



**THE RELATIONSHIP BETWEEN GENDER AND THE LEVEL OF DEPRESSION  
AMONG STUDENTS IN INDONESIA: A CROSS-SECTIONAL STUDY**  
*Hubungan Jenis Kelamin dengan Tingkat Depresi pada Mahasiswa di Indonesia: Studi Cross-  
Sectional*

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**ABSTRACT**

**Background:** College students are vulnerable to depression and anxiety, which are the main symptoms of mental emotional disorders that often occur today. Student depression can occur in female students or male students. The prevalence of mental illness characterized by symptoms and anxiety in the population aged 15 years and over is 6.1% of the total population. **Purpose:** The purpose of this study was to determine the relationship between gender and the incidence of depression in college students. **Methods:** This study used quantitative methods with data collection by incidental sampling on 54 (consisting of 36 women and 18 men) active students of the 6th semester of FIKKIA Universitas Airlangga Banyuwangi. Data collection was done online and analyzed using chi-square, using the CES-D instrument. **Results:** The results of the study found no relationship between gender and the level of depression in sixth semester students, with a value of  $\rho = 0.325$  from the chi-square test, which shows there is no relationship between gender and depression. **Conclusion:** In this study it showed no relationship was found between gender and levels of depression in students.

**Keywords:** depression, gender, mental health, college students, anxiety

**ABSTRAK**

**Latar Belakang:** Mahasiswa rentan terhadap depresi maupun kecemasan, yang merupakan gejala utama dari gangguan mental emosional yang sering terjadi saat ini. Depresi mahasiswa dapat terjadi pada mahasiswa perempuan ataupun mahasiswa laki-laki. Prevalensi penyakit jiwa yang ditandai dengan gejala dan keemasannya pada penduduk usia 15 tahun ke atas yaitu 6,1% dari total penduduk. **Tujuan:** Tujuan penelitian ini untuk mengetahui hubungan antara jenis kelamin dengan kejadian depresi pada mahasiswa. **Metode:** Penelitian ini menggunakan metode kuantitatif dengan pengambilan data dengan incidental sampling pada 54 (terdiri dari 36 orang perempuan dan 18 orang laki-laki) mahasiswa aktif semester VI FIKKIA Universitas Airlangga Banyuwangi. Pengumpulan data dilakukan secara daring dan dianalisis menggunakan chi-square, dengan menggunakan instrumen CES-D. **Hasil:** Hasil penelitian menemukan tidak ada hubungan antara jenis kelamin dan tingkat depresi pada mahasiswa semester VI, dengan nilai  $\rho=0,325$  dari uji chi-square, yang menunjukkan tidak ada hubungan antara jenis kelamin dengan depresi. **Kesimpulan:** Dalam penelitian ini tidak ditemukan hubungan antara jenis kelamin dengan tingkat depresi pada mahasiswa.

**Kata Kunci:** depresi, jenis kelamin, kesehatan mental, mahasiswa, kecemasan

## INTRODUCTION

Mental health is an important part of an individual's health, characterized by a calm and peaceful mind that allows one to enjoy daily life and respect others (Ministry of Health, 2018). Good mental health helps individuals realize their potential, cope with stress, be productive, and contribute to society (WHO, 2020). In Indonesia, the prevalence of mental illness at the age of 15 years and above is 6.1% of the total population (Risksedas, 2018).

The World Health Organization (WHO) found that problems that often occur in late childhood and early adolescence are related to mental health problems, including depression, which is the first factor in youth disease, and suicide is the third factor (WHO, 2014).

Depression in mental health is a critical issue that falls under Sustainable Development Goals (SDGs) point 3, namely healthy and prosperous lives. SDG 3 aims to ensure healthy lives and promote well-being at all ages, including physical and mental health. Depression, which is characterized by feelings of sadness, loss of joy, fatigue, feelings of low self-esteem, difficulty sleeping, reduced appetite, and weakened concentration, can be deadly and interfere with daily activities. At serious levels, depression can be a risk factor for suicide (American Psychological Association, 2012).

In our own country, about 9.8% of the population aged 15 years and above experience mental emotional disorders, which includes about 14 million people, with the main symptoms being emotions and anxiety (Risksedas, 2018). Research by Ferreira (2016) showed that adolescents in the final year tend to be more inactive due to high course load and academic pressure, which increases sitting time and reduces physical activity. Psychosocial factors,

according to the National Institute of Mental Health, including feelings of loneliness, insecurity, boredom, difficulty concentrating, tendency to be quiet, lack of interaction, and being alone, are the main causes of depression in adolescents (Ramadhanti, 2020).

