

Analyzing the Impact of Social Environments on Higher Education Students Mental Health

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Abstract: *This study examines the impact of campus, family, and community environments on the mental health of higher education students. Employing Structural Equation Modeling SEM on data collected from 100 students through questionnaires, findings reveal a significant positive effect of family environments on students mental health, while campus and community environments showed no significant impact. These results underscore the critical role of familial support in student mental well-being, suggesting a need for integrated mental health strategies that consider family dynamics. The findings of this research are significant as they contribute to our understanding of the different environmental factors affecting student mental health, highlighting the pivotal role of family support. This insight is crucial for developing targeted interventions and policies to enhance mental well-being among higher education students.*

Keywords: Campus Environment, Family Environment, Community Environment, Mental Health, Higher Education

1. Introduction

Students have an important role in realizing national development. To complete undergraduate education (S1), it should take four years or eight semesters. However, not all students can graduate on time, this can make students feel pressure to immediately complete their education and can even make students experience stress. If students cannot overcome the stress, they experience, this can have a negative impact on students' psychology and make students feel hopeless. In some cases, there are even students who commit suicide because they cannot cope with the stress they are experiencing. One of the causes of stress in students is mental-health problems.

Mental Health is a condition where a person is not only physically, mentally, spiritually and socially healthy, but also has the potential to enable people to live productively [1]. So according to experts, mental health is a condition where a person thinks, feels and experiences a condition where this condition has the potential to make people live productively in a social environment.

The social environment is an environment that cannot be separated from human life, because without support from the surrounding environment, a person cannot develop well [2]. So the social environment is the main supporting factor that cannot be separated in human life, whether individual or group, because with support from the surrounding environment, a person can develop well. Thus, healthy and good social environmental factors are thought to influence mental health in final semester students.

This study aims to investigate the effects of various social environments specifically, campus, family, and community environments on the mental health of students in higher education institutions.

2. Methods

The type of research used in this research is quantitative research.

Quantitative research is could be rephrased for clarity and conciseness to research involving data collection in numerical form. The data in the form of numbers is then processed and analyzed to obtain scientific information behind the numbers (Sekaran Roger, 2013). In this research, a survey was carried out by distributing questionnaires, then the data or information obtained will be processed using statistical methods using Structural Equation Modeling (SEM) with the AMOS application [3].

Population is a combination of all elements in the form of events, things or people who have similar characteristics, which is the center of attention of a researcher because it is seen as a research universe [4]. Population is a generalization area consisting of objects or subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn [4]. The populations in this study were 134 student at Purwakarta West Java Indonesia, while the sample was 100 people using the Slovin formula.

$$n = \frac{N}{1 + N(e)^2} = \frac{134}{1 + 134(0,05)^2} = 100 \text{ person}$$

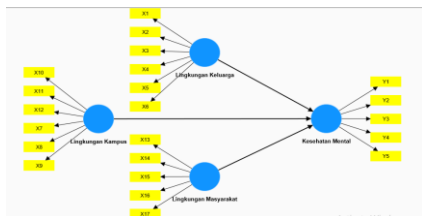
n = sample

N = population

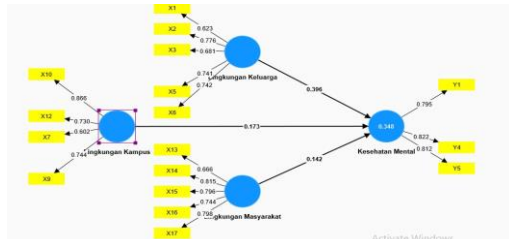
e = probability 5%.

3. Results and Discussion

There were 100 questionnaires distributed in this study according to the number of samples. From distributing these questionnaires, all questionnaires can be returned and filled in completely. So that the sample used in this study can be determined regarding the Influence Of The Social Environment On The Mental Health Of Students In Higher Education. Techniques and data processing using the Structural Equation Modeling method with the help of SMARTPLS. The structural model in this study can be seen in Figure 1:



(a) Before running SmartPLS



(b) After running SmartPLS

Figure 1: Structural Research Model

From the Figure 1, it can be explained that: Lingkungan Keluarga (Family Environment) is measured by 6 indicators X₁, X₂, X₃, X₄, X₅, X₆; Lingkungan Keluarga (Family Environment) by 8 indicators, X₇, X₈, X₉, X₁₀, X₁₁, and X₁₂; Lingkungan Masyarakat (Community Environment) is measured by 5 indicators, X₁₃, X₁₄, X₁₅, X₁₆, and X₁₇; Kesehatan Mental (Mental health) is measured by 5 indicators, Y₁, Y₂, Y₃, Y₄, and Y₅.

3.1 Convergent Validity and Reliability Test of the Measurement Model

3.1.1 Outer Model

Convergent validity of the measurement model with reflection indicators can be seen from the correlation between the indicator scores and the construct scores. Convergent validity of the measurement model with reflection indicators can be seen from the correlation between the indicator scores and the construct scores. Individual indicators are considered reliable if the Outer Loading value is >0.70. The following is the outer loading value of each indicator in the research variable. An individual indicator is considered reliable if the outer loading value is >0.70. The following are the outer loading values for each indicator in the research variables in Table 1 (Appendix 1).

Based on Table 1, it is known that many of the research variable indicators have an outer loading of >0.7. However, there are still 3 indicators that have an outer loading value <0.7. According to Chin, as quoted by Imam Ghozali, an outer loading value between 0.5-0.6 is considered technically sufficient to meet convergent validity requirements. The data above shows that there are no variable indicators whose outer loading value is <0.5, so that all indicators are declared suitable or valid for research use and can be used for further analysis.

