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LONELINESS AND SOCIAL INTERACTION AS PREDICTORS OF STRESS LEVEL IN UNEMPLOYED STUDENTS

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Abstract

The background of this study focuses on the increasing psychological pressure experienced by students who do not yet have a job and their low level of social interaction. This study uses quantitative and correlational methods. The research instrument consists of two scales: the social interaction scale consists of ten items with a reliability value of 0.891, and the loneliness scale consists of ten items with a reliability value of 0.929. Data collected from unemployed students were analyzed using Pearson's correlation test and multiple linear regression using SPSS version 25. The results showed that not only was there a positive relationship between loneliness and stress, but there was also a negative relationship between social interaction and stress. Both factors had a significant effect on the stress levels of unemployed students.
The conclusion of this study indicates that the higher the level of loneliness felt, the higher the level of stress experienced, while the higher the level of social interaction, the lower the level of stress. These findings emphasize the importance of social interaction and social support in maintaining the psychological well-being of unemployed students.

Keywords: loneliness, social interaction, stress, unemployed students

Introduction

College is an important phase in a person's life that is marked by various academic, social, and emotional needs. Students are required to adapt to a new environment, build strong social relationships, and prepare for the future, including entering the workforce. However, some students may not be able to meet all these demands, especially those who do not yet have a job or sufficient work experience. Stress among students can stem from various sources, including low social interaction and high levels of loneliness. Unpreparedness for the working world often leads to anxiety, insecurity, and stress (Santrock, 2021).

Social interaction is very important for a person's mental health, including students. Social interaction allows people to express their feelings, gain support, and increase their sense of belonging in a group. Conversely, a lack of social interaction can cause people to feel isolated and lonely. Persistent loneliness can increase the risk of stress and other psychological disorders. Students who are not yet employed do not have many organized social activities, such as a work environment, which can exacerbate their feelings of isolation and increase their risk of stress.

According to several studies, students with extensive social networks have lower stress levels than students who are lonely or do not interact much with others (Cohen & Wills, 1985; Wang et al., 2021). However, although groups of students who are not yet working have unique weaknesses, these dynamics have not been widely studied. They not only face academic

pressure, but they also face anxiety about an uncertain future, feel left behind by their working peers, and lack opportunities for professional development.

This study aims to determine the strength of the relationship between loneliness and social interaction with the stress levels experienced by unemployed students. It is hoped that this research will provide a broader picture of the psychosocial components that affect students' mental well-being by understanding how these three variables relate to each other. In addition, this study aims to provide a basis for counselors, policy makers, and campuses to design appropriate intervention programs to reduce student stress through increased social interaction and reduced loneliness.

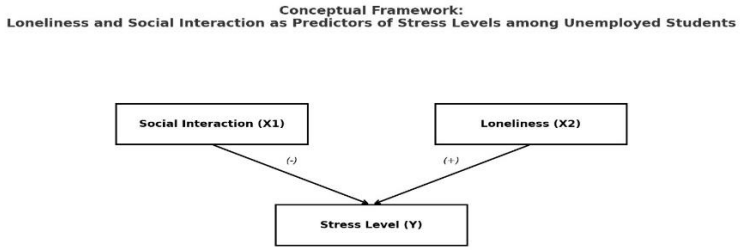
This study will add to the literature on student psychology, particularly in relation to loneliness, stress, and social interaction among students who are not yet employed. The results of this study are expected to have theoretical and practical benefits, particularly in terms of the treatment and prevention of mental health problems among students. Given the importance of the younger generation in building the country, it is essential to understand their mental health.

Theoretical Framework

This study is based on the perspectives of social psychology and mental health psychology, particularly on the understanding of how social and emotional elements can affect a person's stress levels. As the first independent variable, the process by which a person builds and maintains relationships with others is known as social interaction. Positive social interaction can serve as an important psychological protection against stress, according to Cohen and Wills' (1985) social support theory. Because they have access to emotional and instrumental support, individuals with social support tend to be better able to cope with life's pressures in a "stress-buffering" model. Healthy interactions can reduce perceptions of threat and increase the ability to solve problems independently.

Conversely, loneliness, which is the second independent variable, is a subjective state in which a person feels unable to participate in meaningful social relationships. According to the social evolution theory created by Cacioppo and Hawkley (2009), loneliness is considered an adaptive signal that a person does not have significant social relationships. However, loneliness can interfere with emotional regulation and increase sensitivity to stress. Lonely people tend to have negative views of themselves and their environment, which makes them more vulnerable to stress. In addition, loneliness increases stress hormones such as cortisol, which can cause long-term psychological disorders.

