



MODERATING EFFECT OF DEMOGRAPHIC VARIABLES ON COLLEGE STUDENTS' STRESS AND BURNOUT

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Abstract:

The primary objective was to investigate how demographic variables impact the relationship between student stress and burnout. The study used a non-experimental quantitative research methodology using a descriptive-correlational technique. Data was collected by conducting an online survey with 300 college students from five higher education institutions in Davao City. The participants were selected using a simple random sampling method. The data analysis included the use of statistical methods such as mean, Pearson r , hierarchical regression analysis, and modgraph. Based on the findings of the study, student stress and burnout were found to be on moderate levels. There is a strong and meaningful correlation between student stress and burnout. Among the five demographic factors, it was discovered that student status and living status had a partial moderating effect on the direct impact of student stress on burnout. Implications were thoroughly examined.

Keywords: education, student stress, student burnout, demographic variables, correlation, moderation, Philippines

1. Introduction

Contemporary college students reside in a demanding setting characterized by elevated levels of burnout due to rigorous academic requirements, limited social assistance, and challenges in adapting to new circumstances (Ryan 82; Hamaideh 74). College is a period when numerous young individuals are susceptible, and the psychological well-being of college students is becoming more significant. Empirical studies have shown that students experiencing academic burnout exhibit distinct characteristics such as a negative

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outlook on the learning environment, feeling overwhelmed by the workload, disinterest in their subjects, irregular class attendance, lack of participation in classroom activities, and a belief that academic efforts are pointless. These factors ultimately lead to subpar academic performance (Oyoo *et al.* 2).

Assisting students experiencing burnout yields numerous discernible advantages. Alleviating burnout results in a decrease in the occurrence of persons suffering from sadness and anxiety. Addressing burnout in individual students not only improves their well-being but also enables schools to cultivate students who are more proficient in their chosen profession (Yusof *et al.*). Addressing exhaustion early is essential to avoid the development of despair, anxiety, and sleeplessness, which are often reported by many medical students (Slack).

In Asian societies, academic achievement is considered the main pathway to upward social mobility and increased prospects for career advancement. Countries such as China, Taiwan, Singapore, Hong Kong, Japan, and Korea hold education in high regard. The East Asian nations exhibit a strong emphasis on academic achievement (Tan and Yates). As to a poll cited in The China Post by Wang and Heppner, Taiwanese teenagers identified rising academic demands and parental expectations as the primary sources of stress. 61.9% of the 2,133 questioned teenagers attended supplemental cram schools to improve their regular schooling, as shown by the survey findings. Additionally, a significant portion of the student population, specifically 35.9%, frequently experienced feelings of extreme fatigue and depletion after attending school. Furthermore, 21.9% of students perceived their education as a substantial weight or responsibility, while 19.4% believed that the stress they encountered was overwhelming and surpassed their physical and mental capacity. Based on the data, a significant portion of Taiwanese teens are experiencing academic burnout.

Teens and young adults often struggle with mental health concerns including stress and fatigue. Both are associated with numerous detrimental effects on the cognitive abilities of adolescents. However, to date, only a limited number of studies have examined the simultaneous relationship between these two phenomena, taking into account demographic variables as a moderating factor. Considering that adolescents dedicate a significant portion of their lives to the school environment, they frequently assess their self-worth according to their academic achievements. The aforementioned pressures to excel are likely to result in student burnout. Likewise, education transitioned to an online mode and distance learning. However, there is a lack of studies investigating the stress and burnout that are linked to the new normal of heightened telecommunication. This study aims to fill a gap in the research by investigating the causes of academic stress and burnout among Philippine college students.

2. Literature Review

2.1 Student Stress

Stress is the result of emotional or physical strain. Many different experiences in a person's life can cause them to feel upset, irritated, and anxious, which can ultimately

result in the onset of stress. Stress is the innate reaction of the body to a challenge or demand. Sometimes, stress may have a beneficial impact, but prolonged exposure can result in severe health issues. Stress levels may fluctuate based on an individual's reaction to a certain scenario. Certain individuals exhibit a lack of concern and do not experience anxiety; they view stress as a minor setback and continue with their daily lives. Stress is a detrimental and multifaceted process, encompassing behavioral and physiological responses, that occurs when an individual attempts to cope with or adjust to stressors (Srinivasa and Vijayashree). Stressors refer to the conditions that disturb or pose a threat to individuals' daily functioning, leading them to make necessary adaptations (Porwal and Kumar).

Students in secondary and postsecondary education settings encounter several persistent stresses, such as continuous academic obligations. Many students in secondary and tertiary education often express feelings of ongoing stress due to their academic pursuits. This stress, often experienced during academic pursuits, encompasses the pressure to achieve excellent grades and concerns about receiving lower grades. An example of this is the recent study carried out by the Organisation for Economic Co-operation and Development (OECD), which included 72 nations and surveyed 540,000 students aged 15–16 years (Pascoe *et al.*). Across OECD countries, the average percentage of students who feel stressed about receiving low grades is 66%, while 59% of students frequently express concerns about the difficulty of tests. According to the OECD, a substantial number of students, around 55%, face considerable anxiety when it comes to school testing, even if they have prepared thoroughly. A considerable number of students, around 37%, reported feeling significant levels of stress during their studies. Interestingly, girls consistently expressed greater levels of anxiety when it came to their schoolwork in comparison to boys. This data clearly demonstrates the significant amount of stress that education and academic performance can place on students. There is a significant gap in research when it comes to thoroughly examining the effects of continuous stress related to academics on students' achievements and overall well-being. This narrative review examines how academic-related stress affects students' academic achievement, psychological status, and general well-being (Pascoe *et al.*).

Personal stress is not just a reaction to something outside of us, but also a way for individuals to understand and handle the challenges and risks in their environment. Stressors refer to individual and external factors that give rise to stress. Stress is characterized by emotional disruptions or alterations triggered by stressors. The high occurrence of stress among students is widely acknowledged as a significant concern in higher education. The research clearly emphasizes the detrimental effects of stress on kids. Inadequate stress management may negatively affect students' mental and physical health and constitute a serious burden. The study conducted by Yusoff *et al.* revealed that the primary health concerns were anxiety, with a prevalence ranging from 41.1% to 56.7%, followed by depression, which ranged from 12% to 30%, and stress, which ranged from 11.9% to 19.9%. The learning environment at medical school is widely acknowledged as an exceptionally demanding setting. A study conducted by NI Business Info reveals that individuals experience stress that is not work-related, but rather stems

from external factors in their personal lives, such as relationship challenges, severe family illnesses, caregiving responsibilities for children or elderly relatives, bereavement, relocation, and financial difficulties. During times of stress, your body initiates a physiological reaction. Upon stimulation, your nervous system promptly activates, releasing hormones that prime you for either combat or escape. The phenomenon is referred to as the "fight or flight" response. In times of stress, you may observe an acceleration in your heart rate, an increase in your respiration rate, muscle tension, and perspiration. This type of stress is characterized as transient and ephemeral (acute stress), and typically, your body promptly recuperates from it (Watson, sec. Effects of Stress on Your Health).

Stress is a necessary component for acquiring knowledge and skills in educational instruction. Nevertheless, similar stressors may be interpreted distinctively by various students based on their unique attributes, cultural origins, coping mechanisms, and past encounters. Recent research has identified that medical students experience stress from various sources, including academic demands, personal and interpersonal factors, teaching, and learning activities, along with social motivation and aspirations (Mishra 18281). On the other hand, past studies have shown that female students in medical education may face challenges such as academic-related issues like as abuse, sexual harassment, burnout, stress, depression, anxiety, and concerns about their medical competence. Furthermore, it is worth noting that female students often express greater concern about their academic performance compared to their male peers (Alalwani, Juhani, SM 3203). Conversely, research has demonstrated that female students tend to undergo elevated levels of stress as a result of their inclination to exert greater effort in their academic pursuits to meet their expectations (Verdonk *et al.*). Female medical students often face a range of stressors during their studies, including social pressures, challenges in teaching and learning, difficulties in interpersonal relationships, and the demands of group activities. Earlier research has also validated the relationship between elevated stress levels and reduced scholastic achievement in female medical students (Habeeb, 110).

