



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



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ISSN: 2222-6990

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To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v12-i11/15333> DOI:10.6007/IJARBSS/v12-i11/15333

Received: 03 September 2022, **Revised:** 06 October 2022, **Accepted:** 26 October 2022

Published Online: 05 November 2022

In-Text Citation: (Mahdzar et al., 2022)

To Cite this Article: Mahdzar, M., Jaapar, A., Zain, W. Z. W. M., Hisham, H. M. A., Hassan, N., & Othman, N. A. A. (2022). Perceived Stress on Academic Performance Among University Pre-Diploma Students. *International Journal of Academic Research in Business and Social Sciences*, 12(11), 533–540.

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Vol. 12, No. 11, 2022, Pg. 533 – 540

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Perceived Stress on Academic Performance Among University Pre-Diploma Students

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Abstract

Stress is either a negative or good psychological and physiological reaction to environmental demands. Stress is a common occurrence in the workplace and at institutions, regardless of age or gender, and it can either enhance or hinder performance. Students' academic performance can be enhanced by a moderate amount of stress; nevertheless, an excessive quantity of stress could be detrimental to their academic performance. Thus, the purpose of this study is to explore the impact of perceived stress on students' academic performance. The research sample consists of 300 pre-diploma students. This study also aims to investigate whether there is a significant difference in perceived stress levels between male and female pupils. Using Google Form, questionnaires were given to university pre-diploma students to collect data. The results demonstrated that while the majority of students have a higher grade point average or perform well academically despite having a moderate stress level, others have a lower grade point average or perform poorly academically as a result of their inability to control their stress level.

Keywords: Perceived Stress, Academic Performance, Pre-Diploma Students

Introduction

Significant and linked to a student's academic progress is the term stress. Because stress is a feeling of mental or physical tension, it can have both major and little effects on a student's performance. It may cause us to feel irritated, anxious, frustrated, or even fearful. Moreover, stress is the body's reaction to any given situation (Friends, 2010). Academic performance, often known as academic success, is the appraisal of an individual's accomplishments in various academic subjects. Students are evaluated using grade point average (GPA), high school graduation rate, annual standardised tests, and college entrance exams. A student's GPA is typically computed on a scale from 0 to 4, with higher GPAs reflecting greater classroom performance (Le et. al., 2020). Persistent stress creates low self-esteem, trouble coping with a variety of situations, sleep issues, diminished concentration, and irregular eating, all of which have a negative effect on students' academic performance (Sharif, 2018). In addition, research indicates that stress may contribute to enhanced performance, with the

students' attitude toward stress management and the surrounding setting serving as potential causes (Sharif, 2018).

Students are an important and still-developing section of the global population. Future professionals must be well-rounded individuals who can make positive contributions to society. University students are nearing the conclusion of their academic studies before entering the workforce. At this point, the students must address a number of difficulties that will affect their performance and hinder them from accomplishing the goals they have set for themselves. All of the problems can be categorised as stressors, which may be academic, financial, time-related, or health-related, or self-inflicted (Goodman, 1993). In addition, sleep deprivation, social activities, professional commitments, and romantic relationships can all contribute to student stress. As a result, numerous academics are currently discussing the effects of stressors, making this a hot topic in both society and academia (Rees & Redfern, 2000). Depending on the level of stress they are facing, the issue can have positive or negative effects on students, as well as on society if they do not handle it well (Stevenson, 2006). Course load, financial concerns, connections with classmates, overcrowding in lecture halls, semester system, anxiety, and work obligations are some of the likely factors that can impede academic achievement at this level of study (Ongori, 2012). Moreover, a researcher discovered that additional factors affecting academic performance and the cause of a student's GPA decline, such as nutritional difficulties, physical activity, and social contacts, could be health-related (Grigsby et al., 1998). According to a study by Kelly et al (2001), lack of sleep or oversleeping produces psychological maladjustment and anxiety, which is a major factor to a low GPA. Therefore, the current study investigates the association between perceived stress and pre-diploma students' academic performance, as well as any significant gender differences in perceived stress.

