

Coping Strategies Employed by Malaysian Pre-University Gifted Students to Manage Examination Stress

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Abstract

Different age groups experience different levels of stress due to different causes. The main cause of stress experienced by students is academic tests and examinations (Kai-Wen, 2009). If students are not able to manage examination stress accordingly, it may lead to serious psychological, physical, and mental problems. This study generally attempts to determine the causes of stress among a group of gifted pre-university students in Malaysia. The study also attempts to evaluate the most frequent coping strategies used by ASASIpintar students to manage exam stress and also to identify the predominant type of coping strategies used by ASASIpintar students to cope with exam stress. Questionnaires were distributed randomly to gifted students of Malaysian Pre-university program at the Pusat PERMATApintar™ Negara (National Gifted Centre) at Universiti Kebangsaan Malaysia (the National University of Malaysia). All the sixty-eight respondents were from different ethnicity and religion background. The findings show that the highest percentage recorded for cause of stress among the students is the school factor (50%). Regardless, religion was found to be the most frequently used coping strategy by ASASIpintar students (84%). Another major finding was that ASASIpintar students tend to use emotion-focused coping to manage examination stress (32%) more than problem-solving focused coping strategy (26.9%)—a difference of 5.1%. It is of utmost importance for gifted students to have the ability to use appropriate coping strategies so that stress does not reach detrimental levels.

Keywords: gifted students, examination stress, coping strategies

1. Introduction

Stress is a cognitive and behavioural experience process constituted by sources and reactions of stress (Ji & Zhang, 2011). Stress can also be defined as a response towards a certain burden or demand that is placed on a person. Pinel (2003) defines stress as a physiological response to a certain threat. People of all ages are able to feel stress due to causes like workload, pressure, surroundings, responsibilities, and expectations. People of different age experience different levels of stress due to different causes; i.e. the stress that working adults experience may not necessarily be the same as the stress that university students experience. But at what age does one start to recognize the response towards a certain burden or demand is called stress?

According to Liu (2001), adolescence is a human development stage that occurs between childhood and adulthood. At this stage of human development, human starts to experience rapid body and mental growth. There is no definite age as when a person turns fully mature but it can take place between 12 to 25 years old. Within that age range, an adolescent would experience a lot of life events. One of the prominent life events that takes place during adolescence is going to school. At this stage, they experience the transition from primary education to secondary education, and from secondary education to tertiary education. One thing in common about all three levels of education is that at one point, students have to sit for examinations. According to Kai-Wen (2009), the main cause of stress experienced by students is academic tests and examinations. If students are not able to manage examination stress accordingly, it may lead to serious psychological, physical, and mental problems.

There are several strategies that students can employ to manage examination stress. One of the strategies is called coping strategies. According to Park and Adler (2003), coping strategies are able to delay the impact of stressful events on one's mental and physical health. Park and Adler (2003) also add that by applying coping strategies accordingly, it may help students to improve their stress level. Thus, coping strategies have a great impact on the influence of an individual's stress level. Among the coping strategies listed by Ji and Zhang (2011) for college students are adapting to college life quickly, improving the ability to think ahead, learning to think rationally, improving interpersonal skills, and improving family relationship.

1.1 Research Problem

ASASIpintar is a pre-university program for gifted and talented learners under Pusat PERMATApintar™ Negara Universiti Kebangsaan Malaysia (UKM), Bangi. Students of ASASIpintar are exposed to advanced courses in Biology, Chemistry, Physics, Vector Calculus and Statistics, approved by the American College Board. Moreover, students are also exposed to the basics of conducting and writing research in areas of interest. The aim of this program is to provide the best educational setting and experience for gifted and talented students.

Between 17 to 19 years of age, ASASIpintar students are exposed to advanced courses, conducting and writing research, and other challenging tasks commonly done by students at the degree and master's levels. Students of ASASIpintar are also well known for their excellent examination results and extra activity performances. With all the exposure at such young ages and the expectations from people around, do ASASIpintar students feel stress? This case study was designed to find out more on the causes of stress among ASASIpintar students and what coping strategies they use to manage stress are.

