AN INTERVENTIONAL STUDY ON THE STRESS AMONG ADOLESCENTS AND YOUNG ADULTS IN KAMPUNG BAHAGIA JAYA, PHASE III, SIBU

4th Year Medical Students
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Rotation 3

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FACULTY OF MEDICINE AND HEALTH SCIENCES

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DECLARATION

We declare that this research originates from our own effort, except for certain facts and citations with which the sources have been clearly listed in the bibliography.

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ABSTRACT

Stress is a non-specific response or reaction of the body to disturbing event in the environment. Stress can cause negative effects to young people. Therefore it is crucial to assess the level of knowledge and awareness among the population so that appropriate interventions can be carried out. The objective of this study was to assess and explore the level of knowledge, perceived level of stress and common coping strategies among adolescents and young adults in Kampung Bahagia Jaya Phase III, Sibu from 27th August 2012 to 4th November 2012. The results obtained were then used as the baseline data to conduct an intervention programme beneficial to the community to enhance their level of knowledge on stress. Data collection was done by using interview-guided questionnaire. Data analysis was done using SPSS software version 20.0. Results showed that 54% of the respondents had good level of knowledge on stress, though less than 50% of them had good knowledge on signs and symptoms and complications of stress. Females (vs males), those at higher (19-35 years old) age group (vs 13-18 years old) and residents who are employed (vs students and those who are unemployed) had significantly higher level of knowledge (p<0.05). Based on the perceived stress scale used in this study, slight higher percentage of respondents has lower level of stress. Among all the coping strategies, religious support was most frequently utilized by the respondents. However, no significant association was found between level of knowledge and family income (p=0.498). No significant association was found between perceived stress level and age group(p=0.921), gender(p=0.107), occupation(p=0.206) and family income (p = 0.928). There is no correlation (p>0.05) between level of knowledge on stress and perceived stress level. Post-intervention study showed significant improvement in the level of knowledge on stress (p<0.005). In conclusion, the
intervention programme has been effective in increasing the level of knowledge on stress among the respondents, in terms of general knowledge about stress, stressors, signs and symptoms, coping strategies and complications of stress.
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CHAPTER 1

INTRODUCTION

1.1 Introduction

Stress is something that is commonly heard by the public. However, what is actually stress? Its meaning remains vague to many people. Stress can be defined as non-specific response or reaction of the body to disturbing event in the environment (Rosenham, 1989). The event that triggers stress is known as stressor (Lazarus, 1990). Myers (2005) defined stress as a process in which one perceives and copes with threats and challenges. It can be classified into positive stress, tolerable stress and toxic stress (Middlebrooks & Audage, 2008). Linn and Zeppa (1984) classify stress into favorable and unfavorable stress. Favorable stress facilitates learning process, but unfavorable stress suppresses it.

There are numerous studies that have been conducted to investigate the impact of stress among adolescents, particularly secondary school students and young adults. Many of these studies show that stress makes them prone to consume alcohol and drugs (for example, Newbury & White, 2000) and depression (Van Praag, 2004). Stress has also been shown to affect academic performance (Betson et al, 1999) and suppresses our body immune system and causes cognitive deficit (Middlebrooks & Audage, 2008). Sleep disorder (Niemi & Vainiomaki, 2006) can be one of the serious impacts of stress. According to Richard (2010), stress could reduce sleep duration in young adults which then affect their daytime mood.

1.2 Background of Study

A study by World Health Organization (WHO) in 2001 shows that the prevalence of distress among secondary school students world-wide was 20% (WHO, 2001). A recent study
by Saiful et al. (2011) reveals the figure for Malaysian students is higher at 32.8%. Anecdotal comments from public, mass media, parents and students themselves also show that our students suffer from overwhelming stress. This finding is alarming and raises concern and there have been many calls to give appropriate attention on stress among our students (for example, Reifman, 2011).

A large majority of the Malaysian secondary students are in the age range between 13 to 17 years old (Forms 1 to 5). They are adolescents going through the transitional phase, which is a stage between childhood and adulthood (Sulaiman et al, 2009). At this stage, they experience various biological, mental, physical and emotional changes and these changes might contribute to the development of stress among them. As a result, feeling of stress among secondary school students is a normal phenomenon and is a path that everyone must pass through in order to become mature.

