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| RESEARCH ARTICLE

Student Commuters' Perceived Level of Stress

Karyl Vivien G. Palanas[1], Rulthan P. Sumicad[2] ✉ Adrian B. Ebesa[3], Maribel A. Sesante[4], Kate Antonette Nuñez[5], Angelo Pacaide[6] and Hanne Lore D. Navarro[7]

[1567]College of Arts and Sciences, University of Cebu-Main, Cebu City, Philippines
[2]MA-MATH, LPT, Program Research Coordinator, College of Arts and Sciences, University of Cebu-Main, Cebu City, Philippines
[3]MA Psych, RPsy, CBT, Faculty, College of Arts and Sciences, University of Cebu-Main, Cebu City, Philippines
[4]MA, Faculty, College of Arts and Sciences, University of Cebu-Main, Cebu City, Philippines
Corresponding Author: Rulthan P. Sumicad, **E-mail**: rulthanpatoc@gmail.com

| ABSTRACT

This study, conducted during the academic year 2023-2024 at the University of Cebu Main Campus, aimed to establish the student commuters' perceived level of stress among the currently enrolled students in the institution. Using a sample size application generator ,150 students were carefully selected from the population. The Descriptive Correlational Method was employed to seek the connection between the perceived level of stress and different variables, with a focus on these students who might be susceptible to commuting related stress. The study employed a researcher-made survey questionnaire consisting of forty (40) items on a four-point Likert scale (from Not Stressful at all to Very Stressful) and conducted a pilot test to ensure questionnaire's internal consistency and reliability. Data were collected via face-to-face interaction, and chi-square test was utilized to know if significant relationship was established between the profile of the respondents and their perceived level of stress. Also, Kruskal-Wallis test was used to determine whether there is a significant difference in the respondents' reported stress level when grouped by profile. The results revealed that students' perceived level of stress was so high (very stressful), with no significant relationships between the perceived level of stress and the profile such as sex, age, department. However, a significant difference was found between respondents' perceived level of stress among different year levels. This study highlights the need for supportive measures to enhance the respondent's well-being and mitigate the perceived level of stress they have experienced.

| KEYWORDS

Student Commuter, Level of Stress, Commuting, Descriptive-Correlational Study, Quantitative.

| ARTICLE INFORMATION

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1. Introduction

Over the years, stress has become a severe problem that affects people from all areas of life. Different forms of stress were seen in diverse populations, indicating the involvement of various causes and predictors. Commuting has been consistently identified as a significant source of stress for the general population, including employees and students. In 2015, the Journal of International Education Research reported that commuter students can face increased time demands and fewer chances to establish a strong dedication to their academic pursuits and institutions. Living further from campus can make it harder for students to get to class and finish the assignments that need to be done outside of class. Exhaustion from spending a lot of time outside and having less time for social activities, personal care, and quality time with loved ones could be the result of a combination of stress from school and the daily drive.

In Germany, For the majority of university students, traveling between home and school is a daily ritual. According to a survey of 67.007 students from 248 universities, 29% of them had to commute because they didn't live in the same city as their university. Research from the past has indicated that there are multiple ways in which commuters' psychological and physical health are related to their daily commute (Novaco et al. O.I., 2015). PageGroup (2018) did a large-sample worldwide survey across European countries in 2016, and one of the findings was that commutes are among the longest and most stressful in Turkey. Recently, Turkey has made improvements to its transportation infrastructure for all types of transportation. However, these seem insufficient to meet all commuters' demands, especially in populous cities such as İstanbul.On the other hand, students in the Philippines struggle to cope with their stress due to commuting because they experience it daily, which hinders them from resting when they have time. With millions of commuters passing through Metro Manila every day on their way to school, some students from the Katipunan area in Quezon City are forced to use up their allowance (including lunch money) to get to school on time. Many have resorted to using Grab or other TNVS (transportation network vehicle services) applications and leave earlier to make it to class (Pineda, 2019). In the locality, many students at the University of Cebu are commuting for the same reason, mainly to save money and because it is their only option. According to Paul Gotiong, Executive Director of the Cebu City Transport Office (CCTO), Metro Cebu has the highest number of daily journeys, with over 80% of those made by private automobiles and (only) 10% by public transportation. He added that the city's automobile population had been staggeringly affected by the rise in commuters. Metro Cebu has at least 3.5 million commuters, 1.5 million from Cebu City.

The researchers have observed that commuter students shared everyday needs and concerns regarding the issues related to transportation that limit their time spent on campus, multiple life roles, the importance of integrating the support system into the collegiate world, a sense of isolation, and limited social engagement on the campus. Whether they attend predominantly in their institution, the fact that they commute profoundly affects the nature of their educational experience. As a result, student commuters often need help finding a balance between their various obligations. They have provided enough exciting information for researchers to evaluate and comprehend the findings objectively.

Moreover, the researchers have also observed that commuter students have less opportunity to create ways to increase the visibility and interaction of commuter students in classes and on campus because it remains a challenge. A few studies explored the effects of the duration of commutes, and most of these researchers focused on the effects of commuting on working individuals rather than students (Burlison, 2015). However, it is pivotal to note that students must also be emphasized as they represent a vast proportion of the commuting population. Gefen and Fish (2015) found that 35.9% of commuter students spent six to 10 hours per week commuting, and 10.8% spent 11 hours or more per week, which can add to their level of stress and connection to the institution. These various studies are already recognized, and somehow, there are a few aspects that need to be changed and enhanced; more research is needed to understand the importance of determining the perceived level of stress and the contributing transportation-related factors, for this will help cast light on the consequences of commuting on students' skills and psychological well-being.

Commuting is indeed the most complex challenge that a student has ever encountered. Regardless of the mode of transportation, this comes with a long list of potential stressors beyond our immediate control. We wanted to fully comprehend and determine the student commuters' perceived stress level, for they need solutions to deal with the increasing impediments that enable them to manage their stress accordingly. Henceforth, researchers must primarily focus on the study's scope to solve the sub-problems they have found correctly.

2. Theoretical Background

The theories that this study was anchored to are Transactional Stress Model Theory, developed by Lazarus and Navaco et al. in 1979. Moreover, the primary theory was supported by the General Adaptation Syndrome Theory, developed by Hans Selye in 1936, and Hobfoll's Conservation Resources Theory in 1989.

The Transactional Stress Model, created by Lazarus in 1966 and adopted by Navaco et al. in 1979, served as the study's anchor theory. This stress model is extremely pertinent and commonly used. How to handle stressful situations is explained by the transactional stress model. This corpus of work demonstrates the belief that stress has a major role in shaping people's lives and can lead to the emergence of issues pertaining to both physical and mental health. It makes it clear that how an event is perceived—rather than the event itself—is what causes stress and influences the initiation of coping mechanisms as well as the resolution of the stressor. Adding to the line, this highlights the subjective nature of stress and how different individuals can perceive the same situation differently. Therefore, it is essential to understand how student commuters perceive their commuting experiences, as this can affect their stress levels and coping mechanisms. By better understanding these perceptions, interventions and strategies can be tailored to student commuters' specific needs and experiences, ultimately leading to better outcomes for their mental health and overall well-being (Biggs et al., 2017). According to this model, stress is the product of the interaction between a person and the environment. Stress does not arise only from the occurrence of an event. People's cognitive appraisal of the event and the

coping strategies they use to deal with it also influence stress levels. It states that the stressor-stress relationship is broken if stresses are regarded as excellent or challenging rather than dangerous and if the stressed individual feels confident that he or she has adequate rather than inadequate. Stress does not always occur when a potential stressor is present, and undesirable (maladaptive) coping mechanisms can be used.

