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THE MODERATING ROLE OF SELF-EFFICACY IN THE RELATIONSHIP BETWEEN ACADEMIC BURNOUT AND DEPRESSIVE SYMPTOMS AMONG UNDERGRADUATES OF HEALTH SCIENCES IN ENUGU STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

BENEDICT CHIDI UGWUANYI
Enugu State University of Science and Technology, Nigeria
ototo4u@ya9hoo.com

ZBIGNIEW FORMELLA
Università Pontificia Salesiana, Roma, Italia
formella@unisal.it

&
RUPHINA CHIOMA ENEBECHUKWU
Enugu State University of Science and Technology, Nigeria
chiomaruphina2@gmail.com

Abstract

This study investigated the moderating role of self-efficacy in the relationship between academic burnout and depressive symptoms among Basic Health Sciences undergraduates of Enugu State university of Science and Technology. A total number of one hundred and eighty-nine (189) participants, from Enugu state University Science and Technology, (ESUT), Department of Nursing Sciences and Pharmaceutical Sciences were used for this study. Multi-stage (purposive & random sampling by hand picking) sampling technique was used for the selection of the participant from the target population. The participants were of age range of 18-32 years, with a mean age of 21.17 and a Standard deviation of 2.64. Three questionnaires were used in this study which are; Self-rating depression scale, Maslach`s burnout inventory-student survey and General Self-Efficacy scale. Cross-sectional survey design was used for this study, while regression analysis using Hayes Process Macro statistical tool was used for the analysis. However, the findings showed a significant negative relationship between self-efficacy and depressive symptoms; r=-.33; p<.01. The findings were discussed in relation to the literature reviewed and recommendations were made.

Keywords: Moderating Role, Self-Efficacy, Academic Burnout, Depression, ESUT Undergraduates.

INTRODUCTION

Burnout is a common phenomenon in all professions and the worst part of it is that even undergraduates are equally complaining of academic burnout. At this point, we need to understand the meaning of burnout before talking of academic burnout. Burnout is a state of physical, emotional and mental exhaustion. Having burnout is a deeper, more overwhelming state than stress. Burnout is when there are too many demands and these are constant. A person with burnout is empty and they have an inability to feel sympathy and empathy for others, losing sensitivity to personal emotions (Adams &Sheard, 2017). Again, burnout is a

term that has gained substantial recognition in recent years, is not simply about feeling overworked or stressed. Rather, it is a complex, multifaceted state of physical, emotional and mental exhaustion, triggered by prolonged stress and unmet expectations. It is a state that creeps in slowly, not always discernible in its early stages, but whose impact is profound, affecting our health, relationships, productivity, and overall quality of life (Riley, 2023).

The academic burnout syndrome can be understood as the state in which a person is when subjected to long periods of work and stress, particularly caused by the questionable working conditions that he faces in the environment of the university institution in which he is inserted. These conditions can materialize in the lack of resources, in the high competitiveness among colleagues and in so many other factors that negatively influence the performance of any activities carried out in this area (Salgado et al., 2021).

Academic burnout is highly important in students of health sciences, since medical education is inherently more challenging and causes various stresses in the students. For example, nursing students are no exception to this rule and some of them experience burnout in the course of their education. Academic burnout is distinctly important for students of health sciences as future health workers, since many freshly-graduated health workers end up experiencing burnout and job dissatisfaction in the clinical settings in which they work due to their previous experience of stress and burnout during their school years, and this phenomenon ultimately results in a reduced quality of health services, leaving the health worker profession and eventually the shortage of health workers (Farahani et al., 2016).

Burnout syndrome was initially widely known among young people in their careers and was related to job satisfaction. Currently, this concept expanded into another field, not only for professional workers but also in academic life. In terms of academic activities, students are prone to academic burnout. The characteristic of academic burnout is a negative attitude towards education. It is affected by anxiety, which reduces energy and attention that can be used for cognitive tasks (Pamungkas & Nurlaili, 2021). Academic burnout is a condition where students feel tired due to academic demands, reduced interest in lectures, feel pessimistic, and have feelings of inadequacy and incompetence as students. Academic burnout can occur due to activities that are carried out the same every day, where such conditions are not only experienced by high school students but are starting to spread among university students (Schaufeli et al., 2002).

