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ACADEMIC STRESS, STRESS LEVELS AND WAYS OF COPING AMONG STUDENTS OF JOHOR BAHRU ALLIED HEALTH SCIENCES COLLEGE

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Academic stress, stress levels and ways of coping among students of Johor Bahru Allied Health Sciences College (Article)

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Abstract

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The study was done in Johor Bahru Allied Health Sciences College to gather information on academic stressors, stress levels and ways of coping among year one semester one nursing and assistant medical officer students. One hundred and twenty five nursing students and one hundred and twelve assistant medical officer students (total of two hundred thirty seven respondents) participated in this descriptive, cross sectional quantitative study. Instruments employed were Ying's Formal Academic Stress Scale 2009, Cohen's Perceived Stress Scale, 1983 and Ways of Coping by Lazarus and Folkman, 1984. The result of the study reported the highest academic stress that students are facing is related to peers. Highest mean was reported by both groups of students for this construct. Second highest mean was related to tests. Data analyzed using descriptive and t test proved significance (p value of 0.05) of academic stress among respondents. Analysis of stress levels were performed. The result demonstrated that students are facing high stress levels. Eighty eight percent of nursing students had more than average and high stress levels. Eighty nine percent of assistant medical officer students demonstrated the same. Ways of coping contained 8 constructs and highest mean determined the most used. Majority of students stated accepting responsibility for ways of coping. This finding was similar for both nursing and assistant medical officer students. Demographic variables were tested and demonstrated no significance differences according to race, age and sex. This finding is contradictory with other findings whereby the male and the female have different ways of coping, whereby women demonstrate more emotional coping compared to males. High stress levels need to be addressed as these students have just stepped into college life and need assistance to cope. Personal and group counseling can be effective in reducing stress and improving academic success. © Serials Publications.

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Abstract

The study was done in *Johor Bahru Allied Health Science College* to gather information on academic stressors, stress levels and ways of coping among year one semester one nursing and assistant medical officer students. One hundred and twenty five nursing students and one hundred and twelve assistant medical officer students (total of two hundred thirty seven respondents) participated in this descriptive, cross sectional quantitative study. Instruments employed were Ying's Formal Academic Stress Scale 2009, Cohen's Perceived Stress Scale, 1983 and Ways of Coping by Lazarus and Folkman, 1984. The result of the study reported the highest academic stress that students are facing is related to peers. Highest mean was reported by both groups of students for this construct. Second highest means was related to tests. Data analyzed using descriptive and t-test proved significance (p-value of 0.05) of academic stress among respondents. Analysis of stress levels was performed. The result demonstrated that students are facing high stress levels. Eighty eight percent of nursing students had more than average and high stress levels. Eighty nine percent of assistant medical officer students demonstrated the same. Ways of coping contained 8 constructs and highest mean determined the most used. Majority of students stated accepting responsibility for ways of coping. This finding was similar for both nursing and assistant medical officer students. Demographic variable were tested and demonstrated no significance differences according to race, age and sex. This finding is contradictory with other findings whereby the male and the female have different ways of coping, whereby women demonstrate more emotional coping compared to males. Highest stress levels need to be addressed as these students have just stepped into college life and need assistance to cope. Personal and group counseling can be effective in reducing stress and improving academic success.

Keywords: stress, emotional coping, coping skills, nursing, assistant medical officer

Introduction

Stress has been identified as a 20th century disease and has been viewed as a complex and dynamic transaction between individuals and their environments (Evans, 2004). Stress occurs when one is confronted with a situation which is perceived to be overwhelming and one cannot cope with such a situation (Agolla and Ongori, 2009). We can be affluent, influential,

eye catching or contented invariably, stress will be a part of life. Conversely, depending on the situation, stress could take different forms.

In today's ultra competitive environment, students face more stress than ever – be it related to studies, examination, peer, teachers or parent's pressure. Researchers have found that the perception of high stress levels in students can lead to poor academic performance, depression, attrition and serious health problems (Pengilly and Dowd, 2000; Misra, McKean, West and Russo, 2000; Hudd, Dumlao, Erdman-Sager, Murray, Phan, Soukas, and Yokozuka, 2000 cited in Uchino, 2004). The topic of stress among college or university students has been the subject of much research for many years. Researchers have documented that perceived stress levels are high in nursing students (Burke, 1999; Mahat, 1996; Shriver, 2000 cited in Walton, 2002). Fazaila Sabih et al, (2013) suggested there gender differences in perception of stress among students. Females demonstrate more physiological and emotional responses than male students.

The living life of students in colleges has always been challenging (Ahmed-Tharbe, 2006). According to Hammer, Grigsby and Woods (1998), students in colleges often regard their academic life as stressful and demanding. Student life in the present modern era is not as simple as most people might have thought because their stress is not restricted to their studies but it could come from various sources such as health, financial, academic and romantic relationship (Hashim, 2007).

Coping refers to ways of handling stressful and troublesome circumstances. It also includes expelling effort to resolve problems and to deal with problematic situations. The individual may deal with stress through several methods, including removing the stressor through manipulating the environment, developing specific responses to help deal with the stressor or seeking diversion from the stressor (Walton, 2002). Researchers have found that ethnic, cultural and even socioeconomic characteristics influenced coping behaviors (Kariv and Heiman, 2005). The effect of stressor is reduced by the use of effective coping strategy. Problem-focused coping and emotion-focused coping are common coping strategies.

In college and university students, some stress is motivating, whereas too high a level interferes with teaching (Evans and Kelly, 2004). Excessive stress can be harmful to a student's academic performance and students who perceive their stress levels as very high may often become depressed. Stress and the identification of potential stressors among nursing students have received much attention in the literature (Nichol and Timmins, 2005).

Nursing students have the same academic stressors as other college students, such as midterm and final examinations, research papers and other assignments (Evans, 2005). In addition, nursing students experience a clinical component, which is highly stressful. Students have a large amount of preparatory work before their clinical assignments. They often must travel long distances to clinical sites and use highly technical equipment. In addition, they must perform procedures that can cause serious harm to their patients, thus enhancing their fear of making mistakes.

The general objective of the study is to measure stressors, stress levels and WAYS of coping among nursing and assistant medical officer students. the specific objectives are to identify the differences of academic stress between nursing and assistant medical officer students, compare the stress levels of nursing and assistant medical officer student and compare the coping strategies of nursing and assistant medical officer students

Research Questions

- Q1. What is the stress due to academics among nursing and assistant medical officer students?
- Q2. What is the difference in stress levels among nursing and assistant medical officer students?
- Q3. What are the coping strategies of nursing and assistant medical officer students?

