

Generalized Anxiety Among University Students

Kecelaruhan Kebimbangan dalam Kalangan Pelajar Universiti

Nireisha Durai Raju and NurFarhana Ardillah Aftar
Universiti Malaysia Sabah

Corresponding author: farhana@ums.edu.my

Dihantar: 22 November 2021 / Diterima: 15 Disember 2021

Received date: 22 November 2021 / Accepted date: 15 December 2021

Generalized anxiety disorder is an ongoing mental health disorder that gives rise to fear, continuous feeling of being overly concerned about everything in everyday life. The prevalence of generalized anxiety problems in youngsters who enrolled in university and colleges is quite higher among other adults. In terms of gender differences, females are twice or thrice as likely as males to experience generalized anxiety disorder. Thus, this study is carried out to determine GAD level among university students, to compare levels of GAD between male and female, as well as to determine correlation between generalized anxiety and CGPA. A total of 399 respondents participated in this study with 212 female and 187 male respondents. The data for this study is collected by using Generalized Anxiety Disorder-7 scale. The results of this study revealed that generalized anxiety score is found high among female students compared to male students. Moreover, generalized anxiety negatively correlates with CGPA of students. In conclusion, GAD-7 score in this population is high in female students than in male students and there is a significant negative correlation between CGPA and generalized anxiety score. With this finding, parents, teachers, counsellors and other mental health professionals can hopefully have better insights regarding the likelihood of GAD among university students in terms of gender differences and academic performance.

Keywords: Generalized Anxiety Disorder, Gender, university student, CGPA, Generalized Anxiety Disorder Scale-7 (GAD-7).

Kecelaruhan keresahan menyeluruh atau 'Generalized Anxiety Disorder (GAD)' adalah gangguan kesihatan mental yang menimbulkan ketakutan secara berterusan dengan kebimbangan yang tidak terkawal tentang hal-hal harian yang tidak setanding dengan apa yang patut dibimbang. Kelaziman masalah GAD di kalangan anak muda yang sedang menuntut di universiti adalah lebih tinggi berbanding di kalangan orang dewasa. Dari segi perbezaan jantina, wanita dikatakan dua kali atau tiga kali ganda lebih daripada lelaki untuk mengalami masalah GAD ini. Oleh itu, kajian ini dijalankan untuk menentukan tahap GAD di kalangan pelajar universiti, perbandingan di antara skor GAD lelaki dan perempuan, serta perkaitan di antara skor GAD dan PNGK pelajar. Seramai 399 responden telah terlibat dalam kajian ini dengan 212 responden dari kalangan pelajar wanita dan 187 responden dari kalangan pelajar lelaki. Data untuk kajian ini dikumpulkan dengan menggunakan skala Generalized Anxiety Disorder-7 (GAD-7). Hasil kajian ini menunjukkan bahawa skor GAD didapati tinggi dalam kalangan pelajar wanita berbanding pelajar lelaki. Tambahan lagi, tahap GAD berkorelasi negatif dengan PNGK pelajar. Dengan dapata ini, ibu bapa, guru-guru, para kaunselor dan professional dalam bidang kesihatan akan mendapat kesedaran yang lebih baik berkenaan kebarangkalian GAD dalam kalangan pelajar universiti dari segi perbezaan jantina dan prestasi akademik.

Kata kunci: kecelaruhan keresahan menyeluruh, jantina, pelajar universiti, PNGK, Skala Kecelaruhan Keresahan Menyeluruh-7 (GAD-7)

Generalized anxiety disorder is an ongoing mental health disorder that gives rise to fear, a continuous feeling of being overly concerned about everything in everyday life. Generalized anxiety is characterized by excessive, persistent, and unrealistic worry about simple day-to-day things such as money, work, health, food, relationships, and many more events (Gale & Davidson, 2007). According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), GAD is also defined by chronic, excessive, and

unrealistic anxiety about everyday things, frequently including more than one area, such as finances, family, relationship, health, and the future. When life gets stressful, anxiety can be expected. However, if the anxiety persists and difficult to control, among other symptoms, it can potentially be a generalized anxiety disorder. The onset of a generalized anxiety disorder can be earlier on as a child or later on as an adult. Most screening questionnaires for the condition ask if the person is a worrier, if they worry too

much about many things, and if they experience somatic symptoms of anxiety. Generalized anxiety disorder has similarities with various other types of anxiety disorders such as obsessive-compulsive disorder, panic disorder, social anxiety disorder, posttraumatic stress disorder, and phobias, though in contrast to distinct episodes of intense panic and anxiety characterizes panic disorder, the level of anxiety in people with generalized anxiety disorder changes over time (Torpy et al., 2011).