Apart from the physiological-induced stress mentioned above, the most common cause could be due to the fierce competition in the modern and materialistic world to be successful. Everyone competes with each other to get ahead (Morris, 1990). Saiful (2010), Burnett (1997) and Bawen (1992) mentioned that sources of stress among secondary school students are usually school-related such as inappropriate workloads or assignments, examinations, falling behind their peers and inappropriate treatment by teachers. Peers also play a major role in creating stress to adolescents. An example of such an incident is when an 18 year-old American girl committed suicide due to shame and harassment by her peers after her ex-boyfriend distributed her nude photo (Hastings, 2009).

According to study conducted by Turner and Avison (2003), the level of stress among young adults is on the rise. The most common stressors presented among young adults are unemployment and unsatisfactory working environment (Freeman, Wiesner & Windle, 2005).
Apart from that, Walker (2005) identified relationship problem, having conflict with family members and serious illness or injuries of family member are also common stressors. Since all of us are subjected to stress at some time or the other, it is very important for us to know how to cope in acceptable ways. There are various types of coping strategies. Lazarus (1990) classified coping strategies into problem-focused coping, which involves attempt to solve problem actively; and emotion-focused coping, which involves dealing with the emotions generated by the problem. Parker and Adler (2003) stated that only active management of stress through appropriate coping strategies could help students solve their problem efficiently and thus reduce their stress.

As many adolescents and young adults are still learning to cope with stress, it is hard for them to make a right decision on the strategy to cope with their stress. Therefore, it is not uncommon for us to read articles or news that young people chose the wrong way like suicide to solve their problems (Bradley, 2002). Failure to cope with stress has been shown to increase the possibility for a student to have mental problem (Newman, 2005) and substance abuse (Bruns & Geist, 1984).

1.3 Statement of Problem

WHO (2000) reported that there are about 4 million adolescents world-wide attempted suicide annually, resulting in at least 100,000 deaths. Cramer (2008) stated that the most common reason (73%) for teens in the United States to abuse drugs is feelings of stress. Saiful et al. (2011) have shown that 32.8% of our secondary school students in Kota Bharu, Kelantan were in a distressed condition. A study conducted by Turner and Avison (2003) concluded that the level of stress among young adults is on the rise.
As there is a dearth of data on stress among adolescents and young adults in Sarawak generally and Sibu specifically, this research seeks to study level of knowledge on stress, perceived stress level, and coping strategies among adolescents and young adults in a semi-urban village in Sibu. This study will provide data if these adolescents and young adults require specialized supporting services to cope with their perceived stress.

1.4 Significance of study

As stress can have harmful effects on the physical and mental health of young people, it is crucial that they are helped to cope in acceptable ways. Anecdotal evidence reveals that some young people turn to unhealthy ways like taking drugs, excessive consumption of alcohol and even attempt to commit suicide when they face excessive stress in their lives. The findings of this study will be very helpful to parents, school counselors and health professionals to carry out health promotion and self-management activities to help the students to reduce or cope with their stress.

1.5 Literature Review

1.5.1 Definition of Stress

The Global Organization for Stress (n.d.) declares that there is no single or generally-accepted worldwide on definition of stress. The Merriam-Webster Online Dictionary (2009) describes stress as “a physical, chemical, or emotional factor that causes bodily or mental tension and may be a factor in disease causation… and a state resulting from a stress is one of bodily or mental tension resulting from factors that tend to alter an existent equilibrium.” Stress occurs when the pressure experienced exceeded the person’s ability to cope (Centre for stress management, 2003).
Selye (1973) defines stress as a general response of the body to any demand made on it. Stress is an unusual stimulation which threatened and caused dramatic changes in a person’s behaviour (Miller, 1953). Basomitz, Persky, Korchin and Grinker (1955) states that stress is stimulus that can produce disturbances. Stimulus could be the environmental events such as natural disasters, noxious conditions and illness (Lazarus & Folkman, 1984). Also, according to them, stress is the relationship between the person and environment and it may vary in term of the reaction or response, depending on the personality of the person and nature of the environmental events.

