

The Effects of Stress Management Intervention on Freshman Students' Academic Stress and Coping Strategies

Glenda T. De Guia*

ABSTRACT

This study examined the effects of DEAL-Based intervention on freshman students' academic stress and coping strategies. A longitudinal design was adopted using quantitative method on the 91 freshman students of Northern Samar. A total of 754 freshman students from the clustered state universities and colleges in the province of Northern Samar were included in the pretest. Among those who participated in the pretest only 296 qualified the inclusion criteria, only 96 students attended the intervention program, and only 91 freshman students completed the post-intervention tests. Academic stress and coping strategies were measured by students stress inventory, and brief coping orientation of problem experienced (Brief COPE). MANOVA was used to determine the significant difference between the pretest and posttest on academic stress and the three coping strategies of the respondents. ANOVA repeated measures was used to determine the significance and the effect of the intervention across 5-time interval pretest and posttest assessments. DEAL-based intervention is very effective in lessening the academic stress of the students including those with severe academic stress. The intervention has positive effects on the coping strategies of the respondents.

Keywords: *Academic stress, coping strategies, DEAL-based intervention.*

Introduction

Mental health problem comes in many forms, severity, duration, and degree. It can affect anyone regardless of age, gender, ethnicity, and socio economic status (WHO,

2013). In the Philippines, one in five people suffer from a mental health problem. Between 17 to 20 percent of Filipino adults experience psychiatric disorders, and 10 to 15 percent of Filipino children, age 5 to 15 suffer from mental health problems. According to the National Statistics Office (NSO), mental health illnesses are the third most common forms of morbidity for Filipinos. Furthermore, a 2010 national census found 1.4 million people with identified disabilities showed that mental disability accounts for 14 percent of all disabilities. In the same NSO study, 88 cases of mental health problems were reported for every 100,000 Filipinos. Suicide is the second leading cause of death globally among people 15 to 29 years of age, according to the 2014 global report on preventing suicide by the World Health Organization (WHO, 2014). In the Philippines, the estimated number of suicides in 2012 was 2558 (550 female, 2009 male), according to the same report.

According to Ronald Del Castillo (as cited in Bueno, 2018), a clinical psychologist and an associate professor at the University of the Philippines College of Public Health, said that entering college education poses an increased risk for developing mental health problems. The formative years play a crucial role in shaping an individual's mental health. Issues may only surface through a confluence of stressors appearing at a particular time. All these frequently appear when one enters university. College students are exposed to a considerable amount of stress, which necessitate successful and constantly changing coping strategy (Bueno, 2018).

A rich body of research indicates that university students are exposed to so many stressors on a daily basis. Amongst other things, Lewin and Mawoyo (2014) pointed out that university students are under pressure to perform academically; adapt to the higher education environment, and manage finances. They study also suggest that university students

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often view stress as a negative experience, tend to adopt ineffective coping strategies, and struggle to access resources that could assist them in managing challenges. The study also found that when stress is perceived negatively, and the required coping strategies and supportive resources are lacking, students may become impaired.

College students, especially freshmen are prone to stress due to the transitional nature of college life. They have to adjust to being away from their family for the first time, maintain a high academic performance, and adjust to a new social environment. The change in school curriculum by the implementation of the K to 12 program also added burden and caused stress among the students.

In order to prevent this severe stress which may lead to any psychological conflict among freshman students, effective stress management programs should be implemented and be part of the curriculum as mandated by the newly approved mental health law. Self-care strategies using a combination of stress management techniques could be learned by students as part of their curriculum. Being able to manage and control stress is a useful skill not only for life as a student, but also for life beyond university. A thorough understanding of what stress and depression mean and how to respond to these conditions could reduce the stigma attached to them. It will make the students aware and will lead to come forward and seek medical treatment. Hence, this study using the DEAL based intervention was conducted to determine the effect of this intervention on the freshman students' academic stress and coping strategies.

Most interventions required a substantial amount of time and resources, which makes it difficult for schools to implement. This study adopted the DEAL model as stress management intervention because this consumes minimal amount of time and money. It does not require rigorous training and manpower as well as simple to be

implemented and could easily be integrated in the academic schedule.

The DEAL model is a four (4) hour educational workshop which consist of four components which are detection of stressors, evaluation of stressors, action towards stressors and learning from stressors through self-reflection. The four guiding principles of the model are set to teach students to detect problems early and have a positive perception towards the problem; teach students to appraise problems positively and appropriately, teach students to cope with problems positively; and teach students to learn from problems for future self-improvement.

Literature Review

Transition from pre-university to university life needs a period of adjustment as it has many challenges and difficulties. Through early detection of symptoms, students would be able to seek assistance from administrators or university counsellors who could help prevent and minimize the effects of mental, emotional and physical morbidity. Academic demands in universities are very challenging. Social life along with school demands cause stress and depression among freshmen. Limited stress is beneficial and can lead to excellent performance. However, uncontrolled stress can lead to exhaustion, depression and several other sickness. In fact, college students are prone to episodic stress. These stressors include internal and external pressures exerted by the environment to thrive and to succeed, overcome financial difficulties, adjustment, worries about after study, societal problems and opportunities. If these stressors are not dealt with they can only hamper their academic performance, emotional and social wellbeing, and worst, the students contemplate or commit suicide. As such, this is an important domain for further research and an effective channel of intervention for university mental health professionals.