The high expectations, rigorous coursework, and competitive environment in higher education can lead to academic stress, anxiety and depression. Students often feel pressured to excel academically, which can negatively impact their mental health leading to depression (Alota, 2023). Depression encompasses a wide spectrum of emotional lows, ranging from simple sadness toa severe, life-threatening state of suicidal thoughts. It is a prevalent mental health issue that often arises in our stress-filled daily lives. Normally, feelings of sadness or unhappiness should subside and return to emotional stability within a reasonable timeframe. However, there are instances when this prolonged state of sadness surpasses the triggering factor in significance and duration. The individual remains persistently sad and withdraws from personal, social, and occupational activities. In such cases, a diagnosis of depression should be considered (Mallik et al., 2023).

Depression is a state of low mood and aversion to activity that can affect student's thoughts, behaviors, feelings and sense of well-being. Depressed students may feel sad, anxious, empty, hopeless, worried, helpless, worthless, guilty, irritable, hurt or restless. They may loss interest in activities that once were pleasurable, experience loss of appetite or over eating, have problems of concentrating remembering details, or making decision and may contemplate or attempt suicide. Insomnia, excessive sleeping, fatigue, loss of energy or aches, pains or digestive problems that are resistance to treatment may also present (Birhanu & Hassein, 2016).

Self-efficacy has a moderating role in the relationship between academic burnout and depressive symptoms. Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behavior, and social environment. Self-efficacy is the extent or strength of one's own strengths and abilities to perform a task and to achieve some goal. Self-efficacy refers to how confident an individual feels about handling particular tasks, challenges, and contexts (Sharma, 2022). Self-efficacy that students have will help do the tasks well. Students who have good self-efficacy tend to be proactive, competitive and creative, so that it can have an impact on improving learning outcomes. Self-efficacy has a positive influence on the students. Self-efficacy makes it easier for students to make decisions and make choices, with students' self-confidence increasing (Laurencelle & Scanlan, 2018).

Purpose of the Study

Self-efficacy is generally clear as the belief in one's abilities to reach a goal or an outcome. Students with a strong common sense of efficacy are more likely to challenge themselves with hard tasks and be intrinsically motivated. Self-efficacious students also improve quickly from setbacks, and in the end are likely to achieve their personal goals. Students with little self-efficacy, on the other hand, believe they cannot be effective and thus are less likely to create a concerted, total effort and may believe challenging tasks as threats that are to be avoid. Thus, students with poor self-efficacy have small ambition which may result in unsatisfactory academic performances becoming part of a self-fulfilling feedback cycle. (Kulviwat et al. 2014).

The study aims to study the moderating role of self-efficacy in the relationship between academic burnout and depressive symptoms among undergraduates of health in Enugu State university of science and technology. Self-efficacy beliefs provide the foundation for human motivation, well-being and personal accomplishment. This is because unless people believe that their actions can produce the outcomes they deserve, they have little incentive to act or to persevere in the face of difficulties. Self-efficacy beliefs touch virtually, every aspect of people's lives- whether they think productively, self-debilitating, pessimistically or optimistically, how well they motivate themselves, their vulnerability to stress and depression and the life choices they make (Sharma & Nasa, 2014).

Literature Review

Numerous studies have shown interests in our variables of study but we will like to limit ourselves to three theories namely self-efficacy theory, Job Demands–Resources model and Social cognitive theory.

Self-efficacy theory by Albert Bandura refers to an individual's belief in his or her capacity to execute behaviours necessary to produce specific performance attainments. Self-efficacy reflects confidence in the ability to exert control over one's own motivation, behaviour, and social environment ((Bandura, 1977). People's belief in self-efficacy has diverse effects. Such beliefs influence the course of action people choose to pursue, how much effort they put forth in given endeavours, how long they will preserve in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress, burnout and depression they experience in coping with environmental demands, and the level of accomplishments they realised (Bandura, 1997).