Literature Review

Stress Level

In general, there are two types of stress: eustress and distress. Eustress is a form of positive stress that motivates individuals to continue working. This positive stress promotes and facilitates learning, with the optimal level of stress enhancing learning capacity (Yousef, 2011). In contrast, distress is a negative stress that emerges when the positive strain becomes intolerable. This negative stress hinders and inhibits learning; therefore, it must be eradicated. It has been demonstrated that overexposure to stress causes emotional issues, physical and mental health problems, weariness, and even mental collapse in humans (Yousef, 2011). In science and medicine, "stress" refers to an organism's response to a stressor, such as a change in the environment. Stress is the body's response to any change requiring an adaptation or response. The body reacts in physical, mental, and emotional ways to these changes. Everyone experiences some degree of stress. However, your response to stress has a substantial effect on your general health (Carlson, 2007). Moreover, stress is an unavoidable component of life. Our surroundings, body, and minds can all contribute to stress. Even positive life events, such as a promotion, a mortgage, a family problem, or academic achievement, can produce stress. The human body is designed to feel and react to stress. Stress can be beneficial since it keeps us alert, motivated, and prepared to avoid danger. Stress becomes bad when a person is confronted with nonstop work with no breaks or leisure in between. As a result, the individual becomes overworked and has anxiety associated to stress. The autonomic nervous system has an innate stress response that induces physiological changes to assist the body deal with stressful situations. Stress level

research focuses on the Perceived Stress Scale (PSS), a commonly used psychological technique for assessing stress perception. It measures the extent to which stressful conditions in one's life are perceived and their impact on one's life, particularly academic accomplishment. Items were designed to demonstrate that the lives of responders are uncertain, unmanaged, and overwhelming. The PSS questions inquire about sentiments and thoughts from the month prior. In each instance, respondents are asked how often they experience a particular emotion (Cohen et al., 1983) As a result, a correlation between stress levels and academic achievement was observed.

Academic Performance

Academic performance is the knowledge learned that is measured by a teacher's grades and/or the educational goals set by students and teachers to be attained over a period of time. Academic excellence is also essential to an institution since it affects future job performance (Crede et al., 2005). According to Crede et al (2005), age, gender, and place of residence have minimal influence on academic accomplishment, but individuals who live close to a university will score substantially better than those who live far away. Ineffective students would fare well in academic groups with excellent students, resulting in timely graduation. If students truly desire to improve their academic performance, they must exert the necessary effort (Zajonc, 1980). Moreover, poor study habits likely to cause academic delays (McKenzie and Schweitzer, 2001), which impacts students' GPA (Chapell et al., 2005). Low academic achievement may also have an adverse effect on a nation's economy. According to Masrom et al., academic performance or academic success is defined by students' previous semester CGPA or GPA reporting and their anticipated GPA for the current semester 2015. Many colleges and universities utilise the grade point average, or GPA, as a simple assessment of their students' academic achievement. The GPA is a superior indicator because it provides a more accurate depiction of a student's or a group's relative performance level. According to Shahzadi and Ahmad (2011), academic achievement is reliant on learning ability and the family environment for learning capacities. Academic achievement is frequently contingent on academic interaction, which is influenced by study habits and the home environment.

Relationship between Stress Level and Academic Performance

Several research have established a link between stress and low academic performance (Clark and Rieker, 1986; Linn and Zeppa, 1984, Struthers et al., 2000). Similar research indicated a substantial inverse association between self-reported stress level and academic performance (Blumberg and Flaherty, 1985). Based on a review of the relevant literature, this study confirms that stress level is a factor that influences students' academic performance.

Methodology

The research was based on primary data acquired from pre-university students in Malaysia via survey questionnaire. This study's population consists of pre-university students enrolled in Universiti Teknologi MARA's pre-diploma programme. The preparatory programme at Universiti Teknologi MARA (UiTM) is known as the Program Pra Pendidikan Tinggi (Preparatory Programme for Higher Education) (PPT). PPT is similar to remediation programmes. The curriculum prepares students to undertake diploma-level studies and eventually advance to higher levels of education. Students who successfully complete the Pre-Diploma programme with a minimum GPA of 2.00 will be immediately admitted to the

diploma programme of their choosing, based on their UiTM campus GPA (Mahdzar et. al. 2021). The questionnaires were created using Google forms and disseminated over social media platforms and applications such as Facebook and WhatsApp. The questionnaire items are adapted from a 1983 study by Cohen et al. Ten items were used to assess students' perceived stress levels. A six-point Likert scale ranging from (1) Never, (2) Rarely, (3) Occasionally, (4) Sometimes, (5) Often, and (6) Very Often was utilised. Three hundred replies were collected, completed, and analysed in total. 36.7 percent of these responders were male, while 63.3 percent were female. 43.3 percent were between the ages of 21 and 23 years, 35.7 percent were between the ages of 18 and 20 years, and 21.0 percent were older than 24 years. Statistical software for the social sciences was utilised to analyse the data (SPSS). In addition, descriptive analysis, correlation analysis, and t-statistics were employed to evaluate the aims of the study.