Gender and Generalized Anxiety

Anxiety disorders seem to be one of the most common type of psychiatric illness. Females are 1.5–2 times more likely than males to develop anxiety disorders, with life experience and past-year rates of anxiety disorders 1.5–2 times greater in females than males (McLean et al., 2011). Differences in the development of internalizing and externalizing illnesses between men and women may be due to differences in socialization processes that intensify during adolescence and activate masculinity and femininity characteristics (Parker & Brotchie, 2004). Therefore, gender roles are likely to have an impact on anxiety variations between men and women. GAD is a common, chronic, and painful condition typically associated with other psychiatric disorders and has an enormous psychological, societal, and economic impact. Gender differences research is significant because gender-specific demographic factors, comorbidity, symptom presentation, and severity can assist clinicians in recognizing diverse manifestations of the condition, alternative target behavior selection and intervention sequence, and address gender-specific challenges in mental health services. GAD traits that are unchanging across genders are considered more essential to the disorder. Therefore, a more profound knowledge of gender differences in the disorder is highly crucial. Gender differences in presentation of GAD symptoms could be attributable to fundamental etiological causes such as genetic factors that are primarily determined by environmental, cultural, sex-role orientation, or biological differences. Conversely, they could be linked to the existence of etiological elements, such as hormones, that have different effects on men and women (Vesga-López et al., 2008).

Generalized Anxiety Among University Students

It is generally assumed that college students at some point are under a great deal of stress due to various reasons. Many aspects of college or university life and the stress that comes with it can harm a student's physical and emotional well-being. For those with symptoms of generalized anxiety, the symptom can worsen at various transition periods such as when they are about to graduate, going to campus for the first time, or returning after a holiday break (Eisenberg et al., 2007). Moving into campus life, starting a new class, meeting new people or being homesick may be stressful and challenging for some university students.

According to a global survey of over 32,000 college students, students were found to be affected by ongoing severe depression and anxiety. Malaysia is a developing country in Southeast Asia that is undergoing fast economic growth. In general, anxiety has been found to have a prevalence of 2.1 to 5% of people in Southeast Asian nations

(Baxter et al., 2014). As shown in a study conducted by Baxter et al. (2014), the prevalence of anxiety rises between the ages of 10 to 19 and increases between 20 and 34. In general, university students are at a stage of their lives where anxiety is most prevalent. Compared to high school, the university-life is not only academically demanding but also in other areas involving socialization, homesickness, tuition, living, and food expenses (Vitasari et al., 2010).

CGPA and Generalized Anxiety

Cumulative Grade Point Average is an abbreviation for Cumulative Grade Point Average. It is commonly used to assess a student's overall academic achievement. The CGPA is computed by taking the mean of a student's GPA for each semester and dividing it by the total number of credits earned. This modern society puts a high significance on CGPA based on current socio-cultural norms. The association between generalized anxiety and academic performance has been investigated in many past studies. Generalized anxiety affects students' daily lives and academic achievement (Vogel & Collins, 2000). Anson et al. (1984) discovered that anxiety was substantially and adversely associated with students' CGPA in research on the association between anxiety and academic performance. Besides, highly anxious students were considerably less likely to attain academic success or be accepted by their peers (Seligmen & Wuyek, 2007).

Methodology

Participants

This is a quantitative study involving a total of 399 participants. The participants consisted of 212 female and 187 male undergraduate university students in a local university between the ages of 19 and 26 years old. Each participant completed a brief demographic questionnaire and the Generalized Anxiety Disorder Scale-7 (GAD-7) via google form.

Procedure

Participants were recruited through advertisements via WhatsApp groups, messages, and Facebook posts. Recruitment statements and link to the Google Form were distributed through social media. The questionnaire consisted of two (2) parts; the first part contains the demographic questions and a consent form, and the second part consists of the 7 items from the Instrument Generalized Anxiety Disorder Scale-7 (GAD-7) used to screen for Generalized Anxiety Disorder (SMD). The Generalized Anxiety Disorder Scale-7 (GAD-7) requires participants to answer according to the 4 Likert scale, in which 0 represents "Not at all" to 3 represents "nearly every day". Finally, data were entered and analyzed with the Statistical Package for Social Science (SPSS) version 27.

Measurement

The 7-item Generalized Anxiety Disorders Scale (GAD-7; Spitzer et al., 2006) was created as a screener for generalized anxiety disorder (GAD) to be used in primary care setting. The GAD-7 was initially developed with 13 questions based on the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (DSM-IV) criteria for GAD and other anxiety measures. The overall score was then correlated with the items. The seven items that had the best correlation with the entire 13-item measure were adopted (Spitzer et al., 2006). The GAD-7 is made of 7 items which are rated on a 4-point scale where 0= “Not at all, to 3= “nearly every day” (Lowe et al., 2008, p. 267). There are seven generalized anxiety categories according to GAD-7: feeling nervous, anxious or on edge, ability to stop or control worrying, worrying too much about different things, and trouble relaxing, being so restless that it is hard to sit still, becoming easily annoyed or irritated and feeling afraid as if something awful might happen.