Moreover, this theory contends that prosperous economic circumstances enable people to create defense mechanisms against the stressor. Nonetheless, unfavorable economic circumstances would intensify the unfavorable evaluation of stressors, strengthening the connection between a stressful occurrence and stress reactions. According to this paradigm, these occurrences are private environmental exchanges that are contingent upon the influence of an external stressor. Thus, stress is a product of an individual's subjective perceptions about his or her current situation as opposed to his or her resources to cope with the stressor. Likewise, this theory stresses a process by which a person continually appraises a situation from before it happens until after it has happened). An individual's assessment of a potential threat is known as primary appraisal..It is an individual's evaluation of the significance of the event (e.g., risky, favorable, stressful, or demanding). According to Lazarus, challenges are similar to Selye's term "eustress," which describes circumstances that call for adjustment and care but may also present opportunities for personal development, accomplishment, or growth (Ben-Zur, 2019).

In a similar vein, Smith and Lazarus found that when a stressor is viewed as seriously endangering or impairing an individual's objectives or responsibilities, anxiety is more likely to be experienced. The transactional theory of stress and coping holds that situations that are more remarkable than what people believe their resources can handle are what cause stress. For example, a car accident results in severe traffic while a student is on their way to school. Being stuck in traffic is probably an unplanned occurrence and one of the factors that contribute to commuting stress, thus it's possible that she lost control of her commute (Sessions et al., 2015). According to Folkman and Lazarus, stress results from interactions between individuals and their environment. The transactional stress model's initial appraisal phase incorporates the main factors that influence commuter stress. Nonetheless, there aren't many studies that have looked at how stress affects commuter performance. In Nejati et al. 's (2015) study on coping strategies among students with hypertension, for instance, it was discovered that an educational intervention for stress reduction may improve coping strategies that are problem-centric as well as emotion-centric.

A secondary appraisal reviews one's internal coping mechanisms and possibilities. How the matter can be "managed" is covered in this internal assessment. Resources include the feeling of being in control, the perception of being able to control one's emotional reactions, and the anticipated results of different coping techniques (Glanz et al., 2015). For a comparable example of these two assessments, consider the following scenario. In a hurry, James is heading to school. Trying to get out of there as fast as possible, he gets stuck in traffic. His major appraisal indicates that he grasps the steering wheel and realizes he will be late for school due to traffic. He considers bailing off of the highway and heading in another direction, taking a personal day, or calling his teacher to inform him of his approaching tardiness (secondary assessment). Either good or negative results, such as psychological well-being and the capacity to perform, can result from actual coping techniques, which are designed to handle problems and regulate emotions. Examples of these negative outcomes include psychological distress, impairment, and failure to function.

Moreover, the supporting theory of this study is the General Adaptation Syndrome. It is a theory developed by Hans Selye in 1936, a Hungarian endocrinologist known as "the father" of the stress field. This theory comprehensively explains the stress reaction and how continuous exposure to stress accelerates aging and disease. He claims that every stress leaves a permanent scar, and the organism pays for survival after a stressful scenario by becoming older. It succinctly expresses his viewpoint and looks at how stress affects the human body as we cope with multiple stressors in everyday life through aging and other physiological processes. Selye discovered in his research that the body has been adjusting to outside stressors in terms of a biological pattern that is genuinely predictable in order for the internal equilibrium or homeostasis to be restored and maintained.

Another aspect Selye noticed was that even though one's body strives to manage or lessen stress, it has limits. Exposing the body constantly to the stressor weakens the limited energy needed to adjust to the stressful environment. For instance, Hans Selye's theory of general adaptation syndrome or stress response is helpful when caring for students whose challenges may be partially caused or worsened by many overlapping factors within both the internal and external environments. Student commuters often face high stress levels due to the demands of their daily routine. Traffic, public transportation delays, and the pressure to arrive on time for classes can cause anxiety and frustration. It may include offering flexible scheduling options, providing resources for coping with stress, or implementing changes in transportation services.

In addition to that, Selye proposed a three-stage pattern of stress response. Those three phases are an alarm stage analogous to Cannon's fight-or-flight response, a resistance stage in which the body tries to cope with or adapt to the new demands, and an exhaustion stage during which bodily resources become depleted and system damage may occur. Student commuters experience GAS due to the daily stressors of traveling to school. Students may feel anxious or nervous about arriving on time in the alarm

stage. An immediate response to a stressful situation characterizes the alarm stage of the general adaptation syndrome in student commuters. During this stage, students may experience anxiety, nervousness, and fear as they begin their daily commute to school. It can be due to traffic congestion, public transportation delays, or unexpected events that disrupt their routine. Blood pressure and increased heart may arise as a physiological response. Adrenaline and cortisol are stress hormones released by the body, causing increased heart rate and heightened alertness. However, these responses are normal and help students adapt to environmental stressors. As students adapt and become more accustomed to their commute, these initial feelings of stress tend to diminish over time (Gilavand & Jamshidnezhad, 2016). During the resistance stage, it is a phase where the body tries to cope with stressors. In the case of student commuters, this stage involves adapting to their daily routine of traveling to and from school amidst traffic, crowds, and other challenges. In this stage, students may experience increased stress hormones such as cortisol and adrenaline. However, they also develop coping mechanisms such as time management skills and finding ways to relax during their commute. Students contend with heightened stress hormones like cortisol and adrenaline in this phase, resulting in sustained elevated blood pressure. The continuous exposure to everyday stressors, such as polluted air from traffic, amplifies potential health risks. Progressing into the exhaustion stage, students may grapple with burnout, leading to fatigue and a decline in overall performance. This application of stress theory underscores the pressing need for comprehensive strategies to address the cumulative impact of commuting stress on students' well-being (Jalagat Jr., 2015).

Although Selye tended to emphasize how the general adaptation syndrome emerged as a relatively unproblematic ally from his own experimental observations and clinical experience, it is evident that he mobilized a range of concepts circulating within scientific and medical debates about health and disease during the interwar years. Preoccupations with the limits of human adaptability to the stresses and strains of modern life, concerns about the psychological and physical impact of shock and fatigue, physiological studies of adaptive self-regulation, and clinical interest in the psychosomatic determinants of health collectively provided motivation and resources for Selye's formulation of the relationship between adaptation and disease.

Furthermore, this study is also based on Hobfoll's Conservation Resources Theory in 1989. This theory tries to understand the feeling of stress. According to the theory that people try to build, preserve, and defend resources, threats indicate these essential resources' potential or actual loss. A general assumption of Hobfoll's theory is that an individual has some resources at his/her disposal, which he/she dramatically appreciates and is inclined to protect and never loseHobfoll developed this model because he thought no other explanation of stress could be thoroughly tested or empirically established. He thought that to evaluate a person's perception of or susceptibility to stressors, more information was required than what the transactional stress model offered. Because there is no precise understanding of these notions to quantify or compute the stress level linked with a certain incidence, one cannot accurately evaluate the power of coping factors or stressful situations.

