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ANA JOY P. MENDEZ

University of Guam School of Nursing and Health Sciences, Guam, U.S.A

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FACTORS INFLUENCING STRESS AND MENTAL HEALTH: A COMPREHENSIVE REVIEW OF THE LITERATURE

ANA JOY P. MENDEZ *

University of Guam School of Nursing and Health Sciences, Guam, U.S.A

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Abstract. Mental illness is a global public health issue. Evidence indicates that an onset for DSM-IV classified disorders will occur in about half of Americans at some point in their lives. An electronic research of all literature articles published from 2006 to 2011 was conducted via ERIC, Academic Search Premier, CINAHL Plus with Full Text, Business Source Premier, and Master FILE Premier to identify the prevalence and the overall contributing factors to stress, anxiety, and depression among university students. In conclusion, the combined results from various studies strongly suggest that university students experience stress, anxiety, and depression due to multiple contributing factors. These factors must be considered when constructing a school- or community-based program that will provide services for the mental health and wellness of this vulnerable aggregate.

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INTRODUCTION

Mental illness is a global public health issue. Evidence indicates that an onset for DSM-IV classified disorders will occur in about half of Americans at some point in their lives [1]. Limited knowledge of mental disorders and mental health services prohibit the development of culturally responsive mental health services in Guam [2]. To improve the mental health status of its college students, it is important to investigate what factors may influence stress, anxiety, and depression as well as how these influence mental health services.

Few studies have been conducted to explore the relationship between academic and sociocultural stressors and the mental health status of college students in Guam. This paper seeks to review what has been studied in this field so far and aims to determine whether stress levels have a correlation with anxiety and depression among college students. The significance of this review is to establish the prevalence and identify risk-factors of stress, anxiety, and depression in the aforementioned high-risk aggregate.

The theoretical framework used to analyze stress level and mental health is Callista Roy's Adaptation Model of Nursing. This model focuses on the adaptive responses by an individual to a changing environment. This model offers four modes, identified by Roy as a "way or method of doing and acting", used by an individual in response to stressors. They are the physiological mode, self-concept mode, role function mode, and interdependence mode [3]. The physiological mode addresses the basic needs that are necessary to maintain the physiological integrity of the individual. The self-concept mode addresses the individuals' collective feelings and beliefs held about oneself. The

role function mode addresses the performance of the duties by an individual based on their given positions within the society. Interdependence mode addresses the human relationships and the individual's way of seeking help, attention, and affection.

METHOD

An electronic research of all literature articles published from 2006 to 2011 was conducted via ERIC, Academic Search Premier, CINAHL Plus with Full Text, Business Source Premier, and Master FILE Premier to identify the prevalence and the overall contributing factors to stress, anxiety, and depression among university students.

The search used the identifier "stress, anxiety, and depression" including the subheading "gender, religion, and prevention programs" as well as "college and university". Other studies about depression, anxiety, and stress among university students were obtained from available and existing literatures conducted on the issue and suggested by experts.

RESULTS

Stress, Anxiety, Depression and Mental Health

For many students, entering college is a transition from adolescence into adulthood. During this time, they experience various developmental and situational crises which may include concerns regarding academic performance, financial problems, and social stressors [4], [5]. These concerns may perpetuate anxiety and/or depression and encourage them to seek counseling [6], [7]. The most common concerns that college students present

*Corresponding author: Ana Joy P. Mendez

E-mail: mendeza@triton.uog.edu



at counseling centers are anxiety, stress and depression [6], [8]. An individual's perception of life events and coping resources determine the amount of stress experienced [6]. Feelings of hopelessness have been attributed to an increase in anxiety and suicide; suicide being the second leading cause of death in college students [8], [9]. Students who are depressed are vulnerable to dysfunctional attitudes, excessive reassurance seeking, and dependent personality traits [10].

Most first year college students, especially females, often experience more personal and emotional problems, psychological and somatic distress, anxiety, low self-esteem, and depression [11], [12]. Due to the increased prevalence of depression, anxiety, and stress in first year college students, it is imperative for primary and secondary preventive measures to be implemented in the aforementioned population [10]. Many studies have illustrated that depression and worry are positively correlated and may manifest into negative physiologic effects such as sleep disturbances and acute illnesses [13].