There is a total of 7 items. In this study, the items are labeled as GAD1 (Feeling nervous, anxious or on edge), GAD2 (Not being able to stop or control worrying), GAD3 (Worrying too much about different things), GAD4 (Trouble relaxing), GAD5 (Being so restless that it is hard to sit still), GAD6 (Becoming easily annoyed or irritable) and GAD7 (Feeling afraid as if something awful might happen). GAD-7 has total scores range from 0 to 21, with higher scores indicating GAD. Original authors explained that the overall score could also be interpreted as indicating mild anxiety (0–4), mild (5–9), moderate (10–14), or severe (15–21), with a suitable cut-off value of 10 points for detecting instances of GAD.

Spitzer et al. (2006) found that Cronbach's alpha for the entire scale was approximately 0.89 (Spitzer et al., 2006). All of the items' scores were added together to produce a final score that ranges from 0 to 21. Test-retest reliability, diagnostic validity, convergent validity, factorial validity, and internal consistency are all acceptable psychometric properties of the GAD-7 in some populations. Furthermore, according to Cronbach's alpha, a recent study of university students in Saudi Arabia found that GAD-7 has adequate internal consistency (0.80) (Alghadir et al., 2020). According to Budikayanti et al. (2019), they have a 0.87 internal consistency coefficient (Alpha). These findings suggest that the GAD-7 is a reliable tool for evaluating anxiety symptoms.

Results

A total of 399 (46.9% male, 53.1% female) respondents were recruited for this study. A majority of the respondents

Table 1
Test of Normality for Generalized Anxiety Disorder (GAD)

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
GAD	.075	399	.000	.968	399	.000

a. Lilliefors Significance Correction

63.9% (n=255) were aged between 22 and 24, 28.5% (n=114) were aged between 19 and 21, and a small percentage of 7.6% (n=30) were above 25 years old. At the time of data collection, most respondents had CGPAs ranging between 3.00 – 3.66, which was 233 (58.4%) respondents. As for the others, 53 (13.3%) respondents had CGPAs ranging between 2.00 and 2.99, and 113 (28.3%) participants had CGPAs ranging between 3.67 and 4.0.

Table 1 shows the data for generalized anxiety disorder (GAD) is not normally distributed. The Sig. value of the Shapiro-Wilk Test is less than 0.05 and the Sig. value of Kolmogorov-Smirnov is also less than 0.05, thus the data for generalized anxiety significantly deviate from a normal distribution.

Table 2 shows that the data for CGPA of student is not normally distributed. The Sig. value of the Shapiro-Wilk Test is less than 0.05 and the Sig. value of Kolmogorov-Smirnov is also less than 0.05, thus the data for generalized anxiety significantly deviate from a normal distribution.

Data analysis indicated that both GAD and CGPA data from this study were not normally distributed, therefore non-parametric analysis were used.

Table 3 showed the result of the Mann-Whitney U test of generalized anxiety among students based on gender differences. The statistics required for the test are constructed from the ranks and shown in the table. Here we see that for females we have 212 respondents whose total sum of ranks is 47995.00. This results in a mean rank of 226.39. By contrast, males we have 187 respondents whose total sum of ranks is 31805.00. This results in a mean rank of 170.08. Based on the result, female students have a larger mean rank than male students and thus tends to take larger values. The table 3.14 above shows the p value, quoted next to Asymp. Sig. (2-tailed), is .000 (reported as $p < .001$) which is less than 0.05. Therefore, female students (N= 212) have a larger mean rank (226.39) than male students (N= 187) with mean rank (170.08). A statistically significant difference was found ($U = 14227.000, p < .001$).

The table 4 above displayed the result of the correlation between GAD and CGPA of students. The result indicated a significant negative relationship between GAD and CGPA of students, $r_s(397) = -.372, p < 0.05$. There was a strong, negative relationship between GAD and CGPA of students. In other words, the negative relationship can be shown when the GAD level is higher, the CGPA of students is lower; meanwhile, when the GAD level is lower, the CGPA of students is higher.

Table 2
Test of Normality for CGPA of students

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
GAD	.311	399	.000	.778	399	.000

a. Lilliefors Significance Correction

Table 3
Man-Whitney U test Comparing Males and Females on Generalized Anxiety Among UMS Students (N=399).