Recent large-scale surveys indicate that 80% of college students frequently or

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sometimes experience “daily stress” (Meaney-Tavares & Hasking, 2013), and that a quarter of students reports that stress has hurt their academic performance, including lower grades or dropped courses. Furthermore, college students experience high rates of stress-related mental health problems, including depression and anxiety, and mental health problems are a leading cause of withdrawal from college.

Tristan Yuvienco, as cited in Bueno (2018), stated that a student from the University of the Philippines conducted a survey on mental depression among college students in Metro Manila. With a sample of 135 students from selected universities ages 16 to 24, 96 percent of the participants reported having experienced an episode of moderately intense to very intense depression during their stay in school. The survey further revealed that academic work was the biggest factor that led to “depressed feelings”, followed by family issues and relationship-related problems.

Yuvienco’s study (Bueno, 2018), also found out that more than 50 percent of the students who experienced depression felt a lack of understanding from friends and family. This finding – that most depressed students find no empathy from people close to them – is an important observation. The lack of empathy, therefore, aggravates depression. This discovery can help experts develop more effective treatments for depressed people.

University students are able to reduce the negative impact of stresses, when they know how to cope with them. Coping strategy is a human ability to resolve problems or to manage problematic situations. Problem-oriented coping, emotional coping, and social support are effective strategies for managing stressful situations (Turashvili & Japaridze, 2013).

Over recent years, there has been growing interest in psychoeducational interventions (PIs), that is, the delivery of accurate information to individuals; families and careers about mental health or a specific diagnosis (including possible causes and

symptoms); management (including associated risks/side-effects) and prognosis, and how affected individuals can stay well (Jones et al., 2017). Research on interventions to reduce or prevent stress-associated risk for psychopathology in college students is wide ranging. This includes both narrowly focused interventions designed to teach single specific skills such as mindfulness, cognitive reappraisal, and problem-solving, and broadly focused interventions to build multiple skills (Bettis, Coiro, England, Murphy, Zelkowitz, Dejardins and Compas (2017). 2017). Across modalities, interventions in college students have shown promise in reducing symptoms of anxiety, depression, and general distress (Conley et al., 2015).

Within the university context, student affairs practitioners such as guidance counsellors and psychologists are required to assist students in developing the strategies required to cope with stressors and establish academic-personal life balance, among other things (Van Heerden-Pieterse, 2015). Helping students manage stressful lives has been a goal of counsellors, because college students perceive academic life as stressful and demanding and report experiencing emotional and cognitive reactions to this stress, especially due to external pressures and self-imposed expectations.

Research Questions

This study on the academic stress and coping strategies of college freshman students generally aimed to evaluate how academic stress and coping strategies were affected by the DEAL-based intervention. Specifically, it aimed to answer the following questions:

1. What are the pretest and posttest scores of the respondents in terms of:
 - 1.1. academic stress
 - 1.2. coping strategies?
2. Does DEAL-based intervention program have significant effects on students with severe cases of academic stress?

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3. Does DEAL-Based intervention program have significant effects on the coping strategies of students with severe cases of academic stress?

Methodology

Research Design

This is a longitudinal research conducted among selected freshman college students of the province of Northern Samar. This is an intervention study that examined the effects of the DEAL-based stress management intervention on freshman students' academic stress and coping strategies. The research was able to identify how freshman students' academic stress and coping strategies changed over time by comparing the data that were collected from a single group over 5- time point interval pretest and posttest intervention assessments.

Subjects of the Study

The subjects of this study were the 91 college freshman students in the province of Northern Samar enrolled during the school year of 2018-2019 from the clustered four (4) schools that were selected from among the eight (8) different tertiary schools in the province. A total of 754 freshman students from the chosen clustered schools participated the pretest, however, only 296 freshman students qualified the inclusion criteria on moderate to severe level of academic stress and practicing negative or dysfunctional coping strategies. All the students who qualified the inclusion criteria were invited to attend the orientation and the seminar workshop on stress management however, only 96 responded and consented to participate the intervention using the DEAL model. A total of 91 freshman students completed the 4-time post intervention assessments and were considered as the respondents of this study.

Inclusion

The freshman students who got a moderate to severe level of stress, frequently practicing denial or avoidant coping strategies during the pretest were chosen as the participants. The students were invited to attend the stress management intervention program using the DEAL model. The students who responded the invitation and attended the seminar workshop were also considered as the subjects in the post-intervention tests.

Exclusion

Those students who had normal to mild stress were excluded from this study. Those who refused to participate and did not give a written consent were also excluded as subjects. The students who missed any post-intervention assessments were also excluded from the study.