In addition to presenting disease symptoms and being an indicator for illness in adulthood, studies have also demonstrated that depression negatively affects academic performance and ability to accomplish tasks because students tend to be pessimistic and react negatively to difficult responsibilities [9], [14]. According to authors [8], the increased use of psychotropic medications and increased rate of hospitalizations among college students indicate an increase in certain psychiatric problems. There is a prevalence of depression among this population and it is estimated that almost half has reported experiencing depression [14]. [15] state that researchers can use the Beck Depression Inventory-II and the Center for Epidemiological studies-Depression Scale questionnaire to assess college population samples because of their satisfactory levels of sensitivity and specificity.

Gender and Culture

The experience of stress, anxiety, and depression can be compared on a gender basis, and differences regarding coping and adjustment strategies can be studied. According to [16], "Stress, social support, coping, and adjustment show unique patterns of relationships for males versus females" (p. 481) with stress and social support showing similar relationships between males and females.

Across culture, there also seems to be a difference in stress, anxiety, depression, and coping and adjustment strategies. [17] suggests that female gender was "positively correlated with help-seeking attitudes" (p. 347). According to this study, Chinese female students showed more help-seeking behaviors than their male counterparts. Additionally, in studying gender differences related to depression in Islamic countries, [18] indicated that there is a higher prevalence of depression among the female population (p. 729). These two studies show that although there is a higher prevalence of depression among the female population, females

seek help and treatment at a higher proportion than males. Overall, college women reported a higher level of stress, but also had more coping strategies than the college men [19] (p. 85). Along with gender differences of mental well-being, coping and treatment, both males and females may experience a vast array of physiological effects during times of mental distress.

Physiological Effects

Stress can have a physiologic impact on sleep, illness, and ultimately the health status of college students. Students' biological rhythms are shifted to accommodate for social and academic constraints, such as early morning classes and late night studying or partying [20], [21]. Students reported an average of seven sleep hours; less than average hours were associated with a greater number of depressive symptoms. This supported previous studies which confirmed that students with sleep difficulties may be at risk for depression although significant correlations between suicidal feelings and sleep were not found [21]. [22] found that depression, anxiety, and exhaustion were associated with acute illnesses including bronchitis, ear infection, sinus infection, and strep throat. Students who were most exhausted had the highest probability of acute illnesses, whereas students who were least exhausted had the lowest probability of acute illnesses. The above mentioned physiological effects can have a profound impact on college students' quality of life and some may use religion as a means to cope with these stressors.

Religion

Religious coping methods can be effective in relieving stress associated with difficult situations and a competitive college environment [23]. An article by [24] examined the influence of religiousness and spirituality on physical and psychological health and found that both constructs demonstrated largely favorable relationships. A study done by [25] found that spirituality served as a coping mechanism through activities such as prayer and meditation. Furthermore, this study suggested that college students who were spiritual felt a greater sense of support from a Higher Power, therefore felt more supported during times of stress [25]. [23] suggested that religiosity had the greatest effect on promoting confidence in college students as well as prompted the power to prevent the negative and promote the positive outcomes often associated with stress (p. 509). Lastly, findings by [26] suggested that regardless of religious affiliation, high religiousness per se were associated with low levels of depression and anxiety among college students. Thus, the level of religiosity among college student was more of a protective factor than affiliation.

Suicide

Suicide is a growing, public mental health problem. Suicide ideation and self-injurious acts are common in college students. Anxiety, irritability, rage, desperation, and feeling out control are significantly common in students with suicidal ideation

[27]. In addition, students who had stress-coping styles, living mothers, and mothers who were university graduates had a lower suicide probability than students who did not possess any. Students in their second year of college had a lower suicide probability than their third-year counterparts, and students who willingly attended classes and who were satisfied with their college department had a lower probability of suicide [28]. College students may think of suicide when they cannot cope with school and family problems. Failure within a social group causes a decrease in self-respect and self-esteem and an increase in thoughts of suicide. Furthermore, a decrease in interpersonal sensitivity, lack of social skills, inability to express oneself, and an introverted personality may increase the risk of suicide [29].