Significance Of The Study

Individuals in colleges and universities experience a wide array of stressful events as we have discussed earlier. Stress is seen as a modern society's illness (Redwan *et al.* 2009). Walton (2003), found that nursing students suffer from long hours of study, multiple assignments, lack of free time, lack of timely feedback and lack of faculty response to student needs. Students in Year 1 are novice college students. A number of students expressed they are stressed and loaded with work. Many of them visit the doctor due to minor ailments. Most of the students move away from home for the first time. This can necessitate leaving all previously learned support systems such as parents, siblings and high school friends. Students may need to develop entirely new social contacts. They might be responsible for their own needs for the first time. They may have difficulty adjusting to more rigorous academic expectations and the need to learn to deal with individuals of differing cultures and beliefs (Hudd *et al.*, 2000; Misra *et al.*, 2000, Mostafa 2011).

Administrators at all levels, from the College Director, Deputy Director of academics, Deputy Director of student affairs and the Educators in charge of groups will benefit from this research to better understand what causes stress, the stress levels and the coping strategies of students. Support services such as counseling can be provided when we can better identify the stressors and coping. Student's stress levels can lead to attrition or low academic performance (Beck and Srivastava, 1991; Kyle, 2000; Lindop, 1990 and Walton 2002). Administrators need to develop a plan to facilitate students overcoming stress, thereby, enhancing student's academic outcomes. Due to the major impact that perceived stress levels may have on a student, it is important that the problem be identified and dealt with effectively. The impact could also have implications for the entire college.

70% of community college students surveyed felt that having a personal counseling center on campus would be helpful (Bundy and Benshoff, 2000). Durodoye, Harris and Bolden,(2000) found that due to the increase in cases of depression, stress and anxiety, and substance abuse problems among community college students, personal counseling programs are needed, as well as trained, professional counselors who can manage and assist in this increasing caseload. In Kolej Sains Kesihatan Bersekutu Johor Bahru , there has been incidents whereby cigarette, alcohol and drugs have been found in students possessions. These items were not found on specific students but in the rooms and halls of the college.

Limitation Of The Study

The study involves only students in Year 1 Semester 1 from nursing and assistant medical officer students. Rational for choosing them is they are a different lot from the rest as they have just entered the college compared to the other students in the more advanced semesters who have been in the college longer and might have adapted. However, a comparative study between year 1 and senior students may produce interesting results.

There are also four other allied health sciences college in Malaysia. A study involving all 5 colleges will produce a result that can be generalized to the whole population of year 1 students in allied health sciences colleges.

This study focused on nursing and assistant medical officer students only. There are other programs in the college such as the students of diploma in radiography, occupational therapy, physiotherapy and post basic students. Comparison of the different groups may produce different or same results. Predictability is not easy on the results as each program has different theoretical and practical sessions.

Design

A cross sectional, quantitative descriptive survey method was adopted to obtain information about academic stressors, stress levels and coping strategies. This study used a descriptive comparative approach and is non-experimental. The variables studied in this research are stressors, stress levels, coping strategies, student nurses, assistant medical officer students

3.3 Research location

Research was carried out at Kolej Sains Kesihatan Bersekutu Johor Bahru. Kolej Sains Kesihatan Bersekutu Johor Bahru. The choice is made based on accessibility by researcher. Moreover, the topic was brought up in the college's research committee and the topic and place was agreed upon by the committee which is headed by the college director.

Population and sampling.

Population involved were all students in Year 1 Semester 1 nursing and assistant medical officer student. In this study, all (100%) students in Year 1 Semester 1, nursing and assistant medical officer students were included into the study. Therefore the method used for choosing the participants is population sampling. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained. (Jothikumar,2005)

The questionnaires

Three self administered questionnaires were used to identify the various academic stress, the stress levels and the coping strategies. The first tool used in the study is the Perceived Stress Scale-10 developed by Cohen (Cohen *et al.*, 1983).

The second tool is The Ways of Coping Questionnaire (WOC) is a multi-dimensional measure that identifies and measures the processes (thoughts and actions) people use in coping with stressful situations(Folkman, S. and Kamp; Lazarus, R. 1980). It contains 66 items, with a 5 point Likert-scale response format which are, 0 = never; 1 = almost never; 2 = sometimes, 3 = fairly often, 4= Very often. 66 items covers a wide variety of cognitive and behavioral strategies that people report they use to deal with either internal or external demands in stressful situations. All 66 items can be subgrouped in 8 constructs which can be downsized further into two major coping strategies : emotional coping and problem based coping.

Formal academic stress inventory by Ying, 2009 uses Likert's five-point scale, ranging from 5 completely agree, to 1 completely disagree. Formal academic stress inventory is a 34-item questionnaire which can be grouped into 7 constructs.

Pilot study

Pilot study was conducted on Year 1 students from group January 2013, who was conveniently chosen from all three major races in Malaysia, namely Malay, Chinese and Indian. Post pilot study no manipulations or modifications were done to questionnaires as students understood the questionnaires easily.

Data Collection Procedure

Data collection was performed by researcher herself. Permission to enter the Year1 Semester 1 nursing and assistant medical officer student classrooms was obtained and appointment was made with the semester coordinators and head of both programs. Letter of approval from college director and letter of consent from participants was produced to semester coordinators and head of programs. 258 (100%) questionnaires were distributed and 237 (92%) returned their questionnaire.

Summary of demographic variables of respondents for the two groups of students.

Variable	Grouping	Frequency And percentage of nursing students	Frequency And percentage of medical assistant students
Age	Mean	20.51	21.38
	Mode	20.00	21.00
	Median	19	21
	Maximum	26	19
	Minimum	19	29
Sex	Male	0 (0.00%)	72(64.3%)
	Female	125(100%)	40(35.7%)
Race	Malay	81 (64.8%)	99 (88.4%)
	Chinese	4(3.2%)	3(2.7%)
	Indian	2(1.6%)	5(4.5%)
	Others	38(30.4%)	5(4.5%)

Table 4.4.1 Comparison of Academic Stressors of nursing students and assistant medical officer students

(Formal Academic Inventory) Constructs	Mean Value of Nursing Students	Mean Value of assistant medical officer students
Stress from teachers	2.27	2.48
Stress from results	2.12	2.09
Stress from tests	2.72	2.60
Studying in group stress	2.56	2.42

Peer stress	2.89	2.62
Time management stress	2.56	2.41
Self-inflicted stress	2.20	2.38

The nursing students mean scores shows they scored highest in peer stress and lowest in stress from results. However, researcher would like to emphasize that results from exams might have a lower mean as during time of data collection, students have only sat for their formative exam once and have received their results which accounts for 10% of the overall per semester performance. The score of the highest and lowest mean was the same for the assistant medical officer students.

