

## Stress, Coping Strategies, and Academic Performance of Dentistry Students

Doreen Leigh Bello, Mylene Gumarao

### Abstract

The purpose of the study was to determine dentistry students' stress level and coping mechanisms and their relationship to academic performance. The study used descriptive-correlational design and purposive sampling technique. The respondents were 120 Dental Proper students from Adventist University of the Philippines; 75 (63%) of which are female and 45 (37%) are males. Adapted survey questionnaires that measure the stress variable by Gumarao (2011) and COPE questionnaire by De Leon (2013) for the coping strategies were used. The academic performance was measured by determining the overall GPA of the respondents. The questionnaires were distributed and retrieved. The data were encoded, treated, and analyzed by the statistician. The results show that the respondents have *average* stress level. Most of the respondents experienced *high* physical stress, *moderately high* behavioral stress, and *average* emotional stress in general. Among the coping strategies, emotion-focused coping and problem-focused coping were often exhibited by the respondents while avoidant coping was rarely exhibited. In general, the respondents used coping strategies in an *average* level. The overall Grade Point Average (GPA) of the respondents was *good*. There is no significant relationship between stress and academic performance but there is a significant negative relationship between avoidant coping strategy used and academic performance implying that the more avoidant coping strategy is used, the lower is the academic performance of the respondents.

*Keywords: stress, academic performance, coping strategies*

Students' academic performance plays an important role in producing the best quality graduates who will become great leaders and manpower for the country and be responsible for the country's economic and social development. Even the social and economic development of the country is directly linked with student academic performance. Being a student is a challenge to perform at full potential to be able to have the best grades. College transcript of records that reflects academic performance is most valued when applying for a job. Therefore, having good academic standing is essential for satisfying the employer.

Academic performance is dependent on multiple factors whether internal, such as class schedules, learning facilities, complexity of subjects, technology used, and systems or external

factors like extracurricular activities, family problems, financial problems, social problems, and other factors. According to Mushtaq and Khan (2012), students' performance depends on many factors such as learning facilities, gender, age differences, etc. that can affect student performance.

In comparison, in the study of Kibuuka (2011) in the Adventist University of the Philippines, stress levels of students and each of the dentistry students are different. The previous study showed that those who are in the higher level of learning experienced bigger amount of stress and poorer academic performance as shown in their GPA.

In the survey of college students, one greatest obstacle to college students' academic

performance was academic stress which had resulted in an incomplete grade, a dropped course, or a lower grade. Stress can be the ultimate career stopper.

Some of the signs of stress, according to Gumarao and Fabella (2011), are as follows: physical stress whose signs include muscle tension, myalgias, neck pain, cold/sweaty hands, facial tics, fatigue, tension headaches, indigestion, high blood pressure, ulcers, heart palpitations, back or joint pain; emotional stress manifested by anxiety, fear, irritability, hopelessness, helplessness, impatience, depression, nervousness, and guilt; and behavioral stress whose signs are change in appetite, sleep disturbance, forgetfulness, angry outbursts, aggression, decline in productivity, social withdrawal, change in sexual interest, increased use of caffeine, tobacco, alcohol, or drugs, indecisiveness and loss of concentration.

Students describe stress as a phenomenon accepted as a norm among dentistry students, seen as an indicator of hard work and efficiency (Zajacova, Lynch, & Espenshade, 2005). The students' stress levels are described as increasing as students progress through their degree, according to Zajacova et al. (2005). The same authors identified six categories of potential stressors of dental students: academic performance, faculty relations, patient and clinic responsibilities, personal life issues, professional identity, and financial obligations. They also said that high levels of stress and burnout have been documented among dental and medical students and stress has generally been found to have a negative influence on their academic performance.

According to Laguador, Ramirez, and Pagcaliwagan (2013) headache, excess perspiration, and fatigue were the most common symptoms of stress experienced by students in terms of physical stress while negative thinking, tension, and feeling of failure are the most commonly encountered in terms of behavioral stress. As academic activities become tougher, the higher stress levels become and different coping mechanisms are applied. When academic pressure becomes too much to handle beyond the ability of the person, the journey towards academic success becomes complicated resulting to anxiety and depression,

which may lead to the lowering of student's GPA. Management of stress levels by achieving emotional state of equilibrium and right way of coping with stress becomes important as students aspire to become professional dentists in the near future.

## Research Objective

This research aimed to determine the extent undergraduate dental students experience stress throughout their studies, identify their coping strategies, and discover how it affects their academic performance.

## METHODS

The study used descriptive-correlation design to determine the correlation between stress and the coping strategies applied to the academic performance of dentistry students. The study utilized a purposive sampling technique. The respondents were 120 Dental Proper students from the College of Dentistry (COD) of the Adventist University of the Philippines, 75 (63%) of whom are female and 45 (37%) are male.

Adapted survey questionnaires that measure the stress variable by Gumarao (2010), and COPE questionnaire by De Leon (2013) for the coping strategies were used as instruments to gather the data. The academic performance was measured through the determination of overall GPA by getting the names of the respondents and matching the designated overall GPA for each student. The questionnaires were distributed and after the data were retrieved, they were encoded, treated, and analyzed by the statistician. Mean and standard deviation were used to measure the level of stress and coping strategies of the respondents. Pearson product-moment correlation was used to measure the relationship between stress and coping strategies to academic performance.