Interpersonal stress refers to a distressing incident involving two or more individuals characterized by conflicts, disputes, pessimistic outlooks or conduct, a tense ambiance during communication or engagement, and apprehension about causing emotional harm to others (Kato, "Relationship Between Coping With Interpersonal Stressors and Depressive Symptoms in the United States, Australia, and China: A Focus on Reassessing Coping," sec. 10). Based on the transactional theory, the researcher suggested three distinct coping strategies to manage interpersonal stressors. Research on the management of interpersonal stressors among college students and workers has identified three Exploring different coping strategies: reevaluating coping mechanisms, creating emotional distance, and adopting constructive approaches. Nevertheless, according to Liew *et al.*'s (15) study, the methods of dealing with stress used by individuals and their impact on psychological distress vary depending on the type of stressors. Previous research has typically assessed and classified coping strategies for interpersonal stressors can be achieved by utilizing a widely applicable coping scale, like

the Ways of Coping Questionnaire (WCQ). In addition to that, COVID-19 presents a significant challenge for interpersonal relationships within societies. The implementation of lockdown measures has presented alternative storylines, prompting worries about domestic violence while also indicating enhanced societal unity. Goodwin *et al.* (sec. 6) conducted a preliminary study and discovered that, despite the outbreak, relationships in general did not show improvement. However, they observed that psychological stress and being in quarantine had varied effects, depending on the type of relationship. Elevated levels of stress were found to be linked to a deterioration in intimate partnerships. Nevertheless, in the context of relationships beyond the partnership, the experience of psychological stress and being in quarantine yielded a beneficial effect. Younger participants exhibited a higher tendency to indicate an improvement in their relationships with friends, the local community, and the Chinese population on a global scale. Additionally, individuals in good overall health demonstrated enhanced friendships and connections with the local and international Chinese community.

People with comorbid conditions often undergo heightened sensitivity to interpersonal stress, leading to a potential reemergence of symptoms and exacerbation of substance abuse. Consequently, the inclusion of a relaxed therapy setting is a prevalent characteristic in comprehensive treatment programs designed for individuals with dual diagnosis. The low-stress treatment approach aims to reduce instances of intense interpersonal conflicts and direct confrontations, which have traditionally been prevalent in substance abuse treatment methods. Establishing a therapeutic setting that minimizes stress does not mean that individuals are completely protected from the harmful consequences of their own actions (Waysfeld and Cassuto, sec. Treatment for Co-occurring Substance Abuse and Mental Health Disorders). Presently, individuals who are experiencing depression exhibit a higher level of responsiveness (specifically, greater increases in negative emotions) when faced with daily perceived stress, compared to individuals who were previously depressed and those who have never experienced depression. In addition, it was observed that individuals who were not previously depressed and those who had never been depressed showed similar levels of reactivity to both interpersonal and non-interpersonal stress. However, individuals who were currently depressed were found to be particularly responsive to negative events that occur in interpersonal relationships (Sheets and Armev, 784). Additional individual-specific factors encompass issues related to financial management, alterations in the living environment, challenges in balancing personal and academic responsibilities, and others (Biron *et al.*, 17; Chernomas and Shapiro 265; Goff; Jimenez *et al.* 452; Moscaritolo 22).

Academic stress can take a toll on students, both physically and mentally (Wilks 108). Studies specify that a substantial part of students experience different academic stress levels during their educational path (Alsulami *et al.* 161). Undoubtedly, the prevalence of Academic Stress has escalated in recent years due to the multitude of examinations, assignments, and other demanding activities that students must navigate. Aside from the design, students also face considerable pressure from teachers and parents to excel academically. These demands force students to work relentlessly, leading

to heightened stress levels. When it comes to academics, students are often expected by both parents and educational institutions to engage in extracurricular activities. The current expectation is for students to excel in various areas. The absence of adequate counseling channels exacerbates confusion, leaving students unable to make informed career choices despite their diligent study habits. The high expectations imposed by parents and teachers often leave students perplexed and contribute to the accumulation of stress. Academic problems were the primary cause of stress for the majority of students, with physical, social, and emotional aspects being the next most significant sources of stress. The majority of students experiencing stress exhibited elevated levels of low self-esteem, while approximately half displayed high scores on depression scales. Research findings indicate a correlation between elevated levels of stress and subpar academic achievement (Bedewy and Gabriel 205510291559671; Sohail 70).

Furthermore, pupils' stress levels can be significantly increased when they transition from living with their parents to attending university for the first time. Research has shown that first-year college students commonly exhibit psychological symptoms, including stress (Abdulghani *et al.*, "Stress and Its Effects on Medical Students: A Cross-sectional Study at a College of Medicine in Saudi Arabia," pt. 5). An additional stressor is the fiercely competitive scholarly environment prevalent during the preparatory years. A study examining the negative aspects of competition proposes that heightened competitive behavior or individuals perceiving themselves as excessively inferior may heighten susceptibility to depression, anxiety, and stress. Feld and Shusterman (38) conducted a study examining the impact of stress on college preparatory school students under high pressure. They found a significant prevalence of detrimental physical and psychological effects associated with stress, as well as unhealthy behaviors, including chronic and widespread sleep deprivation. The research conducted by Chellamuthu and Subramanian (1994) established a correlation between academic stress and pupils' emotional well-being. They affirmed the relationship between stress from school and psychological wellness, as well as the fact that students are burdened by the academic structure. Parents and schools exert excessive pressure on students for higher grades, which demoralizes them. Additionally, there is insufficient parental and educational assistance in terms of guidance. The pupils exhibit optimal mental well-being when they engage in productive and constructive participation within academic forums. Furthermore, they asserted that students enrolled in private schools face elevated amounts of pressure in comparison to students in public schools, mostly because of the overwhelming volume of homework and other academic tasks. A notable disparity in the psychological health of students attending private and public educational institutions was observed. He claimed that students attending private schools receive distinct nurturing and extensive exposure, in contrast to government school students who come from underprivileged living conditions and restricted interaction. This factor leads to an increase in stress levels.

Environmental stress refers to the psychological, intellectual, and emotional reactions to an outside environmental factor or stressor. A significant portion of the research on environmental stress concentrates on investigating the impact of various

environmental stimuli on psychological outcomes (Martinez *et al.* 54). The noise existence or undesired sound has been demonstrated to have a diverse array of adverse physiological and mental consequences. The impact of noise and its consequences are influenced by context, acoustic properties, personal anticipation, and noise sensitivity, which is a significant personality trait in evaluating noise impacts. The writers carried out five investigations. to develop and confirm a shorter version of the widely used 21-item Noise Sensitivity Scale. This was done to address the issue of the original measure being impractical to use in time-critical field environments (Benfield *et al.*, 366).

Human-environment interactions manifest in diverse forms, leading to a multitude of outcomes. Due to the human species' capacity for survival, these transactions generally yield favorable results. Nevertheless, achieving successful adaptation to environmental challenges and demands comes at a price. Unfavorable environmental conditions can place demands on individuals that surpass their capabilities. The term used to describe the disparity between environmental demands and human response capabilities is known as stress (Steg and Groot, 54). Conversely, Dimitrov's research (28) argues that focusing kids' well-being might reduce stress. Nutrition, physical activity, work, and leisure are key areas of focus. Furthermore, he deduced that the school system primarily focuses on educational qualifications and fails to sufficiently foster the overall growth and well-being of students. Students are typically conditioned to prioritize academic achievement over the development of a proactive mindset, which often leads to fear and reluctance to face future challenges. There is a limited range of options for the medium of education. However, there are multiple ways to alleviate anxiety. Engaging in a regular exercise routine can effectively alleviate stress. One can also explore different time tools for managing and engaging in recreational pursuits that can be beneficial for students. Additionally, it was proposed that colleges should create a supportive environment to alleviate stress. Implementing a different approach to how teachers deliver their lessons and offering mentors can breathe new life into the teaching style (Kumar *et al.*, 372); (Jayasankara Reddy *et al.*, 536).

2.2 Student Burnout

Burnout can be described as a syndrome that involves feeling emotionally drained, developing negative and cynical attitudes toward others, and experiencing a decrease in personal fulfillment and self-evaluation, particularly in relation to one's work (Chigerwe *et al.*). Extensive research from around the world has shown that high school students often struggle with the pressure to succeed academically (Dupéré *et al.* 622; Prabhu 66). Struggling with academic challenges and juggling multiple school commitments can quickly lead to burnout among adolescents. The idea of burnout was initially developed to explain responses to stress in the workplace and has since been examined in various professional domains. Implementing the concept in educational environments implies that, similar to work, school demands individuals to navigate through various pressures related to achievement. Therefore, school burnout can be described as a reaction to stress caused by school, which becomes long-lasting when students consistently feel a gap between their own abilities and their desired level of achievement (Parker and Salmela-

Aro 246; Salmela-Aro *et al.* 346). Specifically, burnout levels are influenced by an accumulative procedure that can be affected by personal and external support resources.

