

# MENTAL HEALTH AND ITS CORRELATION WITH THE ACADEMIC ACHIEVEMENT OF STUDENT OF FACULTY OF ECONOMY IN UNIVERSITAS ADVENT INDONESIA BANDUNG

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***Abstract.** The research design was a descriptive correlation with cross sectional study. Descriptive correlational study design is to understand the correlation between independent variables (mental health) with the academic achievement of student of economic in Universitas Advent Indoneia Bandung as the dependent variable. The approach used in this study is cross sectional approach, means a research subject has only been observed once and measurements were performed simultaneously at the same time*

*The sample are students which utilize by questionnaire, non-structure questions, and an accidental sampling method. Analysis and interpretation of data are using Zung Self-Assessment of Depression Scale (ZSDS), and Depression Anxiety Stress Scales (DASS 42), and multi linear regression analysis. The three variables under mental health (depression, anxiety and stress) have an inverse correlation meaning that the lower the level of depression, anxiety and stress then the relationship indicates academic achievement is higher.*

***Keywords:** Mental Health, Academic Achievement*

## INTRODUCTION

A healthy mental condition is an individual free condition from all forms of mental disorders. Mentally healthy individuals can function normally in carrying out their lives. They can also adjust to deal with problems, through their ability to handle stress. It is very important to understand that it is not only physical health, but also mental health. A mentally healthy person can use his abilities or potential to the full in facing life's challenges, and build positive relationships with others. Conversely, people whose mental health is disturbed will experience mood disorders, thinking abilities, and emotional control which ultimately lead to bad behavior. Stability of mental and physical health affect each other. Daniel Goleman in his book Emotional Intelligence said, "People who have a bright outlook, of course are better able to survive facing difficult circumstances, including medical difficulties." (Goleman, 1996).

Mental health issues often occur among students and create a negative impact on students. The phenomenon of mental health problems and mental illness are

increasing in the coming year. According to the findings of National Health and Morbidity Survey (2011) conducted by the Ministry of Health Malaysia, a total of 1.8 % is faced with depression and 1.7 % experienced anxiety among the adults. In additions, that study also found that mental health problem among children and adolescents have increased from 19.4 % from year 2006 to 20.0 % in year 2011. (Pua Poh Keong, Lai Chee Sern, Foong Ming, Ibrahim Che 2015), Furthermore, the report by the World Health Organization (WHO, 2005) mentioned that issues of mental health are expected to increase with 15 % in the year 2020 and the adolescents are in the highest risk group who might be experiencing this problem.

### **Definition of Mental Health**

According to WHO, (2014), <https://www.who.int/>, Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

Mental health refers to our cognitive, behavioral, and emotional wellbeing - it is all about how we think, feel, and behave. (Legg Timothy J. 2017). According to Medilexicon's medical dictionary stated that mental health is: emotional, behavioral, and social maturity or normality; the absence of a mental or behavioral disorder; a state of psychological well-being in which one has achieved a satisfactory integration of one's instinctual drives acceptable to both oneself and one's social milieu; an appropriate balance of love, work, and leisure pursuits. While the WHO (World Health Organization) stated that mental health is: "... a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."

A person's mental health is influenced by two factors, namely internal factors and external factors. Internal factors include personality, physical condition, psychological maturity, attitude to face life problems. As for the external factors including economic conditions, culture, family environment conditions, community environmental conditions, and educational environment.

### **Principles of Mental Health**

According to Schbeiders (in Hikmahwati, 2017) states that there are sixteen principles that need to be considered in relation to the understanding of mental health. The goal is to maintain and improve mental health as well as to prevent mental disorders. The principles are based on human nature, based on human relationships

with the environment, and based on human relationships with God. And the principles based on human relationships with God are mental stability requires that a person develop an awareness of the greatest reality than himself which is a place to depend on for every fundamental action; and mental health and peace of mind require a constant relationship between humans and their God (Hikmahwati, 2014).