The Job Demands–Resources model is that every occupation has its own specific risk factors associated with job-related stress. These factors can be classified in two general categories (i.e. job demands and job resources), thus constituting an overarching model that may be applied to various occupational settings, irrespective of the particular demands and resources involved. Job demands refer to those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs. Examples include high work pressure, an unfavourable physical environment and irregular working hours (Demerouti & Bakker, 2011). Job resources refer to those physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals; reduce job demands and the associated physiological and psychological costs; or stimulate personal growth and development. Resources may be located at the level of the organization (e.g., salary, career opportunities, job security) (Bakker et al., 2004).

Social cognitive theory is a psychologist's point of view that emphasizes behaviour, environment, and cognition as important elements of development. Social cognitive theorists believe that by observing the behaviour of others, people acquire a wide range of such behaviours, thoughts, and emotions. Social cognitive theory describes how people obtain and sustain specific behavioural patterns, while at the same time as long as the basis for involvement approaches. The assessment of behavioural changes depends on the environment, people, and behavioural factors. This theory suggests that *people exhibiting depressive symptoms often inflict adverse interpersonal behaviours* (Govindaraju, 2021).

Hypotheses

The following hypotheses were tested in this study:

1. Self-efficacy will have a relationship with academic burnout.
2. Academic burnout will have a relationship with depressive symptoms.
3. Self-efficacy will moderate the relationship between academic burnout and depressive symptoms.

Participants

A total of one hundred and ninety (189) participants comprising of one hundred and sixty-two (161) females and twenty-eight (28) males were drawn from health sciences undergraduate of Enugu State University of Science and Technology (ESUT). The participants were selected through convenience sampling technique. Participant`s ages ranges from 18-32 years, with a mean age of 21.17 and a S.D of 2.64. Demographic variables such as age, gender, level and departments were explored.

Instruments

Three instruments were used to gather information in this study. They include; Self-rating depression scale, Maslach`s burnout inventory-student survey and General self-efficacy scale.

Procedure

The researchers proceeded to the faculty of nursing sciences and pharmaceutical health sciences to distribute the questionnaire to the students of 200 level to 500 level. Through the help of some lecturers in the faculty the researchers were able to administer and retrieve the copies of questionnaire. Participants were selected with the use of simple random sampling technique from population of nursing sciences and pharmaceutical health sciences. The administration of the questionnaires took the form of individual testing in their various classrooms. Participants who accepted to be a part of the study were advised to take their time in filling out copies of the questionnaire since any improper filling invalidates the instrument. They were also informed that participation is voluntary and are free to withdraw in case the need arises. Thus, 205 out of 220 copies of the questionnaires distributed were collected, 189 that were correctly filled, were scored and analysed and the remaining 16 copies of each questionnaire were discarded due to incomplete filling of the items in the questionnaire, within the period of 4 weeks.

Design and Statistics

Cross-sectional survey design was used for this study, while regression analysis using Hayes Process Macro statistical tool was used for the analysis.

Results

Table 1: TABLES OF MEAN, STANDARD DEVIATION, AND INTER-CORRELATION BETWEEN ACADEMIC BURNOUT, SELF-EFFICACY, AND DEPRESSIVE SYMPTOMS

	MEAN	S.D	1	2	3	4	5	6
1 Gender		**1.85**	**.36**	**1.00**	**-**	**-**	**-**	**-**	**-**
2 Age		**21.17**	**2.64**	**-.09**	**1.00**	**-**	**-**	**-**	
3 Level	**302.12**	**99.44**	**.07**	**-.02**	**1.00**		**-**	**-**	
4 Burnout		**52.91**	**11.00**	**.11**	**-.12**	**.11**	**1.00**	**-**	**-**
5 Self-efficacy		**31.82**	**5.14**	**.03**	**-.03**	**-.22****	**.17***	**1.00**	**-**
6 Depression		**42.75**	**7.49**	**.03**	**.05**	**.03**	**.12**	**-.33****	**1.00**

***Correlation is significant at the 0.01 level (2-tailed)*
**Correlation is significant at the 0.05 level (2-tailed)*

Table 1 revealed that none of the control variable (gender, age, and level) shows a significant relationship to depressive symptoms. This result shows that burnout has no significant relationship to participants' depression. Self-efficacy also was negatively related to depressive symptoms (r=-.33; p<.01).

