

ORIGINAL ARTICLE



EFFECTS OF PSYCHOSOCIAL STRESS, NEUROTICISM LIABILITY AND UNHEALTHY COPING STRATEGIES ON THE PHYSICAL AND MENTAL WELFARE OF PRE-UNIVERSITY STUDENTS IN THE NATIONAL UNIVERSITY OF MALAYSIA

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Abstract

Stress is the body's response to changes that create taxing demands. Coping mechanism plays a significant part to overcome or reduce the stress experienced by individuals. The purpose of the study is to study the relationship between psychosocial stress, neuroticism liability and unhealthy coping strategies on the physical and mental welfare of pre-university students. One hundred and forty four pre-university students from the National University of Malaysia are included in this study. A quantitative study utilizing a cross sectional non-probability sampling research design is used to gather data. The data is collected using a questionnaire which analyzes three main aspects of this study namely, psychosocial stress, neuroticism liability and unhealthy coping mechanisms. The instruments used to measure psychosocial stress is the individual items of the University Students Stress Scale. The unhealthy coping strategies will be assessed by the Brief COPE Inventory through the ordinal data (individual survey items) obtained. However, neuroticism liability will be measured through the Eysenck Personality Inventory. The SPSS Statistics Data Editor Version 25 is used for statistical analysis. In conclusion, all three variables are correlated with each other. When a person experiences immense psychosocial stress, the person tends to inculcate more unhealthy coping strategies in daily lives and it may contribute to increasing neuroticism liability.

Keywords: psychosocial stress; neuroticism liability; unhealthy coping strategies; pre-university students

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Introduction

A study addressed that stress comes in different forms and affects different types of people at different ages and walks of life (Shin, Y.M., 2010)¹. Environmental and personal events that cause stress are known as stressors. Different people perceive and react to stressors differently from other people. Adulthood trauma is associated with a higher risk for personality traits, including neuroticism. Adulthood trauma is more prevalent in individuals with higher neuroticism liability and is associated with higher levels of neurotic and affective symptoms. Higher neuroticism liability increases the effect of adulthood trauma on peak subjective distress and stress reactivity during experiments.

Millennials (ages 18-33 years) as a generational group have the highest levels of stress of any other age group, with 39% reporting that their stress has increased in the last year (American Psychological Association, 2013)². During this transitional process, college students establish a foundation for future life goals (Salmela-Aro.K.,2007)³. The juniors tend to have higher reactions to stress compared to the seniors and this is due to their adaptation to their new stage of life (Aysan,F., 2001)⁴.

Like the concept of psychosocial stress and neuroticism liability, unhealthy coping strategies have been used as an umbrella term encompassing a wide range of variables. Resources are generalized attitudes that are considered disadvantageous across many situations; they include attitudes about self-esteem, attitudes about the world (sense of coherence), intellectual skills (cognitive flexibility and complexity, analytic abilities, knowledge) and interpersonal skills (communication skills and trouble in interpersonal interaction). Unhealthy coping mechanisms are specific actions taken in specific situations that are intended to increase a given problem or stress. Students are often challenged with many different personal and interpersonal challenges and the disability of these students to embrace the challenges and demands in university has turned into one of the most common reasons for students to withdraw from their tertiary education (Abdullah, M.C., 2010)⁵. In short, psychosocial stress among pre-university students may be defined as a perceived mismatch between the environment and the respective individual; neuroticism liability is an underlying mechanism for stress sensitization and may be reflected in an altered autonomic stress response while unhealthy coping strategies are actions to increase that mismatch to stimulate emotional distress on physical and mental welfare among pre-university students and disrupt the overall sense of self. When a person experiences immense psychosocial stress, the person tends to

inculcate more unhealthy coping strategies in daily lives and it may contribute to increasing neuroticism liability.

Problem Statement

Pre-university students experience some form of stress depending on their environment and academic workload. Undoubtedly, stress has become the number one reported impediment to academic performance, as fellow students now report being stressed out more than ever. Adaptive stress helps us rise to life's challenges. Adrenaline, nor-adrenaline and glucose flow into our blood. Negative stress occurs when our ability to cope with life's demands crumbles. Eventually, this results in a permanent state of stress. The New York University Publication continued its affirmation that 55% of students claimed their biggest stressor to be academic in nature. 6 in 10 college students report having felt so stressed they couldn't get their studies done on one or more occasions. Additionally, many of the emotional and physical symptoms that occur commonly in the student population, such as headaches, fatigue, depression, anxiety, and the inability to cope, can be attributed to or exacerbated by stress (Yikealo, Dawit & Tareke, 2018)⁶. Surveys conducted by Kansas State University reveal a 58% increase in stress related mental health issues reported to campus counselors between 1988 and 2001 (Hoover, E., 2003)⁷. These increased stress loads come with some direct consequences. Suicide rates among college-aged students are three times higher than they were in 1950, as described by American College Health Association statistics published in *Psychology Today*. Researchers found that attending tertiary education for the first time is a stressful period for many university freshmen (Dyson, R. & Renk, K., 2006)⁸. These mental health issues among students are of growing concern (Castillo, L.G. & Schwartz, S.J., 2013)⁹. Stress could adversely affect both mental and physical well-being of students, besides the deterioration of their academic performance. Research indicated that high stress levels had not only interfered with the students' performance, but also exposed many of them to mental and physical health risk (Randall, R., Griffiths, A., & Cox, T., 2005)¹⁰.