Coping

As students enter the first year of college, they must successfully learn how to adapt and cope with the new college environment. In a study conducted by [30], coping styles were identified as emotion-focused, problem-focused, and avoidant coping. No change in coping styles was demonstrated as the students transitioned into college life and continued using personal coping methods as they advanced to the next semester. [31] also reported the use of problem-focused and emotion-focused coping among college students. Active coping, characterized by problem solving, direct action, and positive thinking, was associated with lower levels of depression [32]. Similarly, [33] reported that positive thinking and adaptive coping led to positive outcomes among students. Problem solving and cognitive reinterpretation were found to promote better health and adaptation [34]. A study conducted among Turkish university students found that students with an internal locus of control had better problem solving skills and lower anxiety scores versus students who exhibited an external locus of control [35]. Negative outcomes were reported as a result of maladaptive coping [33]. Avoidant coping, in which problems are ignored or repressed, was found to predict levels of depressive symptoms and was associated with an increased level of depression and anxiety in college students dealing with stress [31], [32]. [36] reported that students experiencing excessive stress due to college, such as test related worry and study anxiety, consumed alcohol as a coping mechanism to relieve stress and tension.

Theories and Models Used in Previous Studies

Previous studies have been conducted on our topic with emphasis on different cultures, gender, and age groups. In analyzing the prevalence of stress, anxiety, and depression, theories and models were used to guide these studies. For example, [18] used the social learning theory when studying the gender differences in depression among undergraduates from different Islamic countries. Popular models used among a set of similar studies are the logistic regression model, social stress model, and the cognitive-behavioral model of anxiety. [22] used

the logistic regression model studying the association between mental health and acute infectious illness among 18 to 24 year old college students. On the other hand, [5] used the social stress model when studying college students' stress during economical downturn. [14] used Beck's cognitive theory when studying the relationship between depression and college academic performance. [10] used the psychoanalytic theory when studying the relationship between negative affective reactions to daily stress and symptoms of depression. Lastly, [11] used Callista Roy's adaptation model when studying the transition of students from high school to college, and the stresses and health issues they face.

Intervention Programs

With college students experiencing increased levels of psychological distress, including depression and anxiety, it is imperative that services are available and that all students are aware of these services. [37] examined the use of college counseling and found that students reporting higher stress levels were more likely to use counseling, yet three-fourths of the students with clinically significant levels of distress had not received counseling services. [38] suggested training college Resident Assistants (RAs) in identifying and referring students who are in distress. RAs are in an ideal position to serve as members of the campus mental health team, as they interact daily with the students, and students spend more time in their residence halls than anywhere else on campus. [39] suggests using a "technology-savvy" cost effective biofeedback program which helps students under stress and anxiety to first gain an awareness of their body's physiological processes, and then to control these processes including tension, blood pressure, breathing and heart rate using a certified biofeedback practitioner and EEG. [40] examined the influence of an early intervention program targeting anxiety and depression which contained elements of cognitive-behavioral psychotherapy. The program had a lack of significant results, yet the experimenters suggest great attention to early intervention program research in the future. [41] did a study on group counseling using Cognitive Behavioral Group Therapy in eight, two hour weekly sessions. Student's anxiety and depression was significantly reduced and self-esteem increased. The encouraging results suggest this as an effective intervention on further student population.

DISCUSSION

The initial transition into college and the subsequent years that follow predispose students to stress, anxiety, and depression. This issue has become a worldwide public health concern due to the detrimental physiologic, psychological, and cognitive effects it has on an individual. In addition, the influence of stress, anxiety, and depression reaches far beyond the individual and affects both the family and the community. The data collected

and present highlight areas that influence and are influenced by this mental health issue.