Sampling Technique

To achieve the purpose of this study, cluster sampling was used. The schools were clustered into state university, private schools, computer schools, and agri-tech vocational schools. Primary data were collected from one school representing each and every cluster. Hence, the data were collected from one state-university which is the University of Eastern Philippines (UEP), main campus, one from private schools which includes the Eastern Visayas Central Colleges (EVCC), ASIA and Global College representing the computer schools, and San Isidro Balicuatro School of Agriculture and Trade representing the agrotech vocational schools.

Due to the small number of students from the private schools, all the 354 freshman students from the clustered schools of private, computer and agri-tech vocational schools were chosen as participants in the pretest. The researcher, in consideration of the large number of freshman students of UEP (3,678) allocated 400 students to represent the state university with 50 students representing every college or department. Thus, a total of 754 freshman

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students were subjected to pretest as baseline measurement of this study.

Measures

The participants answered the questionnaires which comprised of two (2) well-validated and reliable measurement instruments. The Student Stress Inventory (SSI) is an instrument developed by Mohamed Arip, et al. (2015). SSI contains 40 negative items to measure 4 subscales (10 items for each subscale) which are sub scale (a) Physical, (b) Interpersonal relationship, (c) Academic, and (d) Environmental factor. The SSI has an ordinal scale of the 1 for 'Never', 2 for 'Somewhat frequent', 3 for 'Frequent' and 4 for 'Always'. The administration process approximately took 15 to 20 minutes only. SSI questionnaire had good content validity with an overall score of 0.805 (80.5%). SSI had a high overall reliability coefficient of .857.

The Brief COPE was developed by Carver (1997). It consists of 30 items describing coping methods and are rated under four (4) categories of responses (I haven't been doing this at all, I've been doing this a little bit, I've been doing this a medium amount, I've been doing this a lot) to indicate how frequent they have been doing what the items describe. There are three (3) coping strategies such as negative coping strategy, adaptive coping and accommodative coping strategies in the 15 domains. The reliability coefficients (Cronbach's Alpha) of the coping domains have ranged from 0.56 to 0.89.

Stress Management Intervention Based on the DEAL Model

A stress management intervention was conducted based on the DEAL model developed by Muhamad Saiful Bahri Yusoff. The goal of the intervention was to help students in handling their stresses. The first part of the intervention was devoted to a general discussion on the importance of managing stress, the concepts of stress, the relationships between stress, stressors and coping strategies,

and the impacts of unfavorable stress on individuals. The second part was allocated for an actual assessment where the freshman students were able to identify their individual stress level, stressors, and coping strategies through simple psychometric assessments. The results of the hands-on were discussed in detail to the freshman students as well as the general overview of the ways of handling their stressful situations. The third part was allotted for group discussion on a scenario that was shown in the form of video clip. The session consolidated students' understanding on the previous inputs. The last part of the workshop was devoted to feedback and the students shared the experiences they have learned from the intervention and things to be improved in the future as a result of attending the intervention. The total time of the intervention was four (4) hours.

Data Analysis

Descriptive statistics was applied to calculate mean and standard deviation. MANOVA was used to determine the significance between the pretest and posttest on academic stress and the coping strategies of the respondents. ANOVA repeated measures was used to determine the significance and the effects of the intervention across 5-time interval pretest and posttest assessments.

Procedure and Ethical Considerations

Data were collected from first week of November to third week of December 2018 after obtaining approval from the Dean of Student Affairs, the UEP President, School Administrators and the Ethics committee. The researcher clustered first the school and then conducted the pretest to all the 754 freshman students from the clustered schools. Among the students who participated in the pretest only 296 met the inclusion criteria. The selected subjects based on the inclusion criteria were then invited to attend a 3-hour briefing session on the study protocol and for the signing of an informed consent. However, only 96 students responded and consented to attend the seminar

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workshop. After ensuring that each participant met the study inclusion criteria, the researcher personally provided them with the information about study aims, design, procedures, rights as participants, anticipated benefits, and possible adverse effects of participation. The participants were also informed that they were free to withdraw their consent anytime. The researcher then conducted a stress management workshop. The participants underwent a 4-hour stress management intervention using the DEAL Model. The posttest assessments were conducted at one (1) week interval for four (4) consecutive weeks.