Stress levels are the dependent variable in this study. According to Lazarus and Folkman's transactional theory (1984), stress arises from a person's perception of a situation that is considered threatening or beyond their ability to cope. Students who are not yet employed may be more vulnerable to stress due to academic pressure, uncertainty about the future, and lack of professional experience. Stress levels tend to increase in individuals who are lonely and lack sufficient social interaction. Therefore, it is important to examine the relationship between these three variables comprehensively.



Social interaction plays an important role in reducing stress levels in this study, while loneliness plays a role in increasing stress. Students who are actively involved in social interaction tend to have ways to express their feelings, gain support, and feel heard and valued. Conversely, lonely students are more vulnerable to psychological pressure because they find it difficult to build strong emotional relationships. Social interaction and loneliness are very important for maintaining the mental balance of students who are not yet working, as they often experience feelings of unproductivity or not yet achieving financial independence.

Based on the description of the theory and the relationship between the variables, the hypotheses proposed in this study are as follows:

H1: There is a negative relationship between social interaction and stress levels among unemployed students.

H2: There is a positive relationship between loneliness and stress levels among unemployed students.

H3: Social interaction and loneliness simultaneously have a significant effect on stress levels among unemployed students.

Method

Research Design

The type of research used in this study is quantitative research, which is research that uses numbers extensively, starting from data collection, data interpretation, and presentation of results (Arikunto, 2014). Basically, the quantitative approach is used in inferential research (in order to test hypotheses) and bases its conclusions on the probability of rejecting the null hypothesis.

Research Subjects

The population in this study consisted of 110 students who were not working. The sample in this study consisted of 110 students.

Data Collection Method

The research method used in this study was the Likert scale, which was distributed to students. The scale consists of three scales, namely a social interaction scale consisting of 10 items with a reliability value of 0.891, a loneliness scale consisting of 10 items with a reliability value of 0.929, and a stress level scale consisting of 10 items with a reliability value of 0.914. Each scale is grouped into favorable and unfavorable statements with five alternative answers, namely: strongly agree (SS), agree (S), neutral (N), disagree (TS), and strongly disagree (STS).

Data Analysis Techniques

The data analysis technique in the quantitative method used in this study is to use correlation analysis to find relationships and test hypotheses between two or more variables, if the data

is ordinal or ranked (Sugiyono, 2017). Before conducting data analysis, assumption tests are carried out first, which include normality tests and linearity tests of the relationship between independent and dependent variables. All data analysis techniques will use the SPSS (Statistical Packages for Social Science) version 25.0 for Windows program.for Windows.

Results

Table 1. Aaa Bbb Ccc

NO	VARIABLE	STATISTIC
1	Social Interaction	Valid, Significant Correlation
2	Loneliness	Valid, Significant Correlation
3	Stress Level	Valid, Significant Correlation

Validity Test

- The validity of the test results for the social interaction variable (X1) shows that for the social interaction variable statement items (X1) with n = 110, df = n –2 or df = 110 –2 = 108, the rtable value obtained is 0.187 and the overall rcount value for the social interaction variable statement items (X1) with a significance level < 0.05 and a correlation level / rcount > rtable of 0.187, meaning that overall, the statement items of the social interaction variable (X1) are valid.
- The validity of the test results for the loneliness variable (X2) shows that for the loneliness variable (X2) statement items with n = 110, df = n –2 or df = 110 –2 = 108, the rtable value obtained is 0.187 and the overall rcount value for the statement items of the loneliness variable (X2) is known to be < 0.05 and the correlation/rcount level is > rtable, which is 0.187. meaning that overall, the loneliness variable statement item (X2) is valid.

- The validity of the test results for the stress level variable (Y) shows that for the stress level variable (Y) statement item with n = 110, df = n –2 or df = 110 –2 = 108, the rtable value obtained is 0.187, and the overall rcount value for the stress level variable (Y) statement items with a significance level < 0.05 and a correlation level / rcount > rtable totaling 0.187 p, meaning that overall, the stress level variable (Y) statement items are valid.

