The Effect of Humour in Minimizing Stress among Engineering Students

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Abstract: The world’s economic development has demanded a university to produce more skilful and competitive students. Therefore, the university has played a significant role in designing the best curriculum which is in line with the market need. Fulfilling those demands and needs, students must meet all the requirements stipulated by the curriculum but somehow, some of the students are experiencing stress due to their inability to meet the university’s curriculum requirements. Although the students are under pressure they are still able to control it by using humour. Based on a study conducted on 200 university students, the results showed that the level of stress among students was a moderate level with symptoms such as dry mouth and hands shaking. In addition, the findings indicated that academic factor has a strong influence on students’ stress rather than financial and family factors. However, the results also indicated that students are able to control their stress levels based on their own attitude of humour namely; the affiliative humour and the self-enhancing humour.

Keywords: humour behaviour, stress, engineering student, affiliative and self-enhancing humour

I. INTRODUCTION

Facing life in the era of globalization which is challenging has put pressure on the employers to have highly skilled and knowledgeable human resources. This demand has led the university to make a paradigm shift towards the curriculum structure in order to ensure that it produces a skilled undergraduate and to meet the world’s current market need. As a knowledge centre, the university strives to ensure that the curriculum structure offered always meets the future need so that the outcome of the products is always able to meet the demands of the employers. Not only that, the course curriculum offered too is always a balance between academic and personality so as to complement the outcome of being a university student. Along with the development of the industrial revolution 4.0, engineering undergraduates are seen to be of great demands for most employers in the current market. Recognizing these needs, university also plays an important role in formulating and preparing the curriculum structure to suit the current and future needs. Not only in academic context, the university is also actively pursuing a university community engagement programme in order to instill the soft skills among the undergraduates so as to be more talented on the market (Isa et al., 2017). However, in students’ context, their lives are seen as being pressured by the various needs of the university which in turn making them feel that life at the university is a burdensome and causing them stress. According to Towbes and Cohen (1996), university students in the early years of study, are more susceptible to stress due to their life transition process at the university such as homesick syndrome (Pfeiffner, 2001).

II. PROBLEM STATEMENT

Each individual has the opportunity to be exposed to stress. According to the National Health Morbidity survey (Kosmo Online, 2018), all three in ten adults aged over 16 years suffer from various mental health issues arising from various causes such as stress, mental disorders, depression, schizophrenia, and conflict. Looking at the age level from the report, university students also are prone to stress. According to Lessard (1998), stress is not only experienced by the adults, but also affects the university students as the university is a place with a unique environment and demands the students to balance multiple roles and tasks to be performed. Students who did not manage to meet these demands will feel frustrated, anxious, hopeless and stressful, especially the female students (Mohammed Zaid et al., 2015). Based on Towbesdan Cohen (1996), there are many factors that cause the undergraduates to feel stress, particularly due to the changes in the way of life at the university. The beginning of university life causes the students to experience a culture shock that can affect their health and also the academic performance. Typically, factors such as family, emotional, financial, and social will give a tremendous impact on the students (Kashif et al., 2013). Essel and Owusu (2017) also found that factors such as transportation, environmental, academic and personal have a strong influence on the causes of stress among the students. In the context of relationship, students will usually experience conflicts that can cause stress when they begin to communicate or interact with other individuals while at the university. On the other hand, in the context of academic factors, generally, the load of assignments and lectures will make the students become stressed more easily as compared to financial factor, even if the student is suffering from a shortage of financial resources in the university.
Most individuals are aware of the existence of stress symptoms within themselves but in certain circumstances, some still let the symptoms to persist which bring negative impacts on themselves from psychological and physiological aspects (Korolija and Lunberg, 2010; Lazarus, Rodafinos, Matsiggos and Stamatioulakis, 2009; Myoung-Hee, Chang-yup, Jin-Kyung and Kawachi, 2008 and Zafir, 2007). The feeling of stress is also dependent on individual perceptions of the incidents encountered. According to Lazarus and Folkman (1984), a situation can be considered stressful depending on one’s assessment whether it imposes or exceeds the resources that are owned or even endangers their well-being. The inability of the individuals to meet the needs of these sources will cause them to deal with stress.