Emotional exhaustion is evaluated as the experience of feeling emotionally drained and overwhelmed by academic tasks (Chigerwe *et al.*). Emotional weariness, burnout, and stress are often addressed in the literature on work-related issues. Much research has investigated the prevalence and consequences of burnout among healthcare professionals and students in disciplines such as nursing, medicine, and dentistry (Worly *et al.* 434); (Deary *et al.* 76); (Lyndon *et al.* 109). Experiencing burnout can have a significant impact on both personal and social functioning, leading to a decline in work quality and negative effects on psychological well-being. The psychological effects of burn-out among students can be severe, leading to feelings of depression, a decrease in quality of life, academic struggles, giving up on educational and career goals, and even thoughts of suicide (Deeb *et al.*; Lyndon *et al.* 109).

Medical undergraduate training can be quite challenging and emotionally draining. Multiple research projects have indicated a significant incidence of mental health problems among medical students throughout their training and academic journey (Erschens *et al.* 175; Rotenstein *et al.* 2214). Therefore, it is important to acknowledge that medical students often face significant psychosocial stressors throughout their academic and training journey, which can make them more susceptible to burnout syndrome (Carlotto 175). Burnout is a common experience among individuals who are engaged in work that involves interacting with others. The condition is marked by emotional weariness, cynicism, and a feeling of poor professional effectiveness. The term is valuable for considering individuals who engage in activities that resemble work in terms of mental and psychological aspects, such as students.

Research has indicated that the psychological well-being of medical students tends to decline as they enter school, persist throughout their training, and even after they graduate (Abdulghani *et al.*, "Stress and Its Effects on Medical Students: A Cross-Sectional Study at a College of Medicine in Saudi Arabia"). Medical school can be quite demanding, as students are constantly challenged to absorb and retain a vast amount of knowledge in a short duration (Fares *et al.* 177; Chigerwe *et al.*; Pagnin and Queiroz). Students also experience financial pressures, including the need to obtain scholarships and manage student loan debt, among other things. These factors can add to the already demanding workload. In addition, the lack of time for recreation and downtime, spending time with loved ones, preparing for the residency program, deciding on a field, and the delayed monthly earnings all contribute to increased stress among medical students. Over time, the academic years can take a toll on students' well-being, leading to stress, burnout, and sleep disorders like insomnia (Fares *et al.* 177; Pagnin and Queiroz; Chang *et al.* 177). All of these issues are closely linked and can have a significant impact on one's well-being, potentially resulting in various health complications like anxiety disorders, depression, substance abuse, suicidal thoughts, disengagement from education, lack of empathy, decreased motivation to learn, and poor academic performance. Studies have shown that medical pupils encounter a lower quality of life in

terms of mental well-being compared to peers in the general population of the same age (Chang *et al.* 177).

Depersonalization, which is a significant issue in the educational system, is characterized by a lack of interest and concern towards work and clients (Maslach and Leiter 107). In addition, depersonalization is often accompanied by feelings of cynicism, coldness, and distance. Some individuals struggle with balancing everyday life as a college student. The discomfort they experience in their life is due to the constraints of their environment. As a result, they may struggle to navigate the challenges of this advanced stage of life. They may experience a sense of hopelessness and surrender to the notion that their future is predetermined. When faced with a challenging situation, individuals may experience increased stress if they struggle to adapt. Gradually, burnout is silently taking hold. In general, burnout syndrome is described as a collection of mental manifestations that are associated with persistent work-related stress and personal characteristics (Almeida *et al.* 8). Depersonalization is characterized by a sense of detachment from one's surroundings, leading to a disconnection from others and a tendency to employ defensive mechanisms like cynicism, coldness, and sarcasm (Almeida *et al.* 8; Neziroglu *et al.* 54).

Burnout can be seen as a consequence of prolonged stress, resulting in a sense of detachment and disengagement from loved ones and mentors. In addition, the effects of burnout, particularly in terms of depersonalization, were predominantly negative. These included experiencing panic disorder and dealing with intense anxiety or depression (Neziroglu *et al.* 54). In addition, Maslach and Leiter (104) have provided further insights into the relationship between burnout and depression, highlighting a strong connection between these factors. Experiencing burnout can lead to various symptoms of depression, such as relying on antidepressant medications frequently. Burnout can significantly impact students' academic performance in a negative way. Research undertaken by the American College Health Association (ACHA) in the fall 2017, depression was found to be the fourth highest factor affecting undergraduate academic achievement. It ranked at 17.6%, following stress (33.5%), anxiety (26.2%), and sleep disorder (22.2%). Depersonalization can have a significant impact on an individual's performance, particularly in their academic pursuits. When students experience a sense of detachment, it can lead to burnout as they grapple with the overwhelming stress and anxiety that weighs heavily on them. On the other hand, as per the research carried out by Dyrbye *et al.* (274), If pupils faced depersonalization, poor personal successes, and emotional weariness, their performance would diminish. It can be quite difficult for a student to stay focused and feel a sensation of accomplishment when they are emotionally exhausted or when they are attempting to assist someone who appears uninterested. Looking at it from another perspective, depersonalization can pose challenges when it comes to remembering one's experiences, including their daily routines. It appears to be a chaotic mix of memories that can greatly affect a person's concentration, including students. When this happens, there is a chance that a student's academic performance could be affected negatively (Neziroglu *et al.* 54).

Personal accomplishment embodies the feeling of competence and accomplishment that students encounter in their academic pursuits. Individuals who assess their own performance in a negative light, especially when it comes to their interactions with clients, may encounter a decrease in personal fulfillment, which is a common sign of burnout (Maslach and Leiter 104). Furthermore, people who are facing a decline in personal accomplishment often feel unhappy and dissatisfied with their own abilities, professional skills, and overall effectiveness. Other characteristics include a decline in confidence and a reduced sense of ability. Furthermore, a lack of productivity or a decline in personal achievement is indicated by the employee's self-assessment in a negative manner, coupled with a strong feeling of ineffectiveness in their job and interactions with coworkers. However, several researchers have provided evidence that burnout is defined by sensations of extreme tiredness and skepticism or disengagement (Bakker *et al.* 102; Demerouti *et al.* 212; Peterson *et al.* 93). There are various elements that can impact students' academic performance. Some of these factors enhance academic performance while others have negative effects on academic progress. Academic burnout has emerged as a significant factor impacting students' academic performance in recent studies. In the field of academia, burnout is often defined as a condition characterized by three dimensions: emotional weariness, depersonalization, and decreasing personal achievement (Charkhabi, Azizi Abarghuei, and Hayati). Burnout among college students is characterized by exhaustion from academic demands, a negative attitude toward academic tasks, and a sense of incompetence as a student (Zhang *et al.* 1534). Research suggests that individuals suffering from academic burnout may exhibit symptoms such as a decreased interest in academic matters, difficulty in consistently attending classes, detachment from class activities, a sense of purposelessness in academic pursuits, and struggles in grasping academic concepts (Yang and Farn 927).

2.3 Demographic Variables

Demographic variables such as age, gender, educational level, migration history, ethnicity, religious beliefs, marriage status, family composition, work status, and income. Various index variables are created based on socio-demographic variables. For instance, one factor to consider is socio-economic status, which considers both schooling and livelihood. Socio-demographic details are commonly utilized to describe actual samples and calculate an error in sampling. The contributions focused on Socio-demographic variables provide a summary of survey tools or address the assessment of specific socio-demographic elements in individuals (Hoffmeyer-Zlotnik 11).

Statistics on demographics may provide insights into current, past, and future trends within communities. It is a potent instrument for monitoring changes over time and identifying the requirements or assets of a community to direct planning, policy development, or decision-making (Veroff 3).

Age is a fundamental demographic variable utilized in demographic data. It is commonly utilized in cross-categorization alongside additional factors like sex, marital status, occupation, and more. This method is commonly employed to distinguish between different groups based on the duration of time, typically measured in complete

years, from the moment of birth to a specific point in time, such as the specific date of a survey. Age may be measured in several temporal units depending on the population or issue being studied. Infants under one year are measured in days, weeks, and months, whereas those above one year are measured in years (Australian Bureau of Statistics 1).