Based on the findings, it is clear that this issue is multifaceted. Culture, spirituality, religion, gender, family support, coping mechanism, social environment, school workload, and many other factors dynamically influence an individual's susceptibility to stress, anxiety and depression. The findings discussed in the previous sections clearly exemplify the extent of this issue. According to [17], [18], and [19], there seems to be a higher prevalence of stress, anxiety, and depression amongst their culture's respective female populations. The high rate of stress among women in this study needs further investigation to determine if this cuts across various cultures. Further studies exploring the relationship between gender and stress should be conducted to identify causative factors and offer solutions.

Religiosity and spirituality have also been revealed as factors of stress. They act as coping mechanisms by which students reinterpreted their situation in a positive light [34]. Other positive coping strategies involve support groups and constructive environments that aid in decreasing the amount of stress, anxiety, or depression a student faces during his or her college years [30]. These various factors seem to intertwine which necessitates appropriate assessment and individualization in providing support, aid, or treatment.

It is also evident that stress, anxiety and depression have significant implications on physical and psychological morbidity which adversely affects a student's health, educational attainment, and overall wellbeing [7]. The physiologic effects of depression and anxiety are manifested through physical symptoms and illnesses. These physiological alterations may lead to suicide when suicidal ideation is coupled with either anxiety or depression [27]. In order to resolve these seemingly assorted physiological

and psychologic manifestations, a greater need for understanding on the topic of stress, anxiety, and depression within the college population should be sought after.

These previous studies contained a number of limitations. First, many of the studies require further investigation on their respective research topics including replication and longitudinal studies in order to increase their validity and reliability. Second, the instruments used to gather data on stress, anxiety, and depression are not uniform in sensitivity and specificity for certain variables such as stress, anxiety or depression. Lastly, sampling was a limit for many studies because obtaining a representative sample presented a challenge.

It seems there is no sole solution to manage stress, anxiety and depression. The multi-factorial and multifaceted aspects of these three mental health conditions influence the very programs that have been established to address this issue. More research studies should be conducted on this issue in order to fully understand its magnitude, associated factors, and implications on an individual's physiologic, psychologic, cognitive, developmental, socio-cultural, and spiritual domain.

CONCLUSION

In conclusion, the combined results from various studies strongly suggest that university students experience stress, anxiety, and depression due to multiple contributing factors. These factors must be considered when constructing a school- or community-based program that will provide services for the mental health and wellness of this vulnerable aggregate. Being knowledgeable of the multifaceted aspects of stress, anxiety, and depression among university students can be the key in providing a holistic approach that will successfully improve their quality of life as they face the rigorous task of attaining a higher level of education

REFERENCES

- [1] R. C. Kessler, P. Berglund, O. Demler, R. Jin, K. R. Merikangas and E. E. Walters, "Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication," *Archives of General Psychiatry*, vol. 62, no. 6, pp. 593-602, 2005.
- [2] M. Ran, "Suicide in Micronesia: A systematic review," *Primary Psychiatry*, vol. 14, no. 11, pp. 80-87, 2007.
- [3] C. Roy, *Introduction to Nursing: An Adaptation Model*. Englewood Cliffs, NJ: Prentice Hall, 1976.
- [4] B., Ong and K. C. Cheong, "Sources of stress among college students-the case of a credit transfer program," *College Student Journal*, vol. 43, no. 4, pp. 1279-1286, 2009.
- [5] Y. J. Guo, S. C. Wang, V. Johnson and M. Diaz, "College students 'stress under current economic downturn,'" *College Student Journal*, vol. 45, no. 3, pp. 536-543, 2011.
- [6] C. J. McCarthy, R. T. Fouladi, B. D. Juncker and K. B. Matheny, "Psychological resources as stress buffers: Their relationship to university students' anxiety and depression," *Journal of College Counseling*, vol. 9, no. 2, pp. 99-111, 2006.
- [7] N. Bayram and N. Bilgel, "The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students," *Social Psychiatry and Psychiatric Epidemiology*, vol. 43, no. 8, pp. 667-672, 2008.