The overall mean value of nurses is 2.47 compared to assistant medical officer students who have 2.43. This mean value demonstrates the stress level among the 2 categories are almost the same. In constructs however, there are differences. Overall, in all constructs nursing students have a higher mean except self inflicted stress whereby, the assistant medical officer student scored higher. The highest mean is peer stress for both categories of students. Peer stress measurement involves statements such as ‘affected by classmates chatting, classes are noisy, open and closed struggles are present among classmates and worried about my academics results will not be as good as my classmates’.

Table 4.4.5 : Comparison of stress levels between nursing and assistant medical officers students

	Nursing students	Assistant medical officers students
Very Low	3(2.4%)	0(0%)
Slightly Lower than Average	1(0.8%)	3(2.68%)
Average	11(8.8%)	9(8.03%)
Higher than Average	60(48%)	33(29.46%)
High	50(40%)	67 (59.82%)

Table 4.4.6: Score difference of stress levels between nursing and assistant medical officer students

	N	Minimum	Maximum	Average Score of students	Standard Deviation	Median	Mode
Nursing students	125	6.00	26.00	19.48	3.68	20.000	20.00
Assistant medical officer students	112	10.00	34.00	20.97	4.15	22.000	23.00

The nursing students had a minimum score of 6 which falls into the very low category. The assistant medical officer student's lowest stress level is 10 which falls into lower than average. The maximum level for both categories reaches high as both groups scored 26 and 34 respectively. Need to note that almost all students have a high score in stress levels indicating they are indeed stressed. Average score for both groups are also in the higher than average criteria. Standard deviations for both groups are large. This interprets as there is a relative difference among students.

WAYS of Coping Inventory (according to constructs)	Mean Of Nursing Students	Mean Of Assistant Medical Officer Students
Confrontive Coping	2.16	1.97
Distancing	2.29	2.23
Self Controlling	2.42	2.34
Seeking Social Support	2.50	2.37
Accepting Responsibility	2.61	2.38
Escape-Avoidance	2.44	2.23
Planful Problem Solving	2.53	2.36

Positive Reappraisal	2.39	2.42
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Table 4. 4.10 Paired Samples Correlations

		N	Correlation	Significance
Pair 1	WAYS of coping and causes of stress nursing students	124	.211	.010
	WAYS of coping and causes of stress among assistant medical officers	112	.220	.020

(Note: significant level : 0.05*)

There is a no significant correlation between the stress levels and WAYS of coping among both groups of students.. Stress levels are high among students. Effective coping skills can reduce academic stress among students.

Table 4.4.11 : ANOVA test according to demographic characteristics

Coping WAYS and race		Sum of Squares	df	Mean Square	F	Sig.
Nursing students	Between Groups	.147	2	.074	1.071	.376
	Within Groups	.757	11	.069		
	Total	.904	13			
Assistant medical officer students	Between Groups	.081	1	.081	.055	.819
	Within Groups	16.168	11	1.470		

Coping WAYS and race		Sum of Squares	df	Mean Square	F	Sig.
Nursing students	Between Groups	.147	2	.074	1.071	.376
	Within Groups	.757	11	.069		
	Total	16.249	12			
Coping WAYS and age						
Nursing students	Between Groups	.023	1	.023	.301	.603
	Within Groups	.467	6	.078		
	Total	.490	7			
Assistant medical officer students	Between Groups	.122	1	.122	1.868	.197
	Within Groups	.782	12	.065		
	Total	.904	13			

Table 4.4.11 demonstrates that demographic variables did not signify any differences in relation to age and race. Researcher would like to highlight here maybe there is no significant difference observed due to small sample differences among respondents. For example age difference between all respondents are approximately 10 years only, being the youngest is 19 and the oldest is 29. Most respondents are average of 20. Notable that 29 years is an extreme data obtained from only 1 respondent who is 29. Majority of samples are one dominant race. In addition, demography that is the same depicts that data obtained is from homogenous samples leading to no differences between groups. Herein meaning, though demographic variables show differences within group, differences between groups are not seen.

5 Discussion And Implications

Results of this study demonstrate that college students reported a high overall level of stress and greater use of emotion-focused coping strategies. They also reported different coping strategies for different stressors; however the use of emotion-focused coping strategies dominated over problem-solving strategies for both categories. These results have implications for designing stress reduction workshops..

Some variations between schools, males and females and study years were noted. (Fonseca, J., Divaris, *et al*, 2013). Previous research has found that perceived stress tends to increase over the course of the academic year nursing college freshman (Wintre and Yaffe 2000) and can have profound effects on students' physical and emotional health. Chang (1998) found that perceived stress partially accounts for variations in depressive symptoms and life satisfaction scores in college students. Higher levels of perceived stress have also been correlated with increased feelings of anger and decreased likelihood of controlling their anger in college students (Winterowd *et al*. 2005). Increased perceived stress has also been shown to be positively correlated with symptoms of physical illness nursing first-semester college students (Miczo *et al*. 2006).

Thus, based on what we know about variations in perceived stress, different students could interpret the same potentially stressful aspects of education in unique ways, which may also account for divergence in how they each view their education. From this perspective, students with high levels of perceived stress may be less likely to see their undergraduate years as an opportunity for positive goal attainment, and more likely to see it in negative terms. As a result, students who have higher levels of perceived stress may be less likely to focus on positive aspects of education such as learning and self-growth because they may be more concerned with the stress that ,education entails than with its benefits. Instead, they may be more likely to see education, like other life domains, as contributors to their stress. Indeed, Gan *et al*. (2007) recently found that higher stress is related to lower student engagement. Thus, we predicted that higher levels of perceived stress would negatively relate to characteristics such as seeing education as a chance for learning and self-development, and positively relate to other characteristics such as seeing education as a source of stress.