Sex refers to a collection of biological characteristics in people and animals. It is mostly associated with physical and physiological traits such as chromosomes, gene expression, hormone levels, and reproductive/sexual anatomy. Sex is often categorized as either female or male, however, it encompasses a variety of biological traits and how they are expressed. (Government of Canada, Canadian Institutes of Health Research, Institutes, Institute of Gender and Health).

The Annual Household income refers to the total gross income earned by all individuals living in a household. Individuals of 15 years or older are eligible for inclusion, and there is no need for any familial connection to contribute to your household income. It is often used as a way to gauge the standard of living in a specific region or urban area.

Student status categorizes students based on their enrollment status, including full-time, part-time, and special programs. This is determined based on the credit hours earned. The most apparent distinction between part- and full-time student hours is the number of credit hours they enroll in per semester. Typically, a full-time course load consists of at least twelve credits or approximately four classes. Part-time typically consists of six to eleven credits or two to three classes. Thus, a student enrolled in a full course load dedicates a greater amount of time to attending classes throughout a semester compared to a student taking only a few courses. However, a special program student is a full-time student who is enrolled in a class that is scheduled on weekends, allowing them to work on weekdays (Andersen 1).

The living status refers to the individual's residential situation. Some possible examples could be living alone as a boarder, living with parents, or living with relatives, among others. In addition, this can assist in identifying the particular living conditions that are pertinent to an evaluation (Little 14).

Research has shown that students who go through academic burnout display certain traits that can hinder their academic success. These traits include having a negative view of the learning environment, feeling overwhelmed by their workload, lacking enthusiasm for their subjects, struggling to consistently attend classes, being disengaged in classroom activities, and feeling a sense of meaninglessness in their academic pursuits. One factor that can contribute to academic burnout is the overall quality of the learning experience. The quality of the learning experience is determined by how students perceive the direct and indirect inputs they receive from their college or university. Several studies and research have been conducted to diagnose the antecedents and consequences of academic burnout, focusing on both environmental and individual aspects, for prevention and intervention purposes.

2.4 Relationship of Student Stress, Student Burnout, and Demographic Variables

Research has demonstrated that stress may negatively affect the learning process. Academic burnout is a major issue linked to subpar academic achievements. Despite the growing focus on these two concerns, there is a scarcity of research exploring the connection between students' life stress and burnout. A study conducted by Lin and Huang found that female students and upper-year students experienced higher levels of life stress (88). In addition, the stress related to self-identity, interpersonal relationships, future development, and academics can collectively contribute to student academic burnout.

However, the research conducted by Jung *et al.* (71) delved into the interconnectedness of academic stress, academic burnout, and academic self-efficacy. Moreover, this study explored how self-efficacy in school acts as a mediator between the correlation between academic stress and academic burnout among adolescents from China. The findings indicated a strong correlation between academic stress and academic burnout. Meanwhile, there were negative correlations between academic stress and academic burnout with academic self-efficacy. The modeling suggests that academic self-efficacy plays a role in mediating the relationship between academic stress and academic burnout. Therefore, when academic self-efficacy was higher, there was a notable decrease in academic stress and academic burnout. In the field of education and curriculum, these findings can be applied to revamp or create a Chinese middle school curriculum using effective methods to help adolescents enhance their academic self-confidence.

3. Material and Methods

3.1 Research Design

This study used a non-experimental, quantitative research approach that employed a descriptive-correlation technique. The correlational method is a non-experimental approach that involves studying the connection between two or more variables in a natural situation without manipulation or control. Correlational studies analyze the degree of relationships between variables by observing how changes in one variable correspond with changes in another one (Creswell 54). A moderation model was used in this research. The moderation model tries to uncover and elucidate the underlying process that links student stress (independent variable) and student burnout (dependent variable). This is accomplished by incorporating a third variable, referred to as a moderator variable, which in this instance pertains to the demographic variables. Instead of proposing a direct cause-and-effect connection between the independent and dependent variables, a model involving a moderator variable suggests that the independent variable has an impact on the mediator variable, which then affects the dependent variable (Hayes 54).

3.2 Research Locale

The research was carried out in Davao City, which is renowned as the "Durian Capital of the Philippines". This city in the Philippines holds the title for being the biggest in terms

of geographical expansion and is a bustling urban center in Mindanao. It is in the province of Davao del Sur and is considered separate from it in terms of governance and administration, although it is categorized within the province by the Philippine Statistics Authority. The territory is divided into three congressional districts, each subdivided into 11 administrative districts, totaling 182 barangays.

With the start of the school year, the education sector had to adapt to the "new normal" of online classes due to the coronavirus (Covid-19). Unfortunately, students have faced physical and mental challenges with this new mode of learning from a distance. Students frequently feel overwhelmed when they are given additional schoolwork to complete. In addition, students also experienced a desire to demonstrate their academic success, but they acknowledge the challenges they face in fully comprehending all the material presented in these circumstances (Cagula 2).

3.3 Population and Sample

For this study, a total of 300 college students from five higher education institutions in Davao City were tapped as the respondents. The researcher thought that college students or those of legal age would be the most suitable participants to effectively convey their thoughts and meet the study's overall and particular research goals.

A simple random sampling technique was used to determine the overall population and select the participants. Simple random sampling is a method of sampling in which each member of a population has an equal chance of being chosen via a fair and impartial selection procedure. Each subject in the sample is given a numerical designation, and the sample is then chosen by a random selection process (Simkus 1).

Excluded from this study are individuals who are under the age of 18 and those with cognitive impairments, as they may not be suitable for testing the hypothesis or accurately answering the research questionnaire, potentially leading to incorrect interpretations. Similarly, it is important to avoid excluding any individual subject without valid justification or necessity. Furthermore, all participants have the choice to participate in the research willingly and may elect to quit at any point.

3.4 Research Instruments

The survey questionnaire for student stress was adapted from (Arip 11). The questionnaire in this research was revised and then subjected to validation. The instrument has three components. Part 1 dealt with demographic variables that emphasized these indicators: (1) age, (2) sex, (3) household income, and (4) living status. The second part of the questionnaire focused on students' stress and highlighted specific signs: (1) physical stress, (2) interpersonal relationship stress, (3) academic stress, and (4) environmental stress.

The scale for the perception of students' stress is as follows:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Student stress is always manifested.
3.40 – 4.19	High	Student stress is often manifested.
2.60 – 3.39	Moderate	Student stress is sometimes manifested.
1.80 – 2.59	Low	Student stress is seldom manifested.
1.00 – 1.79	Very Low	Student stress is never manifested.

The survey questionnaire for student burnout was adapted from (Chigerwe, Boudreaux, and Ilkiw 14). This questionnaire was modified to fit into the needs of this study. Part III of the questionnaire focused on students' fatigue and highlighted specific signs: (1) emotional exhaustion, (2) depersonalization, and (3) personal accomplishment. The Likert scales were used for both sets of surveys. The Likert scale is appropriate to use in this research because it includes five (5) bipolar scales to quantify the indicators. The 5-point Likert scale is interpreted as follows:

Range of Means	Descriptive Level	Interpretation
4.20 – 5.00	Very High	Student burnout is always manifested.
3.40 – 4.19	High	Student burnout is often manifested.
2.60 – 3.39	Moderate	Student burnout is sometimes manifested.
1.80 – 2.59	Low	Student burnout is seldom manifested.
1.00 – 1.79	Very Low	Student burnout is never manifested.

This instrument underwent assessment by a panel of examiners and then by a committee of specialists for item validation. The feedback from experts was carefully considered and integrated into the final version of the document. The questionnaire included in the research was validated and approved by specialists. The questionnaire was modified and tailored to suit the requirements of the participants.

3.5 Statistical Tools

The statistical methods used for analyzing and interpreting data included the application of a two-tailed test at a significance level of α 0.05.

- **Mean.** This was used to assess the extent of student stress, student burnout, and demographic factors.
- **Pearson r.** This study aimed to assess the impact of student stress, student burnout, and demographic variables on the relationship between them.
- **Regression analysis.** This was utilized to demonstrate the importance of the connection between student stress, student burnout, and demographic variables.