	Sex	N	Mean Rank	Sum of Mean Ranks
GAD	Male	187	170.08	31805.00
	Female	212	226.39	47995.00
	Total	399		

Table 4
Spearman's Rho Correlation test on Generalized Anxiety Disorder and CGPA

	CGPA	GAD
CGPA	1	-.372**
GAD	-.372	1

** . Correlation is significant at the 0.01 level (2-tailed).

Discussion

The current study revealed that there is a significant difference in generalized anxiety among males and females. Generally, female respondents are reported to be more prone to generalized anxiety compared to male respondents. This has been supported by past similar studies as well. Females are much more likely than males to experience a generalized anxiety disorder during their lives reported by the most well-known psychiatric epidemiology (Bruce et al., 2005). One past research found that both female and male students have been affected by anxiety issues, but female students scored significantly higher anxiety than male students (Gao et al., 2020). The prevalence of generalized anxiety was higher in females (6.6%) while males were at 3.6% (Kessler, 1994). It can be attributed to many factors such as physiological difference, psychological upbringing, cultural difference, family traditions, and societal stigmas. The metacognitive model of GAD explores why a female is more prone to being anxious than males (Bahrami & Yousefi, 2011). They have stated that metacognition in belief appraisals and control strategies is the central factor in developing and maintaining GAD. According to this model (Bahrami & Yousefi, 2011), worry is not merely a symptom but a style of appraisal and coping mechanism for the individual's belief. Worry is used to cope with threats and dangers. Hence a clear distinction is drawn between types of worrying. Type I worry comprises the non-cognitive internal events and external events such as physical manifestations. Meanwhile, type II worry is the negative appraisal of own thought process (Wells, 2010). The cycle of GAD starts with positive beliefs in worry as a coping strategy leading to anxiety and physical symptoms.

Worrying stops when one believes one can cope with the threats faced. Type II worry about worrying about

worry, which is negative metacognitive beliefs in worry as a coping mechanism (Wells, 2010). The study suggested that females are more vulnerable to GAD because they tend to believe worrying is a good tool as a coping mechanism for preventing future threats and keeping them safe (Bahrami & Yousefi, 2011; Newman et al., 2013; Wells, 2010). Then comes the type II worry, when they become overwhelmed by worrying. They are threatened that over-worrying can be very dangerous and uncontrollable. On the other hand, males are less likely to experience GAD because males often use distraction as their coping mechanism (Kelly et al., 2008). Therefore, it is significantly proven that females are more vulnerable to experience generalized anxiety than males because their thought control methods and metacognitive beliefs lead females to emotional and neurotic problems.

Another reason that could lead females to experience generalized anxiety more than males is hormone fluctuation and brain chemistry. According to Marques et al. (2016), gender differences in GAD symptoms could be attributable to fundamental etiological causes such as genetic factors that are primarily determined due to environmental, cultural, sex-role orientation, or biological differences. Conversely, they could be linked to the existence of particular etiological elements, such as hormones, that have different effects on men and women (Marques et al., 2016; Vesga-López et al., 2008). As we know, females will undergo a monthly menstrual cycle which affects their emotions and moods directly (Marques et al., 2016). This condition could also be one of the factors for the female to experience a high level of anxiety. Their hormone fluctuations directly contribute to their anxiety and worry activation. Automatically, females start to feel overly concerned about every single thing (Vesga-López et al., 2008).

Interestingly, another study found that gonadal hormones are one of the reasons whereby gender differences might influence generalized anxiety, especially more in females (Lebron-Milad & Milad, 2012). Estrogen and progesterone are two female gonadal hormones that appear to significantly impact the functioning of anxiety-related neurotransmitter systems and fear extinction. Besides, testosterone has been discovered to have anxiolytic functions among male gonadal hormones, which ease their anxiety. As a result, gonadal hormones are believed to have a role in the increased incidence and severity of anxiety disorders in women. Moreover, the homeostatic system in females appears to be less stable than in males due to fluctuations in estrogen and progesterone throughout the menstrual cycle (Marques et al., 2016). Females may experience both short-term and long-term variations in the intensity of anxiety symptoms related to puberty, pregnancy, breastfeeding, and menopause due to these fluctuations (Lebron-Milad & Milad, 2012 ; Marques et al., 2016). In addition, besides hormone and biological factors, past findings have also revealed that being unmarried, having a poor educational level, and having a low monthly income were all strongly correlated to an elevated risk of GAD in females (McLean et al., 2011). Gender differences in the categories of job status, social class, and social responsibilities or roles may make females more vulnerable and susceptible to anxiety disorders than males because both males and females are exposed to various external stressors such as domestic abuse, sexual abuse, and violence, which is likely to have an impact on their vulnerability towards anxiety disorders (Luo et al., 2019; McLean et al., 2011). Therefore, the present study found that the females reported being more prone to generalized anxiety than males, which may influence many factors such as hormone fluctuations, biological differences, brain chemistry, and anxiety neurotransmitter-related problems. Generalized anxiety is seemed to be more prevalent among females due to external stressors and exposure such as gender roles, job status, educational status, gender responsibilities, and social class. Females are also more likely to experience abuses and traumatic experiences, which could also contribute to their excessive level of anxiety.