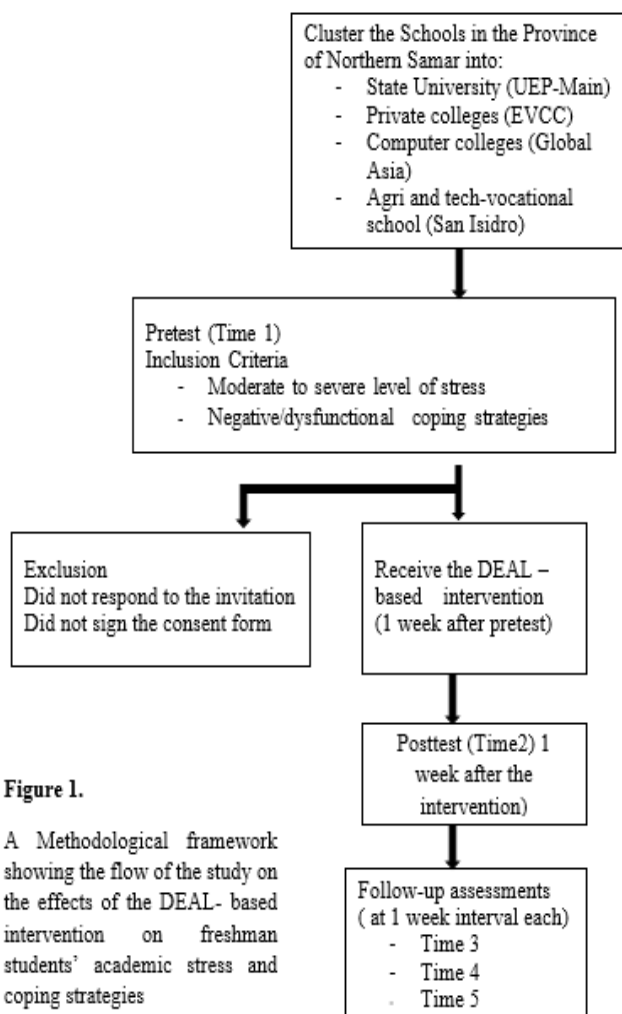


Figure 1.

A Methodological framework showing the flow of the study on the effects of the DEAL- based intervention on freshman students' academic stress and coping strategies

Results and Discussion

Transition from pre-university to university life needs a period of adjustment as it has many challenges and difficulties. Social life along with school demands cause stress and depression among freshmen. Through early detection of symptoms, students would be able

to seek assistance from administrators or university counsellors who could help prevent and minimize the effects of mental, emotional, and physical morbidity. In this study, it is worth observing that the academic stress of the respondents had lowered. It revealed that the intervention had lessen the academic stress of the freshman students including those with severe cases. Figure 2 shows the pretest and posttest results on academic stress of the freshman students. The result showed that the academic stress of the respondents had lowered after being subjected to the DEAL-based intervention. The finding indicates that the intervention had lowered the academic stress and coping strategies of the respondents. This finding affirmed the finding in the study of Conley, Durlak, and Kirsch, (2015) that interventions among college students have shown promise in reducing symptoms of anxiety, depression, and general distress.

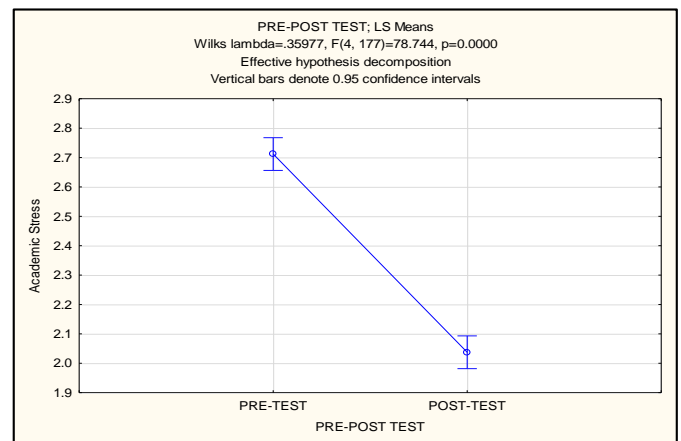


Figure 2. A graph showing the academic stress before and after DEAL-based intervention program.

MANOVA revealed that there are significant differences between the pretest and posttest scores of participants as a result of DEAL-based intervention program. The academic stress and coping strategies had lowered after the intervention. The intervention showed a significant effect in lessening the academic stress of the freshman students.

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Table 1.
Comparison of the Respondents' Pretest and Post-Intervention Tests according to Academic Stress and Coping Strategies

Criterion	Test Statistic	MANOVA PRETEST vs. POSTTEST (N = 91)			
		F	DF Num	DF Denom	P
Wilks'	0.35977	78.744	4	177	0.000***
Lawley-Hotelling	1.77954	78.744	4	177	0.000***
Pillai's	0.64023	78.744	4	177	0.000***
Roy's	1.77954				

*** $p < .001$

DV = Academic Stress, Coping Strategies

IV = DEAL-Based Intervention Program

Measures = Pre-Test vs. Post-Test

The result revealed significant differences in negative coping, adaptive coping, and accommodative coping strategies after the intervention. This finding affirmed what Lazarus and Folkman (1987) pointed out that coping with a stress-inducing situation is a composite amalgam of thoughts and attitudes for which a variety of coping strategies is required and not just a one-dimensional approach. In addition, the coping process is a slow process, so an individual may select one method of coping (i.e. avoidance, emotion-focused or adaptive coping) under one set of circumstances and a different strategy (i.e. emotion focused strategies or problem-focused) at some other time. Such selection of strategies takes place as the situation changes.