Findings

Table 1 indicates that in general, we can say that student performance is good, where majority (78.7%) of them scored Grade Point Average (GPA) of 3.00 and above. Out of this number (28.7%) of them achieved 3.50 and above which indicates excellent academic performance. It may be noted that only 6% of the students scored GPA less than 2.50. This indicates that the number of low academic achiever is relatively low.

Table 1

Student Performance

GPA	Frequency	Percentage
3.50 – 4.00	86	28.7
3.00 – 3.49	150	50
2.50 – 2.99	46	15.3
2.00 – 2.49	18	6

Table 2 shows the students perception on stress. Based on Table 2, the most important aspect for stress which contributing to stress among students is feelings of 'upset because of something that happened unexpectedly' (M=3.70), and the least important aspect for students is feelings of 'you were on top of things' (M=3.24). Moreover, the students were found not able to control the important things in their life (M=3.60). Students were also found not able to control irritation in life (M=3.54). It may be noted that though students tilt towards occasionally to sometimes side, the stress level is somewhat not so high.

Table 2
Means and Standard Deviations

Items	Mean	Standard Deviation
How often have you been upset because of something that happened unexpectedly	3.74	1.383
how often have you felt nervous and stressed?	3.36	1.598
how often have you felt that things were going your way	3.44	1.545
How often have you felt that you were unable to control the important things in your life?	3.60	1.565
how often have you felt confident about your ability to handle your personal problems?	3.45	1.388
how often have you found that you could not cope with all the things that you had to do?	3.27	1.496
how often have you been able to control irritations in your life?	3.54	1.524
how often have you felt that you were on top of things?	3.24	1.700
how often have you been angered because of things that were outside of your control?	3.31	1.504
how often have you felt difficulties were piling up so high that you could not overcome them?	3.23	1.796

To determine the relationship between academic performance (GPA) and the independent variables perceived stress, Pearson product moment correlation coefficient was calculated. Table 3 depicts that there is a significant correlation between perceived stress and academic performance. The value of correlation is (0.39) which implies that when the level of perceived stress is higher, the academic performance of the students is lower. However, it is important to note that the strength level of the correlation is moderate. It reflects that the stress level they experience was not beyond the limit where it could not be handled or as high to the extent that they cannot cope with their academic activities. It is not so surprising that because of this, more than 50% of the students score GPA more than 3.00 which are considered as good academic performance.

Table 3
Pearson correlations with GPA (Academic Performance)

	R	Sig.
Perceived Stress	0.39	0.00

*Correlation is significant at 0.05

An Independent sample t-test was performed to investigate if there is a statistically significant difference in students' perception on stress towards their academic performance based on gender. Prior to performing the test, all assumptions were checked to ensure there were no violations of the assumptions for t-test. The result of the t-test is shown in table 4. There is no significant difference in the scores for female (M=3.5682, SD=0.98259) and male students (M=3.4895, SD= 0.90114); $t=0.705$, $p=0.481$ indicating that gender does not affect students' academic performance based on stress level.

Table 4

Perceptions of stress level based on gender

Gender	N	Mean	SD	t	P value
Male	110	3.5682	0.98259	0.705	0.481
Female	190	3.4895	0.90114		

Discussion and Conclusion

These results of the descriptive analysis reveal that majority of the students (78.7%) obtained a score in Grade Point Average of 3.00 and above indicating having a good academic performance. The study also reported that perceived stress among pre-diploma students are moderate (M=3.23 to M= 3.74).

Thus, this study's findings indicate a significant association between felt stress and academic achievement. It implies that when stress levels are high, academic performance will suffer. These findings contradict those of Womble (2003), who found no significant correlation between student stress and GPA. Nonetheless, it was consistent with the research of (Blumberg and Flaherty, 1985). In addition, the moderate correlation strength shows that the student's stress level is not excessively high. It is rather astonishing that more than fifty percent of the students have earned a GPA above 3.00. The gender-based (male versus female) measures of felt stress indicate that there is no significant difference between male and female university students in terms of experienced stress. On the basis of gender, it can be stated that felt stress has no substantial effect on the academic performance of students. It is advised that the university administration take into account the findings of the study and implement corrective steps to alleviate student stress, as it has a moderate impact on academic performance. Activities and programmes, such as stress management programmes, counselling sessions, confidence-building programmes, and problem-solving skills, are planned for pupils in order to minimise their stress levels. In addition, it is advised that there should be a student counsellor or student affairs committee whose role is not only to provide academic counselling but also to solve student difficulties. Similarly, it is the responsibility of parents to assess and supervise their children's well-being.

Acknowledgements

This research is funded through the research grant obtained from UiTM-SDG Pulau Tuba (Grant No: 600-RMC/LESTARI SDG -T 5/3 (117/2019))

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