

# Depressive Symptoms among Final Year Student: A Study of Gender Differences

## *Simtom Depresi dalam Kalangan Pelajar Tahun Akhir: Satu Kajian Berkaitan Perbezaan Jantina*

Lim Chin Fen and Norsimah Dasan  
Universiti Malaysia Sabah

\*Corresponding author: [norsimahdasan@ums.edu.my](mailto:norsimahdasan@ums.edu.my)

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The prevalence of depression among university students, especially final year students, is increasing. However, different gender shows a different degree of depressive symptoms. Hence, the researcher studied the significant differences in depressive symptoms among different gender of final year students in University Malaysia Sabah (UMS), Kota Kinabalu. Final year students from Faculty of Medicine & Health Sciences (FMHS), Faculty of Food Science & Nutrition (FFSN), Faculty of Business, Economics & Accountancy (FBEA), and Faculty of Social Sciences & Humanities (FSSH) completed the survey measuring depressive symptoms (Center or Epidemiologic Studies Depression Scale (CES-D)) through online. This study using cluster random sampling, and 150 students who had participated (53.3% female and 46.7% male). The mean age of the participants was 23.15 years. The descriptive result showed final year students have a high level of depressive symptoms, which a mean is 36.97 ( $SD = 12.41$ ). The independent-samples t-test result showed a significant difference between males and females in depressive symptoms ( $p < .05$ ). These findings are supported by several previous studies and discuss important aspects related to gender roles, especially among university students. The potential explanations for this finding include the physiological factor, personality, and environment factor. The implication of the research's findings has contributed knowledge to the field of depressive symptoms. Also, the Ministry of Education may give more attention to and help vulnerable students, especially female students. For future research, university students from other states or areas should be included to generalize the result. In conclusion, females are vulnerable to the social setting. Therefore, to decrease the incidence of depressive symptoms in females, the entire society, but not only the people around them, have the responsibility to help females to deal with distress mood.

**Keywords:** depressive symptoms, gender, student

*Kelaziman kemurungan dalam kalangan pelajar universiti, terutamanya pelajar tahun akhir semakin meningkat. Walau bagaimanapun, lelaki dan perempuan menunjukkan tahap gejala kemurungan yang berbeza. Oleh itu, pengkaji mengkaji perbezaan yang signifikan dalam gejala kemurungan antara pelajar lelaki dan perempuan tahun akhir di Universiti Malaysia Sabah (UMS), Kota Kinabalu. Pelajar tahun akhir dari Fakulti Perubatan dan Sains Kesihatan (FPSK), Fakulti Sains Makanan dan Pemakanan (FSMP), Fakulti Perniagaan, Ekonomi & Perakaunan (FPEP), dan Fakulti Sains Sosial & Kemanusiaan (FSSK) menjawab soal selidik melalui atas talian yang terdiri daripada soal selidik yang mengukur simptom kemurungan (Center or Epidemiologic Studies Depression Scale (CES-D)), dan sokongan sosial (Multidimensional Perceived Social Support (MPSS)). Sampel terdiri daripada 150 orang pelajar (53.3% perempuan; 46.7% lelaki, umur min 23.15 tahun) dan telah dipilih menggunakan persampelan kelompok. Hasil deskriptif menunjukkan pelajar tahun akhir mempunyai tahap gejala kemurungan yang tinggi, yang min adalah 36.97 ( $SD = 12.41$ ). Analisis Ujian-t pula menunjukkan terdapat perbezaan yang signifikan antara lelaki dan perempuan dalam gejala kemurungan ( $p < .05$ ). Penemuan ini disokong oleh beberapa kajian terdahulu dan membincangkan aspek penting yang berkaitan dengan peranan jantina, terutama dalam kalangan pelajar universiti. Penjelasan yang berpotensi untuk penemuan ini merangkumi faktor fisiologi, keperibadian, dan faktor persekitaran. Implikasi dari hasil penyelidikan telah menyumbang pengetahuan kepada bidang gejala kemurungan. Kementerian Pendidikan juga boleh memberikan latihan kesihatan mental dalam program akademik, terutamanya pelajar perempuan. Untuk penyelidikan masa depan, pelajar universiti dari negeri atau kawasan lain harus disertakan untuk meningkatkan generalisasi penemuan. Kesimpulannya, perempuan adalah mudah terdedah kepada gejala kemurungan dalam masyarakat. Oleh itu, bukan hanya orang di sekitar mereka, tetapi seluruh masyarakat mempunyai tanggungjawab untuk membantu perempuan menangani perasaan tertekan untuk mengurangkan kejadian gejala kemurungan dalam kalangan perempuan.*