TABLE 2: SELF-EFFICACY AS A MODERATOR OF THE LINK BETWEEN ACADEMIC BURNOUT AND DEPRESSIVE SYMPTOMS

MODEL	*B*	*SEB*	*t*	*p*	*95%CI*
BN	**-.13**	**.27**	**-.49**	**.63**	**[-.66, .40]**
GSE	**-.94**	**.44**	**-2.14**	**.03**	**[-1.81, -.07]**
BN × GSE	**.01**	**.01**	**.97**	**.33**	**[-.01, .02]**

Dependent Variable: Depressive symptoms

LINK BETWEEN ACADEMIC BURNOUT AND DEPRESSIVE SYMPTOMS

Linear regression analysis indicated that academic burnout has no significant predictive influence on depressive symptoms, although, as academic burnout increases, depressive symptoms also increases. This result is not in line with the first hypothesis (H1).

LINK BETWEEN SELF-EFFICACY AND DEPRESSIVE SYMPTOMS

Here, we analyzed the link between self-efficacy and depressive symptoms. The linear regression analysis shows that self-efficacy is a significant negative predictor of depressive symptoms, *B*=-.94, *t*=-2.14, *95%CI* [-1.81, -.07]. This explains the fact that as self-efficacy increases, depressive symptoms decrease. This result is in line with the second hypothesis (H2).

INTERACTION ANALYSIS BETWEEN BURNOUT SYMPTOMS, SELF-EFFICACY AND DEPRESSIVE SYMPTOMS

In this section, we explored the interaction effect between burnout symptoms and self-efficacy on depressive symptoms. The linear model shows that no interaction effect between burnout symptoms and self-efficacy on depressive symptoms exist. This result did not confirm the third hypothesis (H3).

Summary and findings of the study

The first hypotheses which stated that academic burnout will have a relationship with depressive symptoms among Health sciences undergraduates does not align with the findings of this research as academic burnout has no significant predictive influence on depressive symptoms.

The second hypotheses stated that self-efficacy will have a relationship with depressive symptoms among Health sciences undergraduates was found to be in line with the result after being tested, which implied that self-efficacy is a significant negative predictor of depressive symptoms.

The third hypotheses that was tested stated that self-efficacy will moderate the relationship between academic burnout and depressive symptoms among Health sciences undergraduates is not in agreement with the findings as there is no interaction effect between burnout symptoms and self-efficacy on depressive symptoms.

Implications of the Study

The findings of this have various important implications for practical, theoretical and empirical research.

Theoretically, this study enhanced our understanding of self-efficacy theory which hypothesized that self-efficacy affects choice of activities, effort, persistence, and achievement. Compared with persons who doubt their capabilities, those with high self-efficacy for accomplishing a task participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level (Bandura, 1977). Self-efficacy can be experienced by one on attaining the success in any assigned task or project on a large scale. When one believes in self-efficacy in performing any kind of activity, one feels self-motivated (Hooda & Saini, 2019). Hence, undergraduates with high self-efficacy are less likely to believe in their ability to manage and effect change in challenges and are more likely to view difficult tasks as challenges to be mastered rather than threats to be avoided.

Empirically, this study is in accordance with the investigations of some researchers who investigated the relationship among anxiety, depression, social and self-efficacy in night-shift nurses (Liao, 2023). This study did not fully enhance our understanding of the moderating role of self-efficacy in the relationship between academic burnout and depressive symptoms, but it helped enrich our knowledge in the relationship between self-efficacy and depressive symptoms.

Practically, this study indicates that academic burnout does not have a significant relationship with depressive symptoms among health sciences undergraduate. However, the findings showed a negative significant relationship between self-efficacy and depressive symptoms, suggesting that lower levels of depression are associated with higher levels of self-efficacy. This suggests that interventions aimed at improving students' self-efficacy could be effective in reducing depressive symptoms.

Limitations of the study

Some obstacles were encountered during the course of this study which include the unwillingness of the target population in participation of this research especially towards the depression questionnaire which had some sensitive items such as I still enjoy sex, the use of cross-sectional survey design which does not give room for establishment of causal relationships between variables. Though the personal speculations of the participants were of interest, survey might not capture the full complexity of this study as participants can be subject to social desirability bias, response bias and inaccuracies due to participants' misinterpretation of questions.