3.1.1.1 Discriminant Validity

Discriminant validity of the measurement model with reflexive indicators of indicators based on cross loading of measurements with constructs. If the correlation of a construct with a measurement item is greater than that of measures of other constructs, then it indicates that the latent constructs

predict measures in their block better than measures in other blocks. Another way to measure Discriminant Validity is to look at the Square Root of Average Variance Extracted (AVE) value. The recommended value is >0.5. The following is a table of AVE values in this research in Table 2.

Table 2: Discriminant Validity

Average Variance Extracted (AVE)	
Mental Healt	0,656
Campus Environment	0,550
Family Environment	0,510
Community Environment	0,586

From Table 2 above it can be seen that the AVE value is above 0.5 for all constructs, this means that all constructs have high discriminant validity.

3.1.1.2 Composite Reliability

The next test is the Composite Reliability of the indicator block that measures the construct. A construct is said to be reliable if the Composite Reliability value is above 0.7 (Imam Ghozali, 2006). The following are the results of the outer model loading, which shows the Composite Reliability of each constructed in Table 3.

Table 3: Composite Reliability

Composite Reliability	
Mental Healt	0,741
Campus Environment	0,839
Family Environment	0,772
Community Environment	0,835

3.1.2 Inner Model

Assessing the Inner Model is evaluating the relationship between latent constructs as hypothesized in this research, namely how the social environment relates to mental health. The following is the R-Square value for the construct in Table 4.

Table 4: Inner Model

Contract	R Square
Mental Healt	0,327

Based on table 4 above, it can be seen that for the mental health construct the R-Square value is 0.327, meaning that it can be interpreted that the Campus Environment, Family Environment, Community Environment variables on Mental Health are 32.7%, the remaining 67.3% can be influenced by other factors.

3.2 Hypotesis Test

Based on the research objectives, the hypothesis test design in this research is presented based on the research objectives. The confidence level used is 95% according to Sugiyono (2013:93) so that the level of precision or inaccuracy limit is (α) = 5% = 0.05 and produces a t-table value of 1.96.

According to (Abdillah, 2015). A hypothesis is a statement about the casual relationship between variables to be tested in research. In testing the hypothesis that will be proposed, the value that can be concluded whether the hypothesis is accepted or rejected is found in the T-Statistic value. If the

limit for accepting or rejecting a hypothesis is >1.96 for a two-tailed hypothesis or <1.64 for a one-tailed hypothesis, then:

Table 5: Hypotesis Test

	Original Sampel (O)	Sampel Mean (M)	Standar Devication (STDEV)	T-Statistic (IO/STDEVI)	P Values
Family Environment -> Mental Health	0,713	0,190	0,104	1,655	0,098
Family Environment -> Mental Health	0,396	0,402	0,125	3,176	0,002
Community Environment -> Mental Health	0,142	0,148	0,137	1,038	0,300

From table 5 above, it can be explained that hypothesis testing is as follows:

1) The Influence of Campus Environment on Student Mental Health

The campus environment has a negative and insignificant effect on student mental health in higher education. This can be assessed from the t-statistic which is less than <1.96 , namely 1.655 ($1.655 < 1.96$) and the P value is more than 0.05, namely 0.098 ($0.098 > 0.05$). Thus, hypothesis H1 in this study is rejected

2) The Influence of Family Environment on Student Mental Health

The family environment has a positive and significant effect on student mental health in higher education. This can be assessed from the t-statistic which is more than <1.96 , namely 3.176 ($3.176 > 1.96$) and the P value is less than 0.05, namely 0.002 ($0.002 < 0.05$). Thus, hypothesis H2 in this study is accepted.

3) The Influence of Community Environment on Student Mental Health

The Community Environment has a negative and insignificant effect on the Mental Health of Students in Higher Education. This can be assessed from the t-statistic which is less than <1.96 , namely 1.038 ($1.038 < 1.96$) and the P value is more than 0.05, namely 0.300 ($0.300 > 0.05$). Thus, hypothesis H1 in this study is rejected

From the results of the explanation of the hypothesis above, it can be concluded that only hypothesis H2 is accepted because the hypothesis H2 has a positive and significant influence, with the highest value in the original table. Which means it can be said that the Family Environment variable can significantly influence the mental health of students in higher education.

4. Conclusion

In conclusion, this study identifies the significant impact of family environment on the mental health of higher education students, contrasting with the negligible effects of campus and community environments. These findings highlight the

necessity of focusing on familial support mechanisms in mental health interventions for students. Future research should explore the specific aspects of family environment that are most beneficial, as well as potential interventions in campus and community settings to support student mental health.

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Author Profile



Tarman graduated with a Bachelor of Engineering from Industrial Engineering from Hight School of TEchlogy Wastukancana Purwakarta, Bandung, Indonesia (2015) and a Masters Program from Mercu Buana University, Jakarta, Indonesia (2017). Currently a lecturer at the Wastukancana College of Technology, Purwakarta, West Java, Indonesia.



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Appendix 1:

Tabel 1: Outer Loading

Indicator	Mental Health	Campus Environment	Family Environment	Community Environment
X1			0,623	
X2			0,776	
X3			0,681	
X5			0,741	
X6			0,742	
X7		0,602		
X9		0,744		
X10		0,866		
X12		0,730		
X13				0,666
X14				0,815
X15				0,796
X16				0,744
X17				0,798
Y1	0,795			
Y4	0,822			
Y5	0,812			