1.5.2 Epidemiology

The prevalence of distress among secondary school students in Malaysia is high and the statistic is even higher than the WHO expected figures of mental health problems among adolescents in 2001 (which is 20%). Saiful (2010) and Saifulet al. (2011) have conducted a study on secondary schools in Kota Bahru, Kelantan. In both the studies, the prevalences of distressed students are 26.1% and 32.8% respectively. In the study conducted by Saiful (2010), it also shows that the female has a higher prevalence of distress than male and the author postulated that this is because the female has a higher concern to academic studies. Another survey carried out in Kuala Pilah district which involved a calculated sample size of 358 students also showing the similar result, 47.1% (Anizan, 2009). In this study, it is observed that the sex and age could be related with stress. Girls and the older age group seemed to be more stressed.

In addition, de Anda and her colleague from University of California (2000) have carried out a survey on 333 high school students in Los Angeles to determine the degree of stress experienced. They found out that 1/3 of the students experienced high level of daily stress. However, there is no gender difference noted.
The Marlborough high school principal, Mary Carlson is also paying high concern on the result of survey which suggestive of a link between stress and suicide. The survey is done by a research company involving 1,100 students from Marlborough in May 2002. The results stated that 16% of students have considered suicide and 70% of students say they are stressed out.

However, there is limited data on prevalence of stress of adolescents and young adults world-widely.

1.5.3 Stress level and its relationship with social-demographic characteristics

Various studies have been conducted to associate the socio-demographic characteristics such as gender, age, parents’ educational status, parents’ occupation and living area with respondents’ stress levels.

Li and Yen (1998) have conducted a study on daily life stress and its correlation among 1141 high school students in Hualien city, Taiwan. The finding shows no significant difference between the levels of stress with gender. This is parallel with a study among 333 high school students in Los Angeles (de Anda et al, 2000) and 80 students from Hyderabad, India (Augustine et al, 2011). In contrast with the finding of a study done by Hudd et al (2000), gender is significantly associated with the level of stress (p=0.017) in which American female students experienced higher level of stress than males. Tajularipin Sulaiman, Aminuddin Hassan, Vizata M.Sapian and Saifuddin Kumar Abdullah (2009) studied the level of stress among Malaysian secondary school students also revealed that females (mean=1.345) had higher level of stress compared to males (mean=1.123). This finding is consistent with study conducted by Latha (2006) among 100 students from Pre University College in Mangalore, India and Moksnes et al (2010) among 1580 Norwegian
adolescents. In contrast, Shilpa Taragar (2009) reported that males had higher stress level than females in Dharwad.

Other than that, Cunningham and Paradies (2012) have conducted a survey on socio-demographic factors and psychological distress in 5417 Indigenous and 15432 non-Indigenous Australian adults who aged 18 to 64 years old. The finding showed that females faced greater degree of stress than males. Rose and Bond (2008) also found that there is significant association between gender and level of stress where female young adults were shown to have higher level of stress compared to males ($p \leq 0.01$).

There are studies found that age group is significantly associated with the level of stress. A study conducted by Sapna Dinesh (2010) among school children from 4 to 17 years old in Kerala has showed that majority of the school children who aged between 13 to 15 years old experienced higher levels of stress as compared to other age groups. In a study comprised of 300 high school students in Maseru, Lesotho, the students from higher grade were reported to face greater degree of stress than those from lower grade with $p$ value of 0.0017 (Machela, 2009). Shilpa Taragar (2009) reported that there is significant difference between the grade level and level of stress faced by students. His finding is supported by Anizan (2009) and Genova (2010). In contrast with the finding of a study done by Al-Gelban KS, Al-Amri HS and Mostafa OA (2009), age group ($p=0.627$) and school year ($p=0.135$) are not significantly associated with the level of stress among 545 female secondary school students in Abha city, Aseer Region, Saudi Arabia.

Yang, Rockett, Lv and Cottrell (2012) have conducted a study on stress status and related characteristics among 4735 urban residents in six-province capital cities, China. They reported that the respondents who were in the age group of below 25 years old (mean=22.90) and between 25 to 34 years old (mean=22.62) had lower levels of stress compared to those
who aged between 35 to 44 years old (mean=23.02). In contrast, a study by Yang, Rockett, Yang and Xu (2009) among 4414 residents from Jinbei, Jinnan, Guidongbei and Subei, China had showed that those who aged above 35 years old experienced lesser degree of stress compared to younger age groups. This is consistent with prior research by Rose and Bond (2008) among 179 young adults in Australia.