- [8] C. B. Williams, M. Galanter, H. Dermatis and V. Schwartz, "The importance of hopelessness among university students seeking psychiatric counseling," *Psychiatric Quarterly*, vol. 79, no. 4, pp. 311-319, 2008.
- [9] B. J. Lindsey, P. Fabiano and C. Stark, "The prevalence and correlates of depression among college students," *College Student Journal*, vol. 43, 4, pp. 999-1014, 2009.
- [10] B. P. Parrish, L. H. Cohen and J. P. Laurenceau, "Prospective relationship between negative affective reactivity to daily stress and depressive symptoms," *Journal of Social and Clinical Psychology*, vol. 30, no. 3, pp. 270-296, 2011.
- [11] T. Hicks and S. Heastie, "High school to college transition: A profile of the stressors, physical and psychological health issues that affect the first-year on-campus college student," *Journal of Cultural Diversity*, vol. 15, no. 3, pp. 143-147, 2008.
- [12] L. Weinstein and A. Laverghetta, "College student stress and satisfaction with life," *College Student Journal*, vol. 43, no. 4, pp. 1161-1162, 2009.
- [13] J. M. Buck, W. E. Kelly and N. C. Silver, "An investigation of the relationship between depression and worry: A research note," *Individual Differences Research*, vol. 6, no. 2, pp. 120-122, 2008.
- [14] V. M. DeRoma, J. B. Leach, J. P. Leverett, "The relationship between depression and college academic performance," *College Student Journal*, vol. 43, no. 2, pp. 325-334, 2009.
- [15] G. Shean and G. Baldwin, "Sensitivity and specificity of depression questionnaires in a college-age sample," *The Journal of Genetic Psychology*, vol. 169, no. 3, pp. 281-292, 2008.
- [16] K. K. Asberg, C. Bowers, K. Renk and C. McKinney, "A structural equation modeling approach to the study of stress and psychological adjustment in emerging adults," *Child Psychiatry and Human Development*, vol. 39, no. 4, pp. 481-501, 2008.
- [17] H. Chang, "Psychological distress and help-seeking among Taiwanese college students: Role of gender and student status," *British Journal of Guidance & Counselling*, vol. 35, no. 3, pp. 347-355, 2007.
- [18] B. M. Alansari, "Gender differences in depression among undergraduates from seventeen Islamic countries," *Social Behavior and Personality: An International Journal*, vol. 34, no. 6, pp. 729-738, 2006.
- [19] R. R. Brougham, C. M. Zail, C. M. Mendoza and J. R. Miller, "Stress, sex differences, and coping strategies among college students," *Current Psychology*, vol. 28, 2, pp. 85-97, 2009.
- [20] C. Anderson, "The impact of sleep on dealing with daily stressors—a need for controlled laboratory evidence. Commentary on Barber, Munz, Bagsby & Powell (2009) 'Sleep consistency and sufficiency: Are both necessary for less psychological strain?'" *Stress and Health*, vol. 26, no. 3, pp. 194-197, 2010.
- [21] P. R. Brooks, A. A. Girgenti and M. J. Mills, "Sleep patterns and symptoms of depression in college students," *College Student Journal*, vol. 43, no. 2, pp. 464-472, 2009.
- [22] T. B. Adams, C. M. Wharton, L. Quilter and T. Hirsch, "The association between mental health and acute infectious illness among a national sample of 18-to 24-year-old college students," *Journal of American College Health*, vol. 56, no. 6, pp. 657-664, 2008.
- [23] R. Merrill, C. Read and A. LeCheminant, "The influence of religiosity on positive and negative outcomes associated with stress among college students," *Mental Health, Religion and Culture*, vol. 12, no. 5, pp. 501-511, 2009.
- [24] J. L. Burris, E. H. Brechting, J. Salsman and C. R. Carlson, "Factors associated with the psychological well-being and distress of university students," *Journal of American College Health*, vol. 57, no. 5, pp. 536-544, 2009.
- [25] J. W. Hayman, S. R. Kurpius, C. Befort, M. F. Nicpon, E. Hull-Blanks, S. Sollenberger and L. Huser, "Spirituality among college freshmen: Relationships to self-esteem, body image, and stress," *Counseling and Values*, vol. 52, no. 1, pp. 55-70, 2007.
- [26] K. L. Jansen, R. Motley and J. Hovey, "Anxiety, depression and students' religiosity," *Mental Health, Religion & Culture*, vol. 13, no. 3, pp. 267-271, 2010.
- [27] S. J. Garlow, J. Rosenberg, J. D. Moore, A. P. Haas, B. Koestner, H. Hendin and C. B. Nemeroff, "Depression, desperation, and suicidal ideation in college students: Results from the American foundation for suicide Prevention college screening project at Emory university," *Depression and Anxiety*, vol. 25, no. 6, pp. 482-488, 2008.
- [28] N. Uğurlu and N. Ona, "Relationship between the stress-coping levels of university students and their probability of committing suicide," *Social Behavior and Personality: An International Journal*, vol. 37, no. 9, pp. 1221-1230, 2009.
- [29] E. Engin, A. Gurkan, S. Dulgerler and L. B. Arabaci, "University students' suicidal thoughts and influencing factors," *Journal of Psychiatric and Mental Health Nursing*, vol. 16, no. 4, pp. 343-354, 2009.
- [30] M. E. Pritchard and G. S. Wilson, "Do coping styles change during the first semester of college?" *The Journal of Social Psychology*, vol. 146, no. 1, pp. 125-127, 2006.