4. Results and Discussion

Table 1 presents the levels of stress experienced by students, focusing on personal, interpersonal, academic, and environmental factors. This is the primary focus of the study. As indicated, the average score for the level of students' stress is 3.06, with a computed standard deviation of 0.589, indicating a moderate level. It suggests that students often experience stress. Interestingly, the indicator that stands out the most is

academic stress, with a mean score of 3.70, which can be described as high. Next comes environmental stress (3.07) with a descriptive equivalent of moderate. The mean of interpersonal stress is 2.78, which is considered moderate based on its descriptive equivalent. Finally, personal stress has the lowest mean of 2.68, which is once again described as moderate. The findings indicate that the participants experience a moderate level of stress across various domains, including personal, interpersonal, academic, and environmental stress.

Table 1: Level of Student Stress

Indicators	Mean	SD	Descriptive Level
Personal Stress	2.68	.743	Moderate
Interpersonal Stress	2.78	.794	Moderate
Academic Stress	3.70	.784	High
Environmental Stress	3.07	.705	Moderate
Overall	3.06	.589	Moderate

Students often find themselves under a considerable amount of stress due to the pressure they receive from teachers and parents to excel academically, perform well on important assessments, and participate in extracurricular activities. Indeed, empirical studies have revealed that most students attribute their stress primarily to academic pressure. Prior studies have shown that students who face difficulties in their academic performance often encounter significant levels of stress. However, recent research findings have revealed that high-achieving students are particularly susceptible to stress related to their school experiences (Blazer 8). In addition, it is worth noting that stress levels tend to increase significantly when students transition from living with their parents to attending university for the first time. This phenomenon has been observed in previous research, which has shown that psychological symptoms, including stress, are frequently experienced by first-year college students (Abdulghani *et al.* 5).

Another stress-inducing element is the extremely competitive school atmosphere throughout the preparation years. The authors of a study propose that heightened competitive behavior or individuals perceiving themselves as excessively inferior may contribute to an increased susceptibility to depression, anxiety, and stress, thus highlighting the negative aspects of competition. In a separate research endeavor, Feld and Shusterman (31–42) investigated the effects of stress on kids enrolled in high-stress college preparation institutions. The findings of this study revealed a significant prevalence of detrimental physical and psychological manifestations associated with stress, as well as the presence of unhealthy behaviors, including chronic and widespread sleep deprivation (Alsulami *et al.* 159–164). The current study has shed light on the ongoing issue of academic stress, which remains a significant problem with detrimental effects on the pupils' mental health and general well-being. Various academic pressures have been recognized as a component that contributes to the overall stress levels of students. Nevertheless, a considerable proportion of the student population has indicated that they frequently encounter significant levels of stress due to financial difficulties arising from the various expenses they must cover while attending university.

Additionally, they struggle to effectively manage their time between academic pursuits and social engagements. Several participants highlighted that they occasionally encountered stress because of feelings of anxiety associated with delivering class presentations, meeting deadlines, and taking examinations. The acquisition of formal education within a school setting holds significant value in an individual's personal development, serving as a pivotal juncture in their academic trajectory. During this phase, the scholastic achievement of a student assumes a pivotal role in determining the subsequent phase of their educational journey, thereby influencing their professional trajectory. Excessive academic stress experienced during this stage can lead to wide-ranging and long-lasting negative consequences (Thakkar).

In the contemporary global landscape characterized by intense competition, students encounter a multitude of academic challenges, encompassing heightened anxiety surrounding examinations, diminished motivation to attend classes, and difficulties comprehending certain subjects. Academic stress encompasses psychological anguish related to anticipated academic difficulties, potential academic shortcomings, or apprehension surrounding the prospect of educational underachievement. Academic pressures can be found in different aspects of students' lives, including their school, home, social interactions, and community.

Ultimately, intense academic pressure might increase the chances of developing psychological and physical issues such as depression, anxiety, nervousness, and stress-related diseases. Consequently, these conditions can have an impact on one's academic performance. The prevalence of anxiety disorder among adolescents and children globally is approximately 8%. The presence of anxiety and stress significantly impairs individuals' social, emotional, and academic achievements. Currently, depression is emerging as a prevalent mental health issue among college students. Additionally, it represents the academic discontent, disagreement, unease, and pressure experienced by individuals. Academic stress in students can be identified by looking at four different components: academic discontent, disagreements, concerns, and demands. These components have been discussed by various researchers (Beilock, 2011; Bedewy and Gabriel, 2015; Sobara, 2017).

Table 2 presents the extent of students' burnout in relation to emotional exhaustion, depersonalization, and personal accomplishment, which aligns with the second objective of this study. As indicated, the average score for students' burnout level is 2.62, which can be classified as moderate. This indicates that the students' burnout is occasionally displayed. Specifically, the indicator with the highest mean score is emotional exhaustion, which is rated as moderate at 2.96. It is followed by personal accomplishment with an average of 2.51, which is considered moderate. Finally, the indication with the lowest average score is depersonalization, which is interpreted as moderate with a score of 2.38. The pupils' degree of burnout, as measured by emotional weariness, depersonalization, and personal achievement markers, is judged moderate.

Table 2: Level of Student Burnout

Indicators	Mean	SD	Descriptive Level
Emotional Exhaustion	2.96	.789	Moderate
Depersonalization	2.38	.671	Moderate
Personal Accomplishment	2.51	.627	Moderate
Overall	2.62	.469	Moderate

The average score rating for student burnout, assessed by emotional weariness, depersonalization, and personal achievement, is rather high. The assertion made by the user is supported by the research conducted by Dupéré *et al.* (591–629) and Prabhu *et al.* (1–10), who have found that a substantial body of global studies has provided evidence of the challenges faced by secondary school students when confronted with the pressures associated with academic success. Adolescents may experience burnout as a result of perceiving themselves as incapable of surmounting academic challenges or effectively navigating demanding school-related obligations. The initial formulation of the burnout concept was primarily intended to characterize responses to workplace stress.

As a result, researchers have broadened their studies to include a range of professional fields. School burnout is often seen as a result of the stress that comes with school. It becomes a long-lasting issue when students consistently feel like there's a gap between what they're capable of and what they want to achieve (Parker and Salmela-Aro 244–248; Salmela-Aro *et al.* 343–357). Burnout levels are affected by a gradual process that can vary depending on the presence and use of personal and external support services. Burnout often arises at a critical phase of adolescence, which is especially susceptible to the development of depressive symptoms.

Consequently, researchers have begun to explore the relationship between depression and burnout, recognizing them as interconnected factors that contribute to adverse academic outcomes among students. Numerous longitudinal and cross-sectional studies have provided empirical evidence supporting the relationship between students' school burnout and the subsequent development of depressive symptoms (Salmela-Aro *et al.* 343–357). The ramifications of academic exhaustion can have significant and discernible effects in both the immediate and prolonged periods. Burnout has been linked to a range of factors that can negatively impact school life. These factors include feelings of boredom, a lack of control, engaging in self-defeating behaviors, experiencing symptoms of depression and anxiety, low self-esteem, struggling to adjust to the school environment, an increased risk of dropping out, engaging in risky behaviors, and academic difficulties (Fimian *et al.* 139–153; Bullock *et al.* 90–108; Salmela-Aro and Upadaya 137–151; Räsänen *et al.* 214–222; Fiorilli *et al.* 1–12).

Of the 300 responses that did meet the criteria for inclusion in the study, more than half (61.30%) are female and (38.70%) are male. In terms of age, 85% of them were 18 to 24 years old, 13.30% of them were 25 to 34 years old, 0.07 % of them were 35-44 years old, and 0.07 % were 45 to 54 years old. On the other hand, in terms of annual household income, 70% has an income below 10,000, 20% has an income of 10,000 to 50,000, 6.33% has an income of 50,000-100,000, 0.33% has an income of 100,000 to 150,000, and 3.33% has an income of 150,000. In terms of student status, 56.70% were full-time students, 37%

were special program students, and 6.30% were part-time students. In terms of student living status, 57.70% were living with parents, 16% were living with relatives, 9.30% were living alone, and 17% were on other living arrangements.