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subject to social desirability bias, response bias and inaccuracies due to participants' misinterpretation of questions.

Suggestions for Further Studies

Based on the result and limitations of this study, the researcher hereby encourages future researchers in this area to use a large sample size in other to increase the statistical power of the study.

Summary and Conclusion

This study examined the moderating role of self-efficacy in the relationship between academic burnout and depressive symptoms among one hundred and eighty-nine (189) Health Sciences undergraduates in which cross-sectional survey design was used. The results of this study revealed that there is a significant negative relationship between self-efficacy and depressive symptoms. Thus, the Faculty of the Basic Health Sciences and the university mental health services as a whole should consider incorporating self-efficacy-building strategies, such as skills training and positive reinforcement, into their programs to help reduce the emergence of depressive symptoms among undergraduates.

References

Adams, J., & Sheard, A. (2017). *Positive social work; The essential toolkit for Nqsws.* Critical Publishing Ltd: Cornwall.

Alota, P. (2023). *Mental Health Crisis in Higher Education.* IgI Global Publisher: Pennsylvania.

Bakker, A., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management,* 43(1), 83-104.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioural change. *Psychological Review*, 84(2), 191-215.

Bandura, A. (1977a). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.

Bandura, A. (1997). *Self-Efficacy: The exercise of control.* W. H. Freeman: New York.

Birhanu, A., & Hassein, K. (2016). Prevalence and Factors Associated to Depression Among Ambo University Students, Ambo, West Ethiopia. *Journal of Health, Medicine and Nursing,* 25, 26-34.

Demerouti, E., & Bakker, A. B. (2011). The Job Demands-Resources model: challenges for future research. *SA Journal of Industrial Psychology,* 37(2), 1-9.

Farahani, H., Inanlou, F., & Kasirlou, L. (2016). Academic Burnout: A Descriptive-Analytical Study of Dimensions and Contributing Factors in Nursing Students. *Austin Journal of Nursing & Health Care,* 3(2),1-5.

Govindaraju, V. (2021). A review of social cognitive theory from the perspective of Interpersonal communication. *Multicultural Education,* 7(12), 488-492.

Hooda, M., & Saini, A. (2019). Self-efficacy: An overview. *Bhartiyam international journal of education* and *research*, 8(2) 2277-1255.

Kulviwat, S., Bruner, G., II, & Neelankavil, J. (2014). Self-efficacy as an antecedent of cognition and affect in technology acceptance. *Journal of Consumer Marketing,* 31, 190–99.

Laurencelle, F., & Scanlan, J. (2018). Graduate Students' Experiences: Developing Self-efficacy. *International Journal of Nursing Education Scholarship*, 15(1), 1-10.

Liao, H., Zou, H., Pang, J., & Liu, H. (2023). Relationship among anxiety, depression, social and

Mallik, S., Rathore, N., & Jagawat, T. (2023). Depression among college going students: An evaluation study. *The Seybold Report,* 18(8), 420-430.

Pamungkas, H., & Nurlaili, E. (2021). Academic Burnout Among University Students During COVID-19 Outbreak. *Advances in Social Science, Education and Humanities Research,* 618, 1116-1169.

Riley, J. (2023). *The boundaries bible. A guide to setting healthy boundaries with work.* J.R. cook Publishing: Colorado.

Salgado, S., & Oliveira, Y., Au, M. (2021). Student Burnout: A Case Study about a Portuguese Public University. *Education Access,* 11(31), 1-35.

Schaufeli, W., Martinez, I., Pinto, A. M., Salanova, M., & Backer, A. (2002). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology,* 33, 464–481. self-efficacy in night-shift nurses. *Signa Vitae*, 19(1), 117-122.

Sharma, A. (2022). Self-efficacy and academic performance in English secondary school students. *Journal of Emerging Technologies and Innovative Research*, 9 (12), 188-191.

Sharma, H., & Nasa, G. (2014). Academic Self Efficacy: A reliable Predictor of Educational Performances. *British Journal of Education,* 2(3), 57-64.