There is a well-established relationship between perceived stress and coping. Higher levels of perceived stress have been found to increase coping efforts (Shields 2001), and people vary not only in their perceptions of potential stressors, but also in the coping strategies that they are likely to use when dealing with stress. Folkman and Lazarus (1986) identified problem-focused and emotion-focused coping as two general responses to stress. Problem-focused coping is a proactive style that aims to deal directly with the source of stress. For example, people who use this approach may attempt to minimize distractions that prevent them from focusing on the stressor, or generate a specific solution to deal with the problem. Emotion-focused coping involves a more effective approach to dealing with stressors. People who utilize this approach may seek emotional support from friends or find relief in venting their feelings.

As mentioned earlier, Folkman and Lazarus (1984) suggested that coping has two major functions and there are two basic dimensions, that is, problem-focused and emotion-focused coping. They identified eight coping strategies using the Ways of Coping Questionnaire, which, two were identified as clearly problem focused. Confrontive coping and planful problem solving is problem focused coping. Five are clearly emotion focused, which are distancing, self controlling, accepting responsibility, positive reappraisal, and escape avoidance. Seeking social support has mixed function meaning both emotion and problem focused coping. .

Women have a higher tendency to respond to lower mood with a high level of attention. These different response styles may grow out of socialization processes that contribute to gender stereotypes. Although boys and girls both increase their use of emotion-focused coping strategies during early adolescence which girls continue in late adolescence, boys tend to use more and more emotion-distracting coping, Distracting problems as a way of coping may have the additional effect of disengaging males from interpersonal stress to a greater extent than girls. Beside gender, literature suggests that age is an important influence on the ways of coping (Feldman *et al*, 1995). Adolescents and adults tend to occupy different social roles. Adolescence may be characterized as a stage during which both social roles and coping skills undergo dramatic changes. Moreover, adolescence is a period between childhood and adulthood when the individual is confronted by a series of developmental challenges, for example, achieving growing independence from the family or fulfilling new

social roles with peers. Thus a special characteristic of adolescence is an increasing need for autonomy.

Researcher's results suggest that even while girls use passive and emotion oriented ways of coping more often, they turn to rational problem-solving methods as well, contrary to the stereotypes about girls and boys. Frydenberg and Lewis (1991), also reported in a study using an adapted version of the Ways of Coping Checklist that female students use as much problem-focused coping as do male students, suggesting that females and males deal with problems in much the same way (Frydenberg and Lewis, 1993). In contrast to previous findings that risk-taking as a coping activity was generally regarded as a stereotypic male behavior, there were no significant differences between the means of risky coping factor by gender. This is, however, consistent with a prior research indicating male and female adolescents. Literature suggests that there is a difference in how people cope at different stages in life; furthermore, there are clear indications that older adolescents cope differently from younger adolescents (Frydenberg and Lewis, 1993).

Girls more frequently use social support as emotional and tension-reducing help, while boys emphasize more rational material type of support (Piko, 1998). In a study of gender differences in stress and coping with stress, Matud (2004) also emphasized that the gender factor is correlated with both components in the process from perception of stress to the reactions displayed to it. Another study reported that male and female gender role was a significant predictor for problem focused coping and that female gender role was a predictor for emotional based coping (Dyson and Renk, 2006). In a study of university students, Dwyer and Cummings (2001) reported that female students used seeking social support more than males in coping with stress.

According to the WHO/EHA guideline, there are not standards for coping strategies and it is more related to socio-cultural factors. Coping behaviors have been shown to vary by region, community, social group, household, gender, age, season and time in history and they are greatly influenced by individual's previous experiences (WHO/EHA, 1999). In addition,

need to note, Coffey *et al*, (2014), indicated that those who reported higher levels of support also reported better well-being irrespective of culture and gender. Rogers et al (2014) provides evidence that cognitive, behavioral, and mindfulness interventions are effective in reducing stress in university students. Universities are encouraged to make such programs widely available to students.

These findings indicate the need for stress management programs specific to the needs of college students. Given the detrimental effects of stress on health and academic performance, college administrators should consider incorporating stress management training into orientation activities for nursing students. At a minimum, the most commonly identified sources of stress should be discussed with incoming freshmen. Furthermore, students should be informed of the campus resources available to help them address these stresses. One approach may be the use of a stress management workshop, specifically geared to the stressors encountered by college students. Educational administrators should introduce effective coping strategies through counseling programs for newcomers and they should support at risk students during their studies. Orientation programs for first-year students should include stress management as a topic of discussion, workshops on stress and strategies to cope with stress. Such workshops might also be conducted during the academic year. The presence of a counseling team among the faculty is necessary.

Notably, the highest mean score of WAYs of coping was accepting responsibility. Nursing and assistant medical officer students who are accepting responsibility may become overwhelmed trying to manage all the work-related stressors, without being able to diffuse responsibility by students amongst co-students. Self-controlling coping is engaging in efforts to regulate and control one's emotions and behaviors towards a specific stressful situation. Increased use of self-control was associated with increased stress.

6. Future Research

The nursing sample only consisted of females, it must be acknowledged that nursing is a female dominated industry. The respondents are, therefore, likely to represent the female

population. Limitation is the cross-sectional design of the study, which does not capture the process of coping, or changes in affect and adjustment over time.

As there has been limited research undertaken that has addressed coping and academic stressors of nursing and assistant medical officer students, the findings reported in this paper provide the impetus for future research in this area. It is suggested that future research should focus on determining whether personality and gender type influence the coping strategies and subsequently the psychological adjustment of all categories of students to academic -related stress. Research efforts should also focus on the determinants and consequences of coping as well understanding about health and well being. By including a broader array of factors and capturing the process of coping or changes that influence the selection of coping strategies, future coping research may clarify differences in coping across individuals and within individuals across situations.

7. Conclusion

Stress levels among the nursing and assistant medical officer students are high. Academic stress that is highly faced by both groups are from peer stress. This construct contains items discussing about studying in class, classroom rivalry and disturbance during study time due to noise from peers. The next highest mean was due to stress from tests. Both groups identified this construct as second stressful factor. Both groups also gave stress from results as the last stress builder. Need to be enlightened here is during collection of data, students from year 1 semester 1 have only sat for classroom tests and haven't sat for any major exams that decide their studies and progresses.

Stress levels of students in both groups displayed that majority of students are having higher than average stress levels. Assistant medical officer students demonstrate more number of students with stress. 88% of nursing students are having higher than average stress levels. 89.28% of assistant medical officer students are having above average stress levels. t test proved that there is significance in data obtained. ANOVA test shows there is no significant difference on stress according to demography for both categories of students.

