously, controlled by an external variable with $p=0.25$ toward bivariate analysis. The statistic test applied was logistical regression analysis with a confidence interval (CI) 95%.

Based on the undertaken bivariate analysis, it can be extract the next variable candidate which may be entered into the next phase.

Table 5: Multivariate Variable Candidate

Variable	p-value	Status
Personality type	0.000	Significant
Socio-Economic Status	0.002	Significant

Based on Table 5, the Multivariate Variable Candidate, all of the variables conformed to the p value < 0.25 . After the logistic regression test was undertaken, the results came up as follows:

Table 6: Analysis Results of the Conditional Logistic Regression

Variable	Coefficient	p-value	OR (Lower-Upper)
Personality type	0.628	0.055	1.874 (0.986-3.561)
Socio-Economic Status	0,993	0.003	2.700 (1.411-5.165)
Constant	-2.441	0.000	0.087

DISCUSSION

1. Univariate Analysis: From the results of the research in Table 2, it attained the data which explains that around 150 students (60.5%) experienced depression and 98 students (39.5%) were did not have depression. According to the WHO (2002), children and adolescents were included as being a vulnerable group for depression due to various symptoms caused by internal and external factors¹³.

The most common adolescent's personality types was the extrovert type, amounting to 130 students (52.4%). Those with the introvert personality type made up 118 students (47.6%). Students with an extrovert personality are equipped with openness of the mind and are sociable. This differs to the introvert type of student, who tend to be closed-

off in personality and eschewed from the social environment. Adolescents with an introvert personality encounter difficulty socialising with their friends. They tend to be unconfident when dealing with their friends ¹⁴.

The socio-economic status of students is largely low, amounting to 126 students (50.8%), with those of a high status numbering 122 students (49.2%).

2. Bivariate Analysis: The relationship of Personality Type with Depression

In Table 3 above, it obtained the data that as many as 61 respondents (46%) had an extroverted personality type and were not experiencing depression. In contrast, 81 respondents (68.6%) with introvert personality type experienced depression. The results of the data analysis unveiled a significant relationship between personality type and depression in adolescents. This was obtained from the value of OR=1.935 (CI 95% 1.151-3.254) and $p = 0.000$. The introvert personality type had a 1.9 times higher chance of experiencing depression compared to those with an extroverted personality.

This is in line with the research carried out by Sukmana Putra and Alit Ariyani (2011), which obtained the relationship between personality type and stress level ¹⁵. The risk factors related to the occurrence of depression in adolescents may be driven by the adolescent's personality. With an introverted personality, adolescents are unlikely to open up to their parents. Hence, they are more vulnerable to depression ¹⁰. The personality factor is one of the factors which drives depression in adolescents ¹⁶.

From the interview results conducted with high school students in Bukittinggi, it can be inferred that students are unlikely to socialise with their friends and tend to be closed off.

One of the influential factors for the emergence of stress is personality. Personality can be defined as a set of way of thinking, feeling, and attitude which is often performed in the process of continual adaptation to what is occurring in one's life. People with an introverted personality tend to live in their own world. Their interaction with

their external environment is poor, they have a closed personality and find it difficult to socialise with others. Often, they withdraw into themselves within a crowd ¹⁵.

The researcher's assumption implies that adolescents with an introvert personality type are more likely to experience depression compared to those with an extroverted personality. They are more closed-off compared to those who are extroverts. They tend to be ignorant of the outside world. The helplessness of introverted adolescents to adjusting to their environment and friends at school inflicts a pressured feeling. They then withdraw themselves from social circumstances due to their inability to adapt to the demands of the circumstances in which they live. Their discouragement to join the community is based on their self-judgment as a different person. They are scared to misbehave in their group. Adolescents with this type of introverted personality are expected to be able to socialise within their environment. Levelling up the sense of confidence of adolescents may support introverted adolescents in adjusting to their environment as well as transcending negative thoughts such as rejection from their friends. Positive thinking may increase the sense of confidence of adolescents in order for them to be able to socialise with their friends.