Besides, the result indicated that there is a significant negative relationship between GAD and CGPA of students. In other words, the negative relationship can be explained when the GAD level is higher, the CGPA of students is lower; meanwhile, when the GAD level is lower, the CGPA of students is higher. This result is reflected in past relevant studies as well. Most students cannot concentrate on their academics because they are constantly worried about almost everything. Chapell et al. (2005) discovered a strong relationship between test anxiety and GPA in undergraduate and graduate students, confirming the negative correlation between test anxiety and undergraduate CGPA. Socio-cultural norms place an excessive priority on CGPA as the measure of future excellence (Englund et al., 2018). Students are brainwashed that achieving a great CGPA is the only route to achieve success in life. This indirectly places a considerable burden and expectations on students to perform well and acquire a good CGPA. Although this can motivate students up to a certain level, most students succumb to the excessive pressure in the

process (Englund et al., 2018; Mahmoud, Staten, Lennie, & Hall, 2015). The unbearable pressure to acquire good CGPA itself leads the route to generalized anxiety, and in the end, they fail to do so.

Apart from this, many factors affect CGPA, including cognitive capacity, physical health, and mental health. Unrealistic expectations lead to academic pressure and stress for the students. In the process of attaining a good CGPA, they ignore the well-being of other vital aspects of their life, such as social, physical, and mental. The anxiety caused by excessive pressure impairs and debilitates the potential and efficiency of students to perform their academic tasks on time. Because of anxiety, they start to worry too much even about unnecessary things. Worrying takes up a big chunk of their time, and they waste much time on it. In the end, they are not able to finish their academic tasks and requirements. GAD also causes excessive concern and trouble controlling the thought of worry for students, which causes distraction and difficulty of staying on task (Sadock & Sadock, 2000). Many depressive symptoms accompany GAD, such as lack of energy, insomnia, altered focus, and concentration. Furthermore, stress caused by academic pressure is dangerous because generalized anxiety might go unnoticed and untreated, directly affecting the social, occupational, intellectual, educational, and other essential aspects of the daily functioning of university students (Mahmoud, Staten, Lennie, & Hall, 2015). According to Sadock & Sadock (2000), persistent anxiety makes it difficult for students to complete their work correctly and on time. Worrying diverts time and energy from studying and completing assignments, resulting in poor academic achievement. This condition is more associated with GAD because excessive and continuous worry may cause difficulty in managing their anxiety, which can also interfere with their concentration and ability to stay focused.

Moreover, generalized anxiety affects students' daily lives and academic achievement (Vogel & Collins, 2000). In a study conducted by Anson et al. (1984) anxiety has substantially and adversely affected students' CGPA. Also, highly anxious students have a low probability of attaining academic success or being accepted by their peers (Seligman & Wuyek, 2007). Therefore, anxiety has a direct impact on student's academics or CGPA. Students with generalized anxiety are more likely to perform worse in academics compared to typical students.

While normal levels of stress and concern may motivate students to do well in academics, excessive pressure will raise their anxiety (Mahmoud, Staten, Lennie, & Hall, 2015). Anxiety affects not just academic performance, but it may also lead to various other negative consequences, such as depression, which causes a person's health to deteriorate and may lead to suicide (Chapell et al., 2005). Students with generalized anxiety are at risk of low academic performance and resistance to school-related activities. This might include a lack of classroom involvement, strained relationships with peers and instructors, and a lack of interest in pursuing hobbies or making plans for the future (Mazzone et al., 2007). Excessive anxiety can disrupt working memory, making it difficult to retain new knowledge and recall previously

taught material. This influences their learning. A significant number of studies supported the statement above. Mazzone et al. (2007) showed a strong relationship between increased anxiety levels and worse academic performance in students. Memory loss, attention loss, and cognitive impairment were all significantly related to increased levels of anxiety (Cassady, 2004).

In terms of CGPA, to attain a good GCPA, university students must have consistent GPA pointer throughout the semesters. Somehow, students who are suffering from generalized anxiety might face difficulty in maintaining their GPA. They are more likely to have inconsistent academic results. A student may do excellent performance one day and struggle to complete an effortless task the next day. This erratic behavior is a standard indicator that generalized anxiety is present and cause worse academic result (Mazzone et al., 2007). Based on the findings of this study, UMS students are negatively correlated with CGPA. Students with high generalized anxiety scores are more likely to have low CGPA than students with low generalized anxiety.

Moreover, Universiti Malaysia Sabah UMS is one of the local universities in Malaysia, consisting of its eleven faculties that offer 64 degrees program, with more than 15,000 students with a higher portion of female students than male students. The current study found that generalized anxiety among students. This finding corresponds with the previous research's results, which showed that generalized anxiety was high among university students (de Lijster et al., 2017). The prevalence of severe anxiety among university and college students is much greater than among other adults. According to one study, anxiety is a common reason students seek counseling (LeViness et al., 2017). In research from Arnett (2001), anxiety disorders are common among students, possibly as a result of their developmental transition from teenagers to young adults, their enrollment in new environments such as colleges and universities, which forces them to be independent and responsible for everything they do, and current living conditions, such as living with non-family members such as friends and partners. The increased risk of anxiety among college students is due to a variety of reasons. Sleep disturbance induced by excessive coffee use and all-nighters, for example, has been associated with higher anxiety among college students. Loneliness is also associated with mental health issues which contribute directly towards excessive anxiety. Psychological discomfort among college students is also related to academic aspects such as assignment pressure and disengagement from academics and tasks.