Accepting Responsibility was stated as the highest employed coping strategy among both groups of students. This was followed by Planful Problem Solving and for nursing students and seeking social support for assistant medical officer students. Though the categories or constructs are the same, however, the items which have the highest and lowest relative scores demonstrates there is a difference in coping strategies. Emotion-focused coping strategies dominated over problem-solving strategies for both groups. Emotion-focused coping involves trying to reduce the negative emotional responses associated with stress such as embarrassment, fear, anxiety, depression, excitement and frustration. This may be the only realistic option when the source of stress is outside the person's control.

Since using successful strategies in coping with stress has a significant effect, psychological counseling and guidance services might be provided for individuals to learn healthy coping strategies. Such activities would contribute to individuals being content with themselves and their lives and to their using strategies based on cognitive evaluation. Researcher recommends that a study with similar content be performed with individuals studying at other Kolej Sains Kesihatan Bersekutu colleges, as well as comparative studies with other governmental or non- governmental colleges.

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Academic stress, stress levels and ways of coping among students of Johor Bahru Allied Health Sciences College

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Abstract

The study was done in *Johor Bahru Allied Health Science College* to gather information on academic stressors, stress levels and ways of coping among year one semester one nursing and assistant medical officer students. One hundred and twenty five nursing students and one hundred and twelve assistant medical officer students (total of two hundred thirty seven respondents) participated in this descriptive, cross sectional quantitative study. Instruments employed were Ying's Formal Academic Stress Scale 2009, Cohen's Perceived Stress Scale, 1983 and Ways of Coping by Lazarus and Folkman, 1984. The result of the study reported the highest academic stress that students are facing is related to peers. Highest mean was reported by both groups of students for this construct. Second highest means was related to tests. Data analyzed using descriptive and t-test proved significance (p-value of 0.05) of academic stress among respondents. Analysis of stress levels was performed. The result demonstrated that students are facing high stress levels. Eighty eight percent of nursing students had more than average and high stress levels. Eighty nine percent of assistant medical officer students demonstrated the same. Ways of coping contained 8 constructs and highest mean determined the most used. Majority of students stated accepting responsibility for ways of coping. This finding was similar for both nursing and assistant medical officer students. Demographic variable were tested and demonstrated no significance differences according to race, age and sex. This finding is contradictory with other findings whereby the male and the female have different ways of coping, whereby women demonstrate more emotional coping compared to males. Highest stress levels need to be addressed as these students have just stepped into college life and need assistance to cope. Personal and group counseling can be effective in reducing stress and improving academic success.

Keywords: stress, emotional coping, coping skills, nursing, assistant medical officer

Introduction

Stress has been identified as a 20th century disease and has been viewed as a complex and dynamic transaction between individuals and their environments (Evans, 2004). Stress occurs when one is confronted with a situation which is perceived to be overwhelming and one cannot cope with such a situation (Agolla and Ongori, 2009). We can be affluent, influential,

eye catching or contented invariably, stress will be a part of life. Conversely, depending on the situation, stress could take different forms.

In today's ultra competitive environment, students face more stress than ever – be it related to studies, examination, peer, teachers or parent's pressure. Researchers have found that the perception of high stress levels in students can lead to poor academic performance, depression, attrition and serious health problems (Pengilly and Dowd, 2000; Misra, McKean, West and Russo, 2000; Hudd, Dumlao, Erdman-Sager, Murray, Phan, Soukas, and Yokozuka, 2000 cited in Uchino, 2004). The topic of stress among college or university students has been the subject of much research for many years. Researchers have documented that perceived stress levels are high in nursing students (Burke, 1999; Mahat, 1996; Shriver, 2000 cited in Walton, 2002). Fazaila Sabih et al, (2013) suggested there gender differences in perception of stress among students. Females demonstrate more physiological and emotional responses than male students.

The living life of students in colleges has always been challenging (Ahmed-Tharbe, 2006). According to Hammer, Grigsby and Woods (1998), students in colleges often regard their academic life as stressful and demanding. Student life in the present modern era is not as simple as most people might have thought because their stress is not restricted to their studies but it could come from various sources such as health, financial, academic and romantic relationship (Hashim, 2007).

Coping refers to ways of handling stressful and troublesome circumstances. It also includes expelling effort to resolve problems and to deal with problematic situations. The individual may deal with stress through several methods, including removing the stressor through manipulating the environment, developing specific responses to help deal with the stressor or seeking diversion from the stressor (Walton, 2002). Researchers have found that ethnic, cultural and even socioeconomic characteristics influenced coping behaviors (Kariv and Heiman, 2005). The effect of stressor is reduced by the use of effective coping strategy. Problem-focused coping and emotion-focused coping are common coping strategies.

In college and university students, some stress is motivating, whereas too high a level interferes with teaching (Evans and Kelly, 2004). Excessive stress can be harmful to a student's academic performance and students who perceive their stress levels as very high may often become depressed. Stress and the identification of potential stressors among nursing students have received much attention in the literature (Nichol and Timmins, 2005).

Nursing students have the same academic stressors as other college students, such as midterm and final examinations, research papers and other assignments (Evans, 2005). In addition, nursing students experience a clinical component, which is highly stressful. Students have a large amount of preparatory work before their clinical assignments. They often must travel long distances to clinical sites and use highly technical equipment. In addition, they must perform procedures that can cause serious harm to their patients, thus enhancing their fear of making mistakes.

The general objective of the study is to measure stressors, stress levels and WAYS of coping among nursing and assistant medical officer students. the specific objectives are to identify the differences of academic stress between nursing and assistant medical officer students, compare the stress levels of nursing and assistant medical officer student and compare the coping strategies of nursing and assistant medical officer students

Research Questions

- Q1. What is the stress due to academics among nursing and assistant medical officer students?
- Q2. What is the difference in stress levels among nursing and assistant medical officer students?
- Q3. What are the coping strategies of nursing and assistant medical officer students?

Significance Of The Study

Individuals in colleges and universities experience a wide array of stressful events as we have discussed earlier. Stress is seen as a modern society's illness (Redwan *et al.* 2009). Walton (2003), found that nursing students suffer from long hours of study, multiple assignments, lack of free time, lack of timely feedback and lack of faculty response to student needs. Students in Year 1 are novice college students. A number of students expressed they are stressed and loaded with work. Many of them visit the doctor due to minor ailments. Most of the students move away from home for the first time. This can necessitate leaving all previously learned support systems such as parents, siblings and high school friends. Students may need to develop entirely new social contacts. They might be responsible for their own needs for the first time. They may have difficulty adjusting to more rigorous academic expectations and the need to learn to deal with individuals of differing cultures and beliefs (Hudd *et al.*, 2000; Misra *et al.*, 2000, Mostafa 2011).