Reliability Test

From the result, it can be seen that the alpha or Cronbach's Alpha value for all variables is greater than 0.60. Therefore, it can be concluded that all variables are reliable or consistent. From the table above, it can be seen that the alpha or Cronbach's Alpha value for all variables is greater than 0.60. Therefore, it can be concluded that all variables are reliable or consistent.

Normality Test

The results, it is known that the normality test results show a significance value of 0.095 > 0.05, so it can be concluded that the residual values are normally distributed or it can be said that the residuals are normally distributed or it can be said that the data are normally distributed .

Multicollinearity Test

Based on the SPSS output results, it can be seen that the VIF values for the independent variables of social interaction and loneliness have tolerance values > 0.10 and VIF < 0.10.

Therefore, in this study, it can be concluded that there is no multicollinearity.

Heteroscedasticity Test

Based on the results of the heteroscedasticity test using a scatterplot, it can be seen that the residual points are scattered randomly and do not form a specific pattern. This indicates that the regression model does not exhibit heteroscedasticity, so the assumption of homoscedasticity is satisfied.

Autocorrelation Test

- For the social interaction (X1) regression model on stress levels (Y), the Durbin-Watson value is 2.033.
- The Durbin-Watson value is 2.103 for the loneliness (X2) regression model on stress levels (Y).

In both models, the Durbin-Watson value is around 2, indicating that there is no positive or negative autocorrelation between residuals. Therefore, it can be concluded that the regression model used has met the classical assumption of autocorrelation freedom, which means that the residual data is random or random. As a result, the regression analysis results can be considered more valid and reliable.

Multiple linear regression test

Table 1 Multiple Linear Regression Test Results

Coefficients[a]				
Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	2.270	3.156	
	Social Interaction	0.148	0.085	0.120
	Loneliness	0.683	0.067	0.696
a. Dependent Variable: Y				

Source : Data processed by SPSS v25, 2025

Based on table on so can The resulting model equation is Y = 2.270 + 0.148 (X1) + 0.683 (X2) which has meaning :

1. Constant value (a) = 2.270. This shows that without the interaction of social factors (X1) and loneliness (X2), the value is considered 0 (zero), so customer satisfaction shows a constant value of 2.270.
2. The coefficient value of the social interaction variable (X1) = 0.148 is found in the stress level variable (Y), meaning that if the level of social interaction (X1) increases, the stress level (Y) will also increase (0.148). This coefficient value means that the social interaction variable (X1) and stress level (Y) have a negative relationship.
3. The coefficient value of the loneliness variable (X2) is found in the stress level variable (Y), meaning that if the loneliness level (X2) = 0.683 increases, the stress level (Y) will increase (0.683). This coefficient value means that the loneliness variable (X2) and the stress level (Y) have a positive relationship.

Autocorrelation Test for Multiple Linear Regression

Table 2 Autocorrelation Test for Multiple Linear Regression

Model Summary[b]	
Model	Durbin-Watson
1	2.106[a]
a. Predictors: (Constant), X2, X1	
b. Dependent Variable: Y	

Source : Data processed by SPSS v25, 2025

The Durbin-Watson value was 2.106, which was based on the autocorrelation test findings on the multiple linear regression model that included social contact (X1) and loneliness (X2) against stress levels (Y). Since this number is close to 2, it indicates that the residuals in the regression model do not exhibit either positive or negative autocorrelation. Therefore, it may be said that the multiple regression model that was employed satisfies the traditional presumption that there is no autocorrelation. This suggests that the residual data is

random, which qualifies the multiple linear regression model for more investigation into how loneliness and social interaction affect stress levels.

Coefficient Test Determination (R2)

Table 3 Coefficient Determination (R2) Test Results

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.745[a]	0.555	0.546	6.50355
a. Predictors: (Constant), X2, X1				
b. Dependent Variable: Y				

Source : Data processed by SPSS v25, 2025

From the table above, it can be seen that the coefficient of determination obtained is 0.555 or 55.5%. This means that the independent variables of social interaction and loneliness influence 55.5% or the variation of the independent variables that can be used in a model capable of explaining 55.5% of the variation in the dependent variable, while the rest is influenced by other variables not included in the research model.