Being a student has problems related to the process of change for self-adjustment from life experiences during high school and when he goes to university (Prihandini, 2012). Lack of ability to adapt to the situation and the demands that exist in the atmosphere of college can cause pressure for the teenager concerned. This if left unchecked will affect the mental health of the person concerned.

Based on these conditions, it can be assumed that the student actually has mental disorders. Following are the problems that students will usually face in their adjustment. These are different ways or methods of learning by students who need to be more active when compared to when they were in high school, related to relocation, related to finding new friends and things related to relationships, related to changing relations, and has to do with setting the time to be a student for the most part is being free to set the time according to his own will because no one else is in control.

Mental disorders, because the symptoms are not like physical illness, are often realized too late. Whereas in Indonesia, the number of sufferers is relatively small. Half of mental illness begins in adolescence, at the age of 14 years. According to WHO, many cases are not handled so that suicide due to depression is the highest cause of death in young people aged 15-29 years. Referring to the results of the Basic Health Research (Riskesdas) in 2018, the prevalence of schizophrenics or psychosis is 7 per 1000 with 84.9% treatment coverage. Meanwhile, the prevalence of mental emotional disorders in adolescents aged over 15 years was 9.8%. This figure increased compared to 2013 which was 6%.

Based on the survey, 86% of respondents from all participating countries said that they felt stressed. But in Indonesia, respondents who said they felt stressed 'only' by 75%. If a comparison is made, there are 3 out of 4 respondents who feel stressed. Although the percentage seems high, this stress level is the lowest stress level of all the countries surveyed. Financial and work problems are the main cause of stress. While the remaining 25% said that they did not feel stressed. This percentage is the lowest compared to 22 other countries. In neighboring countries such as Singapore and Thailand, the level of community stress is even above average, which is 91%.

## Student's Academic Achievement

Based on Wikipedia, the academic performance or "academic achievement" is the extent to which a student, teacher or institution has attained their short or long-term educational goals. Student achievement is the result of all activities in the class since enrolled in a course, participating in all activities both regarding absences, quizzes, assignments, unit tests, mid-tests, and final tests. And all these activities are given credit points which will be tabulated in its entirety. Student performance is shown through the final grade of each course. Then from the total courses taken per semester will get a cumulative value called the GPA or Cumulative Achievement Index.

UNAI in general has set assessment standards based on the achievement of grades by students. Based on the 2015-2018 UNAI Academic Guidebook, it has been explained about Academic Administration, Lectures, Assessment Systems, Academic Violations and Sanctions, Duties and Responsibilities of Lecturers, and Granting Title and Title of College Graduates.

In the academic administration processes have been carried out which include the selection of prospective students, the preparation of lecture schedules, registration, lectures, student guidance, midterm exams, final exams, other activities in lectures and grading. Whereas in lecturing activities carried out in accordance with the academic calendar where the lecture is carried out both inside the classroom and outside the classroom, practicum in the laboratory or workshop, field work lectures or external work.

The grading system for students on the success of their studies is based on the cumulative results of the assignment component, midterm, final exams, quizzes, attendance in class meetings, laboratories, and other assessment components. The final value of a student's study is obtained through a process of converting scores from various assessment components where the score is converted into a scale of values such as the following Table 1.1.

Table 1.1. Score Conversion Value

Score Value	Quality (Letter)	Quality (Number)	Quality Designation
96 – 100	A	4.00	Very special
90 – 95	A-	3.67	Special
84 – 89	B+	3.33	Very Good
78 – 83	B	3.00	Good
72 – 77	B-	2.67	Good Enough
66 – 71	C+	2.33	More than enough
60 – 65	C	2.00	Enough

54 – 59	C-	1.67	Almost enough
48 – 53	D+	1.33	Less
42 – 47	D	1.00	Very less
00 – 41	F	0.00	Not pass

Source: UNAI Academic Manual 2015-2018 p. 52

### Statement of the Problems

1. What is the data profile of respondents related to this research?
2. What is the mental health of student of Faculty of Economic in Universitas Advent Indonesia, Bandung?
3. What is the academic achievement of student of Faculty of Economic in Universitas Advent Indonesia Bandung?
4. What is the correlation of mental health to the academic achievement of student of Faculty of Economic in Universitas Advent Indonesia Bandung?