Stress, as defined by Hobfoll in the context of the COR theory, is a reaction to an environment where there is either (a) a potential loss of resources, (b) a real loss of resources, or (c) a lack of resource gain following the investment of resources. According to this model, resources play a critical role in the description, measurement, and understanding of psychological stress as well as related episodes or threats. Resources were described by Hobfoll (1989) as items, personal traits, circumstances, or energy that the individual values or that serve as a means for achieving these qualities, circumstances, or energies. Almost everything imagined can be one of these resources. Resources may include self-esteem, financial level, family satisfaction, occupational prestige, grit, and resourcefulness. In addition to what Hobfoll stated, these resources might be in danger or lost due to environmental conditions. The loss of these resources is significant for two main reasons, which are (1) they have practical utility and (2) they have symbolic importance. The practical usefulness of these resources is represented by their instrumental value (having a large salary enables them to acquire better items). Internalized results are more often associated with symbolic importance. Beliefs and cognitions are examples of resources that influence how people define themselves (e.g., a person with a reputation for being calm and collected but who needs to regain control in a difficult situation). Losing them could therefore have detrimental effects. Compared to theories that focus on a single principal resource, such as control, or that address resources generally, COR theory offers a wider choice of specific hypotheses, which is one of its primary advantages. Fundamentally, COR theory is a motivational theory that grounds much of human behavior in the evolutionary necessity of gathering and preserving resources for survival—a requirement that is fundamental to human behavioral genetics.

In addition to the COR theory, people attempt to avoid or lessen any actual or anticipated resource loss when under stress. Studies extending the outcomes of resource gains and losses have played an essential role in understanding COR theory, in part because they offer new ways of testing the resource investment processes relevant to the theory. For example, by considering how students manage their resources at school, issues like assessing their available resources, paying attention to resource changes, and self-regulating to decide how best to invest those resources become targets for change (Hagger, 2015). Extensions beyond stress and strain have also helped advance theory and practice in different contexts, including interpersonal relationships at school. In that regard, recent attention has been paid to smart commuting, partly because of its implications for commuting and others who commute (Hunter et al., 2017). To lessen stress or worry, people in the transactional stress model first make two evaluations

(primary and secondary). The transactional stress model does not account for events that are not stress related. Another way to look at COR theory is through notions of how individuals become ready for new stressors in the future. In the absence of a stressor, people will try to accumulate an excess of resources to lessen the likelihood of suffering a loss because of a stressful occurrence, according to the COR theory. Conditions, human characteristics, energies, and objective resources are the four categories of resources that Hobfoll identified. More recent studies, however, have provided clarification on the concept of resources. Hobfoll described resources as things that have value for people in the definition that was previously mentioned. Halbesleben et al. (2017) defines resources more broadly, saying that they are all that someone can observe to help them achieve their objectives. The concept of resources is streamlined and narrowed down into a goal-oriented conception by this definition. This goal-oriented differentiation makes resources and outcomes (value) separate and makes their relationship to the individual (goals) clear.

Beyond resources, the COR theory asserts that resource gain or loss has a perceptual component. As stated before, in the absence of a catastrophic event, people will attempt to obtain resources. Giving resources (including affection, money, closeness, and social support) with the intention of receiving something in return is known as "resource investment." This sharing of resources facilitates the growth of intimate and deep relationships and could lead to the acquisition of substantial resources for impending challenging circumstances. However, when an "investment" does not provide the anticipated resource gain, it is typically considered a loss. People's mental health may suffer due to a loss of resources. Both internal and external threats may be the cause of this resource loss. When it comes to commuting, getting to school on time is probably the main objective. As such, every obstacle (traffic jams, bad weather, or sluggish drivers) could pose a risk of losing resources. Resources could provide a more concrete explanation for why stress feels the way it does. While evaluations and perception are key components in the transactional stress model's explanation of stress, COR theory provides an instrumental component in addition to perception. Some potentially revolutionary insights into the study of stress connected to commuters are provided by the COR theory.

To conclude, General Adaptation Syndrome (GAS) is a physiological stress response in three stages: alarm, resistance, and exhaustion. Concerning student commuters, GAS can significantly impact their physical and mental health. Moreover, the transactional model of stress is a valuable framework for understanding the experiences of student commuters. The model highlights the complex interplay between personal, environmental, and situational factors contributing to stress. It also recognizes that stress is not just a result of external pressures but also depends on how individuals perceive and respond to them. Lastly, the conservation resources theory can be applied to student commuters who regularly travel to and from school. This theory suggests that individuals will conserve resources, such as time and money, by choosing the most efficient transportation options. These cited theories are pertinent to the current study because they discuss the various stressors, the amount of stress, and how student commuters make independent plans to reduce stress.

In this section of the study, the association of stress levels with student commuters has been concentrated in literature and different studies for years. The following are scholarly works, articles, and published materials highlighting student commuters' perceived stress levels.

Perceived stress is not about measuring the frequency of stressful events but how an individual feels about the overall stressfulness of their life. Commuting stress has significant public health and societal consequences. It is feasible to evaluate which stress modes are more substantially contributing to this potential health and social issue by comparing stress across different modes. Public passenger transport is used to carry flows of people large enough to generate economies of scale and scope. However, people in rural areas do not always have access to adequate public transport services, and many seniors do not feel comfortable or are hindered from using public transport due to physical limitations. Perceived stress gains conceptual clarity within the larger definitional framework of stress proposed by Selye from the empirical evidence encountered in this investigation. The notions of "distress" and "eustress" emerge as necessary adjectival references, particularly illustrative with the structural path analysis examined in this article. The complex interaction between perceived stress's negative and positive cumulative effects plays out concerning two of the four focus variables that are carefully examined in the entire model. This critical investigation seeks to imbue a deeper meaning, like Selye's theory's finer points, enhancing our comprehension of the complex dynamics involved (Berg & Ihlström, 2019).

Many of the college student population commutes to their campuses and can be seen as the largest and most complexly diverse group of students in higher education. Research has shown that 85% of college students commute, increasing this number. Commuting students (commuters) are essential to college campuses, given their scope and enrollment. Different definitions exist of commuter students, which include: (1) live at home and travel to campus, or they live with classmates off-campus (2) those who do not live in university-owned housing, or (3) all students who drive to campus rather than walk are commuter students. These definitions hold the concept of some distance or travel to campus as a part of their college experience, which features non-cognitive barriers toward degree persistence (Kirk & Lewis, 2015).

In correlation with the result of a significant relationship between year level and commuters' level of stress, the availability of social support networks and communities may vary across different year levels, influencing how students cope with commuting stress. For instance, first-year students may rely more on building new social connections on campus. In contrast, senior students may have established support networks that can help alleviate commuting-related stress. As a result, students frequently find themselves attending schools that necessitate extended and challenging journeys, mainly due to commuting patterns that deviate from the intended use of the transit system. This entails traveling against the typical flow, such as moving away from the city center during morning rush hour or opting for cross-town routes. Notably, in Baltimore, student commuters seem to experience more intricate public transit journeys, evidenced by a higher frequency of transfers between segments, compared to the average adult commuter (Stein et al., 2017).