M. Zain Azhar as reported in Berita Harian (6 March 2002), stated that about 25 to 35 percent of students in this country suffered from depression as a result of the increasing load of study. According to Azhar (2002), an educational system that emphasizes on academic excellence has led the students to have lack of time to rest and organize other activities. Besides, parents’ and teachers’ pressure to obtain excellent performance in schools has steered the students to face stress in their lives. Despite the findings, Hanna et al. (2013), denied that the stress of the students are significantly correlated with academic achievement, instead claimed from the previous studies that academic factors such as academic load assignments, lack of references and compact lecture hours have a significant relationship with the stress level of students (AbdRahman et al., 2012; Gupta et al., 2015; Essel and Owusu, 2017; Pfeiffer, 2011; Mussarat et al., 2013; Mastura et al., 2007 and Hanina et al., 2010) at which in turn will affect the academic achievement of students (Essel and Owusu, 2017, Muhammad Saqib and Kaleem, 2018). In addition to academic factors, other factors were also found to influence the stress level of students such as peer relations, financial factors, family factors, environmental factors, and interpersonal factors within the students themselves. Hence, this study is conducted to determine the stress level of engineering students of University A and to identify the contributing factors to student stress. This study also aims to determine the effect of humour on student stress reduction.

III. LITERATURE REVIEWS

1. Stress among Engineering Students

The demands of the job market today has given pressure on the students. According to McNamara (2000), teenagers nowadays are more inclined to stress when compared with teenagers in the past. Even though the stress level among the students is different, however stress will leave an intense effect on the individual including physical and emotional aspects (Ma’arif, 2001 and Munira, 2017). Stress which exceeds a certain level and is not controlled will create multiple problems to each individual (Romas and Sharma, 2004) such as a sense of loneliness, lack of sleep, apprehension, high anxiety, and physiological symptoms which is driven from the impacts of an incident experienced (Wright, 1967). Consequently, stress can affect a student’s daily life and social interaction which brings negative impact on health, personality, social interaction, and academic achievement.

Environmental change is one of the factors that contributes to student stress. According to Hanina et al. (2010), environmental change from school year to university affects the students’ personality especially when adapting to the new environment. Students who can easily adapt have low risk to be exposed to stress while students who are unable to adapt to the new environment will be more prone to the risk of dealing with stress. Apart from that, academic factors (Mastura et al., 2007; Abd Rahman et al., 2012; Gupta et al., 2015; Essel and Owusu, 2017; Pfeiffer, 2011; Mussarat et al., 2013 and Mastura et al. 2007) are also viewed as a major contributor to student stress. Academic loads such as excessive assignments, compact lecture hours, final year project writing, quizzes and final exams, additional projects, poor language proficiency, and difficulties in meeting the lecturers are seen to be the causes of students to feel stress (Misra and McKean, 2000; Retno Dwi Utami, 2016).

Suriani and Suriani (2005) in their study found that the students’ level of stress which are caused by academics, lecturers, personals and universities was higher than the stress caused by co-curricular activities, friends, family, and parents. These findings displayed that academic, personal and university factors are highly correlated with student stress as stated in the findings of Agolla and Ongori (2009), in which it is also indicated that factors such as inadequate resources, low levels of motivation and packed lecture rooms have contributed to stress students. The findings demonstrate not only the external factor but also the internal factor which is the motivational level is also important in determining student stress. Students who are able to deal with or manage to control the environmental changes are usually less susceptible to stress. Supporting this opinion, Muhamad Zaid et al., (2015) stated that the main cause of stress among final year students is due to personal factors or personal relationships, followed by learning environment factors and academic factors. According to Mussarat et al., (2013) and Muhamad Zaid et al., (2015), the gender factors also influence the level of stress among students in which female students are associated with stress as compared to male students.