Administrators at all levels, from the College Director, Deputy Director of academics, Deputy Director of student affairs and the Educators in charge of groups will benefit from this research to better understand what causes stress, the stress levels and the coping strategies of students. Support services such as counseling can be provided when we can better identify the stressors and coping. Student's stress levels can lead to attrition or low academic performance (Beck and Srivastava, 1991; Kyle, 2000; Lindop, 1990 and Walton 2002). Administrators need to develop a plan to facilitate students overcoming stress, thereby, enhancing student's academic outcomes. Due to the major impact that perceived stress levels may have on a student, it is important that the problem be identified and dealt with effectively. The impact could also have implications for the entire college.

70% of community college students surveyed felt that having a personal counseling center on campus would be helpful (Bundy and Benshoff, 2000). Durodoye, Harris and Bolden,(2000) found that due to the increase in cases of depression, stress and anxiety, and substance abuse problems among community college students, personal counseling programs are needed, as well as trained, professional counselors who can manage and assist in this increasing caseload. In Kolej Sains Kesihatan Bersekutu Johor Bahru , there has been incidents whereby cigarette, alcohol and drugs have been found in students possessions. These items were not found on specific students but in the rooms and halls of the college.

Limitation Of The Study

The study involves only students in Year 1 Semester 1 from nursing and assistant medical officer students. Rational for choosing them is they are a different lot from the rest as they have just entered the college compared to the other students in the more advanced semesters who have been in the college longer and might have adapted. However, a comparative study between year 1 and senior students may produce interesting results.

There are also four other allied health sciences college in Malaysia. A study involving all 5 colleges will produce a result that can be generalized to the whole population of year 1 students in allied health sciences colleges.

This study focused on nursing and assistant medical officer students only. There are other programs in the college such as the students of diploma in radiography, occupational therapy, physiotherapy and post basic students. Comparison of the different groups may produce different or same results. Predictability is not easy on the results as each program has different theoretical and practical sessions.

Design

A cross sectional, quantitative descriptive survey method was adopted to obtain information about academic stressors, stress levels and coping strategies. This study used a descriptive comparative approach and is non-experimental. The variables studied in this research are stressors, stress levels, coping strategies, student nurses, assistant medical officer students

3.3 Research location

Research was carried out at Kolej Sains Kesihatan Bersekutu Johor Bahru. Kolej Sains Kesihatan Bersekutu Johor Bahru. The choice is made based on accessibility by researcher. Moreover, the topic was brought up in the college's research committee and the topic and place was agreed upon by the committee which is headed by the college director.

Population and sampling.

Population involved were all students in Year 1 Semester 1 nursing and assistant medical officer student. In this study, all (100%) students in Year 1 Semester 1, nursing and assistant medical officer students were included into the study. Therefore the method used for choosing the participants is population sampling. It can be presumed that in such an inquiry when all the items are covered no element of chance is left and highest accuracy is obtained. (Jothikumar,2005)

The questionnaires

Three self administered questionnaires were used to identify the various academic stress, the stress levels and the coping strategies. The first tool used in the study is the Perceived Stress Scale-10 developed by Cohen (Cohen *et al.*, 1983).

The second tool is The Ways of Coping Questionnaire (WOC) is a multi-dimensional measure that identifies and measures the processes (thoughts and actions) people use in coping with stressful situations(Folkman, S. and Kamp; Lazarus, R. 1980). It contains 66 items, with a 5 point Likert-scale response format which are, 0 = never; 1 = almost never; 2 = sometimes, 3 = fairly often, 4= Very often. 66 items covers a wide variety of cognitive and behavioral strategies that people report they use to deal with either internal or external demands in stressful situations. All 66 items can be subgrouped in 8 constructs which can be downsized further into two major coping strategies : emotional coping and problem based coping.

Formal academic stress inventory by Ying, 2009 uses Likert's five-point scale, ranging from 5 completely agree, to 1 completely disagree. Formal academic stress inventory is a 34-item questionnaire which can be grouped into 7 constructs.

Pilot study

Pilot study was conducted on Year 1 students from group January 2013, who was conveniently chosen from all three major races in Malaysia, namely Malay, Chinese and Indian. Post pilot study no manipulations or modifications were done to questionnaires as students understood the questionnaires easily.

Data Collection Procedure

Data collection was performed by researcher herself. Permission to enter the Year1 Semester 1 nursing and assistant medical officer student classrooms was obtained and appointment was made with the semester coordinators and head of both programs. Letter of approval from college director and letter of consent from participants was produced to semester coordinators and head of programs. 258 (100%) questionnaires were distributed and 237 (92%) returned their questionnaire.

Summary of demographic variables of respondents for the two groups of students.

Variable	Grouping	Frequency And percentage of nursing students	Frequency And percentage of medical assistant students
Age	Mean	20.51	21.38
	Mode	20.00	21.00
	Median	19	21
	Maximum	26	19
	Minimum	19	29
Sex	Male	0 (0.00%)	72(64.3%)
	Female	125(100%)	40(35.7%)
Race	Malay	81 (64.8%)	99 (88.4%)
	Chinese	4(3.2%)	3(2.7%)
	Indian	2(1.6%)	5(4.5%)
	Others	38(30.4%)	5(4.5%)

Table 4.4.1 Comparison of Academic Stressors of nursing students and assistant medical officer students

(Formal Academic Inventory) Constructs	Mean Value of Nursing Students	Mean Value of assistant medical officer students
Stress from teachers	2.27	2.48
Stress from results	2.12	2.09
Stress from tests	2.72	2.60
Studying in group stress	2.56	2.42

Peer stress	2.89	2.62
Time management stress	2.56	2.41
Self-inflicted stress	2.20	2.38

The nursing students mean scores shows they scored highest in peer stress and lowest in stress from results. However, researcher would like to emphasize that results from exams might have a lower mean as during time of data collection, students have only sat for their formative exam once and have received their results which accounts for 10% of the overall per semester performance. The score of the highest and lowest mean was the same for the assistant medical officer students.

The overall mean value of nurses is 2.47 compared to assistant medical officer students who have 2.43. This mean value demonstrates the stress level among the 2 categories are almost the same. In constructs however, there are differences. Overall, in all constructs nursing students have a higher mean except self inflicted stress whereby, the assistant medical officer student scored higher. The highest mean is peer stress for both categories of students. Peer stress measurement involves statements such as ‘affected by classmates chatting, classes are noisy, open and closed struggles are present among classmates and worried about my academics results will not be as good as my classmates’.