Neuroticism is a personality trait characterized by worry, moodiness, and nervousness (Bae JN, Cho MJ., 2004)¹¹. Neuroticism has been included as one of the four dimensions that comprise core self-evaluations, one's fundamental appraisal of oneself, along with locus of control, self-efficacy, and self-esteem (Judge, T.A., 1997)¹². Individuals who score low in neuroticism tend to be more emotionally stable and less reactive to stress. They tend to be calm, even-tempered, and less likely to feel tense or rattled. Although they are low in negative emotion, they are not necessarily high on positive emotion. Being high in scores of positive emotion is generally an element of the independent trait of extraversion. Neurotic extraverts, for example, would experience high levels of both positive and negative emotional states, a kind of "emotional roller coaster" (De Neve, K. & Cooper, H., 1998)¹³.

Objectives

The main objectives are

1. To assess the level of psychosocial stress.
2. To identify the level of neuroticism liability
3. To analyze the level of unhealthy coping strategies among pre-university students.
4. To determine the relationship between neuroticism liability and unhealthy coping strategies among pre-university students.
5. To find the correlation between psychosocial stress and unhealthy coping mechanisms among pre-university students.

Research Questions

1. What is the level of psychosocial stress among pre-university students?
2. What is the level of neuroticism liability among pre-university students?
3. What is the level of unhealthy coping strategies among pre-university students?
4. What is the relationship between neuroticism liability and unhealthy coping strategies among pre-university students?
5. What is the relationship between psychosocial stress and unhealthy coping mechanisms among pre-university students?

Hypotheses

For this research, there were two hypotheses.

H₀1 : There is a significant relationship between neuroticism liability and unhealthy coping strategies among pre-university students.

H₀2 : There is a significant relationship between psychosocial stress and unhealthy coping mechanisms among pre-university students.

Methodology

In this study, a quantitative method was utilized to gather data from 144 pre-university students in a public university (The National University of Malaysia) in Malaysia. The mean age of participants in this study will be 18 years of age. Data was gathered using a self-administered questionnaire which consisted of 50 questions related to the effects of psychosocial stress, neuroticism liability and unhealthy coping strategies on the physical and mental welfare of pre-university students. The questionnaire was divided into the 3 main aspects of this study. 15 minutes was provided to complete the questionnaire. Respondents will be required to encircle the appropriate score based on a scale ranging from 1 (Never) to 4 (Often). A quantitative study

utilizing a cross sectional non-probability sampling research design was used to gather data. Before providing the questionnaire a pilot test which consisted of 34 participants was carried out.

The instruments used to measure psychosocial stress are the individual items of the University Students Stress Scale whereby the extent score (total summated score) of the University Students Stress Scale was calculated. The unhealthy coping strategies were assessed by the Brief COPE Inventory through the ordinal data (individual survey items) obtained. However, neuroticism liability was measured through the Eysenck Personality Inventory. Terror management theory was one of the instruments used to identify neuroticism. The analysis needed to assess the research questions include descriptive statistics such as percentages, frequencies, and measures of central tendency and dispersion. An ethical form was given to the higher authorities to obtain permission to carry out this survey. Informed consent forms were provided to obtain the approval of the participants to include the data obtained from the questionnaire.

The participants were informed about the purpose of the study and will be assured confidentiality. A pilot test consisting of 34 respondents carried out beforehand to check the validity of the questionnaire. It is a small scale preliminary study conducted in order to evaluate feasibility, duration, cost, adverse events, and improve upon the study design prior to performance of a full-scale research project. The pilot test result according to Cronbach’s Alpha is 0.817. SPSS (Statistical Package for the Social Sciences) was used for data analysis. Pearson correlation and descriptive statistics were used for data analysis. The reliability of and validity of data obtained was measured through SPSS. Statistically significant differences in the study's outcome measures was able to provide some evidence that potential bias was present. The results provided a context for a reexamination of standard techniques for the identification and interpretation of survey research biases. Methods were suggested to strengthen tests for selection bias and to minimize the impact of response biases. One of the limitations of this current study is that this research only involves pre-university students, hence the findings may not be generalized.