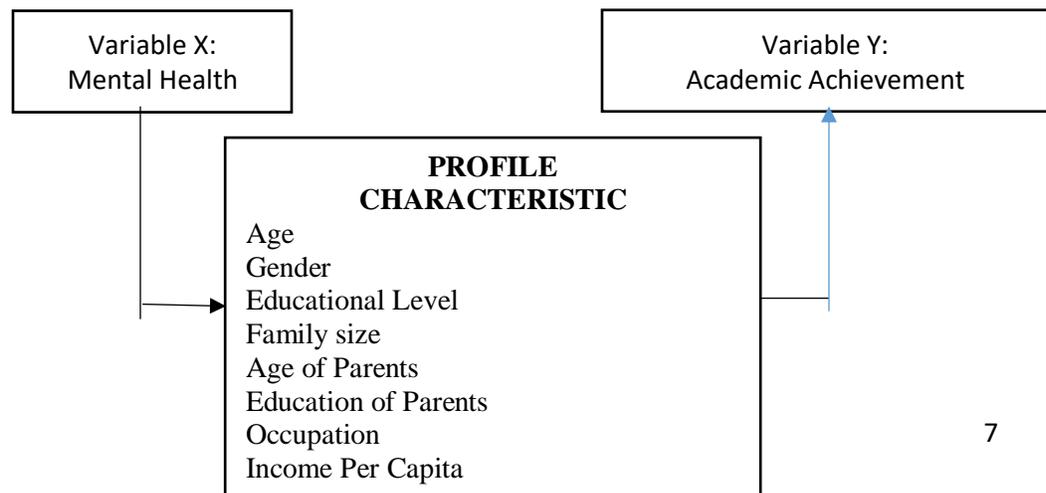
### Objectives of the Study

Based on the background of the research and the statement of the problems which mentioned above, the author conveys the general objectives and specific objectives of this study. The general objective is to find out the extent of the correlation of mental health to performance of student of economic in Universitas Advent Indonesia Bandung. Specifically, the purpose of this study is to find out what kinds of mental health condition of respondents, what is the specific performance, what is the way out or efforts for mental illness and how the impact or correlation between mental health to the performance of student of economic in Universitas Advent Indonesia Bandung.

### Conceptual of Framework

The following will explain the schematic conceptual framework (Figure 1.1).

Figure 1.1: Conceptual Framework



In this conceptual framework consists of explaining variable X is mental health, while variable Y is performance. Based on this conceptual framework can explain, inter alia:

- a. What is the mental health of student of economic in Universitas Advent Indonesia Bandung?
- b. What is the performance of Student of Faculty of Economic in Universitas Advent Indonesia Bandung?
- c. What is the correlation of mental health to the performance of Student of Faculty of Economic in Universitas Advent Indonesia Bandung?

Figure 1.1 is a conceptual framework of thought, as stated above.

### **Research Design**

The research design is descriptive observation and descriptive correlation with cross sectional study approach. The study of descriptive observation design is to understand the social situation as the research objective. While the study of descriptive correlational design is to understand the correlative relationship between variables; independent variables is mental health with dependent variable is student's performance of Economic Student of Universitas Advent Indonesia Bandung. The approach used in this research is cross sectional approach meaning research subject only found once and measurement done simultaneously at the same. In this study, researchers wanted to know what the relationship of mental health to student's performance of economic students of the Universitas Advent Indonesia Bandung.

The independent variables are Mental Health (X) while the dependent variable is Student Performance (Y). The variables were measured by survey using a certain questionnaire with Likert scale (1- 5) and results are processed and categorized by ordinal scale.