Figure 3 shows the significant difference between the pretest and posttest result on the negative coping strategies of the respondents. The intervention had minimized the respondents' utilization of non-adaptive or dysfunctional coping such as, self-blame and behavioural disengagement, self-distraction, denial, and substance or alcohol abuse. This finding affirmed the transactional theory of Lazarus and Folkman (1987) that intervention helps people develop effective coping strategies and mitigate unproductive strategies. This also affirmed the findings of Yusoff and Esa (2015) finding DEAL- based intervention

effective which modify the participants' coping strategies to effectively manage stress.

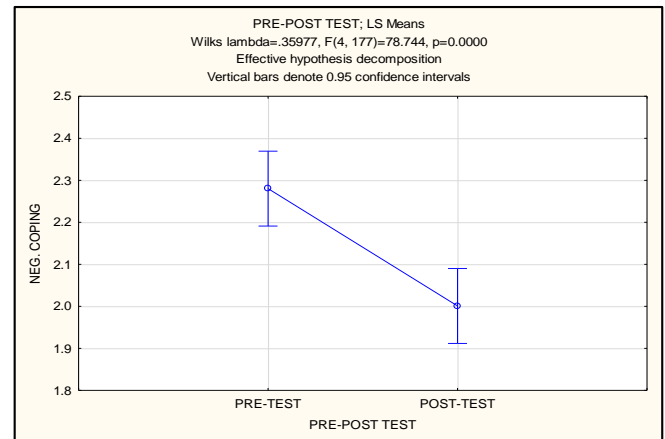


Figure 3. A graph showing the negative coping before and after DEAL-based intervention program.

Figure 4 shows the significant difference between the pretest and posttest results of the respondents on adaptive coping strategy. The data revealed that the frequency of practicing the adaptive coping strategy of the respondents such as planning, positive reinterpretation, active coping, and acceptance had been minimized immediately after the intervention. This finding affirmed the transactional theory of Lazarus and Folkman (1987) that intervention helps people develop effective coping strategies and mitigate unproductive strategies. This also affirmed the findings of Yusoff and Esa (2015) finding DEAL- based intervention effective which modify the participants' coping strategies to effectively manage stress. This indicates that coping with the stress is a mixture of personality traits, attitudes, experiences, and stressors for which a variety and a combination of different coping strategies is required. This finding affirms the theory of Lazarus and Folkman (1987) that coping process is a slow process, so an individual may select one method of coping (i.e. adaptive coping) under one set of circumstance and a different strategy (i.e. accommodative) at some other time, and such selection of strategies takes place as the situation changes.

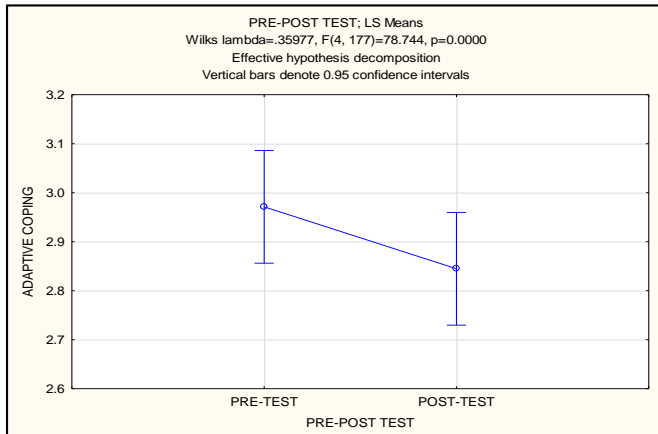


Figure 4. Adaptive coping before and after DEAL-based intervention program.

The result also demonstrated a significant difference between the pretest and posttest results of the respondents on accommodative coping strategy as shown in Figure 5. The data revealed that the frequency of practicing the accommodative coping strategy of the respondents such as social support, instrumental support, venting of emotions, humor, religion and restraint had been minimized after the intervention. This indicates that the intervention had changed the accommodative coping which temporarily help in buffering the effects of stressful events before adaptive coping takes place. This finding affirms the finding of Lazarus and Folkman (1987) which stated that accommodative or emotion-focused can assist the individual to change his/her perspective on a stressful situation without actually changing the situation.

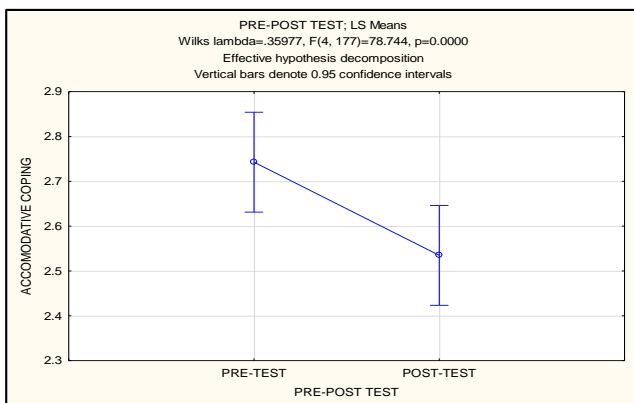


Figure 5. Accommodative coping strategy before and after DEAL-based intervention program.