Anizan (2009) has conducted a study on stress among secondary school adolescents in Kuala Pilah district and its associated factors. The finding show that ethnicity (Malay and non-Malay) is not significantly associated with stress (p=0.477). However, there is significant difference (p<0.01) between the degree of stress and ethnicity among White and African American high school students in Los Angeles (de Anda et al, 2000).

Socioeconomic status is defined as “an individual's or group's position within a hierarchical social structure. It depends on a combination of variables, including occupation, education, income, wealth, and place of residence” (The American Heritage® New Dictionary of Cultural Literacy, Third Edition, n.d.) Several studies have conducted to associate the parents' socioeconomic status with the levels of stress experienced by their children. A study in Saudi Arabia shows that there are no significant differences (p>0.05) between the levels of stress among high school students and education of father, education of mother, occupation of father and occupation of mother (Al-Gelban KS et al, 2009). This finding is parallel with the study by Babak et al among 154 Iranian high school students and Shilpa Taragar (2009) among 538 high school students in Dharwad, India. Chen (2012) has conducted a study on impact of parent's socioeconomic status on perceived parental pressure and test anxiety among 337 Chinese high school students in Shanghai, China. In contrast to previous study, the finding revealed that there are significant difference (p<0.05) between father's occupation, mother's occupation, mother's education, parents' income and the stress
level of students. However, it also shows that the father’s education has no significant relationship ($p=0.576$) with stress. Other than that, students from poor families are reported to being more stressed as compared to families with moderate or good economic status (Nuran Bayram & Nazan Bilgel, 2008). However, there is a study show that there is no significant association between perceived stress of student and the family income (Anizan, 2009).

Among all the occupation groups, managers and clerks (mean=20.13) had the lowest stress levels, followed by retirees (mean=20.75) and professionals (22.44). Unemployed respondents were found to be the most stressful group (mean=24.44). The study also shows that the income level ($p<0.01$) is significantly associated with level of stress among respondents, where those with higher income manifested lower stress levels than those with poorer income (Yang et al., 2012). A study conducted among 8749 young Australian women had showed that respondents who were studying (mean=0.97) were more stressed than those who were working (mean=0.80) (Bell & Lee, 2008).

1.5.4 Stressor and its relationship with social-demographic characteristics

Stressors are defined as ‘the situation and pressures that cause stress’ (Smith, Segal & Segal, 2012). Both positive and negative events in life can become someone’s stressors, and at least a part of it, is depending on your perception towards the stressor. Of the same event such as marriage, it can cause intense stress to someone, but a joyful event to another.

Based on Smith, Segal & Segal (2012), causes of stress can be divided into external and internal cause. Some examples of external source are work, financial problems, relationship difficulties and major life changes. However not all stressors are from external or of environmental, it can be self-generated. This is more related to the personality, such as perfectionism, pessimism, lack of assertiveness, unrealistic expectations and inability to accept uncertainly.
“Approximately 25% of adolescents will experience at least one significant stressor, including the death of a loved one or witnessing a traumatic event.” (Zimmer-Gemback & Skinner, 2008) Most commonly the stressors they have are related to school and interpersonal relationship, for example, problems with academic study, with teachers and also with friends (bullying case) or conflicts with family and peers.

According to Walker (2005), she mentioned that in the Minnesota Study where teenagers were asked to identify the ‘bad’ life events in the past 6 months among the 47 events, the most common were breaking up in a relationship, conflicts with parents and siblings, financial constraint, family disharmony and conflict with peers.

In a study done by Saiful (2010), the main stressors of the secondary school student in Malaysia are usually academic-related, for instance afraid of getting poor results in the examination and also their further of study to tertiary level. This is especially in those family where the parents have supremely high expectations towards their child, for instance Chinese (Kok and Goh, 2011).

Kok and Goh (2011) found that family issues can be a source of stress among youths, especially in dual-income family where the parents are busy with work. Some adolescents experience some emotional disturbances and become alienated from their family (Gelder et al., 2006).

According to Gelder, Harrison and Cowen (2006), peer relationship becomes important to them as well during this period. They might face some difficulties while mixing around with friends. This nevertheless creates some stress. Relationship between opposite sex can create huge stress as well. Kok and Goh (2011) identified that boy-girl relationship was the main factor or stressor, leading the youth to commit suicide.