Table 3: Demographic Profile of Respondents

Profile	f	%
Sex	300	100.00
Male	116	38.70
Female	184	61.30
Age	300	100.00
18 to 24 years old	256	85.30
25 to 34 years old	40	13.30
35 to 44 years old	2	0.70
45 to 54 years old	2	0.70
Annual Household Income	300	100.00
Below Php 10,000	210	70.00
Php 10,000 to 50,000	60	20.00
Php 50,001 to 100,000	19	6.33
Php 100,001 to 150,000	1	0.33
Over php 150,000	10	3.33
Student Status	300	100.00
Full-time	170	56.70
Part-time	19	6.30
Special program	111	37.00
Living Status	300	100.00
Living with parents	173	57.70
Living with relatives	48	16.00
Living alone	28	9.30
Other living arrangements	51	17.00

Table 4 displays the importance of the correlation between student stress and burnout. The research aims to investigate the correlation between students' stress and burnout among college students. The overall correlation has a computed r-value of 0.704 with a p-value of < 0.05, the significance level set in this study. After conducting a thorough analysis, it is evident that there is a correlation between the indicators of students' stress and Burnout. The r-value is 0.0704, with a probability value less than the 0.05 level of significance. Therefore, we can reject the null hypothesis, which suggests that there is no significant relationship between students' stress and burnout.

Table 4: Correlation between variables

Pair	Variables	Correlation Coefficient	p-value	Decision on Ho
IV and DV	Student stress and burnout	0.704	0.000	Reject

Given the substantial correlation findings, the relationship between student stress and burnout amid the COVID-19 pandemic assumes notable significance. The COVID-19 pandemic has presented a wide range of unprecedented challenges for college students. The individuals encountered challenges in adapting to sudden transitions to remote

education, restricted opportunities for social engagement, anxieties regarding well-being and safety, and ambiguities surrounding prospective professional trajectories in the face of an unstable worldwide financial landscape. Profound disruptions of this nature have been extensively studied and have been found to significantly increase stress levels. It is widely acknowledged that heightened stress has a detrimental impact on cognitive abilities, academic achievements, and overall well-being. Within this particular framework, the noted correlation emphasizes the notion that increased levels of stress, triggered by the variables brought about by the pandemic, could potentially act as a substantial antecedent to burnout. Burnout, which is defined by Emotional weariness, cynicism, and reduced personal effectiveness, may indeed be an expression of the prolonged stress experienced by students during this period.

Upon further examination of this relationship, it becomes apparent that stress and burnout are intricately interconnected. As students encounter heightened levels of stress, whether due to academic demands in a remote learning setting or personal challenges such as health issues or financial instability, their ability to manage and adjust may become overwhelmed. Over an extended period, the persistent stress experienced can manifest as a state of detachment, a perception of diminishing accomplishments, and emotional exhaustion, which are all characteristic indicators of burnout. The cyclicity of this relationship is also noteworthy: burnout has the potential to exacerbate stress, thereby establishing a feedback loop that amplifies the severity of both conditions. The observed strong correlation serves to emphasize the compounded challenges that students encountered during the pandemic, as well as the crucial necessity for interventions that effectively address both stress and burnout, considering their interconnected dynamics.

An analysis using hierarchical regression was used to examine the hypothesis regarding the moderating effect. The findings from the moderated regression analysis are displayed in Table 5. Two regression models have been presented, as they are the only ones that show significant moderating effects - student status and living status. As a moderator with student status, the independent variable of student stress was included in the hierarchical regression analysis as the first stage. When regressing *student stress* ($\beta=0.50$, $p<0.01$) and the moderating variable *student status* ($\beta=0.04$, $p<0.10$), stress was found to be a significant predictor of student burnout while student status was found to be non-significant at $p<0.05$ in their capacities as separate variables. In step two, the interaction term of both variables denoted as Stress*StudStat, was entered. The interaction term ($\beta=0.08$, $p<0.05$), reduced the beta of student stress on burnout (still significant at $p<0.05$) while the direct effect of student status further diminished. While the moderating variable in question was not significant in the first step, its interaction with student stress became significant.

Table 5: Hierarchical regression to assess the demographic variables that significantly moderate the relationship of student stress and burnout

Model		Unstandardized Coefficients		t	Sig.	R ²
		B	S.E.			
Student Status						
Step1	(Constant)	1.15	0.12	9.49	.00	0.415
	Stress	0.50	0.04	14.14	.00	
	StudStat	-0.04	0.02	-1.73	.09	
Living Status						
Step 2	(Constant)	1.59	0.24	6.64	.00	0.424
	Stress	0.36	0.08	4.71	.00	
	StudStat	-0.28	0.02	-1.62	.11	
	Stress*StudStat	-0.08	0.04	-2.12	.04	
Living Status						
Step1	(Constant)	1.04	0.12	8.45	.00	0.410
	Stress	0.51	0.04	14.23	.00	
	LivingStat	0.01	0.02	0.54	.59	
Step 2	(Constant)	1.39	0.22	6.35	.00	0.417
	Stress	0.40	0.07	5.64	.00	
	StudStat	0.02	0.02	.84	.40	
	Stress*LivingStat	-0.06	0.03	-1.95	.05	

Having living status as a moderator, the independent variable *student stress* was entered in the hierarchical regression procedure as step one. When regressing *student stress* ($\beta=0.51$, $p<0.01$) and the moderating variable *living status* ($\beta=0.01$, $p=0.59$, ns), stress was also found to be a significant predictor of student burnout while living status was found to be non-significant at $p<0.05$ in their capacities as separate variables.

In step two, the interaction term of both variables, denoted as *Stress*LivingStat*, was entered. The interaction term ($\beta=-0.06$, $p=0.05$) was found to be significant, reducing the beta of student stress on burnout (still significant at $p<0.05$) while the direct effect of living status slightly improved (but remained non-significant). While the moderating variable in question was not significant in the first step, its interaction with student stress became significant. The study's findings can be further examined by analyzing the R² change in Table 5. The R² change indicates the extent to which these predictors can account for the variance in student burnout at each step. The increase in the R² change from step 1 to step 2 is 0.424, compared to the previous value of 0.415. In step 2, there is an extra 0.009% due to the inclusion of the moderator variable. In addition, the inclusion of the interaction term between living status and student stress significantly improved the R² value to 0.417. This indicates that the interaction had a minimal impact on the student burnout.

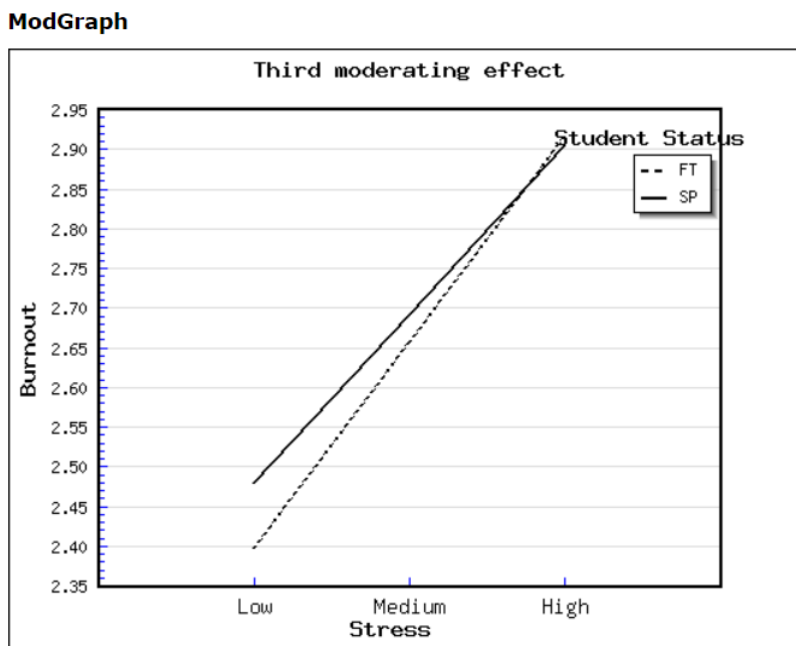


Figure 1: Graphical depiction of the moderating effect of student status on student stress-burnout relationship

A modgraph (Figure 1) was generated using the interaction data from Tables 6 and 7 to verify the results of the regression. The graph shows full-time students with high stress have the highest mean score of 2.9154, which is described as *moderate*. It is followed by full-time students with medium stress with a mean score of 2.6561, which is described as *moderate*. Lastly, full-time students with low stress have the lowest mean score of 2.3968, which is described as *low*. Furthermore, special program students with high stress have the highest mean score of 2.9035, which is described as *moderate*. It is followed by special program students with medium stress with a mean score of 2.6914, which is described as *moderate*. Lastly, special program students with low stress got the lowest score of 2.4792, which is described as *low*.