- [31] R. Dyson and K. Renk, "Freshmen adaptation to university life: Depressive symptoms, stress, and coping," *Journal of Clinical Psychology*, vol. 62, no. 10, pp. 1231-1244, 2006.
- [32] L. J. Crockett, M. I. Iturbide, R. A. Torres Stone, M. McGinley, M. Raffaelli and G. Carlo, "Acculturative stress, social support, and coping: relations to psychological adjustment among Mexican American college students," *Cultural Diversity and Ethnic Minority Psychology*, vol. 13, no. 4, pp. 347-355, 2007.
- [33] J. K. Giancola, M. J. Grawitch and D. Borchert, "Dealing with the stress of college a model for adult students," *Adult Education Quarterly*, vol. 59, no. 3, pp. 246-263, 2009.
- [34] M. Sasaki and K. Yamasaki, "Stress coping and the adjustment process among university freshmen," *Counselling Psychology Quarterly*, vol. 20, no. 1, pp. 51-67, 2007.
- [35] C. Arslan, B. Dilmaç and E. Hamarta, "Coping with stress and trait anxiety in terms of locus of control: A study with Turkish university students," *Social behavior and personality: An International Journal*, vol. 37, no. 6, pp. 791-800, 2009.
- [36] K. M. Kieffer, C. Cronin and D. L. Gawet, "Test and study worry and emotionality in the prediction of college students' reasons for drinking: An exploratory investigation," *Journal of Alcohol and Drug Education*, vol. 50, no. 1, pp. 57-81, 2006.
- [37] B. Rosenthal and W. C. Wilson, "Mental health services: Use and disparity among diverse college students," *Journal of American College Health*, vol. 57, no. 1, pp. 61-68, 2008.
- [38] D. J. Taub and H. L. Servaty-Seib, "Training resident assistants to make effective referrals to counseling," *The Journal of College and University Student Housing*, vol. 37, no. 2, pp. 11-25, 2011.
- [39] P. Ratanasiripong, K. Sverduk, D. Hayashino and J. Prince, "Setting up the next generation biofeedback program for stress and anxiety management for college students: A simple and cost-effective approach," *College Student Journal*, vol. 44, no. 1, pp. 97-100, 2010.
- [40] K. C. Cukrowicz, P. N. Smith, H. C. Hohmeister and T. E. Joiner, "The moderation of an early intervention program for anxiety and depression by specific psychological symptoms," *Journal of Clinical Psychology*, vol. 65, no. 4, pp. 337-351, 2009.
- [41] A. Koutra, A. Katsiadrami and G. Diakogiannis, "The effect of group psychological counselling in Greek university students' anxiety, depression, and self-esteem," *European Journal of Psychotherapy and Counselling*, vol. 12, no. 2, pp. 101-111, 2010.

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