In determining the effects of the intervention on the level of academic stress of the respondents with severe cases, it was observed that DEAL-based intervention program had positive effects in lessening the academic stress of the students with severe academic stress. ANOVA repeated measures on table 2 shows that there are significant differences between the pretest and posttest scores of the participants as a result of DEAL-based intervention program. The DEAL-based intervention program had positive effects in lessening the academic stress of the students with severe academic stress as evident in the significant differences between the pretest (3.194) and posttest (2.350) scores on academic stress and on repeated measures in three (3) follow-up sessions ($F_1 = 2.325$; $F_2 = 2.293$; 2.325).

Table 2.

Analysis of Variance for Academic Stress of Students with Severe Academic Stress

Source	DF	SS	MS	F	P
PRE-POST TEST	1	20.6972	20.6972	285.432	0.000***
Error	180	13.0521	0.0725		
Total	181	33.7493			

*** $p < .001$ $N = 4$

Figure 6 shows the effects of the DEAL-based intervention on the academic stress of the respondents with severe academic stress. The result revealed that the DEAL-based intervention lowered the academic stress of the respondents. This indicates that DEAL-based intervention is an appropriate intervention in reducing the academic stress of the students. This finding affirms the findings of Yusoff and Esa (2015) that the intervention successfully reduced the perceived academic stressors of the medical students. This also confirms the study of Conley, et al. (2015) that interventions among college students have shown promise in reducing symptoms of anxiety, depression and general distress.

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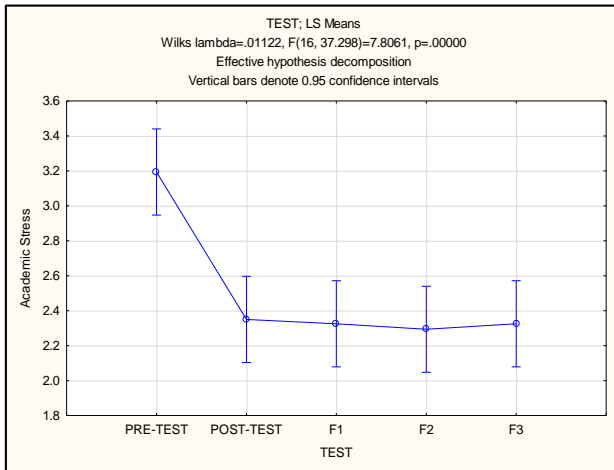


Figure 6. A graph showing the effects of DEAL-based intervention on the academic stress of the respondents with severe academic stress.

In this study, DEAL-based intervention program showed positive effects on the tendency of the students with severe academic stress to practice negative coping strategy. Table 3 shows that DEAL-based intervention had positive effects on the tendency of the students with severe academic stress to practice negative coping strategy as evident in the significant differences between the pretest (2.468) and posttest (2.181) scores on negative coping strategy and on repeated measures in three (3) follow-up sessions (F1=1.500;F2=1.275; F3= 1.325). The intervention had minimized the respondents frequency of practicing negative coping strategy such as self-blame, behavioural disengagement, self-distraction, denial and substance or alcohol abuse. This is an affirmation of the claims of previous authors that intervention helps people develop effective coping strategies and mitigate unproductive strategies Lazarus and Folkman (1987). The findings indicates that negative coping responses may be the first response that freshman students have to a large amount of stress or it may be that freshmen do not know other ways to deal with stress besides reacting with a negative emotional outburst. This also affirmed the findings of Yusoff and Esa (2015) finding DEAL- based intervention effective which modify the participants' coping strategies to effectively manage stress.

Table 3.

Analysis of Variance for Students with Severe Academic Stress on Negative Coping Strategy

Source	DF	SS	MS	F	P
PRE-POST TEST	1	3.5504	3.5504	19.123	0.000***
Error	180	33.4188	0.1857		
Total	181	36.9692			

***p<.001 N=4

Figure 7 shows the effects of the DEAL-based intervention on the negative coping strategies of the respondents with severe academic stress. The result revealed that the DEAL-based intervention had positive effects on the negative coping strategies of the respondents. The intervention had minimized the respondents' frequency of practicing negative coping strategy such as, self-blame, behavioral disengagement, self-distraction, denial, and substance or alcohol abuse.

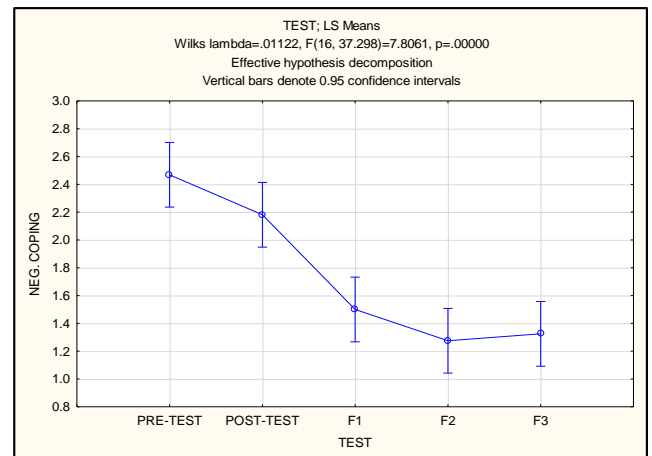


Figure 7. A graph showing the effects of DEAL-based intervention on the negative coping strategies of the respondents with severe academic stress.