Table 6: Summary of mean on the effects of stress and student status on burnout

		medium stress	high stress
Full-time student	2.3968	2.6561	2.9154
Special program student	2.4792	2.6914	2.9035

Table 7: Statistical outputs necessary to graph the main effects of stress and student status and their interaction on burnout

Variable	B	Mean	SD
(Constant)	1.59		
Main Effects (Stress)	0.36	3.0593	.5894
Moderator (StudStat)	-0.28		
Interaction Term (Stress*StudStat)	0.08		

Table 8 and 9 show the summary of mean on the effects of *students' stress* and *Living status* on *burnout*. As shown, students living with parents with high stress have the highest

mean score of 2.8781, which is described as *moderate*. It is followed by students living with parents with medium stress with a mean score of 2.6125, which is described as *moderate*. Students living with parents with low stress have the lowest mean score of 2.3469, which is described as *low*. Furthermore, students living in other living conditions with high stress have the highest mean score of 2.8296, which is described as *moderate*. It is followed by students living in other living conditions with medium stress with a mean score of 2.5969, which is described as *moderate*. Lastly, students living in other living conditions with low stress got the lowest score of 2.3642, which is described as *low*. All of this can be graphically illustrated in Figure 2.

Table 8: Summary of mean on the effects of stress and living status on burnout

	Low stress	Medium stress	High stress
Living with parents	2.3469	2.6125	2.8781
Other living conditions	2.3642	2.5969	2.8296

Table 9: Statistical outputs necessary to graph the main effects of stress and living status and their interaction on burnout

Variable	B	Mean	SD
(Constant)	1.39		
Main Effects (Stress)	0.39	3.0593	.5894
Moderator (LivStat)	-0.16		
Interaction Term (Stress*LivStat)	0.06		

ModGraph

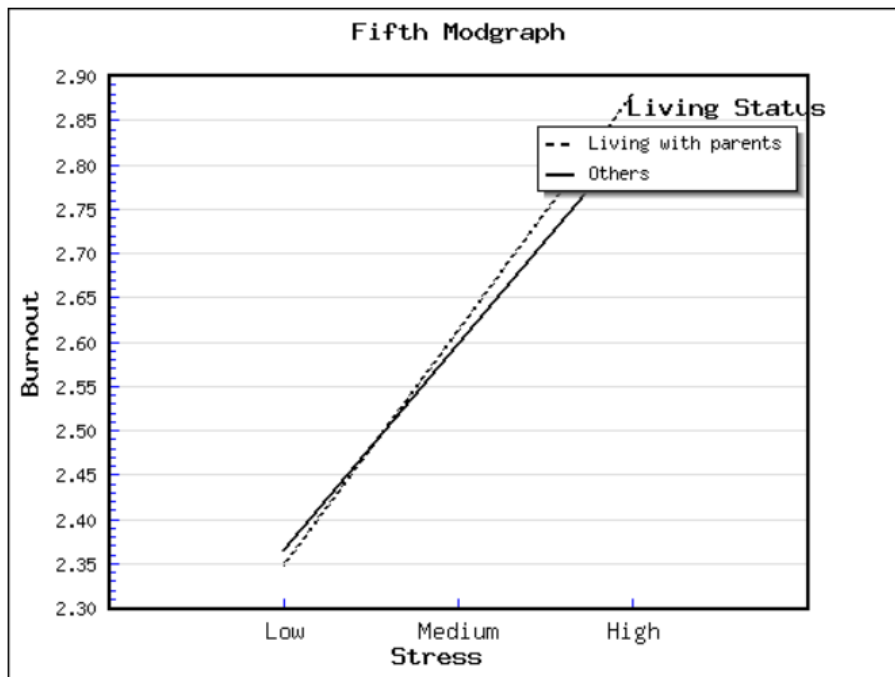


Figure 2: Graphical depiction of the moderating effect of living status on student stress-burnout relationship

The moderate pupils' stress levels can be attributed to the fact that they face expectations from both teachers and parents to maintain high academic performance, achieve good scores on high-stakes assessments, and engage in various extracurricular activities. Indeed, empirical studies have revealed that a majority of students attribute their stress primarily to academic pressure. Previous assumptions have suggested that students who are facing difficulties in their scholastic achievement are more likely to experience academic stress. However, recent research findings have revealed that high-achieving students are particularly susceptible to stress related to their school experiences (Blazer 8).

In addition, it is worth noting that stress levels tend to increase significantly when students transition from living with their parents to attending university for the first time. This phenomenon has been observed in previous research, which has shown that psychological symptoms, including stress, are frequently experienced by first-year college students (Abdulghani *et al.*). Another factor that induces stress is the presence of an intensely competitive academic setting during the preparation period. The authors of a study propose that heightened competitive behavior or individuals perceiving themselves as excessively inferior may contribute to an increased susceptibility to depression, anxiety, and stress, thus highlighting the negative aspects of competition.

In a separate research endeavor, Feld and Shusterman (38) conducted an examination into the effects of stress on students attending high-pressure college preparatory schools. The findings of this study revealed a significant prevalence of detrimental physical and psychological manifestations associated with stress, as well as the presence of unhealthy behaviors, including chronic and widespread sleep deprivation (Alsulami *et al.* 161).

The current study has shed light on the ongoing issue of academic stress, which remains a significant problem with detrimental effects on pupils' mental health and general well-being. The presence of various academic pressures is recognized as a component that contributes to overall stress experienced by students. Nevertheless, a considerable proportion of the student population has indicated that they frequently encounter significant levels of stress due to financial difficulties arising from the various expenses they must cover while attending university. Additionally, they struggle to effectively manage their time between academic pursuits and social engagements. Several participants highlighted that they occasionally encountered stress as a result of feelings of anxiety associated with delivering class presentations, meeting deadlines, and taking examinations.

The acquisition of formal education within a school setting holds significant value in an individual's personal development, serving as a pivotal juncture in their academic trajectory. During this phase, the scholastic achievement of a student assumes a pivotal role in determining the subsequent phase of their educational journey, thereby influencing their professional trajectory. Excessive academic stress experienced during this particular stage can lead to wide-ranging and long-lasting negative consequences (Thakkar). In the contemporary global landscape characterized by intense competition, students encounter a multitude of academic challenges, encompassing heightened

anxiety surrounding examinations, diminished motivation to attend classes, and difficulties comprehending certain subjects.

Academic stress involves the emotional strain that comes with expected academic challenges, possible academic weaknesses, or worries about the prospect of academic failure. Academic stressors can be found in different aspects of students' lives, including their school, home, social interactions, and community. Ultimately, overwhelming academic pressure can result in a higher likelihood of experiencing mental and physical disorders, such as depression, anxiety, nervousness, and stress-related ailments. Therefore, these circumstances can affect an individual's academic achievement. Approximately 8% of adolescents and children globally are affected by anxiety disorder. Anxiety and stress significantly affect person's social, emotional, and intellectual accomplishments. Identifying academic stress in kids often includes recognizing four specific components: academic dissatisfaction, conflicts, concerns, and pressures (Beilock; Bedewy, and Gabriel; Rasheed, Naqvi, and Ahmad 251).

The average score rating for student burnout, assessed by emotional fatigue, depersonalization, and individual achievement, is found to be at a moderate level. The assertion made by the user is supported by the research conducted by Dupéré *et al.* (622) and Prabhu *et al.* (1–10), who have found that a substantial body of global studies has provided evidence of the challenges faced by secondary school students when confronted with the pressures associated with academic success. Adolescents may experience burnout as a result of perceiving themselves as incapable of surmounting academic challenges or effectively navigating demanding school-related obligations. The initial formulation of the burnout concept was primarily intended to characterize responses to workplace stress. Subsequently, researchers have expanded their investigations to encompass various professional domains.

School burnout is often seen as a result of the stress that comes with school. It becomes a long-lasting issue when students consistently feel like there is a gap between what they are capable of and what they want to achieve (Parker and Salmela-Aro 246; Salmela-Aro *et al.* 346). Burnout levels are affected by an accumulative process that can fluctuate based on the availability and utilization of personal and external support services. Burnout often emerges during a crucial stage of adolescence, which is particularly vulnerable to the beginning of depressed symptoms. As a result, researchers have started investigating the connection between depression and burnout, acknowledging them as linked factors that contribute to negative academic outcomes among students.