The extent and causes of gender variations in commute results were investigated by researchers in the domains of geography, urban planning, and transportation. Nevertheless, the evidence for gender variations in commute behavior has been equivocal, and the literature that has already been published has not focused much on figuring out how big these differences are and what factors influence them over time (Chidambaram & Scheiner, 2020).

When people experience stress, their levels of cortisol increase, and those who constantly have high cortisol levels are more likely to have depression and other mental health problems (Adli, 2017). Three above-mentioned possible mechanisms whereby the journey to work may be connected to depression: (a) the "direct stressor" hypothesis, (b) the "indirect stressor" hypothesis, and (c) the "moderator" hypothesis. Additionally, the relationship between commute and depression may differ among different sub-populations. For instance, this relationship may differ by age, as the level of mental fatigue after carrying out a task generally increases with age (Arnau et al., 2017).

When comparing middle-distance and long-distance commuters to short-distance commuters, Lorenz and Goerke (2015) found that the former had higher rates of school absenteeism (12% and 16%, respectively). Coping mechanisms or coping efforts are the actions done to address or modify stressful situations. The two groups of coping strategies are emotional regulation and problem management. While emotional regulation focuses on altering the cognition resulting from the stressor, problem management is concerned with how to change the stressful situationIt indicates that certain circumstances exist in which these coping strategies work best. When the stressful situation is dynamic, problem-focused coping strategies work better than emotion-based coping strategies, which work best when the stressful situation is fixed. These could further limit coping mechanisms, which would increase the strength of the stress reaction. Similarly, because the stressor (traffic congestion-related stress) has already happened and is uncontrollable, problem management coping strategies might not be able to address it. Stress is likely to arise when these coping mechanisms are reduced. There may be additional ways to address commuting-related issues, such as working from home, biking to work, or using the train. Nevertheless, traveling to school in a personal automobile, the most popular mode of transportation (86%), appears to be a constant source of stress. Problem-focused coping mechanisms will be largely unsuccessful for someone trapped in traffic because they cannot meaningfully change the circumstance. Given the travel duration and increased threat vulnerability, this rise in absenteeism might be an example of avoidance behavior. Although these avoidance activities may provide a brief cognitive break from a stressor, there is fear that they may negatively impact the person's academic performance. However, those experiencing acute commuter stress may arrive at work or school more stressed if they don't use avoidant coping strategies like phoning in ill.

This relationship may differ by generation, as people in different birth cohorts may have different travel and lifestyle preferences. This relationship may also differ by occupation, especially between white-collar and blue-collar jobs. This is because different occupations generally have different job quality, flexibility, and self-control levels, which can further lead to mental health disparities. When comparing mental health across modes, non-motorized commuters have better mental health and lower stress than motorized commuters (Wang et al., 2021).

A study done in Scania, Sweden, showed that longer commute times could harm health, including increased stress, fatigue, sleep disturbances, etc., especially if the student is in a new transition, aged 18-24 years old (Hansson et al., 2016).

Moreover, Crane believes that there have been no appreciable changes in the gender differences in commuting patterns throughout this time, even though he confirms that the average commute distances for men and women differ in a thorough analysis utilizing panel data (Duncan et al., 2016).

Public transportation delays can occur from weather, traffic congestion, operator inconsistencies, and vehicle breakdowns. These factors can cause transfers to be missed, wait times to increase, and arrivals at destinations early or late. These are just a few of the reasons why the daily reality of a public transportation commute can differ from the published schedule. When commuters

encounter fluctuations in travel times, they frequently adjust their departure timings to reduce uncertainty (Li, Tu, & Hensher, 2016).

Users of public transit are also subject to delays that are caused by the system and the dependability of specific routes. In the transportation literature, reliability is commonly understood to mean the transit vehicles' ability to arrive at a certain stop within a specific window of time, such as one minute before or five minutes after the scheduled arrival time. A headway is the distance that separates consecutive vehicles traveling the same route. Shorter headways typically result in fewer passengers waiting at a stop, whereas longer headways typically result in more passengers waiting to board the vehicle. Whenever more passengers wait for a vehicle at a stop, loading times might lengthen and cause further delays for that vehicle. This can compound individual vehicle delays. Bus bunching is a phenomenon where subsequent vehicles on the same route become more unreliable due to the delayed vehicle eventually catching up to the succeeding buses on the route. According to Strathman et al. (2015), unreliability can impede commuters' ability to reach their destination on time by increasing travel time immediately owing to delays, packing cars with too many passengers for them to fit in, or having wider headways between vehicles.

When using public transit, commuters encounter psychological and environmental stresses, or impedances, which can make getting where they're going challenging. Obstacles include travel duration and distance, packed, poorly ventilated cars, traffic bottlenecks, transit vehicles arriving late, and the quantity of transfers needed to go somewhere. There are disadvantages to driving a car, but those who use public transit face much more difficulties (Koslowsky et al., 2016).

The build-up of stress may cause commuters to experience physical or psychological strain, which would be detrimental to their subjective and objective well-being. Adult research indicates that the stress of commuting might cause workers to exhibit withdrawal behaviors, such as absenteeism, turnover, and tardiness. Employees who have more difficult or stressful commutes typically experience a cascade of stressors, starting with tardiness and absenteeism and perhaps culminating in the worker looking for a job in an easier-to-commute region. Due to deteriorating physical and mental health, stressful commutes may also result in subpar work performance, which may deter employees from arriving at work on time (Feng & Boyle, 2015).\

Earlier research, predating the pandemic, has described where and how people do not feel safe in public transportation. This earlier study delved into the specific locations and circumstances where people felt unsafe, contributing to increased stress. From the traveler's perspective, everyday situations were linked to perceived risks of accidents, crimes, insults, and potential exposure to infections and diseases. Notably, the results underscored the significant impact of psychological factors, particularly the sense of comfort in unfamiliar social settings, as having the most substantial influence on perceptions of safety during travel. This reinforces the multifaceted nature of stressors within public transportation contexts, emphasizing the need for comprehensive strategies to address both physical and psychological aspects of commuter well-being (Currie et al., 2015).

Perhaps a more accurate comparison could be made between adult and student commuters. Anticipate that teenagers will be more sensitive to and experience greater stress from commuting than adults. First, adult commuters are typically served by metropolitan transit systems that are built to get them to job hubs, which are frequently found in downtown areas. All around cities, particularly in residential and outlying locations distant from employment hubs, are schools. Since these commutes necessitate using the transit system in ways that are contrary to the way the system is currently used, students are frequently enrolled in schools that may require longer and more difficult commutes (i.e., away from the city center during morning rush hour or taking cross-town routes). Students appear to have more complicated public transportation commutes than the average adult commuter, at least in Baltimore, based on the frequency of transfers between segments (Stein et al., 2017).

Although we typically only think of commuters as employees, students who must travel daily between home and school also face this issue. When Gwosc, Orr, and Schirmer (2017) examined the median commute durations for higher education students in the European Union, they discovered that students living with their parents had significantly longer daily commutes than those living in other arrangements. Having said that, there needs to be more physical and social connections that can be found in a traditional classroom. Students cannot physically connect; they can only speak and exchange ideas online via chat rooms or broadcasts. It is not appropriate for all types of learners.