Result of the study also demonstrated in Table 4 that intervention program initially had negative effect (decreasing) on the adaptive coping strategy of students with severe academic stress as evident in the significant differences between the pretest (3.312) and posttest (2.698) scores. However, on the three

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(3) follow-up sessions a significant increase on the students' adaptive coping strategy had been observed as compared to their posttest scores ($F_1 = 3.125$; $F_2 = 3.312$; $F_3 = 3.218$). This indicates that the positive effects of the intervention on the students with severe academic stress had manifested only after two (2) weeks from the intervention. This finding affirms the theory on coping strategy of Lazarus and Folkman (1987) that coping process is a slow process. The following studies further affirm the findings that interventions designed to improve students' coping strategies may be an effective way to reduce mental health problems on college campuses. Stress management intervention in college students have shown promise in reducing symptoms of anxiety, depression, and general distress (Conley et al., 2015). Randomized controlled trials have shown that interventions can enhance skills to cope with stress and regulate emotions and that changes in these skills mediate intervention effects on depression and anxiety (Mason, 2017).

Table 4. *Analysis of Variance for Adaptive Coping Strategy of Students with Severe Academic Stress*

Source	DF	SS	MS	F	P
PRE-TEST POST TEST	1	0.7266	0.7266	7.806	0.000***
Error	180	55.6380	0.3091		
Total	181	56.3647			

*** $p < .001$ $N = 4$

Figure 8 shows the effects of the DEAL-based intervention on the adaptive coping strategies of respondents with severe academic stress. The result revealed that the DEAL-based intervention had positive effect on the adaptive coping strategies of the respondents only after two weeks from the intervention. This indicates that the positive effects of the intervention on the students with severe academic stress had manifested only after two (2) weeks from the intervention.

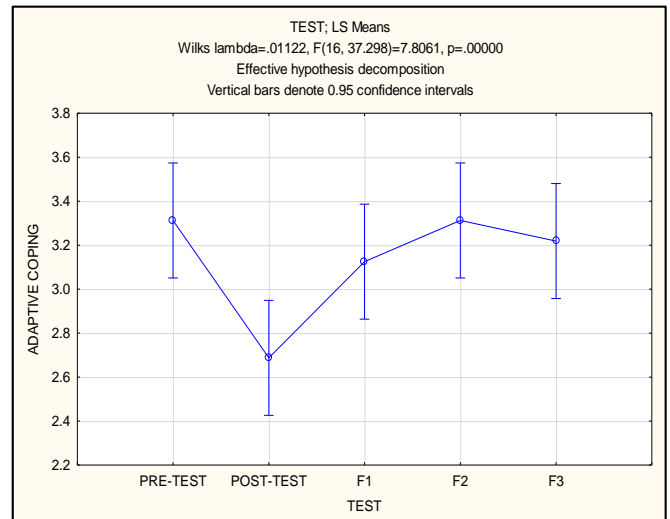


Figure 8. *Pretest and 4-time post-intervention tests on adaptive coping strategies of the students with severe academic stress.*

Table 5 shows that the DEAL-based intervention program had no significant effects on the accommodative coping strategy of students with severe academic stress as evident in the significant differences between the pretest (2.916) and posttest (2.791) scores and on repeated measures in three (3) follow-up sessions ($F_1 = 2.312$; $F_2 = 2.208$; $F_3 = 2.333$). The data revealed that the frequency of practicing the accommodative coping strategy of the respondents such as social support, instrumental support, venting of emotions, humor, religion, and restraint had not changed after the intervention. The finding of this study affirms the other findings, which states that accommodative coping such as emotional support, religion/praying have stress-buffering effect and prove to be situational resources in cases of strong stress Turashvili and Japaridze (2013), and an important coping strategy in confronting and handling stressful situations. It demonstrates that this dimension effectively contributes toward the management of handling stress (Sheu, Lin, Whans as cited in Hirsch et al., 2015).

Table 5. Analysis of Variance for Accommodative Coping Strategy of Students with Severe Academic Stress

Source	DF	SS	MS	F	P
PRE-POST TEST	1	1.9662	1.9662	6.788	0.010*
Error	180	52.1349	0.2896		
Total	181	54.1011			

* $p < .05$ $N=4$

The result on figure 9 revealed that the DEAL-based intervention had no significant effect on the accommodative coping strategies of the respondents. The data revealed that the frequency of practicing the accommodative coping strategy of the respondents such as social support, instrumental support, venting of emotions, humor, religion and restraint had not changed after the intervention.