Results

- i) What is the level of psychosocial stress among pre-university students?

Table 1
Psychosocial Stress

	N	Mean	Std. Deviation
Stress	14	1.955	.41349
	4	9	
Valid N (listwise)	14		
	4		

Based on table 1 for psychosocial stress, the total number of participants who were subjected to the analysis procedures were 144. The mean for psychosocial stress is 1.9559 with a standard deviation of 0.41349. Using the mean as a cut-off for preliminary analysis and interpretation, pre-university students fall under the category of having low stress levels. However, the results obtained should not be generalized since it only involves a certain number of students from a specific area. Based on the data obtained, although academic stress contributes the most to the stress experienced by the participants of this survey, it can be inferred that they are able to manage it well since the mean indicates a low level of stress among students.

ii) What is the frequency of unhealthy coping strategies used among pre-university students?

Table 2

Unhealthy Coping Strategies

	N	Mean	Std. Deviation
Strategies	14	2.535	.38844
	4	6	
Valid N (listwise)	14		
	4		

Based on table 2 for unhealthy coping strategies, the mean recorded was 2.5356 with a standard deviation of 0.38844. This indicates that the students opt for a moderately unhealthy choice of coping strategies. Coping strategies refer to the specific efforts, both behavioral and psychological, that people employ to master, tolerate, reduce, or minimize stressful events. This shows us that students tend to seek unhealthy strategies when they are under pressure or too overwhelmed. This is also in line with the hypothesis which states that as the level of psychosocial stress increases, students tend to seek more unhealthy coping strategies to reduce stress.

iii) What is the level of neuroticism liability among pre-university students?

Table 3

Neuroticism Liability

	N	Mean	Std. Deviation
Neuroticism	14	2.639	.42359
	4	9	
Valid N (listwise)	14		
	4		

Based on table 3 for neuroticism liability, the mean recorded was 2.6399 with a standard deviation of 0.42359. This shows us that the neuroticism liability among pre-university students are moderate. Students have to seek professional help or other strategies to avoid this issue before it becomes detrimental to their health. From the analysis, we can infer that the pre-university students who participated in this research questionnaire have moderately high chances of neuroticism liability. However, we should be aware about the seriousness of psychosocial stress and if left untreated, it will eventually lead to neuroticism or other mental disorders. In order to prevent that we can try to follow healthy coping strategies which can affect the physical and mental welfare of pre-university students in a positive way.

- iv) What is the relationship between neuroticism liability and unhealthy coping strategies among pre-university students?

Table 4
Correlations

		Neuroticism Liability	Unhealthy Coping Strategies
Neuroticism Liability	Pearson Correlation	1	.449**
	Sig. (2-tailed)		.000
	N	144	144
Unhealthy Coping Strategies	Pearson Correlation	.449**	1
	Sig. (2-tailed)	.000	
	N	144	144

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

According to Sig. (2-tailed) in Table 4, there is a significant relationship between neuroticism liability and unhealthy coping strategies among pre-university students. Through Pearson Correlation Analysis we learn that neuroticism liability has a low positive correlation ($r = 0.449$) with unhealthy coping strategies. Neuroticism is a robust correlate and predictor of many different mental and physical disorders, comorbidity among them, and the frequency of mental and general health service use. The high neuroticism subjects practise unhealthy coping strategies frequently in the hope of being able to get rid of problems. Neuroticism is centrally important to pre-university students partly because persons with high levels of neuroticism are at high risk for having the most serious, impairing, and costly mental health problems. Unhealthy coping strategies

may cultivate bad habits and it can worsen the situations. In the end, they might create their own self-fulfilling prophecy.

v) What is the relationship between psychosocial stress and unhealthy coping strategies?

Table 5
Correlations

		Psychosocial Stress	Unhealthy Coping Strategies
Psychosocial Stress	Pearson Correlation	1	.482**
	Sig. (2-tailed)		.000
	N	144	144
Unhealthy Coping Strategies	Pearson Correlation	.482**	1
	Sig. (2-tailed)	.000	
	N	144	144

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

Sig. (2-tailed value) in Table 5 indicates that there is a significant relationship between psychosocial stress and unhealthy coping strategies. The Pearson Correlation analysis shows that psychosocial stress has low positive correlation with unhealthy coping strategies ($r = 0.482$). It can be said that most of the pre-university students who attend university face a lot of pressure in terms of workload, stress from family, friends and lecturers to work regularly and properly, to maintain their efficiency and quality of work and also to complete their assignments on time. The results show that pre-university students practise unhealthy coping strategies such as ‘giving up on the attempt to cope’ and ‘expressing negative feelings’ to overcome psychosocial stress. In some cases, individuals may turn to harmful behaviors in order to cope with a stressful situation. For example, someone feeling as though they are out of control of their lives due to stressful situations may decide to begin harming themselves or starving themselves in order to gain some form of control over their current direction. increases, students tend to seek more unhealthy coping strategies to reduce stress.