### **Research Instruments**

The first instrument is the data respondent which conducted by the researcher. This instrument to get a picture of the characteristics of respondents covering age, sex, education level, faculty/program study, respondent's position in the family, age of parent, parent's education, parent's job, and parent's income per month. The second instrument is to measure the mental health. The size of mental health was adopted from the Zung Self-Assessment of Depression Scale (ZSDS), and Depression Anxiety Stress Scales (DASS 42). The third instrument is closed to prepare structured observation.

### **Sample and Source of Data**

According to Sugiyono (2013), said that qualitative research does not use the term population but is called "social situation" which consists of three elements, namely: places, actors, and activities that interact synergistically. In this case the researcher will observe closely the activities of people who are in a particular place.

In this qualitative study, the sampling technique is purposive sampling in which the researcher chooses a particular person who is considered to be providing the necessary data; then based on data or information obtained from previous samples, researchers can set other samples that are considered to provide more complete data. In this study, that the sample that will be studied are the students of Faculty of Economy of Universitas Advent Indonesia, parents, environmental communities and teachers.

The population in this study were the 2<sup>nd</sup> and the 3<sup>rd</sup> students of Faculty of Economy of Universitas Advent Indonesia Bandung as many as 395 persons. To determine the required sample size was utilized by Husein Umar formula (2008: 141-142) where the sample is student:

$$n = \frac{N}{1 + N(0.06)^2}$$

Information:

N = population size

n = sample size

e = margin of errors maximum (6%)

### **Data Collection Technique**

Data collection methods in this study were participant observation, in-depth interviews and documentation. In participatory observation, the researcher is involved with the daily activities of the person being observed. While making observations, researchers participate in doing what is done by the data source and also feel the joys and sorrows. So that the data obtained will be more complete, sharp, and to find out at the level of meaning of each visible behavior.

Other methods the researcher also conducts a semi-structured interview or in-depth interview to make the implementation freer and find more open problems where the party invited to the interview is asked for opinions, and ideas. The types of questions in the interview, among others: questions relating to experience, questions relating to opinions, questions relating to feelings, questions about knowledge, questions relating to the senses, questions relating to background or demography. For data collection with documents, the focus is on diaries, life history, whether as a child, at school, in the family environment, or in the community.

### Research Instrument Test

In this study the authors conducted tests which included the validity, reliability, and hypothesis testing. Validity test uses the Pearson Product Moment correlation formula; reliability test is done by one shot or one measurement only by Cronbach Alpha ( $\alpha$ ) statistical test; while the hypothesis test, the author uses the t test (testing the correlation between variables x with variable Y partially) and F test (testing the correlation between X variables with Y variables simultaneously).

Correlation coefficients are interpreted using the classification of the validity coefficient (Arikunto, 2010: 319), namely as follows:

Correlation Coefficient	Interpretation
$0,80 \leq r_{X12Y} \leq 1,00$	Height
$0,60 \leq r_{X12Y} < 0,80$	Sufficient
$0,40 \leq r_{X12Y} < 0,60$	Little Low
$0,20 \leq r_{X12Y} < 0,40$	Low
$0,00 \leq r_{X12Y} < 0,20$	Very Low
$r_{X12Y} < 0,00$	Not Valid

(Arikunto, 2010)

### Data Processing and Analysis Techniques

All data obtained is processed, analyzed, and interpreted using qualitative methods. Qualitative methods for data analysis are done using mathematical models and statistical formulas. Source of data used in this study to obtain data on both variables is primary data. Primary data is the first source of data obtained from individuals such as interviews or questionnaire results that are usually conducted by researchers (Setiadi, 2007 Fadilah 2013). Techniques or tools used for data collection such as data on respondent demographics, mental health like depression, anxiety or stress and student academic achievement are questionnaires. In filling out the data in the questionnaire by the respondent, the researcher gives direction if the respondent has difficulty in answering questions on the questionnaire.