**Kata kunci:** gejala kemurungan, jantina, pelajar

Depression is one of the mental illnesses that contributed burden disease to every country in the world. The other examples of mental disorders include schizophrenia, eating disorder, anxiety, and substance use disorder. According to Ritchie and Roser (2019), depression had achieved the second-highest (3.4%), which is 264 million people in the global population who share the disorder in 2017, among other mental disorders. According Institute for Public Health (IPH) (2018), 29% of Malaysians suffered from depression compared to in 2011, only 12% suffered from it This statistic showed a bad increase in depressive disorder in Malaysia from 2011 to 2017. The major symptoms of depressive episodes include anhedonia, feelings of worthlessness, fatigue, changes in appetite, restlessness, and even sleep disturbances.

Since depressive disorder usually starts at an early age in the life stage. Therefore, it is considered serious in damaging one's life. Depressive disorders can bring a lot of disadvantages to the victims, mentally, and socially and physically. People with depressive disorders will have difficulties in social and occupational activities. The dysfunctions of the victims will reduce one's workability. It will cause a decline in the family's life quality. According to the National Collaborating Centre for Mental Health (NCCMH) (2010, p. 21), dysfunctions in occupational activities not only result in lose of income. But also reduce people's contribution to society or country in terms of taxation and employment skills. Besides, they are likely to be dependent on the welfare service, loss self-esteem and inability to communicate, and maintain a relationship (NCCMH, 2010, p. 21).

Depressive symptoms are prevalent in the age cohort of 18–29 years old, which among university students is essentially higher (Busch, Mask, Ryl, Schlack, & Hapke, 2013, p. 735). Among the university students with a high level of depressive symptoms, females are more depressed than males (Albert, 2015, p. 1; Kuehner, 2017, p. 219). The percentage of depression was 2.7% for males, while 4.1% for females (Ritchie & Roser, 2019). They have longer episodes of depression (Oquendo et al., 2013, p. 1180). Besides, 20% to 25% of females and 7% to 12% of males will suffer from a major depressive episode in their lifetime (Feldman, Christensen, & Satterfield, 2014). This can be due to differences in physiological factors, personality, and environmental factors. These factors may cause females to possess vulnerable cognition when assessing adverse life events. According to the hopelessness theory of depression, the interaction of vulnerable cognition and adverse life events lead to a sense of hopelessness (Abramson, Metalsky, & Alloy, 1989, p. 362).

According to the annual report of the Center for Collegiate Mental Health (CCMH) (2018), university students more likely to seek counseling due to depression and anxiety. By referred to the statistic, there were about 30% of university students in Malaysia are suffering from depression, including 4.4% of severe depression (Islam, Wah, Wen, Claire, & Abdullah, 2018, p. 418). This phenomenon is mostly seen among final year students. Shamsuddin et al. (2013, p. 320) mentioned that final year students are more depressed than junior students. However, studies focusing on the sample of final year students in various UMS faculties are still less focused. Therefore, this study enables us to fill up the gaps in identifying the differences depressive symptoms level among final year students of different genders. The hypothesis of this research is there is a significant difference in depressive symptoms among males and females.

## Method

### Research Design

This study uses a survey method by distributing questionnaires as a research tool to 150 respondents. The independent variable of this research is gender while the dependent variable is depressive symptoms. The extraneous variable in this research is the participant variable. The participant variable is the characteristics of the participants. The total item of inventory is 20 items. This amount of items may lead to the participants feel tired and bored. This will affect the research result since the questionnaires that are distributed to final year students in Google form. Therefore the participants can follow their time and path to complete the questionnaire.

### Participants

This study has 80 female and 70 male participants around the age of 22 to 27. The participants were recruited by using cluster sampling through simple random sampling.

There are two clusters of faculties in UMS, Kota Kinabalu, which are the science cluster and art cluster. The researcher randomly drew two faculties from each cluster. The final year students from Faculty of Medicine and Health Sciences (FMHS), Faculty of Food Science and Nutrition (FFSN), Faculty of Business, Economics and Accountancy (FBEA), and Faculty of Social Sciences and Humanities (FSSH) had been chosen as the participants in this research.