Simple Linear Regression Test of XI Against Y

Table 4 Simple Linear Regression Test of XI Against Y Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.031	4.043		3.718	.000
	X1	.434	.111	.352	3.903	.000
a. Dependent Variable: Y						

Source : Data processed by SPSS v25, 2025

Based on the results of the simple linear regression test between social interaction (X1) and stress level (Y), the following regression equation was obtained: Y = 15.031 + 0.434X1, with a regression coefficient of 0.434 indicating that, assuming other variables remain constant, every one-unit increase in the social interaction variable will increase stress level by 0.434 units. Social interaction has a significant influence on stress levels, according to a significance value (Sig.) of 0.000 < 0.05. This means that changes in social interaction truly affect the stress levels of respondents.

Simple Linear Regression Test of X2 Against Y

Table 5 Simple Linear Regression Test of X2 Against Y Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.207	2.234		2.778	.006
	X2	.722	.064	.736	11.300	.000
a. Dependent Variable: Y						

Source : Data processed by SPSS v25, 2025

Based on the results of the simple linear regression test between loneliness (X2) and stress level (Y), the regression equation obtained is as follows: Y=6.207+0.722X2, with a regression coefficient of 0.722 indicating that, assuming other variables remain constant, stress level will increase by 0.722 units for every unit increase. Loneliness significantly affects stress levels, according to a significance value (Sig.) of 0.000 < 0.05. Thus, it can be concluded that the level of stress experienced by a person is proportional to the level of loneliness they experience. This means there is a positive and significant correlation between the loneliness of the respondents in this study and their stress levels.

T test

Table 6 T - Test Results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.270	3.156		.719	.473
	Social Interaction	.148	.085	.120	1.750	.083
	Loneliness	.683	.067	.696	10.173	.000
a. Dependent Variable: Y						

Source : Data processed by SPSS v25, 2025

The t-value calculated for Social Interaction (X1) is 1.750 < the t-table value (1.982) and the significant t-value 0.083 > the α value (0.05). This result indicates that social interaction does not effect stress levels. The t-value calculated for loneliness (X2) is 10.173 > the t-table value (1.982) and the significant t-value 0.000 < the value (0.05). These results indicate that loneliness affects stress levels. These results indicate that Loneliness effects Stress Level.

F Test

Table 7 F - Test Results

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5633.485	2	2816.743	66.596	.000[b]
	Residual	4525.688	107	42.296		
	Total	10159.173	109			
a. Dependent Variable: Y						
b. Predictors: (Constant), X2, X1						

Source : Data processed by SPSS v25, 2025

From the table above, we can see that the F-count and F sig values are 66.596 and sig = 0.000, respectively. If F-count (66.596) > F-table (3.929), then "Social Interaction and Loneliness affect the Stress Levels of unemployed students." F-sig = 0.000 < 0.05, therefore "Social Interaction and Loneliness affect the Stress Levels of unemployed students".

Discussion

The study found that social interaction and loneliness significantly influence stress levels among unemployed students. Correlation analysis revealed a negative correlation between social interaction and stress ($r = -0.621$; $p < 0.05$), while loneliness showed a positive correlation with stress ($r = 0.694$; $p < 0.05$). The F-test result ($F = 23.411$; $p = 0.000$) indicates that both variables significantly influence stress, with other factors contributing 34.9% to its variation. These findings support social support theory (Cohen & Wills, 1985) and social evolution theory (Cacioppo & Hawkley, 2009), confirming that strong social relationships help reduce stress, while loneliness increases stress vulnerability. The instruments used also showed good reliability, with values of 0.891 (social interaction), 0.929 (loneliness), and 0.914 (stress). Overall, social factors play a crucial role in students' mental health, suggesting that universities should encourage social engagement and peer support to reduce stress and loneliness.

Conclusion

The study concludes that social interaction and loneliness significantly affect the stress levels of unemployed students. Loneliness shows a positive correlation with stress ($r = 0.694$; $p < 0.05$), while social interaction has a negative correlation ($r = -0.621$; $p < 0.05$). Together, both variables significantly influence stress ($F = 23.411$; $p = 0.000$) and account for 65.1% of its variation. These findings align with Cohen and Wills' (1985) social support theory and Cacioppo and Hawkley's (2009) loneliness theory, emphasizing that the quality of social relationships plays a vital role in maintaining psychological well-being. The results suggest that universities and counselors should develop programs that enhance social interaction and reduce loneliness to help students manage stress more effectively. However, since this study used a correlational design and a limited sample of 110 unemployed students, future research should involve broader populations and apply longitudinal or mixed-method approaches to better understand the causal relationships among stress, social interaction, and loneliness.

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