1.2 Research Objectives

There are three objectives for this case study. Each objective is closely linked to causes of stress and the coping strategies used by ASASIpintar students. The objectives are:

- i. to determine the causes of stress among ASASIpintar students,
- ii. to evaluate the most frequent coping strategies used by ASASIpintar students to manage examination stress, and;
- iii. to identify the predominant type of coping strategies used by ASASIpintar students to cope with examination stress.

2. Literature Review

2.1 Stress

A person experiences stress when he or she cannot endure excess pressure. The pressure that materializes in various shapes and forms often elicits physiological response which differs from person to person. Stress itself is not a negative feeling; instead it is neutral. Despite this, to denote bad and good effects of stress, the words "distress" and "eustress" are used respectively (French, Kast, & Rosenzweig 1985).

2.2 Examination Stress

Examination stress gives rise to a plethora of deleterious reactions which include unnecessary concern, anxiety and depression. Another by-product of examination stress is unrelated thinking to a set of impetus based on outcome and a person's competence in assessing a situation. According to Lewis, Weekes and Guerrero (2012), examination *stress* represents a type of naturalistic stressor known to elevate psychological markers, such as self-reported negative affect, and physiological markers, such as cardiovascular activity and the production of a number of stress-related hormones. Examination stress is contributed by many factors, for example the nebulous understanding that higher scores are essential for a certain 'good' employment. Examination stress also arose when students evaluate themselves based on their grades, thereby affecting their self-esteem. Judgment from people is also a crucial cause of stress. Oftentimes, students fear the redundant appeals made by teachers, often reminding them of the significance and timing of the examinations.

2.3 Coping Strategies

Coping is the behavioural and cognitive efforts an individual uses to regulate certain stressors or demands in his or her life (Lazarus & Folkman 1984). Many models have been developed to measure coping strategies. For example, the model introduced by Folkman & Lazarus (1980), there are two general types of coping strategies: problem-focused and emotion-focused coping. Problem-focused coping is employing behavioural activities to solve a problem or to change the cause of stress. Emotion-focused coping is more psychological; the individual diminishes or regulates the emotional distress that is triggered by a particular situation by expressing his/her

emotion and altering his/her expectations. According to Folkman and Lazarus (1980), when an individual feels that something can be implemented in practical, problem-focused coping is used. On the other hand, when an individual knows that he/she must withstand the stressor, emotion-focused coping is utilized.

2.4 Studies Related to Coping Strategies in Managing Examination Stress

Chong Abdullah et al. (2010) reported that the undergraduates at Universiti Putra Malaysia utilize both emotion-focused and problem-focused strategies to cope with stress, supporting the idea that adaptive coping is flexible and that diverse approaches are employed to effectively cope with stress. The relationship between the students' overall adjustment in the university and their academic achievement and their coping approach is found to be highly notable, with seeking social support and confrontive coping having the greatest positive effect on the students' academic achievement.

Students frequently use problem-focused coping mechanisms when they have incremental beliefs in the nature of ability in examinations, favoring active coping, planning, and increasing efforts. To handle examinations, students also use emotion-focused approaches, for example seeking social support to vent emotions. The wide repertoire of coping mechanisms used by students in exam situations is in accordance to their belief that ability is malleable and incremental (Doron et al., 2009).

To deal with examination stress, students exercise coping methods such as academic self-efficacy and mental disengagement. Khan (2013) reported that academic self-efficacy as a cope mechanism has a positive correlation with the GPA of students, indicating better management of stress. Stress coping skills; however, provide no significant effects to students' GPA, with the exception of the Planning subscale.

A study by Bahri Yusoff (2010) revealed that high school students involved in the study were mostly distressed by academic reasons, citing failure to gain admission to university, poor marks, lack of time for revision and examinations as main stressors. They had used religion, active coping, and positive reinterpretation as main means to relieve stress. However, the effects of stress on students' wellbeing were not examined.

Stress is known to be detrimental to learning; it leads to less than ideal academic performance which is an indicator of academic burnout. While college students in Taiwan do not experience high levels of academic burnout, demonstrated by low morale, depersonalization and reduced personal achievement, they worry about their future studies and development (Lin & Huang, 2014).