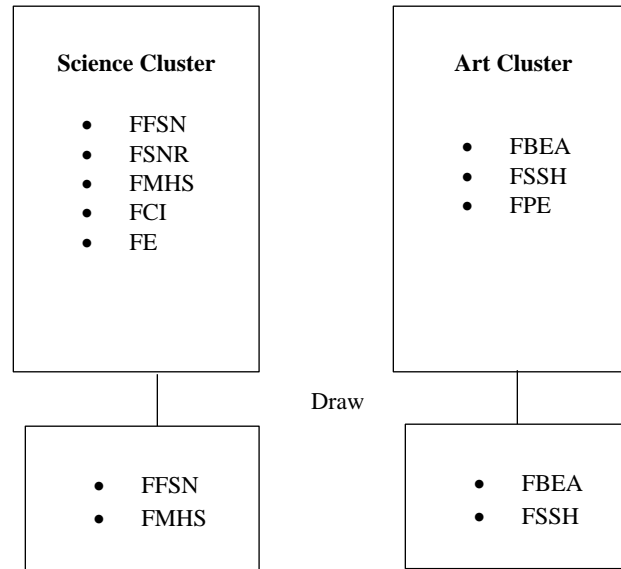


Figure 1. Process of cluster sampling through simple random sampling method.

## Instrument

This set of research questionnaire was divided into two parts. Demographics of the respondents are the first part of the questionnaire, which includes gender (male and female), age (22-27), and four faculties (FMHS, FFSN, FBEA, and FSSH) in the sample selection as shown in Figure 1. In the second part, the researcher used the Center for Epidemiologic Studies Depression Scale (CES-D) by Radloff (1977, p. 385), as an inventory to measure the depressive symptoms. Leykin, Torres, Aguilera, and Muñoz (2011, p. 271), mentioned that CES-D has a high and adequate Cronbach's alpha value which indicates that it has good reliability. Also, CES-D showed good concurrent validity (Heo Choi, Yu, & Nam, 2018). The questionnaire is composed of 20 items and uses a 4-points Likert scale ranging from 1 = *rarely or none of the time* (less than 1 day) to 4 = *most or all of the time* (5–7 days). There are four out of the 20 items (e.g., "I felt hopeful about the future"; "I enjoyed life") are negative items which the 4-points scale from 1 = *most or all of the time* (5–7 days) to 4 = *rarely or none of the time* (less than 1 day).

CES-D contains four dimensions, such as negative affect, anhedonia, interpersonal difficulties, and somatic. There are seven items in negative affect (e.g., "I thought my life had been a failure"; "I felt depressed"), four items in dimension anhedonia (e.g., "I felt I was just as good as other people"; "I was happy"), two items in interpersonal difficulties (e.g., "People were unfriendly"; "I felt that people dislike me"), and seven items in somatic (e.g., "I did not feel like eating"; "My sleep was restless"). The cut-off point of 36 or higher was used to indicate people with

depressive symptoms in the CES-D (Weissman, Sholomskas, Pottenger, Prusoff, & Locke, 1977, p. 207). Therefore, a student who scores higher than 36 in the inventory was assumed as in a state of depression or have a greater chance to develop depression.

## Procedure

First, the questionnaire was done in Google form. Next, the researcher drew out the two faculties from both the science cluster and art cluster in UMS, Kota Kinabalu. After that, the researcher sent the questionnaires to the final year students of the selected faculties for answering through Whatsapp. The respondents had to follow the instructions in the questionnaire. Later, the collected data were analyzed by using IBM Statistical Package for Social Science (SPSS) Version 21.0. Finally, the conclusion was made.

## Data Analysis

The data were analyzed by using SPSS Version 21.0. Descriptive statistics like central tendency, mean and standard deviations were used to test the level of depressive symptoms among final year UMS students. Meanwhile, the independent-samples t-test is to analyze the significant difference of depressive symptoms among males and females.

## Results

The mean, standard deviation, and median age and depressive symptoms were calculated and showed in

Table 1. The mean age was 23.15 ( $SD = .85$ ). The mean of depressive symptoms of UMS final year students was 36.97 ( $SD = 12.41$ ). This result indicated that final year students really showed high depressive symptoms since it had exceeded the cut-off point of 36 (Weissman et al., 1977, p. 207).