Financial resources play a significant role on a student’s life at the university. Money is needed for payment of fees, perfect and comfortable education requirements as well as students’ costs of living. According to Yunus (1984), students with financial difficulties can get stress at the university and as a result, affect the students’ academic performance. According to Votta and Benau (2014), financial problems become one of the stressors amongst pharmaceutical students especially when the learning costs are increased. Final year students are also said to be more vulnerable to stress when there is an economic recession, financial burden and conditions for job hunting (Mouza 2015). Norain et al., (2017) in her study also found that students from families with financial difficulties faced with financial problems at the university and this situation could in turn cause students to be stressful.

Many previous studies have initiated that stress affects people’s health either in a short term or in a long term in the form of disease, immune system and even death. According to Holmes and Rahe (1967), the more pressure the individual has, the more inclined the individual is to get diseases in the following year.
In Holmes and Rahe (1967) studies, cancer is one of the diseases that is closely related to the stress of individuals. Meanwhile, stress is also related with illness as it can weaken the immune system in the human body (Kemeny et al., 1992). As a result of the weakness of the immune system, one is easily prone to illness. More frightening is when stress can be attributed to death. Usually individuals who suffer major stress or severe stress such as death of a spouse or close family member will have an immense health impact to the heart (languish) and incline to suicide, accident, diabetes, and cancer (Stroebe et al., 1982). In the context of university students, stress is perceived to have a great impact on student life as it relates to academic achievement and ultimately determines the success of a graduate.

2. The Effect of Humor

Many factors have contributed to student stress, but the methods used to help reduce the stress level of the students and also help them to control stress are more important. According to Jordan (2002), intervention measures need to be taken to help reduce the stress levels of the students. Apart from Jordan (2002), Romas and Sharma (1995) argued that the technique that could control and reduce stress is through relaxation such as yoga, meditation, massage, biofeedback, visual imagery, deep breathing, and progressive muscle relaxation. White & Winzelberg (1992) added that among other approaches to prevent and reduce stress is through humour because humour and laughter are seen to have a positive effect on the body.

Humour is perceived as a multidimensional phenomenon associated with emotional, cognitive and behavioural influences on the psychological aspects (Celso, Ebener, & Burkhead, 2003). Freud (1960) defines humour as an element of irregularity or entertainment in an environment that can overcome fears, stress, sadness, or anger. Because of that, Norman (1979) stated that humour and laughter are able to reduce stress by changing individual’s perceptions of stress as not a burden. This is because humour can be seen as a mediator in playing a vital role in promoting a happy life as it is able to raise self-esteem, optimistic values in individuals and promote confidence (Martin, Kuiper, Olinger & Dance, 1993).

Humour is said to be able to change the way individuals see how stress can have a positive impact on the individuals, which is how individuals see the stress (Cann, Holt & Calhoun, 1999). This is because humour will affect the physiological and psychological aspects (Jordan, 2002). Based on Norman (1979), humour and laughter can be viewed as the best pain-resisting as it does not only help to reduce stress but also reduces illness and pain as well as moderates immunosuppressive effects of stress (Martin & Dobbin, 1988). There are plenty more effects of humour on the individual’s physiology and psychology such as help reduce flu (McClelland & Cheriff, 1995), and reduce the risk of bacterial infection (Martin & Dobbin, 1988).

In addition, humour can also be associated with creative thinking (Koestler, 1964 and Bleedorn, 1982) and logical thinking (Martin et al., 1993). Therefore, it is not surprising that many previous studies have found that humour has an influence on individual cognitive performance (Kuiper et al., 1993; Kuiper et al., 1995; Jordan, 2002) and problem-solving strategy (Abel, 2002) while good humour will stimulate better thinking. In a study conducted by Martin and Lefcourt (1986), humour is said to have an effect on reducing individual stress when an individual with low scores of stress is said to have a high level of humour. Therefore, it is believed that humour has a positive effect on the health and well-being of individuals through the reduction of stress levels faced by individuals.