The tendency of students to be distressed by examinations is a worrying matter that has to be dealt with, and the coping mechanism chosen is crucial to their wellbeing. Failure to cope with examination stress will bring to adverse physical and psychological problems. Therefore, it is recommended that students exercise positive and efficient coping methods to ensure their emotional and physical wellbeing, particularly during exam seasons.

3. Methodology

A quantitative approach is used to carry out this research. The research design for this study is a survey whereby a questionnaire is used as the main instrument to collect data. 68 ASASIPintar students are selected from random sampling to participate in this study. Participants are students in the pre-university program from Pusat PERMATApintarTM Negara UKM; local government-funded program in which students who are identified gifted through Ujian UKM2 (IQ test). A total of 29 male and 39 female students participated in this study. Among them, 49 are Malay, 10 are Chinese, 5 are Indians and 4 students are from other ethnicities. According to religion, 78% are Muslims and 10% are Buddhists plus 4% are Hindu and the remaining 4% is from other minor religions. The questionnaire used as the main instrument for this research comprises of three parts and each part is constructed to answer each research question. The first part is to collect demographic data of participants which include gender, race and religion. The second part of the questionnaire is questions regarding factors of examination stress whereas the final part is the COPE inventory to find out the coping strategies preferred by the students. The questionnaire sheets were personally distributed to all participating individuals at one time. Once the questions are answered, the data is then tabulated to be analyzed. Microsoft Excel and SPSS are the software used to analyse the data obtained. To find the cause of stress, the data is calculated and categorized into more specific factors. As for the final part of the questionnaire, the percentage for each of the coping strategies were calculated using SPSS to determine the most frequent coping strategies used by the respondents. Based on the data obtained, the most frequent coping strategies were then categorized into whether they are in the emotion focused- coping strategies or problem solving coping strategies.

4. Findings

4.1 What Are the Causes of Stress among Asasipintar Students?

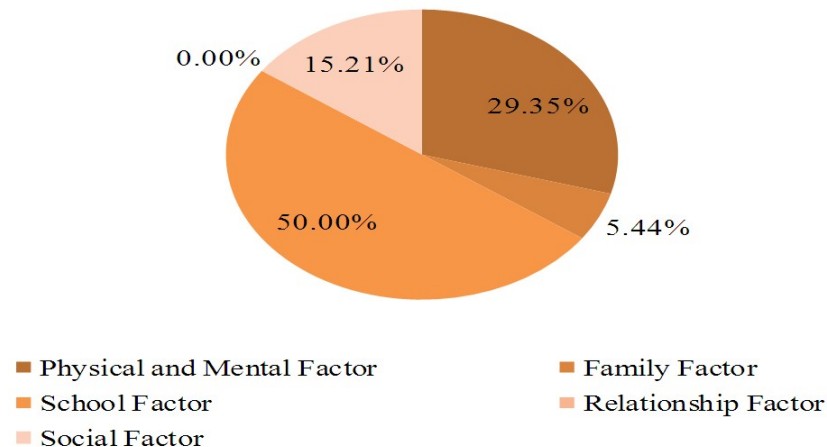


Figure 1.

Figure 1 illustrates the causes of stress among ASASIpintar students. The highest percentage recorded is the school factor with 50%, followed by the physical and mental factor with 29.35%, the social factor with 15.21%, the family factor with 5.44%, and the relationship factor with 0%.

Based on Figure 1, the 68 ASASIpintar students who were involved in this case study agrees that most of the time, they feel stressed due to school factor. In the open-ended questionnaire distributed to the students, some of the answers they wrote were 'assignments given during study week', 'so many topics to cover for exam', 'wrong spot question', and 'teacher expects me to do well'. These answers indicate that the school factor is one of the biggest causes of stress. Besides, the students also become stressed due to physical and mental health. Among the answers given that indicate the physical and mental factor being a cause of stress are 'I don't know how to organize', 'I don't feel clever like my friends', and 'not enough sleep'. As for social factor, students wrote down answers like 'peer influence' and 'people's expectation'. 'Parents' expectation', 'I am the eldest child', and 'family problem' are some of the answers that students had written down in the questionnaire and that fall under the family factor category. The relationship factor is not a cause of stress to ASASIpintar students because nobody wrote down any reasons related to relationship factor. Most probably, it is still too early for the students to feel stressed by relationship issues. .