Lifestyle has a significant impact on adolescents' mental health, especially technology use, sleep patterns, diet and physical activity. Excessive use of digital screens, such as smartphones and computers, can trigger mental health issues such as anxiety, depression, and sleep disorders (Twenge, 2017; Rideout, 2018). Irregular sleep patterns and lack of sleep also increase the risk of depression, anxiety and other mood disorders (Owens, 2014). An unbalanced diet, especially the consumption of high-fat and low-nutrient fast food, adversely affects brain health and mood (O'Neil *et al.*, 2014). Good physical activity has been shown to be beneficial in reducing symptoms of depression, anxiety and improving overall well-being, yet many adolescents remain inactive due to various factors (Biddle & Asare, 2011; Hallal *et al.*, 2012). However, this study chose gender as the main variable or cause of depression because several previous studies have shown differences in the prevalence of depression between men and women. In addition, gender is often associated with differences in psychosocial factors, such as gender norms, social expectations, and roles in society, which may affect how individuals cope with depression and other mental health problems.

Depression can affect individuals of all ages, including university students. Students are in the group of adolescents who are heading towards early adulthood, so they often experience sadness and anxiety during this transition period if they cannot handle it wisely (Karthikason & Setyawati, 2017).

College student depression can occur in both males and females.

At 6-12 years of age, the prevalence of depression among males and females is relatively equal. However, in early to middle adolescence, the prevalence of depression among females increases sharply. Pettersen *et al.* (1991) identified three main factors for this difference: gender characteristics, coping resources, and stressful events experienced by adolescent boys and girls (Dianovinina, 2018).

The status of a student is obtained when entering college, with an undergraduate study time of usually 4 to 5 years, according to the regulation of the Minister of Education and Culture No.49 of 2014. Students in the final semester must complete a thesis to get a degree, which is often a challenge and a source of anxiety. This is also experienced by 6th semester students, who feel anxious in facing the upcoming thesis, especially if they are in a less supportive environment that can cause stress or depression, which can affect their studies. Therefore, this study was conducted to analyze the level of depression of 6th semester students at the Faculty of Health Sciences, Medicine, and Natural Sciences, Universitas Airlangga Banyuwangi. The uniqueness of this journal lies in the depression measurement instrument used, the Center for Epidemiologic Studies Depression Scale by Radlof (1972), which has not been used in previous studies in this population (Astutik *et al.*, 2020). This study also describes the level of depression from normal, mild depression, moderate depression, severe depression and very severe depression. This study aims to analyze the relationship between gender and the incidence of depression. Additionally, this study aims to determine the differences in the level of depression between male and female students. This study is important considering the high prevalence of mental

disorders among students, which can have an impact on their academic well-being and quality of life. Through gaining a better understanding of this relationship, hopefully, this study can provide useful information for the development of more effective strategies in dealing with depression in the student environment.

## **METHOD**

### **Study Design**

This study used a quantitative method that aimed to calculate and test whether there was a relationship between gender and depression levels. This study used the Center for Epidemiologic Studies Depression Scale by Radlof (1972). The research data were analyzed using chi-square. The purpose of this test was to detect depression in the broader community. The CES-D was selected due to its efficaciousness in measuring depression levels, as demonstrated by numerous prior research that have examined its validity and reliability.

### **Population and Sample**

Respondents in this study were active students in sixth semester of the Faculty of Health, Medicine and Natural Sciences (FIKKIA Banyuwangi) with an age range of 20-22 years. Data was retrieved from online media by disseminating a link to a questionnaire via g-form; as the g-form was anonymous and did not contain the respondent's name, respondents' privacy can be preserved. This questionnaire was given to students who met the criteria (incidental sampling). The data collection procedure was carried out by distributing questionnaires online and collecting answers through the platform used, by guaranteeing anonymity and confidentiality of personal data. Data processing was conducted using STATA software. The total respondents involved were 54 people consisting of 36 women and

18 men. Data collection was collected from June 5 to June 17, 2024.

### Ethical Clearance

This research has passed the ethical test at the Health Research Ethics Committee, Sekolah Tinggi Ilmu Kesehatan Banyuwangi with certificate No: 042/04/KEPK-STIKESBWI/XII/2024-2025.