In Table 4 above, it obtained data in which 60 respondents (49.2%) with a high socio-economic status were at a low risk of depression. Meanwhile, 88 respondents (69.8%) respondents with a low socio-economic state experienced depression. The results of the data analysis showed a significant relationship between socio-economic status and depression obtained from the value of OR 2,241 (CI 95% 1,332-3,771) and $p=0,002$. Those with a low socio-economic status had a 2.2 times greater chance of developing depression compared to those of a high socio-economic status.

This research is in line with the research carried out by Koster et al (2006), who mentioned that people with a low socio-economic status have a two times greater chance of encountering depression compared to those of a high-level socio-economic status ¹⁷. A research by Lorant et al. (2003) unveiled

that a low level socio-economic status is statistically correlated to depression¹⁸ more disability, and poorer access to health care. Among psychiatric disorders, depression exhibits a more controversial association with SES. The authors carried out a meta-analysis to evaluate the magnitude, shape, and modifiers of such an association. The search found 51 prevalence studies, five incidence studies, and four persistence studies meeting the criteria. A random effects model was applied to the odds ratio of the lowest SES group compared with the highest, and meta-regression was used to assess the dose-response relation and the influence of covariates. Results indicated that low-SES individuals had higher odds of being depressed (odds ratio = 1.81, $p < 0.001$).

The researcher's assumption implies that the condition of socio-economic status is correlated to the depression rate of high school students across Bukittinggi city. This is driven by the unstable economic situation which provokes negative thoughts among adolescents over their lives. Henceforth, when one's desire is unfulfilled, it inflicts depression on the adolescent. There is a high pressure related to education needs and the need for additional tools to accelerate the learning process of students¹⁹. The failure to comply with these needs due to the economic situation of the parents will trigger anxiety in the adolescents over the potency of dropping out of school. Therefore, this feeling will trigger the feeling of being pressured. Moreover, another factor is the demands of the adolescent's lifestyle. Adolescents have the tendency to imitate their friend's lifestyle. They have the tendency to own what is being owned by their friends²⁰. However, the economic condition of their parents makes them unable to fulfil their demands. This unfulfilled desire will inflict a feeling of disappointment in the adolescents hence, they feel ignored and it triggers a sense of depression.

Adolescents are expected to be able to possess a mature way of thinking when dealing with problems. This is primarily related to their parent's financial condition. The adolescent's anxiety toward their financial condition can better be transcended into a wise attitude and having the willingness to support lowering the burden

of their parents, such as by seeking a scholarship. Adolescents are expected to not be desperate when dealing with their problems.

3. Multivariate Analysis: According to Table 5, the multivariate variable candidate of all variables satisfied the value of $p\text{ value} < 0.25$. After the logistic regression test was performed, it obtained the results as follows. In Table 6, the results of the analysis via *conditional logistic regression* obtained that the most influential variable toward the incident rate of student depression was socio-economic status with $p\text{ value} = 0.003$ and an OR value of 2.700. Socio-economic status changed, by 2.7 times, the incidence rate of depression.

Inferred from the results of the analysis, the multivariate variable of socio-economic status has a greater chance in relation to its correlation to depression. According to the researcher's assumptions, economic condition is considerably influential on the psychological condition of an individual. Life demands gradually increase every day. Henceforth, the unfulfilled livelihood provision of a person will affect their psychological condition, primarily in adolescents.

CONCLUSIONS

Based on the results of this research, it was identified that the incident rate of depression in adolescents correlates closely with socio-economic status and personality type. It is suggested that adolescents should be more aware of their self-concept and understand their family economy, while learning to accept the situation.

Conflict of Interest: None.

Ethical Clearance: The study passed ethical clearance from Ethical Committee of the STIKes Fort De Kock, Bukittinggi, Sumatera Barat, Indonesia.

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