All in all, the causes of stress among ASASIpintar students are (1) school factor, (2) physical and mental health, (4) social interaction, and (5) family issues. Most students become stressed because they are given tasks and assignments during the study week, because teachers have high expectation towards them, and because of the lack of time to do revision before examination begins. It is normal for them to feel stressed due to school factor because they are yet to reach adulthood. Thus, the commitment they have in life is mostly school-related.

4.2 What Are the Most Frequent Coping Strategies Used by Asasipintar Students?

In the second section, the data was analysed to determine the coping strategies used by ASASIpintar students. A total of 68 students responded to the adapted Brief COPE survey. Before further analysis was done, the questionnaire was checked for reliability using the Cronbach's alpha value. Based on Nunnally & Bernstein (1994) the acceptable reliability estimate ranges from 0.70 to 0.80 - for social sciences studies and the value found for this study ranges from 0.704-0.793 which implies that the data used in this study are reliable.

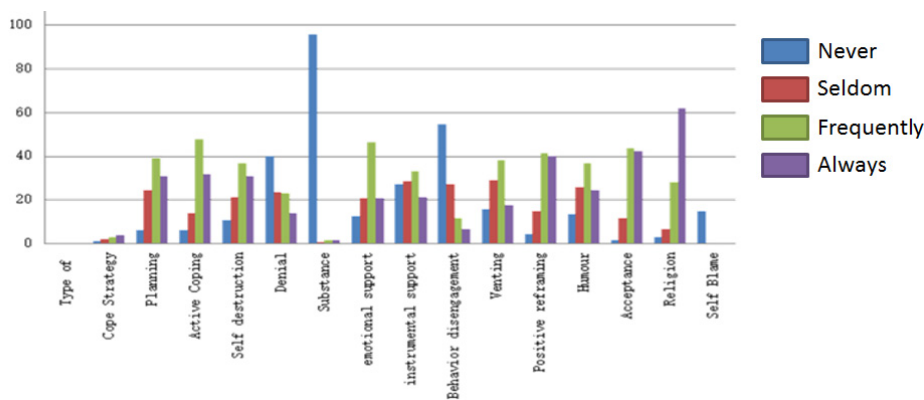


Figure 2.

Based on the data obtained and illustrated in Figure 2, if the response for “always” is taken into consideration as the most frequently used coping strategy, it could be concluded that the top five coping strategies most frequently used by ASASIPintar students in descending order are:

1. Religion
2. Acceptance
3. Positive Reframing
4. Active Coping
5. Planning/Self Destruction

Notably, religion marked as the most frequently used coping strategy by ASASIPintar students (61.8%) and it seems to be consistent with other previous studies. 41.9% of them admitted to employing acceptance as a coping strategy, 39.7% chose positive reframing whereas 31.6% and 30.9% selected active coping and planning/self destruction respectively. Consuming substances is the option with the lowest percentage employed by the students as the idea is forbidden in most religions.

This result is consistent with findings by Bahri Yusoff (2010). The study found that the top five coping strategies that are frequently used by the students are religion, active coping, positive reinterpretation, planning and use of instrumental support. However, the main coping strategy is religion. Other evidence that shows consistent result with this study is a qualitative study among Malaysian students done by Redhwan (2009) which also found that the common coping strategies adopted are praying and practicing meditation. While religion as a coping strategy is a positive one, there has been a reported study that highlights it as being very adaptive and enabling hasty the recovery from distress (Myers, 2005). It is worthy to say, that despite it being used by most students, the stress prevalence is still higher from the normal population (Firth & Shapiro, 1986) and it would be interesting to explore on this matter further in future studies.