Likewise, according to Eisenberg et al. (2007), university life can make the student's generalized anxiety worsen when they graduate high school, go to a new campus (new environment) for the first time, or return after a holiday break. Based on the current study result's that report the high level of generalized anxiety has been supported by much of past studies. In one research conducted by Farrer et al. (2016) and Han et al. (2013), generalized anxiety was prevalent in 17.5% of Australian National University and 29% at Yale University among university students. Choueiry et al. (2016) found that 62.4% of students in hid research seemed to have a possible risk of anxiety, with 28.7% having clinically severe anxiety. According to Mohammed et al. (2021), the predictive

factors that could lead to generalized anxiety among university students are academic year, financial aid for the study, alcohol intake, poor quality of sleep, body mass index (BMI), having a good-friends in the university, feeling insecure about the future, being actively involved in society, and having a problem with other students and lecturer. These predictive factors were significantly connected to the risk of suicidal ideation due to severe generalized anxiety (Mohamad et al., 2021). Therefore, university students of this study could also suffer from GAD due to these reasons as stated above.

Besides, in comparison to high school, university places a greater emphasis on social communication, homesickness, tuition fees, and living costs. Moving into a new hostel room, starting a new class, meeting new people, or being homesick may be stressful and challenging for some university students (Vitasari et al., 2010). The age range of the current study respondents was between 19 years old to 25 years old. These ages are found to be more prevalent to get generalized anxiety. In a study conducted by Baxter et al. (2014), the prevalence of anxiety rises between the ages of 10 to 19 and increases between 20 and 34. In general, university students are at a stage in their lives where anxiety is most prevalent. The age factor could also be a high possibility for the UMS student to experience a high level of generalized anxiety. Overall, the present study found that UMS students, in general, are inclined towards generalized anxiety under the influences of tremendous academic pressure, new environment, age, caffeine consumption, sleep deterioration which was suggested by previous scholars who studied generalized anxiety among university students.

Conclusion

The present study's findings indicated a significant difference in generalized anxiety based on gender differences among male and female university students. This current study found that female students reported higher generalized anxiety than male students at the end of this research. Also, the generalized anxiety was negatively correlated to the CGPA of the respondents. These findings support findings of many past research.

Knowledge about generalized anxiety and generalized anxiety based on gender variations, such as which situations make which gender more vulnerable to generalized anxiety, can serve as a foundation for developing programs to address generalized anxiety problems. Besides gender differences, the present study emphasizes how generalized anxiety impacts the student's academic achievement. So, this paper might be beneficial for parents, teachers, educators, and tutors to understand why some students could not stay focused in class, skip classes, and do not attain excellent and consistent results.

Several limitations are present in this study and should be considered in future studies. The findings of this study cannot be generalized to the whole of Malaysia, as the population was specific to undergraduate students from one university. The GAD-7 is a self-report screening tool, therefore information regarding experience of anxiety is dependent on how respondents interpreted the items. Therefore, future research may consider a bigger sample size and more diverse population, as well as using multiple measures in assessing anxiety.