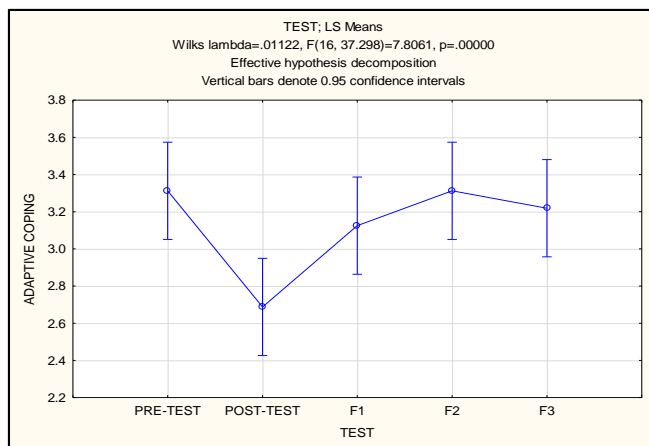


Figure 9. A graph showing the effects of DEAL-based intervention on the accommodative coping strategies of the respondents with severe academic stress.

Conclusion

It can be inferred from this study that there are significant differences between the pretest and posttest scores of the respondents as a function of DEAL-based intervention program on academic stress and coping strategies. DEAL-based intervention program has positive effects on lessening the academic

stress of the college freshman students including those with severe cases of stress as evident in the significant differences between the pretest and posttest and on repeated measures in three (3) follow-up sessions. The intervention has positive effects on lessening the frequency of practicing the negative coping strategy of students with severe academic stress. The intervention has strengthened the adaptive coping strategies very effective in lessening the academic stress of the students including the students with severe academic stress. The intervention has strengthened the adaptive coping strategies of the respondents with severe academic stress only after two weeks from the intervention. The intervention has no significant effects on the accommodative coping strategies of the students with severe academic stress.

References

- Bettis, A.H., Coiro, M.J., England, J., Murphy, L.K., Zelkowitz, R. L., Dejardins, L., ... Compas, B.E. (2017). Comparison of two approaches to prevention of mental health problems in college students: Enhancing coping and executive function skills. *Journal of American College Health*, 65(5), 313-322. doi: 10.1080/07448481.2017.1312411.
- Bueno, A. (2018). *CNN Philippines*.
- Carver, C. S. (1997). You want to measure coping but your protocol too long: Consider the brief cope. *International Journal of Behavioral Medicine*, 4(1), 92-100. 10.1207/s15327558ijbm0401_6.
- Conley, C. S., Durlak, J. A., & Kirsch, A. C. (2015). A meta-analysis of universal mental health prevention programs for higher education students. *Prevention Science*, 16(4), 487-507. doi: 10.1007/s11121-015-0543-1.
- Hirsch C. D., Barlem E. L. D., Almeida L. K., Tomaschewski-Barlem, J. G., Figueira, A. B., & Lunardi, V. L. (2015). Coping strategies of nursing students for dealing with university stress. *Revista Brasileira de*

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- Enfermagem*, 68(5), 501-5088. doi:10.1590/0034-7167.2015680503i.
- Kwaah, C. Y., & Essilfie, G. (2017). Stress and coping strategies among distance education students at the University of Cape Coast, Ghana. *Turkish Online Journal of Distance Education*, 18 (3), 120-134.
- Lazarus, R. S. & Folkman, S. (1987). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lewin, T., & Mawoyo, M. (2014). *Student access and success: Issues and interventions in South African universities*. Cape Town, South Africa: Inyathelo.
- Mason, H.D. (2017). Stress-management strategies among first-year students at a South African University: A Qualitative Study. *Journal of Student Affairs in Africa*, 5(2),131–149. doi:10.24085/jsaa.v5i2.2744.
- Meaney-Tavares R., & Hasking, P. (2013). Coping and regulating emotions: A pilot study of a modified dialectical behavior therapy group delivered in a college counselling service. *Journal of American College Health*, 61(5), 303–309. doi:10.1080/07448481.2013.791827.
- Mohamed Arip, M. A. S., Kamaruzaman, D. N., Roslan, A., & Ahmad, A. (2015). Development, validity and reliability of Student Stress Inventory (SSI). *The Social Sciences*, 10(7), 1631-1628. doi:10.3923/sscience.2015.1631.1638.
- Sheu, S., Lin, H. S., & Hwang S. L. (2002). Perceived stress and psychosocial status of nursing students during their initial period of clinical practice: The effect of coping behaviors. *International Journal of Nursing studies*, 39(2), 165-175.
- Turashvili, T. & Japaridze L. (2013). Coping strategies of University students in Georgian context. *Problems of Education in the 1st Century, Problems of Education in the 21st Century*, 56, 144-149.
- World Health Organization (WHO). (2013). *Mental health action plan 2013-2020*.
- World Health Organization (WHO). (2014). *Mental Health Atlas 2014*.
- Yusoff, M. S. B., & Esa, A. R., (2015). A DEAL-based intervention for the reduction of depression, denial, self-blame and academic stress: A randomized controlled trial. *Journal of Taibah University Medical Sciences*, 10(1), 82-92. doi: 10.1016/j.jtumed.2014.08.003.

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