#### a. Data Respondent

The first instrument is to get an overview of the characteristics of respondents which include age, sex, level of education, faculty / department, position of the respondent in the family, age of parents, parent's education, parents' occupation, and

parents' income per month. The questionnaire was arranged in the form of open and closed questions. Open-ended questions are related to respondent's gender data. While closed questions contained in the form: age, level of education, position of the respondent in the family, age of parents, education, occupation and income of parents. Researchers provide alternative answers, so that respondents can answer according to the choices presented. The questionnaire consisted of nine questions about demographic data.

**b. Mental health measurement**

The second instrument is to measure mental health, whether respondents are in the healthy category or experiencing depression, anxiety and stress. Mental health measures were adopted from the Zung Self-Assessment Depression Scale (ZSDS), and from the Depression Anxiety Stress Scales (DASS 42). The reason for choosing these two instruments (ZSDS and DASS 42) is because this size is simple, easy to use, and has been widely used so there is no need to doubt its reliability. The Zung Self-Assessment Depression Scale and DASS 42 can be used for screening depression in the general population, both in clinics to monitor changes in treatment, screening for depression in people with certain diseases, as a screening on family practice and cross-cultural research in the community.

Table 3.3: Standard of Mental health (Depression Level, Anxiety, dan Stress)

Level	Depression	Anxiety	Stress
Normal	0 – 9	0 – 7	0 – 14
Mild	10 – 13	8 – 9	15 – 18
Severe	14 – 20	10 – 14	19 – 25
More Severe	21 – 27	15 – 19	26 – 33
Awfully	>28	>20	>34

To answer the identification of the first to third problems, the analysis used is descriptive statistics and qualitative descriptive analysis. With this analysis will be calculated how high the level of mental health, depression, anxiety and stress and how the level of academic achievement of students at the University of Advent Indonesia Bandung. Depression value is the total score calculated from the results of research on depression compared to the ideal score or score criteria. The percentage criteria score of respondents' responses to the ideal score according to Table 3.4, as follows:

Table 3.4: Percentagse of Score Criteria

% Total Score	Criteria
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85.00 – 100.00	Very Good
75.00 – 84.99	Better
65.00 – 74.99	Good
50.00 – 64.99	Poorly
00.00 – 49.99	Not Good

Source: researcher's concept

Data analysis in this study was carried out since before entering the field, while in the field, and after completion in the field. Analysis before entering the field is related to secondary data, namely the results of previous studies. Next, the researcher will analyze the data based on the results of the interview and carry out the data verification or reduction. Analysis of the data in this study is Domain Analysis, which is an analysis carried out after carrying out participant observation, recording observations and interviews. Then proceed with a taxonomic analysis to describe the domain in more detail. Next is the compounding analysis to look for specific differences in taxonomic analysis. And finally, the analysis of cultural themes is to look for relationships between domains and how they relate to the whole and then formulate them in a research theme or policy or new theory.

Data processing techniques are quantitative descriptive; data processing with product moment correlation analysis, linear and multiple linear regression analysis, and analysis of the coefficient of determination. These analyzes are used to determine the extent of the relationship and influence between the dependent variable and the independent variable. The Simple Linear Regression Equation Model is  $Y = a + bX$  and Multiple Linear Regression  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$ . As for the hypothesis

test using the formula t Test =  $r \sqrt{\frac{n-2}{1-r^2}}$  and the significance of the coefficient of determination with the formula  $Kd = rs^2 \times 100\%$ .