According to Ducan (1990), there is no specific theory to describe specific characteristics, types and functions of humour, but Martin (2003) has identified some humour behavioral styles that have features and functions that are different from one another. The behavioural styles of humour are affiliative, self-enhancing, aggressive, and self-defeating humour.

i. **Affiliative Humor**

Affiliative humour is a style of humour intended for someone else (Cann et al., 2008). It covers activities such as storytelling or producing funny words, laughing with friends and making fun through spontaneous action (Lefcourt, Martin et al., 2003). According to Shirley (2013), affiliative humour is categorized as positive humour. This is because the humour helps to strengthen social relationships and reduce interpersonal stress (Lefcourt, 2001; Kalliny et al., 2006). Individuals with high levels of affiliative humour tend to make other people feel happy and comfortable with their presence, always cheerful, emotionally stable and care for others (Martin et al., 2003).

ii. **Self-enhancing Humor**

Self-enhancing humour is a style of humour devoted to oneself (Kalliny et al., 2006). Individuals who tend to do self-enhancing humour are easily amused by the incongruity in life and often think of a funny thing or event (Martin et al., 1993). It is done to improve self-esteem and control the emotion when dealing with stressful or unpredictable situations (Martin et al., 2003). Self-enhancing humour is categorized as a positive humour (Shirley, 2013). This is because it is positively related to happiness, self-esteem, psychological well-being, and satisfaction with social relationship (Martin et al., 2003).

iii. **Aggressive Humor**

Aggressive humour is a style of humour directed to other people (Cann et al., 2008). It refers to the use of words of sarcasm, ridicule, derision, criticism, or humility in the jokes (Kalliny et al., 2006; Lang & Lee, 2010; Zillman, 1983). It is done to manipulate, transmit the message containing implicit meaning as well as to control or improve the behaviour of others (Cruthirds, 2006; Janes, 2000). Aggressive humour is categorized as a negative humour (Shirley, 2013). This is because it is negatively related to self-esteem, psychological well-being and life satisfaction (Martin et al., 2003).

iv. **Self-defeating Humor**

Self-defeating humour includes funny actions or conversations about yourself (Cruthirds, 2006). It is where an individual tends to laugh together with others by making himself the laughing object. The purpose of self-defeating humour is to entertain and attract other people's attention.
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At the same time hiding the real thoughts or feelings from other people’s knowledge (Kalliny et al., 2006). Self-defeating humour is positively associated with depression and anxiety (Martin et al., 2003). The concept of humour behavioural style by Martin et al. (2003) has received positive reactions among researchers in the field of social science. Lefcourt et al. (1997) explained that demographic factors could determine the different style of humour behaviour among students.

IV. METHODOLOGY

This study involved 200 students who were randomly selected from University A. The questions in DASS Healthy Exams were used as the instruments in determining the stress level of engineering students of University A and identifying the contributing factors to student stress. The questionnaire also contains a section to determine the effect of humour on student stress reduction. All data were analyzed descriptively using SPSS version 20.

IV. FINDINGS AND DISCUSSIONS

The study involved 200 respondents with 54% male students and the remaining 46% were female students. From the total number of respondents, more than half (54%) were aged between 18 and 21 years old and the rest aged 22 years and above. This indicates that more than half of the respondents were first and second year of university students. Environmental changes and self-management as the new students have made them prone to cultural shock and finally caused stress to them. However, all respondents of this study were staying in residential colleges within the university area. According to Mussarat et al., (2013) and Muhammad and Kaleem (2018) there is no difference between males and females on the risk of experiencing stress but according to Mussaratet al., (2013) junior students are prone to stress than senior students.