References

- Alghadir, A., Manzar, M. D., Anwer, S., Albougami, A., & Salahuddin, M. (2020). Psychometric Properties of the Generalized Anxiety Disorder Scale Among Saudi University Male Students. *Neuropsychiatric Disease and Treatment*, Volume 16, 1427–1432. <https://doi.org/10.2147/ndt.s246526>
- Akhondzadeh, S. (2003). Hydroxyzine may be safe and effective in generalised anxiety disorder. *Evidence-Based Mental Health*, 6(3), 91. <https://doi.org/10.1136/ebmh.6.3.91>
- Anson, A., Bernstein, J., & Hobfoll, S. E. (1984). Anxiety and performance in two ego threatening situations. *Journal of Personality Assessment*, 48 (2): 168-172.
- Arnett, J. (2001). Conceptions of the transition to adulthood: perspectives from adolescence through midlife. *J. Adult Dev.* 8, 133–143. doi: 10.1023/A:1026450103225
- Bahrami F, Yousefi N (2011). Females are more anxious than males: a metacognitive perspective. *Iran J Psychiatry Behav Sci.* 2011;5(2):83-90.
- Barlow, D. H., Durand, V. M., & Hofmann, S. G. (2017a). *Abnormal Psychology: An Integrative Approach* (8th ed.). Cengage Learning.
- Baxter, A. J., Vos, T., Scott, K. M., Norman, R. E., Flaxman, A. D., Blore, J., & Whiteford, H. A. (2014). The regional distribution of anxiety disorders: implications for the Global Burden of Disease Study, 2010. *International Journal of Methods in Psychiatric Research*, 23(4), 422–438. <https://doi.org/10.1002/mpr.1444>
- Bruce, S. E., Yonkers, K. A., Otto, M. W., Eisen, J. L., Weisberg, R. B., Pagano, M., Shea, M. T., & Keller, M. B. (2005). Influence of Psychiatric Comorbidity on Recovery and Recurrence in Generalized Anxiety Disorder, Social Phobia, and Panic Disorder: A 12-Year Prospective Study. *American Journal of Psychiatry*, 162(6), 1179–1187. <https://doi.org/10.1176/appi.ajp.162.6.1179>
- Budikayanti, A., Larasari, A., Malik, K., Syeban, Z., Indrawati, L. and Octaviana, F., 2021. Screening of Generalized Anxiety Disorder in Patients with Epilepsy: Using a Valid and Reliable Indonesian Version of Generalized Anxiety Disorder-7 (GAD-7).
- Cassady, J. C. (2004). The influence of cognitive test anxiety across the learning–testing cycle. *Learning and Instruction*, 14(6), 569–592. <https://doi.org/10.1016/j.learninstruc.2004.09.002>
- Chapell, M., Blanding, Z., Silverstein, M., Takahashi, M., Newman, B., Gubi, A. and McCann, N., 2005. Test Anxiety and Academic Performance in Undergraduate and Graduate Students. *Journal of Educational Psychology*, 97(2), pp.268-274.
- Choueiry, N., Salamoun, T., Jabbour, H., el Osta, N., Hajj, A., & Rabbaa Khabbaz, L. (2016). Insomnia and Relationship with Anxiety in University Students: A Cross-Sectional Designed Study. *PLOS ONE*, 11(2), e0149643. <https://doi.org/10.1371/journal.pone.0149643>
- De Lijster, J., Dierckx, B., Utens, E., Verhulst, F., Zieldorff, C., Dieleman, G., et al. (2017). The age of onset of anxiety disorders. *Can. J. Psychiatry* 62, 237–246. doi: 10.1177/0706743716640757
- Eisenberg, D., Gollust, S. E., Golberstein, E., & Hefner, J. L. (2007). Prevalence and correlates of depression, anxiety, and suicidality among university students. *American Journal of Orthopsychiatry*, 77(4), 534–542. <https://doi.org/10.1037/0002-9432.77.4.534>
- Englund, C., Olofsson, A. D., & Price, L. (2018). The influence of sociocultural and structural contexts in academic change and development in higher education. *Higher Education*, 76(6), 1051–1069. <https://doi.org/10.1007/s10734-018-0254-1>
- Farrer, L. M., Gulliver, A., Bennett, K., Fassnacht, D. B., & Griffiths, K. M. (2016). Demographic and psychosocial predictors of major depression and generalised anxiety disorder in Australian university students. *BMC Psychiatry*, 16(1). <https://doi.org/10.1186/s12888-016-0961-z>
- Gao, W., Ping, S., & Liu, X. (2020). Gender differences in depression, anxiety, and stress among college students: A longitudinal study from China. *Journal of Affective Disorders*, 263, 292–300. <https://doi.org/10.1016/j.jad.2019.11.121>
- Gale, C., & Davidson, O. (2007). Generalised anxiety disorder. *BMJ*, 334(7593), 579–581. <https://doi.org/10.1136/bmj.39133.559282.be>
- Han, X., Han, X., Luo, Q., Jacobs, S., & Jean-Baptiste, M. (2013). Report of a Mental Health Survey Among Chinese International Students at Yale University. *Journal of American College Health*, 61(1), 1–8. <https://doi.org/10.1080/07448481.2012.738267>
- Kelly, M. M., Tyrka, A. R., Price, L. H., & Carpenter, L. L. (2008). Sex differences in the use of coping strategies: predictors of anxiety and depressive symptoms. *Depression and Anxiety*, 25(10), 839–846. <https://doi.org/10.1002/da.20341>
- Kessler, R. C. (1994). Lifetime and 12-Month Prevalence of DSM-III-R Psychiatric Disorders in the United States. *Archives of General Psychiatry*, 51(1), 8. <https://doi.org/10.1001/archpsyc.1994.03950010008002>
- Lebron-Milad, K., & Milad, M. R. (2012). Sex differences, gonadal hormones and the fear extinction network: implications for anxiety disorders. *Biology of Mood & Anxiety Disorders*, 2(1). <https://doi.org/10.1186/2045-5380-2-3>
- LeViness, P., Bershada, C., and Gorman, K. (2017). The association for university and college counseling center directors annual survey. Available at: <https://www.aucccd.org/assets/documents/Governance/2017%20aucccd%20surveypublicapr26.pdf>
- Löwe, B., Decker, O., Müller, S., Brähler, E., Schellberg, D., Herzog, W., & Herzberg, P. Y. (2008). Validation and Standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the General Population. *Medical Care*, 46(3), 266–274.
- Luo, Z., Li, Y., Hou, Y., Liu, X., Jiang, J., Wang, Y., Liu, X., Qiao, D., Dong, X., Li, R., Wang, F., & Wang, C. (2019). Gender-specific prevalence and associated factors of major depressive disorder and generalized anxiety disorder in a Chinese rural population: the Henan rural cohort study. *BMC Public Health*, 19(1). <https://doi.org/10.1186/s12889-019-8086-1>
- Mahmoud, J.R., Hall, L.A., & Staten, R. (2010). The psychometric properties of the 21- item depression anxiety and stress scale (DASS-21) among a sample of