### **Product Moment Correlation Analysis and Simple Linear Regression Analysis**

The following will be discussed in correlation analysis between X and Y variables using product moment correlation analysis and simple linear regression analysis. Product Moment Correlation Analysis. This analysis is to determine the effect of depression on student academic achievement by using statistics. To be able to determine the strength or weakness of the influence of the dependent variable on the independent variable, it refers to the guidelines for interpreting the correlation coefficient as in Table 3.5, as follows:

Table 3.5: Guidelines for Interpretation of Correlation Coefficients

No	Interval Coefisients	Level of Influence
1	0.800 – 1.000	Very Strong
2	0.600 – 0.799	Stronger
3	0.400 – 0.599	Strong Enough
4	0.200 – 0.399	Not Strong Enough
5	0.000 – 0.199	Not Strong

Source: Researcher

### **Hypothesis test**

Statistical calculations are called significant if the test statistical value is in a critical area (where  $H_0$  is rejected). On the other hand, it is called insignificant if the test of statistical value in the area of  $H_0$  is accepted.

#### **F test**

The F statistical test is basically used to test the significance of all the independent variables that have an influence on the dependent variable. In this case examining the significance of the effect of mental health (depression, anxiety and stress) simultaneously on student academic achievement at Universitas Advent Indonesia Bandung. Criteria in making decisions in the F test are: if  $F_{\text{arithmetic}} > F_{\text{table}}$ , it means that there is a simultaneous influence between the independent variables on the dependent variable. And vice versa if  $F_{\text{arithmetic}} < F_{\text{table}}$  means there is no simultaneous effect between the independent variables on the dependent variable.

#### **Test of Significance of Partial Influences (t-test)**

The t test is basically used to test the significance of independent variables partially on the dependent variable. In this case how far the influence of mental health (depression, anxiety and stress) partially on the level of student academic achievement at Universitas Advent Indonesia Bandung. How to do the t-test in Gunawan (2013) is using a Statistical Formula and compare the t value statistics with critical points according to the table.

#### **Coeffisient of Determination ( $R^2$ )**

The coefficient of determination measures how far the model's ability to explain variations in the dependent variable. The coefficient of determination is between zero and one. A value close to one means that the independent variables provide almost all the information needed to predict the dependent variable (Ghozali,

2009) in Gunawan (2013). In this study, the coefficient of determination uses Adjusted  $R^2$  value to find out the best regression model.

## **CONCLUSION AND RECOMMENDATION**

### **Conclusion**

- a. Respondent data shows that 71.00% of respondents are under twenty years old and 47.00% are the eldest child in the family and 31.00% as the youngest child. The majority of respondents are accounting which is 63% and education position is under level three of 50%. The occupation of parents of respondents as entrepreneurs is 31.00%, farmers and employees are 22.00% and 43.00% respectively. The income of the respondent's parents shows that 41.00% is less than five million; while the range of 5-10 million is 37.00%; and the range of more than 10 million is 23.00%
- b. The main causes of mental health disorders such as depression, anxiety and stress are not exciting and sad which always experiencing lack of enthusiasm as much as much as 70.67%; having trouble sleeping at night as much as 58.00%; feeling tired without cause as much as 50.00%; feeling hopeless about the future 44.00%; and feeling useless and unnecessary is 79.34%.
- c. From the results of tabulation of respondents' data, it was found that the correlation between depression and academic achievement is 0.160; anxiety about academic achievement is -0,250; and stress on academic achievement is 0.066. The three variables under mental health (depression, anxiety and stress) have an inverse correlation meaning that the lower the level of depression, anxiety and stress then the relationship indicates academic achievement is higher.

### **Recommendation**

- a. To prevent the mental health likes depression, anxiety and stress, it is necessary to increase attention, respect their opinions, provide prevention solutions, and increase students' sense of security so they feel useful and needed, live orderly and be able to control themselves.
- b. It is hoped that UNAI's management will provide counseling or guidance to deal with the conditions of depression, anxiety and stress experienced by students and at the same time conduct an evaluation of mental conditions (depression, anxiety and stress) regularly and consistently.