## RESULT

The total number of female respondents was more than men, namely 36 female students or 66.67% and male respondents 18 students or 33.33%.

**Table 1.** Distribution by Gender of Semester VI FIKKIA Universitas Airlangga Students in Banyuwangi

Gender	Freq.	Percent	Cum.
Male	18	33.33	33.33
Female	36	66.67	100.00
Total	54	100.00	

Source: Primary Data, 2024

Most students were moderately depressed (22 respondents or 40.74%).

Meanwhile, 6 respondents (11.11%) were very severely depressed in semester VI.

**Table 2.** Distribution by Depression Level of Semester VI FIKKIA Universitas Airlangga Students in Banyuwangi

RECODE of depression	Freq.	Percent	Cum.
Normal	9	16.67	16.67
Mild	10	18.52	35.19
Moderate	22	40.74	75.93
Severe	7	12.96	88.89
Very severe	6	11.11	100.00
Total	54	100.00	

Source: Primary Data, 2024

The results of the bivariate analysis showed that 16 respondents with moderate depression were female, and 6 respondents were male. Meanwhile, sufferers of mild depression were known to be five females and five males. Around seven females and two males did not experience depression (normal). It was also known that 3 sufferers of severe depression were female and 4 males. It was known that 5 people with severe

depression were female and 1 person was male. According to the results of the test using the chi-square test, data was obtained between equality and the level of depression of  $\rho = 0.325$ , and the  $\rho$  value obtained was above 0.05. Thus, it can be concluded that there was no relationship between gender and the level of depression in semester VI FIKKIA students at Universitas Airlangga in Banyuwangi.

**Table 3.** Relationship between Gender and Depression Levels of Semester VI FIKKIA Students at Universitas Airlangga in Banyuwangi

Gender	RECODE of Depression					Total
	Normal	Mild	Moderate	Severe	Vry severe	
Male	2	5	6	4	1	18
Female	7	5	16	3	5	36
Total	9	10	22	7	6	54

Pearson chi2 (4) = 4.6494 Pr = 0.325

Source: Primary Data, 2024

## DISCUSSION

The characteristics of the respondents indicate that most of the respondents were female. The results of this study indicated that the sixth semester students of the Faculty of Health, Medicine, and Natural Sciences FIKKIA Banyuwangi did not have relationship between gender and the level of depression. The test results showed that the highest level of depression in sixth semester FIKKIA students was in the moderate depression category.

The absence of a significant relationship between male and female with the level of depression in this study was the similarity of the social and academic contexts experienced. Sixth semester FIKKIA Universitas Airlangga students, both male and female face the same academic pressures, such as completing many assignments, exams, and preparations for the final semester in working on their thesis or preparing plans after graduating from college, which can trigger similar levels of stress or depression. In addition, social and cultural norms among students may encourage the same response to the pressure experienced, where the expectations and responsibilities faced by male and female tend to be equal. These factors are an explanation for the absence of a relationship between gender and the level of depression in sixth semester FIKKIA Universitas Airlangga students.

The results of this study were in line with the research of Aidi *et al.* (2020) which explained that there was no relationship between gender and the level of depression in new students of PSDKU Universitas Airlangga in Banyuwangi. The findings of this study were also in line with the research of Herawati *et al.* (2018) which revealed that the majority of participants with depression were men who were diagnosed with depression. Of those who experienced

trauma, some were female. However, the results of the square test also showed that there was no relationship between gender and depression.

In addition, the findings of this study were in line with the research of Mumulati *et al.* (2019) which showed that some of the women interviewed did not experience depression. Some participants experienced mild depression, while others experienced mild trauma. The results of the chi test statistical test showed that there was no association between gender and depression. This study was also in line with the research of Mangapi dan Habel (2018) which shows that most elderly women experience depression, while only a small portion do not experience depression. On the other hand, most elderly men also experienced depression, only a small portion do not experience depression. In addition, the findings of this study are in line with the research of Assyifa *et al.* (2022) which shows that there is no relationship between the gender of students and their anxiety levels at the Faculty of Medicine and Health Sciences Universitas Lambung Mangkurat at the final level in completing the final assignment.