Additionally, commuter students are more likely to leave campus right after classes. They are less likely to participate in social events on campus because of other commitments like work or family obligations. As a result, they find it more challenging to establish relationships related to their studies. As a result of its unpredictable nature and sensation of weakness, it can be a severe cause of stress (Biddix, 2015).

The research on the relationship between commute lengths and gender is not entirely conclusive. According to certain studies, women commute shorter distances to school, whereas other studies (Gimenez-Nadal & Molina et al., 2016) suggest that commute lengths converge, and commute durations are similar for men and women.

Furthermore, Astin (2015) reports that commuting is negatively associated with attaining a bachelor's degree, and "substantial commuting seems to raise the stress level experienced by undergraduate students.

In line with that, creating ways to increase the visibility and interaction of commuter students in classes and on campus remains a challenge. One of the most frustrating problems for these students is to get connected to lecturers and peers inside and outside the classroom, as they often arrive just in time for class and leave immediately after their classes have ended. Most commuter students seek to be involved in the campus community and their learning. However, their lives consist of balancing many competing commitments, such as family, work, and other responsibilities, in addition to their studies. Students who do not have satisfactory living or transportation arrangements cannot concentrate on their involvement in learning, and their education is often not their primary focus (Lowe, Miller, & Moffett, 2018).

O'Brien and Chatterjee found that longer travel times and commuting by public transportation were associated with higher stress levels among university students. They also found that commuting by public transportation was associated with higher stress levels among college students compared to those who commuted by car (Chen & Chen, 2019).

According to Legrain, Eluru, and El-Geneidi (2015), school burnout has severe public health and socioeconomic effects. A person's trip has become their overall happiness, and the stress they experience while commuting has become an essential component of our understanding of travel behavior, particularly regarding mode choice. Your quality of life will suffer when you are stressed or exhausted when traveling. Travel has several functions that contribute to happiness. The most significant factor that can directly affect someone's overall happiness is their attitude toward travel.

Transport and duration were not significantly associated with stress levels, although several students have enlisted some major transport-related stressors. Overcrowding was considered one of the most significant contributors to anxiety and uneasiness, which has been pertinent because of the reasons indicated. In females, overcrowding was perceived as a more significant risk factor, leading to opportunistic harassment (Kendra U., 2019).

However, a previous report showed no associations between commuting to school and physical health and well-being, absenteeism, and perceived stress. Hence, it is essential to shed some light on this contradiction by identifying the underlying mechanism for the relationship and narrowing well-being to psychological well-being. Additionally, measures of the effects of commuting on individuals primarily measure subjective well-being, particularly hedonic well-being, which is more concerned with satisfaction, mood, pleasure, and happiness. Nevertheless, it is also necessary to see how commuting students find meaning or purpose in their commuting experience to fulfill their future goals (Mauss et al., 2016).

The National Union of Students surveyed in 2021. 82% of student respondents reported experiencing stress from commuting during the pandemic. This underscores a shared sentiment among students, with concerns about safety, schedule disruptions, and financial pressures identified as primary stressors (Mokhtarian, 2018).

One of the numerous issues commuter students have been being far from the school. Accompanying these students on their daily travels is a dedicated subordinate whose routine includes commuting to work within the city. Meanwhile, the students undertake the regular journey between their homes and the educational institutions they are enrolled in. For commuting students, engagement in their courses could be limited by such challenges to their participation as having difficulties getting to campus, spending less time with fellow student peers, and a reduced or different sense of belonging. There is no single way of addressing these students' needs. It is true that some commuter students will desire the 'normative' student experience and will regret not being able to participate as fully as they would like; thus, adjusting to their needs will help. Others will view it as more utilitarian or 'transactional' (Pickford, 2017).

Being far from the school is just one of the many issues commuter students face. As commuter students, they frequently travel between their homes and various schools. Despite commuter students' difficulties, they continue to pursue their students because they have their own goals and motivations. One of the Seventeen Goals of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) ensures that by 2030, every learner has the information and skills needed to promote ecological development, as well as, among other things, through education for bearable development and ecological routines, human rights, sexual role fairness, advancement of a culture of peace and non-violence, world citizenship, and appreciation of cultural diversity's impact. As a result, students from various locations must have equal access to education (Parveen & Awan, 2019).

Most of the students (92.9%) were rated as having moderate-to-high stress levels. Out of 600 students, 50.8% used transport provided by the university/college, 53.8% did not consider any means of transportation safe, 54.5% students reported that their studies were affected due to indirect factors such as stress, trauma, fatigue, pollutants, congestion, and the consequences were fewer study hours and delayed arrival in class. The frequency of physical abuse along with verbal harassment faced by the students while commuting was reported as 31.3%. Most participants complained that their studies were affected by stressful traveling and other transport issues, but those traveling by the transport provided by the institute had fewer problems. Students have to endure psychological, social, and health-related problems while traveling daily, such as traffic jams, long delays, high incidence of road accidents, verbal, physical, and emotional abuse, stress, and fatigue. These transportation problems have posed severe threats to the education sector, and, at times, it makes it very difficult for women to compete with men (Humayun et al., 2017).

Policies and practices of higher education institutions are often shaped by the needs of campus students, the image of which has remained an ideal type of what it means to be a student. It is also possible for universities to modify these to suit the needs of commuter students better. Situational barriers concern the individual's circumstances, such as health issues or availability of childcare. Dispositional factors include the student's attitude and self-perception, self-esteem, self-efficacy, and motivation (Patterson, 2018).

With the growing urbanization of the Department of Economic and Social Affairs, rising decentralization of suburban areas, and a year-after-year trend demonstrating an increase in the number of motor vehicles on the road, the time people spend commuting has escalated over the past decade. In an age wherein almost all college students travel to college using some form of transport, this poses severe potential drawbacks concerning academic performance, health, anxiety, and stress. As a group, drawing light on this tremendously important topic is vital as we believe it represents a crucial area of socioeconomic interest. Commute time and duration can have an overall detrimental effect on a college student's academic performance, mental state, and physical well-being, which in turn have subsequent ripple effects on the broader population (United et al. Bureau, 2019 &Central Statistics Office Ireland, 2016).

The increase in population has caused an increase in the demand for mobility. If the transport infrastructure cannot meet the demands, this causes an increase in waiting times and congestion in public transport and streets. Public transport can be more attractive by providing "Door to door mobility," and the development of transportation services is an essential factor of social quality. The mobility level of a city can be improved by providing a well-organized transportation system. Hence, accessibility of public transport stops, connectivity of modes of public transport, and system mobility should be considered to provide a user-friendly public transport system (Jackiva Yatskiv et al., 2017).

In rural areas where people living in the community are from each other, school distance is frequently a problem for students because they must travel long distances daily to reach school. There are two modes that students can use to travel to school: the passive and active modes. The passive mode of traveling refers to transporting through motorized vehicles, while the active mode refers to walking or cycling (Baliyan & Khama, 2020).

Several studies in Japan have identified commuting as a possible source of psychological stress. Psychological stress, which arises when external demands are believed to strain or exceed a person's adaptive capacity, is critical to disease development. Indeed, considering commuting as a source of psychological stress is crucial because it is well-understood that daily stressors can endanger our health (Antoun et al., 2017).