## **RESULT AND DISCUSSION**

### **Characteristics of Respondents**

Based on the results of the distribution of the questionnaire, it is found that the characteristics of the respondents can be seen as follows. The male sex as much as 47% while women as much as 53%. The age of the respondents ranges below 20 years by 71%, between 20-24 years 28% and above 24 years by 1%. Generally, the respondent's parents have formal education up to the high school level of 48% and 33% of undergraduate education. The respondent's parents work as employees as much as 43%, civil servants as much as 4%, and farmers and other jobs respectively as much as 23% and 30%. From the data table above shows that 41% of respondents 'parents' income is in the range of Rp 5,000,000 and below; while the range of 5-10 million is 37%; 10-15 million as much as 10% and income above 15 million as much as 12%.

### **Mental Health Students of the Faculty of Economics**

Maslim (2000) in Hayuningtyas said that the main causes of depression are: depressive feelings, loss of interest and enthusiasm, fatigue and loss of energy, decreased concentration and attention, decreased self-esteem and confidence, feelings of guilt and worthlessness, pessimism about the future, the idea of self-harm or suicide, sleep disturbance, appetite disorders, and decreased libido.

Based on the research results obtained that mental health and causes of mental health disorders such as depression, anxiety and stress can be seen as follows.

- a. Of the total respondents always experiencing lack of enthusiasm as much as 2.67%, often 14.67% and sometimes as much as 70.67.
- b. Of the total respondents always having trouble sleeping at night as much as 13.33%, often 21.33% and sometimes as much as 36.67.0%.
- c. There are as many as 6.00% of the total respondents always feel tired without cause and as much as 18.67%, often feel it, and 31.33% feel sometimes.
- d. Of the total respondents find it difficult to do the usual things as much as 24.67%, often find it difficult to do the usual things as much as 43.33% and sometimes find it difficult to do the usual things as much as 32.00%.
- e. Of the total respondents often feel uneasy and unable to calm down as much as 14.67%, and sometimes feel uneasy as much as 62.67%.
- f. Of the total respondents feeling hopeless as much as 52.67%, often feeling hopeless as much as 21.33% and sometimes feeling hopeless as much as 22.67%.

- g. Of the total respondents feeling useless and unnecessary as much as 6.00%, they often feel useless and unneeded as much as 52.67% and sometimes feel useless and unnecessary as much as 26.67%.
- h. Of the total respondents felt they were always not interested in the opposite sex as much as 73.33%, often felt not interested in the opposite sex as much as 14.67% and sometimes they felt not interested in the opposite sex as much as 9.33%.

Overall it was concluded that economics students in management, accounting and secretary experienced normal depression with an average value of 9 (nine) and normal stress with an average value of 12 (twelve) meaning that it was still below the normal standard of 14 (fourteen). However, they generally experience mild anxiety with an average value of 9 (nine) where the normal standard is only up to 7 (seven). The data shows that students experience mental health disorders both experience depression, anxiety and stress where 4 (four) percent always experience stress and often experience stress as much as 17 (seventeen) percent. The experience of anxiety shows that students experience as many as 19 percent and often experience depression is 10 percent.

#### **Level of Academic Achievement of Students Economics of UNAI**

Based on the processed data of respondents, it was found that the level of academic achievement of faculty of economics students of UNAI can be described on Table 4.1 and Table 4.1a as follows.

Table 4.1  
Academic Achievement Level

No.	Jurusan	GPA Tk.2	GPATk.III	Ave.GPA
1	Accounting	3.19	3.27	3.23
2	Management	3.03	2.90	2.97
3	Secretary	3.27	3.23	3.25
	Total	3.17	3.23	3.20

Table 4.1a  
Number of Student which GPA Below 3.00

	Level II			Level III		
	Student	GPA	%	Student	GPA	%
Management	12	2.60	40%	13	2.59	54%
Accounting	37	2.51	24%	36	2.55	22%
Secretary	3	2.59	23%	4	2.89	33%

### Correlation Coefficient Analysis and Regression Analysis of Mental Health Against Academic Achievement.

This topic will discuss the correlation coefficient analysis and regression analysis. Correlation coefficient analysis aims to examine the relationship between independent variables with the dependent variable. Correlation analysis between independent variables (independent variables) such as depression, anxiety and stress with the dependent variable (dependent variable), namely the act of crime is to find out the extent of the relationship. Table 4.2 shows that the correlation between depression and academic achievement is 0.160; anxiety about academic achievement is -0,250; and stress on academic achievement is 0.066. The three variables (depression, anxiety and stress) have an inverse correlation meaning that the lower the level of depression, anxiety and stress then the relationship indicates academic achievement is higher.