Several studies, both longitudinal and cross-sectional, have found strong evidence linking school burnout in students to the development of signs of depression (Salmela-Aro *et al.* 346). The consequences of academic exhaustion can have a noticeable impact in both the short-term and long-term. Burnout has been linked to various factors that can negatively impact school life. These factors include feelings of boredom, a lack of control over one's circumstances, engaging in self-sabotaging behaviors, and experiencing symptoms of depression and anxiety. Additionally, burnout can lead to low self-esteem, difficulties adjusting to the school environment, an increased risk of dropping out, and

engaging in risky behaviors like gambling. Academic performance may also suffer as a result (Fimian *et al.* 139–153; Bullock *et al.* 90–108; Salmela-Aro and Upadyaya 137–151; Räsänen *et al.* 214–222; Fiorilli *et al.* 1–12).

Given the substantial correlation findings, the association between student stress and burnout amid the COVID-19 pandemic assumes notable significance. The COVID-19 pandemic has presented a wide range of unprecedented challenges for college students. The individuals encountered challenges in adapting to sudden transitions to remote education, restricted opportunities for social engagement, anxieties regarding well-being and safety, and ambiguities surrounding prospective professional trajectories in the face of an unstable worldwide financial landscape. Profound disruptions of this nature have been extensively studied and have been found to significantly increase stress levels. It is widely acknowledged that heightened stress has a detrimental impact on cognitive abilities, academic achievements, and overall well-being. Within this particular framework, the noted correlation emphasizes the notion that increased levels of stress, triggered by the variables brought about by the pandemic, could potentially act as a substantial antecedent to burnout. Burnout, which is defined by emotional exhaustion, cynicism, and diminished personal efficacy, may indeed be an expression of the prolonged stress experienced by students during this period.

Upon further examination of this relationship, it becomes apparent that stress and burnout are intricately interconnected. As students encounter heightened levels of stress, whether due to academic demands in a remote learning setting or personal challenges such as health issues or financial instability, their ability to manage and adjust may become overwhelmed. Over an extended period, the persistent stress experienced can manifest as a state of detachment, a perception of diminishing accomplishments, and emotional exhaustion, which are all characteristic indicators of burnout. The cyclicity of this relationship is also noteworthy: burnout has the potential to exacerbate stress, thereby establishing a feedback loop that amplifies the severity of both conditions. The observed strong correlation serves to emphasize the compounded challenges that students encountered during the pandemic, as well as the crucial necessity for interventions that effectively address both stress and burnout, considering their interconnected dynamics.

The study's findings provide interesting insights into the intricate relationship between student stress and burnout, which are influenced by demographic factors such as student status and living arrangements. The study fundamentally confirms the direct impact of student stress on burnout. However, the incorporation of demographic variables into the model yields a more nuanced comprehension.

When analyzed separately, both the status of being a student and the status of living arrangements were found to be significant factors in contributing to student burnout. This suggests that factors inherent to a student's academic and living conditions play a significant role in shaping their experiences of stress and eventual burnout. The interaction between demographic variables and student stress is particularly intriguing. Although both interactions yielded statistically significant results, the beta values indicate that changes in demographic variables, such as transitioning between different

student statuses, can influence the intensity or nature of the relationship between stress and burnout. The aforementioned dynamic interplay highlights that the occurrence of burnout is not solely a result of stress but is also shaped by the specific circumstances and contexts in which students are situated.

Upon further examination of the descriptive data provided, it is possible to infer the practical implications of these findings in real-world contexts. For example, students who are enrolled in full-time academic programs and encounter significant levels of stress exhibit burnout scores that are characterized as "moderate." Likewise, students enrolled in special programs exhibit similar levels of burnout despite experiencing elevated levels of stress. This finding indicates that regardless of the type of program, high levels of stress are associated with notable, albeit moderate, levels of burnout. Nevertheless, the distinction lies in the degree of variation: even among students with the same status, different levels of stress result in varying intensities of burnout. Hence, although the main narrative emphasizes the impact of stress on the development of burnout, a more detailed understanding is achieved through the inclusion of demographic classifications, such as one's status as a student, which adds complexity to the overall depiction. The research highlights the complex nature of burnout, emphasizing the need for educators and institutions to take into account not only the general sources of stress, but also the specific characteristics of different student populations when developing interventions.

The absence of statistically significant moderating effects of age, sex, and annual household income on the association between student stress and burnout among college students offers a nuanced understanding of the influence of demographic variables in this particular setting. Significantly, it is commonly acknowledged that age, gender, and financial background have traditionally been recognized as influential factors in various aspects of an individual's life and well-being. However, their limited impact as moderators in the specific association under consideration implies that the interplay between stress and burnout during the COVID-19 pandemic may be experienced more universally across these demographic categories.

The widespread nature of the pandemic and its significant effects on academic, social, and personal aspects may have resulted in a collective experience among students. As a result, the conventional demographic factors that typically have a strong influence may be less effective in their role as moderators. This discovery prompts a reconsideration of the importance assigned to demographic factors in relation to stress-induced burnout, particularly in exceptional circumstances. It underscores the necessity of identifying and prioritizing other variables that may have a greater impact and interact more significantly with student stress in order to predict burnout outcomes.

5. Recommendations

In order to optimize the well-being of students in the face of the complexities associated with stress and burnout, it is imperative to employ a multifaceted strategy. Initially, students are encouraged to leverage the motivating potential of moderate stress. By

adopting a proactive mindset and employing a persistent approach to achieving success, individuals can catalyze a fundamental shift in their coping strategies. By deliberately reframing stress, students can transition from passive recipients of pressure to active agents of change. Emotional resilience, a fundamental aspect of psychological strength, holds immense value. The cultivation of resilience, in conjunction with the acquisition of competencies that align with their genuine identities, empowers students to adeptly navigate the challenges and expectations of life.

Educational institutions are essential in cultivating a conducive environment. The manifestation of prioritizing student well-being can be observed through the implementation of concrete initiatives, such as the promotion of self-care, the integration of wellness interventions into curricula, and the proactive approach to addressing burnout prevention. Implementing strategies such as the realignment of academic responsibilities, the provision of consistent performance feedback, and the establishment of mentorship programs can effectively mitigate the occurrence of burnout. The integration of structured interventions, such as counseling services, peer-support mechanisms, stress management courses, and a focus on physical well-being, ought to be fundamental components within academic programs.

Moreover, it is imperative to cultivate an enhanced consciousness regarding indicators of mental health. Engaging in open conversations with peers can challenge and eventually dismantle stigmas associated with seeking professional help. Engaging in a proactive pursuit of a well-rounded lifestyle, wherein the demands of academia are supplemented by revitalizing endeavors, has the potential to enhance both productivity and psychological equilibrium.

Furthermore, it is crucial for students to comprehend the intricate and diverse aspects of the college experience. In addition to the commonly held stereotypes surrounding leisure and revelry, it is important to recognize that college life entails significant sources of stress. The implementation of proactive coping strategies, such as engaging in routine mental health assessments, participating in peer dialogues, and practicing comprehensive self-care, can enhance students' resilience in the face of challenges.

This study can be regarded as a fundamental point of reference for future research endeavors. Further investigations have the potential to broaden the scope by examining additional demographic variables that may impact the relationship between student stress and burnout. Expanding the scope of research perspectives to explore additional influential factors can contribute to a more comprehensive comprehension of the dynamics surrounding student well-being.

6. Conclusion

According to the findings of the investigation, it can be inferred that students experience a moderate level of stress and burnout. The findings further confirmed that there was no statistically significant correlation between student stress and burnout. This study presents two regression models that show significant moderating effects. These effects

are observed in relation to two variables: student status and living status. Upon commencing their university education, students typically experience initial levels of stress, primarily stemming from the uncertainties surrounding their chosen academic trajectory and the instructional methods employed within the university setting.

The results align with the assertion made by Brooke *et al.* (2020), indicating that students' perception of their inability to manage stressors is associated with a heightened risk of experiencing burnout. In order to optimize the academic achievements of students in higher educational institutions, it is imperative that students possess the necessary skills to effectively manage and navigate through stressful demands. One of the contributing factors to stress experienced by young individuals pertains to the notable adjustments encountered during the transitional phases from primary to basic education, from basic to secondary education, and ultimately from secondary to university education. During transitional periods, students often experience heightened concerns related to failure, future prospects, and various external factors such as parental expectations, potential relationship endings, or social distance from friends. These stressors can contribute to conflicts within the family unit.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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