Studies on commuting and well-being have focused on commute mode and mode choice of student commuters. Commuting to school has been found to have a significant effect on the psychological well-being of individuals. In contrast, commute mode, in which individuals have to make conscious decisions, such as driving, has been found to account for this relationship. Specifically, the effects of commuting on well-being included decreased mental health, poorer reported health-related quality of life, lower mood at work, and reduced time for family and leisure (Lorenz et al., 2018).

In addition to that, previous research also demonstrated a positive link to mental health. For example, perceived stress in the past month was lower in bicycles compared to motorized commuters. A study conducted by Legrain A. et al. (2015) confirms that commuting stress is caused by an interaction between objective stressors and mediators (time, control, and comfort) and subjective stressors, which act as mediators (feelings, desires, and satisfaction).

Conversely, one's stress attitude determines the importance of stress and whether it is boosting or debilitating. General and school stress mindsets are the two categories of stress mindsets. These stress attitudes have an impact on the negative impacts of stress. Burnout is a harmful side effect of school stress resulting from long-term academic difficulties (Hahm, 2016).

According to the National Center for Education Statistics, over 75% of public institution students are considered commuters. Jacoby described the inaccurate stereotype of commuter students as low achieving "townies" due to a history of lower admittance standards. The reality is that they are active students who are comparably engaged academically as their residential peers (Graham et al., 2018).

A study conducted by social mobility charity the Sutton Trust in February 2018 highlighted that about 55.8% of students under the age of 20 attend a university less than 57 miles from home, while only one in 10 students attends a university more than 150 miles away. The report further highlighted that in 2014-15 (the first year of £9,000 fees), over three-quarters of the student body at the University of the West of Scotland (77.5 percent) and Newman University (76.2 percent) in Birmingham come from less than 91 km away and also live in their parental home (George Caulton,2018).

The perspectives of Singaporean university students who commute were examined in a study by Lim and Tan (2018). According to the survey, commuter students were more stressed than their colleagues who lived on campus. Transportation delays, protracted commutes, and the challenge of juggling academic and commute responsibilities were the most significant sources of stress.

In a study by Strange and Banning, they further explain that campuses should be flexible, adapting to multiple purposes to support academic and social engagement. Such disregard of facilities for commuter students insinuates that those students do not physically belong on campus, which contributes to a diminishing sense of belonging and diminished engagement (Wengert, 2018).

The association between commute time and stress among Korean college students was the subject of a different study by Kim and Lee (2019). According to the study, stress levels were higher when commute times were longer. The authors hypothesized that reducing commute times or giving commuters other options for getting about could help reduce commuter stress.

An instrument survey was conducted to evaluate the passengers' waiting behavior regarding irritation levels due to waiting time at bus stops. The results highlighted a higher irritation level associated with a longer waiting time (Ohmori et al., 2016).

It has also been linked that some studies highlight the importance of considering equity in waiting times, as specific demographic groups, such as low-income individuals or those with disabilities, might be disproportionately affected by more extended waiting periods due to limited transportation options (Cao et al., 2017).

Moreover, different modes of transportation can affect how waiting time is perceived. Research indicates that waiting for public transportation tends to be more stressful than waiting in one's vehicle due to the lack of control and uncertainty associated with schedules (Aldred et al., 2017).

Based on Manalo's (2018) study, public bus transit should be incorporated as part of a sustainable transportation alternative to lessen commuters' burnout with their performance in school or even at work. On the other hand, bus transportation must provide high-quality service to fulfill a broader range of client needs to maintain and attract additional clients. In the bus transportation industry, summing up what drives consumers' and workers' satisfaction and dissatisfaction with life, school, and work is vital. The study has concluded that the burnout of commuters concerning their academic performance is linked significantly to their satisfaction and dissatisfaction with being consumers, students, and workers.

Due to demands connected with interchanges, such as waiting times and delays while switching between different bus lines, public transportation may be seen as more emotionally exhausting than driving to school. When commuters' perceived stress is assessed immediately after arriving, those who commute by automobile report less stress than those who commute by train, while those who commute by bicycle report less stress than those who commute by car. According to one study, there were no differences between the various commuter types in terms of the dimension "relaxation-stress" (however, variations were seen in terms of "enthusiasm-boredom"). However, a recent assessment of the connection between commuting and well-being revealed that active commuting (walking, cycling) tends to be related to relatively lower levels of perceived commute stress compared to other modes of transportation (Brutus, Javadian, & Panaccio,2017).

Recent studies highlight stress factors associated with commuting, including longer travel times, congestion, unreliable transportation services, and limited accessibility to convenient options (Ettema et al., 2018).

Furthermore, several studies have been conducted in the Philippines to explore student commuters' stress levels. These studies have focused on transportation mode, travel time, safety, and cost. In the context of the present study, commuting entails taking public transportation. In the Philippines, students' most common public transportation includes jeepneys, buses, and transit. These

modes of public transportation could be more reliable and comfortable. Students pursuing their degrees are already subjected to much pressure and stress. Additional to that stress is the commute they must endure daily to make it to school. The rise of the student population in Metro Manila colleges and universities may be traceable to students preferring to study in the city despite having options in nearby provinces, cities, or municipalities because eight out of 10 employers' most preferred schools are in Metro Manila (Jobstreet as cited in Rappler, 2018).

Relative to these goals, the Philippines had established public schools in different far-flung areas, even with less transportation and communication technology, to make education accessible to students living in these areas and address children's fundamental right to education (Human Rights Watch, 2016).

Webb's (2015) study shows that sex does not seem to be a specific factor in safety rail issues. Security, on the other hand, is a different matter. Security implies protecting transport users against malicious actions and behaviors.

One study argues that commuting long distances is harmful because it increases the incidence of disruptive adverse events; for example, unexpected traffic and interactions with belligerent persons reduce the capacity to manage other life demands and limit opportunities for leisure and recovery. It has also shown that long-distance commute was affiliated with higher stress. In other words, a dissatisfying commute can be more stressful for an individual. In high-density urban areas, frequent bouts of traffic congestion aggravate the stressful conditions of daily commuting (Rüger et al., 2017).

A few studies explored the effects of the duration of commutes, and most of these researchers focused on the effects of commuting on working individuals rather than students. Students may experience stress during or after their commute since they may feel pressure to get to school on time, reduced time to complete academic requirements, rest, or leisure. Students may need to be more focused on meeting their academic demands, so they may sacrifice attending other beneficial programs their schools provide (Burlison, 2015).

As mentioned in the study of Lunke (2020), when you are burned out or anxious while traveling, your quality of life will deteriorate. The link between travel and happiness operates in several ways. People's attitudes toward travel, most crucially, can directly impact their overall happiness.

Previous studies have focused more on commute mode, which is the type of vehicle or transportation people take to go from one place to another, as an intervening variable between commuting and well-being rather than the length of time of commute or satisfaction with travel (Cheng et al., 2016)

Likewise, previous studies included various forms of traveling to and from the point of destination—for example, public transportation, driving, biking, and walking. The same cannot be perfectly applied to the context of the current study, where commuting is construed as taking public transportation exclusively. However, a previous report showed no associations between commuting to work and physical health and well-being, absenteeism, and perceived stress. Hence, it is pivotal to shed some light on this contradiction by identifying the underlying mechanism for the relationship and narrowing well-being to psychological well-being (Mauss et al., 2016).