From Table 2, the mean of depressive symptoms of FMHS students was 37.60 ( $SD = 11.57$ ). While the mean of depressive symptoms of FFSN students 41.83 ( $SD = 12.35$ ). The final year students from the science cluster seem showed a high degree of depressive symptoms. The number of FMHS and FFSN students participate in this survey were lesser than students from FBEA and FSSH. However, the mean score of depressive symptoms of both science cluster students

are higher compared to the mean score of FBEA students ( $M = 36.45$ ,  $SD = 12.48$ , and FSSH students ( $M = 33.25$ ,  $SD = 11.62$ ).

Table 1  
*Mean, Standard Deviation and Median of Depressive Symptoms*

	<i>M</i>	<i>SD</i>	<i>Med</i>
Age	23.15	.85	23.00
Depressive Symptoms	36.97	12.41	32.00

Table 2  
*Frequency, Mean, Standard Deviation and Median of Depressive Symptoms based on each Faculty*

Depressive Symptoms	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Med</i>
FMHS	15	37.60	11.57	37.00
FFSN	35	41.83	12.35	44.00
FBEA	51	36.45	12.48	32.00
FSSH	49	33.25	11.62	28.00

Table 3  
*Significant Difference between Male and Female in Depressive Symptoms*

	Gender						<i>t</i>	<i>df</i>	<i>p</i>
	Male			Female					
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>			
Depressive Symptoms	30.46	8.73	70	42.68	8.66	80	-7.05	141.81	.000

\*  $p < .05$

From Table 3, there was significant difference in the depressive symptoms among 70 males ( $M = 30.46$ ,  $SD = 8.73$ ) and 80 females ( $M = 42.68$ ,  $SD = 8.66$ ) conditions,  $t(141.81) = -7.05$ ,  $p < .05$ . These results indicated that the females showed greater depressive symptoms than males.

## Discussions

### The Level of Depressive Symptoms among Final Year Students

From the descriptive results above, the depressive symptoms of final year students are high, which has scored 36.97 on average. This result is supported by Shamsuddin and others (2013, p. 320). They mentioned that final year students are more depressed than junior students in the university. Graduating students need to deal with various academic assessments as compared to junior. Consequently, they have limited time to continue their hobbies or hanging out with friends or family. As a result, the lack of companionship and relaxation time can increase the students' stress level and cause depression indirectly (Tangade, Mathur, Gupta, & Chaudhary, 2011, p. 99).

Other than that, final year students in the year 2020 have highly odd to experience depressive symptoms because of the COVID-19 pandemic. The changing of academic assessments and learning styles has brought a burden to them. First, with the fixed assessments, such as assignment and thesis, students need to complete more assignments to replace the canceled examination. Secondly, due to technical errors or financial problems, students will also encounter some online learning problems. Besides, the fresh graduate students will face the problems of unemployment due to the global economic crisis.

This phenomenon is not optimistic for final year students. Thus, about 81% of students feel worried about their employment opportunities, while 95% of students are pessimistic about future economic growth trends (Sellgren, 2020). In short, the final year students need to deal with learning interruption, assessment interruption, and economic crisis. All of these problems can influence peoples' perceived stress. Then, the possibility of being diagnosed with depression will increase.

## The Difference between Male and Female in Depressive Symptoms

Are females more depressed than a male? Kugbey, Osei-Boadi, and Atefoe (2015, p. 138), claimed that male students are more depressed than female students. They mentioned that it is due to the female perceived higher social support from family, friends, and significant others. However, the present research showed a variant result. The result showed that female students experienced statistically significantly higher levels of depressive symptoms than male students. This result is also equivalent and supported by the previous finding (Kuehner, 2017, p. 219). Albert (2015, p. 1), mentioned that in both developed and underdeveloped countries, the chances of females diagnosed with depressive disorders are double to males. Unfortunately, females need to spend more time to recover, and the possibility of relapse is high (Oquendo et al., 2013, p. 1180). Li, Lu, Wang, and Zhong (2015, p. 5), claimed that a female's attitude towards the adverse life event is vulnerable. When things go bad, they are easier to be influenced and lack of ability to control their affection, behavior, and cognitive.

There are a few possible reasons to explain why females have higher odds in depressive disorders. First, from a physiological point of view, females are easily stressed. Tangade, Mathur, Gupta, and Chaudhary (2011, p. 99), suggest that depression has a direct relationship with stress levels. Fattore (2015, p. 2), mentioned that the activation of the HPA axis, conditioned fear reactions, and diastolic blood pressure in males is greater than females. Notably, those mechanisms enable males to effectively deal with the stress factor. Furthermore, the amygdala in the female has a greater response to negative emotions, but amygdala in males is the opposite (Stevens & Hamann, 2012, p. 1587). This explanation is consistent with the hopelessness theory of depression, in which people with cognitive vulnerabilities can feel hopeless easily. Therefore, female students have a higher level of stress, and unresolved stress will lead to depression.