Several of these studies were in line with the research of Samudero *et al.* (2020) which showed that bivariate analysis showed no significant relationship between gender and depression measured by the DASS 42 questionnaire in 185 preclinical medical students at the Faculty of Medicine and Health Sciences, Universitas Katolik Atma Jaya.

This study was also in line with the research of Roseline *et al.* (2020) which shows that based on the results of statistical tests, it was found that there was no significant difference in stress levels in male and female students, thus there was no relationship between gender and stress levels in accounting students from several



universities in Indonesia. In addition, the findings of this study were in line with the research of Ramadhani and Hendrati (2017) which showed that based on the results of the chi-square test, a significance was obtained which showed that there was no relationship between gender and stress levels experienced by high school student respondents in Kediri City.

In addition, the findings of this study are in line with the research of Anita and Husada (2019) which showed that there was a significant difference in the level of depression between men and women, but no relationship was found between the level of depression and gender in hemodialysis patients who experienced depression at the Wates Kulonprogo Regional Hospital. This study is also in line with the research of Hasanah *et al.* (2018) which showed that gender did not have a significant relationship with the tendency of adolescent depression 7 years after the eruption of Mount Merapi. The ten research studies have supported the results of the research that has been undertaken.

In this study, there were students who did not experience depression, but there were also students with mild depression, seen from the results of the 20 questionnaires, it showed that most of them had difficulty controlling their thoughts on what they were doing and could not focus on important things. Most respondents also experienced anxiety. This interfered with the activities of respondents. In addition, there were students with moderate depression, where from the results of the questionnaire, most of the respondents often experienced not being able to focus on important things that could interfere with work, respondents were also unable to eliminate feelings of sadness for a long time. Respondents also experienced a depressed state. This interfered with the activities of respondents.

Moreover, it can be seen from the results of the questionnaire that most of the students with severe depression experienced a lack of focus on important things. Respondents also experienced feelings of being a bad person. Respondents also experienced fatigue all the time. This will pose an impact on a sense of reduced enthusiasm for activities that are usually carried out every day which can lead to poor work results. Based on the results, there were also students who were very depressed, whereas seen from the results of the questionnaire, most respondents experienced movement when doing something becoming slow and less responsive. Respondents also experienced no hope in the future, felt pessimistic and not confident in what they were doing. Respondents also experienced sadness for no reason. Feeling sad for no reason is not normal, because the sadness that usually arises often occurs for a reason that rose feelings of emotion in a person.

The sixth semester was a phase where students experience anxiety, because they will face the final semester. This anxiety occurred in male or female students, as they were packed with academic or non-academic burdens towards the final semester. If this took place, it interfered with the student's study process, even if in the long term, they might experience serious mental disorders that can threaten the psychological and physical health of students which lead to self-harm, despair, and even death. Therefore, as students, they must be able to control themselves and introspect if they experience symptoms of depression and sought efforts to prevent depression.

This study has several limitations: data collection was conducted through online media thus authors could not ensure the involvement of respondents directly. In addition, there were also respondents who only saw the research questionnaire, but did

not fill it in, thus authors must remind respondents again.

## CONCLUSION AND SUGGESTION

In this study, there was no relationship between gender and depression levels in sixth semester students at the Faculty of Health, Medicine, and Natural Sciences, Universitas Airlangga, Banyuwangi. The results of the chi-square test showed that there was no significant relationship between depression levels and gender. The sixth semester is a crucial phase where students often face anxiety as they head towards the final semester, which increases the risk of depression. Researchers suggested that students should maintain good mental health, such as effective stress management, seeking social support from family or friends, implementing a healthy lifestyle, to avoid more serious negative impacts of depression, such as suicidal behavior.

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## CONFLICT OF INTEREST

There is no conflict of interest.

## AUTHORS' CONTRIBUTION

Irma Hanifatu Sa'adah made the research questionnaire, distributed the questionnaire, processed the research data, worked on the entire journal, looked for journal references, and worked on the journal revision. Rifka Pramudia Wardani assisted with the revision, helped with finding journal

references, additions to the discussion, and helped with direction in working on the journal. Wahyu Nur Aini contributed to helping with distributing the questionnaire, helping with processing the research data, helping with finding journal references, helping with direction in working on the journal. Yuniar Laksmi Eka Wardani contributed to helping with making the research questionnaire, helping with distributing the questionnaire. Jayanti Dian Eka Sari contributed as a supervisor (guiding, providing direction, and input in working on the article).

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