According to the study by Sahu et al. (2018), student commuters who depended on ride-sharing apps or who resided in locations with few public transit options reported increased stress levels due to the unpredictability and uncertainty of their commute.

Understanding the specific factors that influence stress levels can lead to interventions that enhance the overall well-being of commuters and improve their quality of life. For instance, research by Lewandowsky et al. (2016) explored the psychological factors influencing commuting stress. They found that while commute duration impacted stress levels universally, individual differences, including gender and age, played a role in how individuals perceived and coped with this stress.

A study conducted in Edinburgh by (Stradling et al., 2017) sheds light on the unwarranted stress and anxiety prevalent in less secure situations. The study underscores instances where individuals reported heightened anxiety, such as when traveling at night or waiting at the bus stop. Notably, it was conducted well before the current COVID-19 pandemic. It documented instances where individuals reported experiencing unwarranted anxiety triggered by observations like people sneezing or coughing without covering their nose and mouth. These insights emphasize the persistent nature of stressors related to commuting and highlight the diverse range of situations that can contribute to heightened anxiety among commuters.

Another study by Chen et al. (2018) investigated commuting stress among college students. They found that both sex and age influenced stress levels, with females and younger students reporting higher stress due to factors such as safety concerns, time constraints, and overcrowded transportation.

Another study done surveying Norwegian Train Drivers and Railway Workers delved into the correlation between commuting and adverse health effects. The findings revealed a substantial increase in health complaints among individuals who commuted for an hour or more daily, in stark contrast to their colleagues with shorter commutes (Urhonen et al., 2016).

Furthermore, commuters waiting longer for a public transport service also tend to be more stressed. Long wait times are most likely caused by services not running according to schedule, which, in turn, induces stress due to lack of reliability and diminished. The longer this wait time, the more intense these feelings of stress become, as would be expected intuitively. It was found that commuting stress correlated significantly with features of the respondent's commute, as supported by (Arbex et al., 2020).

For one, psychological distress scores did not significantly vary between students in their year of college and those in successive years, and being a college student did not show up as significantly associated with distress. The consistency of high levels of distress for students after different years indicates that stressors that emerge in the transition year into college are not relieved once students adjust to college life. Or it could imply that different stressors come into play in the subsequent years of a college student's career. This finding is important given how previous nonresidential student studies have focused on the first-year experience and adjustment-related stressors (Gefen D.R. et al., 2015).

One study aims to contribute to the understanding of the theory, particularly in the stress-strain framework of commuting and health. The relationship between commuting time and well-being becomes more thoroughly explained by introducing a more specific form of stress, such as academic stress. Moreover, the problem of difficulty commuting in Metro Manila and how it affects students' psychological well-being would inspire social awareness and action about the detrimental effects of commuting on our students. In high-density urban areas, frequent bouts of traffic congestion aggravate the stressful conditions of daily commuting (Rüger et al., 2017).

Inadequate accessibility to transportation options leads to psychological distress among commuters. Feelings of frustration, helplessness, and increased anxiety are common among individuals facing challenges in accessing convenient transportation (Novaco & Stokols, 2019).
One study shows that as a first-year student entering college, commuting can be an added stress factor to an already overwhelming experience. Students need to receive support from their institution to create their community. Without finding a community during their first year, students may feel isolated in their new academic environment and fail to fulfill their academic goals (Fanny He, 2019).

Prolonged wait times at transit stops were identified as a factor negatively impacting mental health and the perceived quality of life for commuters. It highlights the significant impact that the amount of time people spends anticipating their commute can have on their mental health and level of satisfaction in general, especially when navigating the complex networks of public transit systems. The magnitude of this effect emphasizes how important it is to give careful thought to public transportation design and efficiency improvements to improve commuters' overall experiences (Lucas et al., 2015).

The study of (Nadal & Molina et al., 2016) shows that the unadjusted gender gap in commuting is not particularly pronounced as a contributing factor to stress, which is in line with previous evidence for this country (Spain) from an international comparative perspective. The literature on the links between gender and commute lengths is inconclusive. Some studies state that women travel shorter distances to get to school, while others find that commute lengths converge, and commute durations are incomparable for men and women.

A comprehensive examination of commuting stress in the London area, as detailed by (Amponsah-Taiwah et al., 2016), discerns that the predominant source of stress is the degree of impedance or difficulty encountered during the commute. Interestingly, this study underscores that the nature of the student's course does not significantly contribute to the stress levels experienced. Instead, it emphasizes the crucial role of the commuting experience itself, shedding light on the tangible impact of impediments and challenges faced during the journey as crucial determinants of stress, irrespective of the academic discipline pursued by the students.

Over the years, factors like continued inbound migration of residents, population growth, and centralization of economic activity have led to increased vehicular traffic in these areas. For instance, in Metro Manila, with a population estimate of 12,877,253, commuters view traffic congestion as an expected and "inescapable" experience of navigating the busy inroads of metropolitan

living. This "urban jungle-like" commuting environment gives rise to the normative influx of stressors wherein most commuters need to manage the impact of pressure exerted on them effectively. Moreover, by closely examining the environment of these roadways, the study finds that most pedestrian fatalities occur on high-speed, high-traffic-volume, multilane roadways surrounded by land uses that generate a particularly problematic mix of heavy vehicular and pedestrian traffic. The street-level analysis also finds that fatal pedestrian crashes occur close to different types of transit stations (Versoza & Miles,2016).

Furthermore, as highlighted by (Gefen et al., 2015), there was no significant variation in psychological distress scores between students in their initial and subsequent years of college. Surprisingly, being a college student did not emerge as significantly associated with distress, challenging conventional expectations. The consistent elevation of distress levels across different years suggests that stressors encountered during the transitional phase into college are not alleviated as students adapt to college life. Alternatively, it raises the possibility that distinct stressors come into play during the subsequent years of a college student's academic journey. This finding holds significance, especially considering that previous research on nonresidential students has often concentrated on the first-year experience and associated adjustment stressors.

One study underscores that stress levels during commuting were notably impacted by restricted access to reliable transportation options, leading to heightened stress due to uncertainties and delays. The findings emphasize the critical importance of addressing challenges in transportation accessibility to enhance the overall well-being of commuters, reinforcing the need for strategic interventions to mitigate stressors and ensure a smoother commuting experience (Lachapelle et al., 2020).

About the transport and health literature, the review is confined to health impacts associated with traffic-induced air pollution as referenced in Transport for Health. The relationship between transport and healthcare access is addressed to a limited extent to illuminate some of the critical transport-related issues but without a full exploration of this very complex subject involving numerous sociological and economic issues unrelated to roads and transport services (Global Road Safety Facility, 2015).

Evidence from research has also shown that long distances travelled to school are among the significant reasons why students perform poorly and eventually drop out of school (Ugbong et al., 2017).

The study of Esfeh et al., (2022), postulated that waiting time have expanded to regression analysis using characteristics such as gender, ethnicity, location, schedule reliability, and commuters age.