Furthermore, hormonal fluctuation in females increases the risk of depression. During the period of menstruation, the estrogen will fluctuate to achieve a different menstrual cycle. Hence, it will cause the instability of mood and emotions (McHenry, Carrier, Hull, & Kabbaj, 2014, p. 42), and females may experience depressive symptoms in this period. Additionally, estrogen can affect the operation of the HPA axis by weakening the effects on sympathoadrenal responsiveness (Kajantie & Phillips, 2006, p. 154). The estrogen can foster depressive symptoms, but testosterone provides the opposite effect (Li et al., 2015, p. 2).

Other than that, the proportion of females who experience precocious puberty is greater than males. During the puberty period, fats will redistribute to breasts and hips in females while the muscle mass will increase in males. Females may be teased and by peer

groups and have low confidence with their body changes. According to Wang, Lin, Leung, and Schooling (2016), body shaming is the cause of low self-esteem and low life satisfaction in a female.

Next, females' personalities are vulnerable to depressive symptoms. According to Klein, Kotov, and Bufferd (2013, p. 285), there is a direct relationship between low extroversion, high neuroticism, and depression. The 'feminine personalities' restrict female to express themselves as they need to take into account the opinion of others. Therefore, they tend to compromise with others in a conflict to maintain the relationship. Moreover, females are sensitive and tend to overthink. This can lead to misunderstanding in interaction and increase the level of interpersonal stress. Interpersonal relationships are really important for females, but females experience more interpersonal stress than males (Hankin, Mermelstein, & Roesch, 2007, p. 290). Perhaps those personalities had caused tension in females' interpersonal interaction and will result in depressive symptoms after a long period.

The last proposed reason to explain the finding is females are not treated fairly by society. People are harsh to females, there are many restrictions for female but not male. Van de Velde, Huijts, Bracke, and Bamba (2013, p. 691), mentioned that female may report depressive symptoms if they suffer from gender inequality. According to Rosenthal, Smidt, and Freyd (2016, p. 370), female students are more likely to be sexually harassed by peers or staff in university as compared to males. The ratio of male to female experiencing sexual harassment is 1.64:1. They need to bear unnecessary stress because of worry about becoming the next victim. When females experience sexual harassment, they may suffer from psychological ailments due to reduced self-efficacy.

## Conclusion

In short, final year students are having high depressive symptoms. It may be due to the high standards of academic requirements, lack of leisure time, pressure in finding a job, and the changes in academic assessments caused by the COVID-19 pandemic. Compared to genders, females have a higher level of depressive symptoms than males. The few possible explanations are females have low activation of HPA and the amygdala is a greater response to negative emotions. Also, female hormonal fluctuation has weakened the emotional regulation among females during menstruation. The precocious puberty experienced by females also brings a negative impact on their well-being. Next, 'feminine personalities' such as low extroversion and high neuroticism and social discrimination have caused tension in the female.

Next, this study limitation is that the samples are collected only in the Kota Kinabalu area. The concentration of sample collection in the Kota Kinabalu may not be adequate in generating an exhaustive picture that reflects the population of

university students with depressive symptoms in Malaysia. Additionally, this study is conducted through a self-administered approach, so the respondents' assessment of the questionnaire has remained unknown.

The implication of research's findings has contributed knowledge to the field of depressive symptoms. Also, the Ministry of Education may notice the worries of students and provide mental health training in the academic programs, especially for female students. Most of the universities provide psychological services on the campus but lack publicity. Therefore, the university administrators, social workers, counselors, and therapists may put more effort into promoted psychological services. Whenever students feel stressed and helpless, they will know where to ask for help.

For future research, university students from other state or area should be included. If possible, the researcher must explain all the questionnaire items to the respondents and use a personal approach in future research.

To wrap up, not only parents and universities, people from different organizations, such as NGOs or society in general are responsible to decrease the level of depressive symptoms among the students. People need to show more love and attention to the final year students who are deal with various challenges. When coming across with female students, people should be more caring and treat them equally to increase their emotional well-being. A simple act of kindness can prevent tragedy from happening.

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