Table 4.2  
Correlation Coefficient of Depression, Anxiety and Stress  
Against Academic Achievement

		DEPRESSIO N	ANXIETY	STRESS	GPA
DEPRESSIO N	Pearson Correlation	1	.659**	.692**	.016
	Sig. (1-tailed)		.000	.000	.425
	N	150	150	150	150
ANXIETY	Pearson Correlation	.659**	1	.586**	-.025
	Sig. (1-tailed)	.000		.000	.382
	N	150	150	150	150
STRESS	Pearson Correlation	.692**	.586**	1	.066
	Sig. (1-tailed)	.000	.000		.213
	N	150	150	150	150
GPA	Pearson Correlation	.016	-.025	.066	1
	Sig. (1-tailed)	.425	.382	.213	
	N	150	150	150	395

\*\* . Correlation is significant at the 0.01 level (1-tailed).

### The Effect of Partial Depression, Anxiety, and Stress on Academic Achievement

Based on analysis, it was found that the t-count was .190 for depression. With a significance level of 0.05 ( $\alpha = 0.05$ ) and with degrees of freedom n-2 or (150 - 2 = 148) a t-table of 2.6095 was obtained. In other words, t-count <t-table (.190 <2.6095) for depression. Thus Ho was accepted and Ha was rejected, meaning that there was no positive and partially significant effect between depression and academic achievement.

It was found that the t-count is -.302 for anxiety. With a significance level of 0.05 ( $\alpha = 0.05$ ) and with degrees of freedom n-2 or (150 - 2 = 148) a t-table of 2.6095 was obtained. In other words, t-count <t-table (-.302 <2.6095) for anxiety. Thus Ho is accepted and Ha is rejected, meaning that there is no positive and partially significant effect between anxiety and academic achievement. And also found that the t-count is .799 for stress. With a significance level of 0.05 ( $\alpha = 0.05$ ) and degrees of freedom n-2 or (28150 - 2 = 148) a t-table of 2.6095 was obtained. In other words, t-count <t-table (.799 <2.6095) for stress. Thus Ho is accepted and Ha is rejected, meaning that there is no positive and partially significant effect between stress and academic achievement.

### Effects of Depression, Anxiety and Stress on Simultaneous Academic Achievement

Based on Table 4.3 obtained a coefficient of determination of 10.00% means that it has a positive and significant effect simultaneously between depression, anxiety and stress on academic achievement.

Tabel 4.3  
Depression, Anxiety and Stress Determination Coefficient  
Towards Simultaneous Academic Achievement

#### Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.102 <sup>a</sup>	.010	-.010	.43790

a. Predictors: (Constant), STRESS, CEMAS, DEPRESI

#### ANOVA<sup>b</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.296	3	.099	.514	.673 <sup>a</sup>
	Residual	27.997	146	.192		
	Total	28.293	149			

a. Predictors: (Constant), STRESS, ANXIETY, DEPRESSION

b. Dependent Variable: IPK

Based on Table 4.10b shows that the F-count is .514 and the F-table with the denominator ( $150 - 3 = 147$ ) is 2.67, then the F-count  $< F$ -table (.514  $<$  2.67). Thus  $H_0$  is accepted and  $H_a$  is rejected, meaning that there is no simultaneous effect between the variables of depression, anxiety and stress on academic achievement. In other words, the variable of academic achievement of students at Advent Indonesia University in Bandung can be explained by using the variables of depression, anxiety and stress by 10.00%, while other influences of 90.00% are the influence of other factors.

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