## RESULTS

### Level of Stress of the Respondents

The study shows that the respondents have the highest mean score on physical stress ( $M = 4.69$  and  $SD = 0.54$ ) which implies that the respondents have high physical stress manifested by not having enough sleep, having back pain,

and feeling tired/fatigued. It was followed by behavioral ( $M = 2.52$  and  $SD = 0.52$ ) which is *average* stress level and emotional ( $M = 2.42$  and  $SD = 0.52$ ) which is interpreted as *moderately low* stress level. The grand mean of 3.21 with a standard deviation of 0.52 revealed that the level of stress of the respondents is *average*.

### Level of Academic Performance of the Respondents

The grand mean of 3.26 with a standard deviation of 0.31 revealed that the general academic performance of the respondents is *good*.

### Extent of Coping Strategies of the Respondents

The extent of coping strategies of the respondents were determined in terms of problem-focused coping, emotion-focused coping, and avoidant coping. The respondents had *moderately high* mean scores in emotion-focused coping ( $M = 4.23$  and  $SD = 0.64$ ) and problem-focused coping ( $M = 3.96$  and  $SD = 0.70$ ) and *moderately low* in the avoidant coping ( $M = 1.80$  and  $SD = 0.67$ ).

### Relationship Between Stress and Academic Performance

The findings of the study show that the dimensions of physical ( $r = -.065$ ), emotional ( $r = -.152$ ), and behavioral ( $r = -.152$ ) dimensions of stress are not significantly related to the academic performance. This means that academic performance is not affected by stress experienced by the respondents.

### Relationship Between Coping Strategies and Academic Performance

Among all of the dimensions of coping strategies, only avoidance coping is significant in relationship to the academic performance ( $r = -.195$ ). The result of the study implies that the more avoidant coping is used, the lower the academic performance might be.

## DISCUSSION

The current study has shown that respondents have high physical stress such as not having

enough sleep, having back pain, and feeling tired. The study of Gumarao and Fabella (2011) states that symptoms of stress include excessive worry which means the sufferer worries about even the smallest of life's events. Also, the sufferer may feel tired, weak, and dizzy; he/she may experience headache, nausea, and possible vomiting. Chang (2008) suggests that the physical, emotional, and behavioral effects of stress can have a negative impact on the person's immune system, and well-being and could predispose to certain illness. Cardiovascular condition, colds, cancer, and diabetes have been linked to stress as a common contributor.

The respondents of the study have *good* academic performance. Academic performance is dependent on multiple factors whether internal, such as class schedules, learning facilities, complexity of subjects, technology used, and systems; or external, like extracurricular activities, family problems, financial problems, social problem and other factors. The research study conducted by Mushtaq and Khan (2012) shows that students' performance depends on many factors such as learning facilities, gender, and age differences, etc. that can affect student performance.

Problem-focused coping strategy is *moderately high* among the respondents. The respondents "think hard on what steps to take", "come up with strategies on what to do" and "concentrate efforts on doing something about the situation." According to Zahiruddin, Kelvin, Othman, and Yasin (2003), problem-focused coping appears to be the most adaptive coping style as it is associated with alleviated psychological distress. It also leads to a plan of action to deal with stress. On the other hand, the Canadian dental students of University of Manitoba, in the study by Stewart et al. (2006) found that avoidant coping was degrading the academic management because it is one of the maladaptive ways to cope with stress.

## CONCLUSION

The current study found that stress is not related to academic performance. Levi (2002) agrees that stress may include low morale, irritability, and relationship problems, feeling of alienation and inadequacy, loss of confidence, motiva-

tion, and increasing introversion. These may not at all be related to poor academic performance.

The results also demonstrate that among the dimensions of coping strategies, only avoidance coping is significant in relationship to the academic performance. This implies that the more the student avoids handling the problem, the lower the academic performance becomes.

## REFERENCES

- Chang, C. (2008). *Work related stress on performance among police officers in Province of Albay*. Unpublished thesis. National Library, Philippines.
- Gumarao, M., & Fabella, A. (2011). Determinants of stress among teachers of SDA higher educational institutions: A basis for intervention program. *University Research Journal, Adventist University of the Philippines, 14*(2), 84-96.
- Kibuka, H. (2011). *Different stress levels of Adventist University of the Philippines College of Dentistry students*. Unpublished thesis. Adventist University of the Philippines, Puting Kahoy, Silang, Cavite.
- Laguador, J., Ramirez, Y., & Pagcaliwagan, A. (2013). Vulnerability of the graduating students to different symptoms of stress and its influence to level of satisfaction. *International Journal of Behavioral Social and Movement Sciences, 2*.
- Levi, I. (2002). The European commissions' guidance on the work-related stress: From words to action. *TUTB Newsletter, 19*(20), 12-17.
- Mushtaq, I., & Khan, S. (2012). Factors affecting students' performance. *Global Journal of Management and Business Research, 12*(9), 16-22.
- Stewart, D., de Vries, J., Singer, D., Degen, G., & Wener, P. (2006). *Canadian dental students' perceptions of their learning environment and psychological functioning over time. Critical issues in dental education*. American Dental Education Association.
- Zahiruddin, O., Kelvin, Y., Othman A, & Yasin, M. (2003). Neurotic personality traits and depression among first year, medical and dental students in Universiti Sains Malaysia. *Malaysian Journal of Psychiatry EJournal, vol 22, No. 1*
- Zajacova, A., Lynch, S., & Espenshade, T. (2005). Self-efficacy, stress, and academic success in college. *Research in Higher Education, 46*(6).