Discussion

Based on the results obtained, the level of psychosocial stress among pre-university students is low yet it has been a huge threat for them. Among the aspects included in the psychosocial questionnaire, academic stress and procrastination are the perceived threats in pre-university students' lives. Psychosocial stress has been seen to tighten its grasp on the students, as they must contend in this fast-moving environment at every stage in their academic career. The atmosphere of academic and procrastination makes it all the more difficult for pre-university students to join the competition world to select their careers.

With respect to the levels of stress and stressors, previous literature has invariably documented that college students are exposed to different kinds of stressors and stress level. For instance, in a study conducted with a sample of 249 student participants, undergraduate university students were found to experience higher levels of stress as a result of academic commitments, financial pressures, and lack of time management skills. The students' health, emotional state, and academic performance can be devastated when they negatively interpret the stressful context or when the stress level intensifies. In agreement with this finding, surveyed a large sample (N = 1200) and demonstrated that college students experienced a certain level of stress associated with healthy lifestyles and academic factors. Recently, concluded that psychological stress is highly prevalent among college students, especially among engineering and art students and those who are residing with their families.

Results obtained for the second variable, neuroticism liability shows that there is a moderate neuroticism liability among pre-university students. Most of the respondents reported that they often feel like they needed to take a very long holiday and easily get embarrassed in a social situation. A toxic environment can make them feel like they are walking on eggshells, and making an error can easily become a source of shame. Trapped emotions are uncomfortable feelings that they may consciously or unconsciously avoid. When bad feelings aren't resolved they become trapped and can be a source of stress. So, they are advised to enjoy the long holidays for the betterment of their life.

Results show that the level of unhealthy coping strategies among pre-university students is moderate. Most of the respondents have been looking for something in what is happening and trying to come up with a strategy about what to do. It shows that they magnify the negative aspects of a situation and filter out all of the positive ones. It affects the physical and mental welfare of pre-university students. In short, all three variables are correlated with each other. When a person experiences immense psychosocial stress, the person tends to inculcate more unhealthy coping strategies in daily lives and it may contribute to increasing neuroticism liability.

Another research on stress levels, coping styles and psychological morbidity between graduate-entry (GE) and traditional undergraduate (UG) medical students showed that GE students at this medical school do not experience more stress than their younger UG counterparts on a

traditional medical course, and profiles of stress symptoms are similar in both groups. They do, however, cope with stress differently. GEs are more likely to use active problem-focused coping strategies, but they are also more likely to cope by using substances (alcohol or other drugs). Tailored interventions to prevent or alter maladaptive coping and teach or encourage adaptive coping styles that can be drawn upon in future professional life as a doctor are needed and should be targeted at first-year GEs. This is particularly important as the number of GE students continues to increase.

When it comes to managing stress, making simple changes can go a long way in improving our overall health and reducing stress. Having tools and strategies you can turn to in stressful situations can prevent our stress levels from escalating.

This shows us that the results obtained are in-line with our hypothesis. Our findings fit in with previous theory and literature because they are consistent with the results obtained from the past. The results provided a context for a reexamination of standard techniques for the identification and interpretation of survey research biases. Methods were suggested to strengthen tests for selection bias and to minimize the impact of response biases. One of the limitations of this current study is that this research only involves pre-university students, hence the findings may not be generalized.

Conclusion

It is important to monitor our wellbeing and we should also reach out to a trusted person, a friend, family member, or coworker before our stress levels escalate. Sharing our feelings or venting concerns may help to reduce psychosocial stress and the chances of becoming neurotic. Students ought to write down any thoughts or feelings that they are experiencing. This can be a useful tool to help us understand stressors and how to react in a healthy manner. In short, psychosocial stress feelings are a part of the identity of pre-university students. Some stress factors can be good since they are encouraged by the right kind of stress towards change and advancement. However, they can become a burden when students are unable to cope with the stress. Neuroticism is classically correlated with stress spectrum disorders, and while there are many signs, the existence of neuroticism is one of the distinguishing criteria for schizophrenia. This work would tackle some of the unhealthy coping strategies typically observed in those struggling with high-stress rates that have a significant effect on pre-university students' physical and mental well-being. It can be inferred from this research that psychosocial stress in universities is a growing problem and has become a major concern for pre-university students' analysis. The students' success can be seen as having a significant effect. Keeping student therapy sessions can help with stress reduction. Further work is required to determine the reasons for relatively higher rates of stress among pre-university students. A cycle of self-assessment and quality control can be introduced to provide an insight into the curriculum design that can help restructure the courses to alleviate academic load and consequently psychosocial stress.

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