- young adults. *Southern Online Journal of Nursing Research*, 10(4), 1-14. Retrieved from <http://ezproxy.acu.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ccm&AN=104989549&site=eds-live&scope=site>
- Marques, A. A., Bevilacqua, M. C. D. N., da Fonseca, A. M. P., Nardi, A. E., Thuret, S., & Dias, G. P. (2016). Gender Differences in the Neurobiology of Anxiety: Focus on Adult Hippocampal Neurogenesis. *Neural Plasticity*, 2016, 1–14. <https://doi.org/10.1155/2016/5026713>
- Mazzone, L., Ducci, F., Scoto, M. C., Passaniti, E., D'Arrigo, V. G., & Vitiello, B. (2007). The role of anxiety symptoms in school performance in a community sample of children and adolescents. *BMC Public Health*, 7(1). <https://doi.org/10.1186/1471-2458-7-347>
- McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: Prevalence, course of illness, comorbidity and burden of illness. *Journal of Psychiatric Research*, 45(8), 1027–1035.
- Mohamad, N. E., Sidik, S. M., Akhtari-Zavare, M., & Gani, N. A. (2021). The prevalence risk of anxiety and its associated factors among university students in Malaysia: a national cross-sectional study. *BMC Public Health*, 21(1). <https://doi.org/10.1186/s12889-021-10440-5>
- Newman, M. G., Llera, S. J., Erickson, T. M., Przeworski, A., & Castonguay, L. G. (2013). Worry and Generalized Anxiety Disorder: A Review and Theoretical Synthesis of Evidence on Nature, Etiology, Mechanisms, and Treatment. *Annual Review of Clinical Psychology*, 9(1), 275–297. <https://doi.org/10.1146/annurev-clinpsy-050212-185544>
- Parker, G. B., & Brotchie, H. L. (2004). From Diathesis to Dimorphism. *Journal of Nervous & Mental Disease*, 192(3), 210–216. <https://doi.org/10.1097/01.nmd.0000116464.60500.63>
- Sadock, B. J., & Sadock, V. A. (2000). In Sadock B. J., Sadock V. A. (Eds.), *Kaplan and Sadock's Comprehensive Textbook of Psychiatry* (Seventh ed.). Philadelphia: Lippincott Williams & Wilkins.
- Seligman, L. D. & Wuyek, L. A. (2007). Correlates of Separation Anxiety Symptoms Among First Semester College Students: An Exploratory Study. *The Journal of Psychology*, 141 (2): 135 – 146.
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., and Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder the GAD-7. *Arch. Intern. Med.* 166, 1092–1097. doi: 10.1001/archinte.166.10.1092
- Torpy, J. M., Burke, A. E., & Golub, R. M. (2011b). Generalized Anxiety Disorder. *JAMA*, 305(5), 522. <https://doi.org/10.1001/jama.305.5.522>
- Vesga-López, O., Schneier, F. R., Wang, S., Heimberg, R. G., Liu, S. M., Hasin, D. S., & Blanco, C. (2008). Gender Differences in Generalized Anxiety Disorder. *The Journal of Clinical Psychiatry*, 69(10), 1606–1616. <https://doi.org/10.4088/jcp.v69n1011>
- Vitasari, P., Abdul Wahab, M. N., Othman, A., & Awang, M. G. (2010). A research for identifying study anxiety sources among university students. *International Education Studies*, 3(2). <https://doi.org/10.5539/ies.v3n2p189>
- Vogel HL, Collins AL (2006). The relationship between test anxiety and academic performance. *J Abnorm Soc Psycho*, 67:523-32.
- Wells, A. (2010). Metacognitive Theory and Therapy for Worry and Generalized Anxiety Disorder: Review and Status. *Journal of Experimental Psychopathology*, 1(1), jep.007910. <https://doi.org/10.5127/jep.007910>