The analysis indicated that the stress level of University A students is at moderate level with a mean value of 3.273. It suggests that even with stress, students are still able to control the level of stress to a maximum level.Although the findings displayed moderate levels, many students experienced stress symptoms such as dry mouth (n = 80%, min = 3.54) and hands shaking (n = 46%, min 3.06). Although there is no critical effects on physical and emotional, the symptoms experienced by the students clearly indicate that students are faced with stress while at the university. From psychological aspect, the prominent symptoms of stress among the students are difficult to relax (n = 86%, min = 3.38), anxiety disorder (n = 74%, min = 3.46) and uninterested to start something new (n = 80%, min 3.38). Symptoms of this psychological aspect will indirectly affect the students’ physical, cognitive and emotional (Kashif et al., 2013 and Essel and Ovusu, 2017).

In the next findings, most respondents claimed that academic factors have contributed to their stress. The majority (82%) of the respondents stated they were stressed because their weekends were filled with assignments to be completed while 74% of the respondents felt stressed because of the heavy load of assignments given by the lecturers despite the short break provided by the university (70%). Due to the short break and many tasks, 60% of the respondents said they felt stressed due to lack of time with family and friends. However, 58% of the respondents did not feel stressed if they had family problems and almost all (70%) respondents stated they were not stressed if the family had less attention on them. The findings of this study were contrary to Muhammad and Kaleem (2018) and Kashif et al., (2013) which stated that family and parent factors have a relationship with the stress of the students.

In order to support the findings of Misra and MCKean (2000) and Retno Dwi Utami (2016) which asserted examination is one of the factors that causes the students to stress, the study analysis revealed that 76% of the respondents were stressed for not achieving the best results in the examination. The outcomes also support the findings of Siti Nuar Haziratul (2012), Mussarat et al., (2013), Kashif et al., (2013) and Norain et al., (2017) which state that financial factors are also seen as contributing to student stress in which more than half of the respondents (72%) stated they were stressed when they had to manage their own finances and 64% said they were stressed due to lack of money while studying at the university. Nevertheless, 54% of the respondents said they did not feel stressed because of busy doing part-time work due to financial problems while studying.

In the context of the effect of humour on respondents' stress reduction, majority of the respondents practice affiliative humour (85%) and self-enhancing humour (89%) to reduce their stress levels. This is because most of the respondents (88%) said they try to make other people comfortable with their presence while 82% of the respondents prefer to do activities like storytelling or expressing funny words. According to Shirley (2013) affiliative humour is categorized as positive humour and individuals with high level of affiliative humour tend to make other people feel happy and comfortable with their presence, always cheerful, emotionally stable, and care for others (Martin et al., 2003).

The findings of this study suggest that the moderate stress levels also indirectly support the findings of Martin et al. (1993) in which individuals who are self-enhancing often think of something funny to improve themselves and their own emotions especially when dealing with contingencies (Martin et al., 2003). It shows that despite the various factors contributing to stress, the respondents are still able to control the stress level faced through identifying their own potential in order to restrain the stress level.

V. CONCLUSION

Overall it can be concluded that the stress level of engineering students is at a moderate level based on the symptoms of the students as observed. The stress level of University A's engineering students is said to be under control. This is may be because University A is one of the universities in the MTUN category and likely to cause the students to be prepared with the requirements and demands in the field of engineering and technology. Although academic factors are said to have a strong relationship with the stress of the students, financial factors also influence the students to excel in academic. Recognizing the need to graduate with excellence is a long-term demand, most of the students are able to control their level of stress with the approaches that come from within.
According to Ieva (2008), each individual has a humour dimension in his/her personality even with different inclinations. Thus, it can be assumed that the effort to control stress is dependent on the students themselves despite other environmental factors that also affect at different levels.

ACKNOWLEDGMENT

The authors would like to thanks to Universiti Tun Hussein Onn Malaysia (UTHM) for supporting this research under the UTHM Research Funds Scheme (Vot : C072). In addition, the authors also thanks the respondents for their fully supported in this research.

REFERENCE


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