Table 4.4.5 : Comparison of stress levels between nursing and assistant medical officers students

	Nursing students	Assistant medical officers students
Very Low	3(2.4%)	0(0%)
Slightly Lower than Average	1(0.8%)	3(2.68%)
Average	11(8.8%)	9(8.03%)
Higher than Average	60(48%)	33(29.46%)
High	50(40%)	67 (59.82%)

Table 4.4.6: Score difference of stress levels between nursing and assistant medical officer students

	N	Minimum	Maximum	Average Score of students	Standard Deviation	Median	Mode
Nursing students	125	6.00	26.00	19.48	3.68	20.000	20.00
Assistant medical officer students	112	10.00	34.00	20.97	4.15	22.000	23.00

The nursing students had a minimum score of 6 which falls into the very low category. The assistant medical officer student's lowest stress level is 10 which falls into lower than average. The maximum level for both categories reaches high as both groups scored 26 and 34 respectively. Need to note that almost all students have a high score in stress levels indicating they are indeed stressed. Average score for both groups are also in the higher than average criteria. Standard deviations for both groups are large. This interprets as there is a relative difference among students.

WAYS of Coping Inventory (according to constructs)	Mean Of Nursing Students	Mean Of Assistant Medical Officer Students
Confrontive Coping	2.16	1.97
Distancing	2.29	2.23
Self Controlling	2.42	2.34
Seeking Social Support	2.50	2.37
Accepting Responsibility	2.61	2.38
Escape-Avoidance	2.44	2.23
Planful Problem Solving	2.53	2.36

Positive Reappraisal	2.39	2.42
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Table 4. 4.10 Paired Samples Correlations

		N	Correlation	Significance
Pair 1	WAYS of coping and causes of stress nursing students	124	.211	.010
	WAYS of coping and causes of stress among assistant medical officers	112	.220	.020

(Note: significant level : 0.05*)

There is a no significant correlation between the stress levels and WAYS of coping among both groups of students.. Stress levels are high among students. Effective coping skills can reduce academic stress among students.

Table 4.4.11 : ANOVA test according to demographic characteristics

Coping WAYS and race		Sum of Squares	df	Mean Square	F	Sig.
Nursing students	Between Groups	.147	2	.074	1.071	.376
	Within Groups	.757	11	.069		
	Total	.904	13			
Assistant medical officer students	Between Groups	.081	1	.081	.055	.819
	Within Groups	16.168	11	1.470		

Coping WAYS and race		Sum of Squares	df	Mean Square	F	Sig.
Nursing students	Between Groups	.147	2	.074	1.071	.376
	Within Groups	.757	11	.069		
	Total	16.249	12			
Coping WAYS and age						
Nursing students	Between Groups	.023	1	.023	.301	.603
	Within Groups	.467	6	.078		
	Total	.490	7			
Assistant medical officer students	Between Groups	.122	1	.122	1.868	.197
	Within Groups	.782	12	.065		
	Total	.904	13			

Table 4.4.11 demonstrates that demographic variables did not signify any differences in relation to age and race. Researcher would like to highlight here maybe there is no significant difference observed due to small sample differences among respondents. For example age difference between all respondents are approximately 10 years only, being the youngest is 19 and the oldest is 29. Most respondents are average of 20. Notable that 29 years is an extreme data obtained from only 1 respondent who is 29. Majority of samples are one dominant race. In addition, demography that is the same depicts that data obtained is from homogenous samples leading to no differences between groups. Herein meaning, though demographic variables show differences within group, differences between groups are not seen.

5 Discussion And Implications

Results of this study demonstrate that college students reported a high overall level of stress and greater use of emotion-focused coping strategies. They also reported different coping strategies for different stressors; however the use of emotion-focused coping strategies dominated over problem-solving strategies for both categories. These results have implications for designing stress reduction workshops..

Some variations between schools, males and females and study years were noted. (Fonseca, J., Divaris, *et al*, 2013). Previous research has found that perceived stress tends to increase over the course of the academic year nursing college freshman (Wintre and Yaffe 2000) and can have profound effects on students' physical and emotional health. Chang (1998) found that perceived stress partially accounts for variations in depressive symptoms and life satisfaction scores in college students. Higher levels of perceived stress have also been correlated with increased feelings of anger and decreased likelihood of controlling their anger in college students (Winterowd *et al*. 2005). Increased perceived stress has also been shown to be positively correlated with symptoms of physical illness nursing first-semester college students (Miczo *et al*. 2006).

Thus, based on what we know about variations in perceived stress, different students could interpret the same potentially stressful aspects of education in unique ways, which may also account for divergence in how they each view their education. From this perspective, students with high levels of perceived stress may be less likely to see their undergraduate years as an opportunity for positive goal attainment, and more likely to see it in negative terms. As a result, students who have higher levels of perceived stress may be less likely to focus on positive aspects of education such as learning and self-growth because they may be more concerned with the stress that ,education entails than with its benefits. Instead, they may be more likely to see education, like other life domains, as contributors to their stress. Indeed, Gan *et al*. (2007) recently found that higher stress is related to lower student engagement. Thus, we predicted that higher levels of perceived stress would negatively relate to characteristics such as seeing education as a chance for learning and self-development, and positively relate to other characteristics such as seeing education as a source of stress.

There is a well-established relationship between perceived stress and coping. Higher levels of perceived stress have been found to increase coping efforts (Shields 2001), and people vary not only in their perceptions of potential stressors, but also in the coping strategies that they are likely to use when dealing with stress. Folkman and Lazarus (1986) identified problem-focused and emotion-focused coping as two general responses to stress. Problem-focused coping is a proactive style that aims to deal directly with the source of stress. For example, people who use this approach may attempt to minimize distractions that prevent them from focusing on the stressor, or generate a specific solution to deal with the problem. Emotion-focused coping involves a more effective approach to dealing with stressors. People who utilize this approach may seek emotional support from friends or find relief in venting their feelings.

As mentioned earlier, Folkman and Lazarus (1984) suggested that coping has two major functions and there are two basic dimensions, that is, problem-focused and emotion-focused coping. They identified eight coping strategies using the Ways of Coping Questionnaire, which, two were identified as clearly problem focused. Confrontive coping and planful problem solving is problem focused coping. Five are clearly emotion focused, which are distancing, self controlling, accepting responsibility, positive reappraisal, and escape avoidance. Seeking social support has mixed function meaning both emotion and problem focused coping. .