4.3 Which of the Predominant Types of Coping Strategies (Emotion-Focused Coping Strategies or Problem-Solving Strategies) Is Used by Asasipintar Students to Cope With Examination Stress?

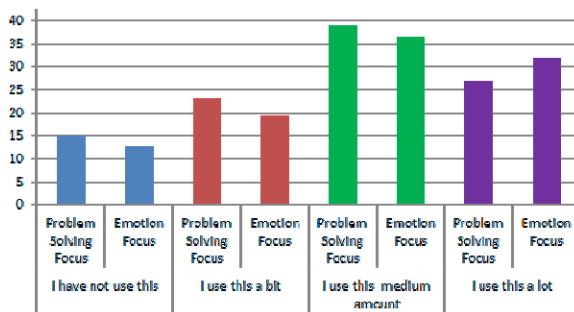


Figure 3.

Figure 3 shows that 14.9% of the ASASIpintar students have never used problem solving focused coping strategies, which include active coping (taking steps to eliminate the problem), planning (thinking about dealing with the problem) and instrumental support (seeking advice from others) to manage examination stress. Meanwhile, 23.1% claim that they do use this strategy a bit; 38.9% of them use a medium amount of this strategy while managing their examination stress. Lastly, 26.9% of the respondents use problem-solving focus strategy a lot to manage examination stress. The frequency and percentage of students using emotion-focused coping strategies are also shown in the same graph. Emotion focused-coping strategies include denial (refusing to believe the problem is real), acceptance (learning to accept the problem), positive reframing (reframing the stressor in positive terms), religion (using faith support) and emotional support (seeking sympathy from others). 12% of the ASASIpintar students claim that they have never used emotion-focused coping strategies to manage examination stress, while 19% of them admit that they do use this strategy by a little. Meanwhile, 36% use a medium amount of emotion-focused coping strategies and 32% of the respondents have reported using this strategy a lot to manage examination stress. As illustrated in Figure 2, we can infer that ASASIpintar students tend to use emotion-focused coping to manage examination stress (32%) more than problem solving focused coping strategy (26.9%) by 5.1%.

This is consistent with the findings by Doron et al. (2009) that students use an emotional-based approach, for example seeking social support to vent emotions to handle examination stress. The wide repertoire of coping mechanisms used by students in exam situations is in accordance to their belief that ability is malleable and incremental.

5. Implications

Human beings including students are bound to encounter many challenges, problems and difficulties throughout their lives. One of the stresses faced by students is examination stress. Samarendra Mohapatra 2012 states that examinations in school or college are a part of academic life and it has been said sometimes that “student exam stress is creating mental health time bombs”. Therefore, it is of utmost importance for students to have the ability to use coping strategies so that the stress does not become detrimental to them and their well-being.

This study was conducted to examine the coping strategies used by ASASIpintar students to manage examination stress. Several outcomes have been obtained throughout the process of conducting this research. It has provided the answers to the research questions. From the data analysed, the following conclusions can be drawn. Firstly, most of the students feel that their examination stress is contributed externally with the school factor being the most common factor. Secondly, religion is the most frequent coping strategy used by ASASIpintar students. Finally, ASASIpintar students tend to use emotion -focused coping strategies rather than problem solving-focused coping strategies.

The research concludes that the coping strategies used by ASASIpintar students are consistent with those used by peers and other students in schools, universities and other institutions of higher learning. It is therefore worth to mention that there is also a positive advantage of using problem-solving focused coping strategies. Dunkley et al. (2000) & Sasaki and Yamasaki (2007) state that the use of problem- solving strategies among college students is associated with positive outcomes, such as better health and reduced negative effects. This contributes to related suggestions such as hosting motivational talks for students to gain more exposure on coping strategies technique in order to effectively apply those strategies in managing examination stress as well as other stressors in their lives.

For future research, it is recommended that the sample is widened to greater age groups and to observe if there is any significant difference between age groups and the type of coping strategies used. In the survey used for this study, there was no venue for the students to express their personal views on coping strategies and examination stress. It would therefore be recommended for future studies to have such a section in the questionnaire so that other ideas and information related to coping strategies can be collected.

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