Women have a higher tendency to respond to lower mood with a high level of attention. These different response styles may grow out of socialization processes that contribute to gender stereotypes. Although boys and girls both increase their use of emotion-focused coping strategies during early adolescence which girls continue in late adolescence, boys tend to use more and more emotion-distracting coping, Distracting problems as a way of coping may have the additional effect of disengaging males from interpersonal stress to a greater extent than girls. Beside gender, literature suggests that age is an important influence on the ways of coping (Feldman *et al*, 1995). Adolescents and adults tend to occupy different social roles. Adolescence may be characterized as a stage during which both social roles and coping skills undergo dramatic changes. Moreover, adolescence is a period between childhood and adulthood when the individual is confronted by a series of developmental challenges, for example, achieving growing independence from the family or fulfilling new

social roles with peers. Thus a special characteristic of adolescence is an increasing need for autonomy.

Researcher's results suggest that even while girls use passive and emotion oriented ways of coping more often, they turn to rational problem-solving methods as well, contrary to the stereotypes about girls and boys. Frydenberg and Lewis (1991), also reported in a study using an adapted version of the Ways of Coping Checklist that female students use as much problem-focused coping as do male students, suggesting that females and males deal with problems in much the same way (Frydenberg and Lewis, 1993). In contrast to previous findings that risk-taking as a coping activity was generally regarded as a stereotypic male behavior, there were no significant differences between the means of risky coping factor by gender. This is, however, consistent with a prior research indicating male and female adolescents. Literature suggests that there is a difference in how people cope at different stages in life; furthermore, there are clear indications that older adolescents cope differently from younger adolescents (Frydenberg and Lewis, 1993).

Girls more frequently use social support as emotional and tension-reducing help, while boys emphasize more rational material type of support (Piko, 1998). In a study of gender differences in stress and coping with stress, Matud (2004) also emphasized that the gender factor is correlated with both components in the process from perception of stress to the reactions displayed to it. Another study reported that male and female gender role was a significant predictor for problem focused coping and that female gender role was a predictor for emotional based coping (Dyson and Renk, 2006). In a study of university students, Dwyer and Cummings (2001) reported that female students used seeking social support more than males in coping with stress.

According to the WHO/EHA guideline, there are not standards for coping strategies and it is more related to socio-cultural factors. Coping behaviors have been shown to vary by region, community, social group, household, gender, age, season and time in history and they are greatly influenced by individual's previous experiences (WHO/EHA, 1999). In addition,

need to note, Coffey *et al*, (2014), indicated that those who reported higher levels of support also reported better well-being irrespective of culture and gender. Rogers et al (2014) provides evidence that cognitive, behavioral, and mindfulness interventions are effective in reducing stress in university students. Universities are encouraged to make such programs widely available to students.

These findings indicate the need for stress management programs specific to the needs of college students. Given the detrimental effects of stress on health and academic performance, college administrators should consider incorporating stress management training into orientation activities for nursing students. At a minimum, the most commonly identified sources of stress should be discussed with incoming freshmen. Furthermore, students should be informed of the campus resources available to help them address these stresses. One approach may be the use of a stress management workshop, specifically geared to the stressors encountered by college students. Educational administrators should introduce effective coping strategies through counseling programs for newcomers and they should support at risk students during their studies. Orientation programs for first-year students should include stress management as a topic of discussion, workshops on stress and strategies to cope with stress. Such workshops might also be conducted during the academic year. The presence of a counseling team among the faculty is necessary.

Notably, the highest mean score of WAYs of coping was accepting responsibility. Nursing and assistant medical officer students who are accepting responsibility may become overwhelmed trying to manage all the work-related stressors, without being able to diffuse responsibility by students amongst co-students. Self-controlling coping is engaging in efforts to regulate and control one's emotions and behaviors towards a specific stressful situation. Increased use of self-control was associated with increased stress.

6. Future Research

The nursing sample only consisted of females, it must be acknowledged that nursing is a female dominated industry. The respondents are, therefore, likely to represent the female

population. Limitation is the cross-sectional design of the study, which does not capture the process of coping, or changes in affect and adjustment over time.

As there has been limited research undertaken that has addressed coping and academic stressors of nursing and assistant medical officer students, the findings reported in this paper provide the impetus for future research in this area. It is suggested that future research should focus on determining whether personality and gender type influence the coping strategies and subsequently the psychological adjustment of all categories of students to academic -related stress. Research efforts should also focus on the determinants and consequences of coping as well understanding about health and well being. By including a broader array of factors and capturing the process of coping or changes that influence the selection of coping strategies, future coping research may clarify differences in coping across individuals and within individuals across situations.

7. Conclusion

Stress levels among the nursing and assistant medical officer students are high. Academic stress that is highly faced by both groups are from peer stress. This construct contains items discussing about studying in class, classroom rivalry and disturbance during study time due to noise from peers. The next highest mean was due to stress from tests. Both groups identified this construct as second stressful factor. Both groups also gave stress from results as the last stress builder. Need to be enlightened here is during collection of data, students from year 1 semester 1 have only sat for classroom tests and haven't sat for any major exams that decide their studies and progresses.

Stress levels of students in both groups displayed that majority of students are having higher than average stress levels. Assistant medical officer students demonstrate more number of students with stress. 88% of nursing students are having higher than average stress levels. 89.28% of assistant medical officer students are having above average stress levels. t test proved that there is significance in data obtained. ANOVA test shows there is no significant difference on stress according to demography for both categories of students.

Accepting Responsibility was stated as the highest employed coping strategy among both groups of students. This was followed by Planful Problem Solving and for nursing students and seeking social support for assistant medical officer students. Though the categories or constructs are the same, however, the items which have the highest and lowest relative scores demonstrates there is a difference in coping strategies. Emotion-focused coping strategies dominated over problem-solving strategies for both groups. Emotion-focused coping involves trying to reduce the negative emotional responses associated with stress such as embarrassment, fear, anxiety, depression, excitement and frustration. This may be the only realistic option when the source of stress is outside the person's control.

Since using successful strategies in coping with stress has a significant effect, psychological counseling and guidance services might be provided for individuals to learn healthy coping strategies. Such activities would contribute to individuals being content with themselves and their lives and to their using strategies based on cognitive evaluation. Researcher recommends that a study with similar content be performed with individuals studying at other Kolej Sains Kesihatan Bersekutu colleges, as well as comparative studies with other governmental or non- governmental colleges.

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