Additionally, one study suggests that, among the surveyed group, sex does not emerge as a significant determinant of stress concerning commuting-related factors. This aligns with numerous studies investigating the potential differential effects of commuting by sex in various domains, including perceived stress, mental health, flexibility of academic hours, impact on leisure time, and subjective well-being (Chatterjee et al., 2020).

This study supported the Transactional Model of Stress and Coping (Lazarus, as cited in Ben-Zur, 2019), which considers stress a subjective experience rather than an objective one. Thus, stress is a product of an individual's subjective perceptions about his or her current situation as opposed to his or her personal resources to cope with the stressor. According to this model, the repercussions extend beyond the immediate stressors and can manifest long-term effects on physical wellness, psychological well-being, and social relationships. It becomes evident that the continuous experience of stressors, like navigating through traffic, can have profound and lasting implications for an individual's overall health. This includes the physical toll of stress and its intricate connections to psychological and social dimensions. The interplay between stress and well-being is further underscored by the notion that perceived stress is a mediator in this relationship.

The study by Gasparovic concluded that transportation problems could influence students' academic achievements. Even though they had a weak connection, it was still a significant find. He stated that the students consume much time on their way to school due to transportation problems (traffic congestion, transportation lines, public transport). The reasons why the students' latest and absences are increasing are related to the long travel times spent going to school. It was also investigated that the long travel time of students hinders their school activities as they suffer from lack of sleeping time, fatigue, and stress. Heavy traffic can also lead to respiratory diseases and heart problems. It was studied that prolonged exposure to polluted air can cause problems in our health system since traffic is a daily problem that commuters experience (Jalagat Jr., 2015).
According to one study, students with longer commutes had considerable physical challenges, greater levels of stress, and an increased chance of accidents. Furthermore, it was found that students with increased commute times also seemed to lose sleep more frequently than those with shorter commute times. In addition, the study established that commuting harms academic performance, as students who commuted for extended periods were shown to have decreased academic performance and less time to study (Jamil D. et al., 2022).

In light of the anchor theory, supporting theories, related literature, and findings of prior research presented herein, this study will be conducted to shed light on the current situation of student commuters' perceived stress level. Thus, the results of this research will serve as the foundation for a subsequent action plan and intervention.

3. Objective of the Study

This study investigated the perceived stress levels among student commuters at the University of Cebu-Main Campus for the academic year 2023-2024, with the findings informing the development of a proposed action plan. Specifically, the research addressed the following objectives: to determine the demographic profile of respondents based on sex, age, year level, and department; to assess the perceived level of stress among respondents; to explore the relationship between demographic factors and perceived stress levels; to examine differences in stress levels when respondents are grouped according to their demographic profile; and to propose an action plan based on the study's findings.

4. Research Methodology

This section of the study presented the description of the research methods to be used, which were the research design, the environment and respondents of the study, the instruments to be used, the procedures and sources of data utilized in analyzing the data gathered, the ethical considerations and the trustworthiness of the research study.

4.1 Research Design

This quantitative research study used a descriptive-correlational research design since it frequently utilized investigations to establish the relationship between various variables and present static images of situations. The researchers used this design because it enables them to collect significant amounts of data to help them analyze frequencies, averages, and patterns. Calderon (2006) described descriptive correlational research as a deliberate method of gathering, evaluating, classifying, and tabulating data on current situations, practices, processes, trends, and cause-and-effect linkages. It also provided an acceptable and correct interpretation of such data with or without or occasionally with limited assistance from statistical tools. In addition, this design enables the researchers to give insightful information that might guide future research and aid in a better understanding of a particular aspect of this study.

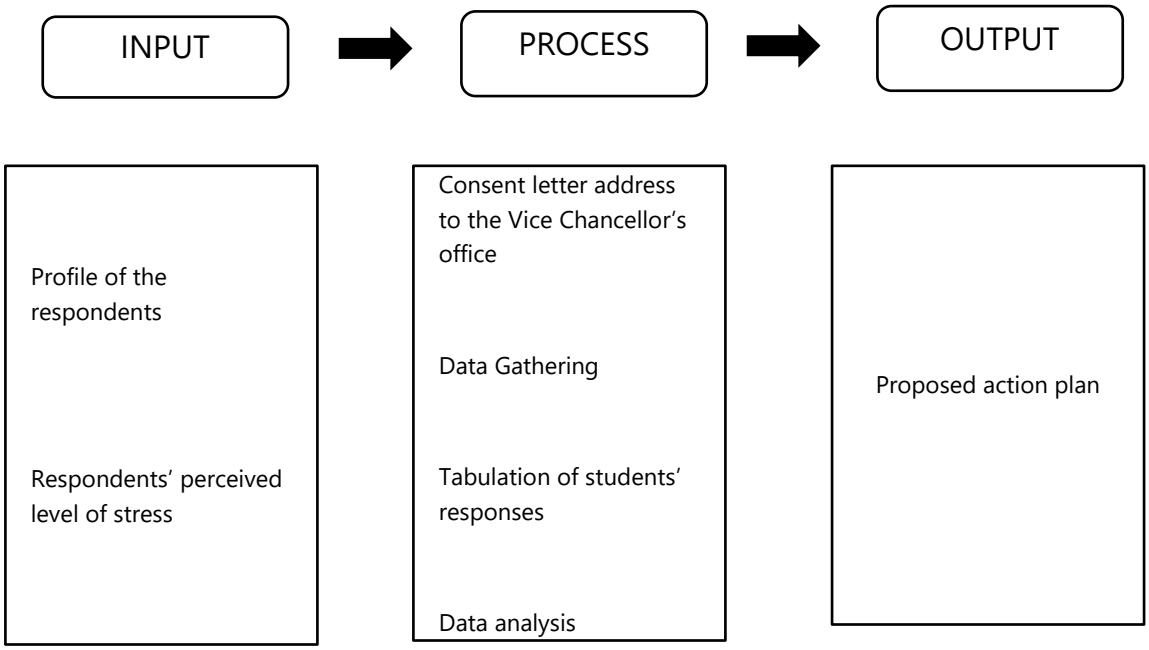

Figure 1: FLOW OF THE STUDY

4.2 Research Environment

The researchers conducted their study on one of the campuses of the University of Cebu. It is a private educational institution located in Cebu City, Philippines. It was founded in 1964 by Atty. Augusto W. Go was a visionary lawyer and entrepreneur who wanted to provide quality education to the people of Cebu. Initially, the University of Cebu was a vocational school that offered short-term courses in various technical and vocational fields. However, in the 1980s, the university began offering bachelor's degree programs in business, education, engineering, and law. The university continued to expand its academic offerings over the years

and now offers various undergraduate and graduate programs in various disciplines. Today, the University of Cebu is well known as one of the most comprehensive and respected universities in the Philippines. It has multiple campuses in Cebu City and neighboring municipalities. These are UC-Pardo, UC-PRI, UC-LM, and U.C.- Banilad. These campuses are known for their vital academic programs, modern facilities, and innovative teaching methods.`

The research was conducted at the University of Cebu-Main Campus, along Sanciangko St, Cebu City, Philippines, which offers 32 courses across different college departments as of 2023. This university is an accessible institution within the metro, providing varied and constantly upgraded courses for the youth. The campus has been, and still is, home to many top-notch champions in academics, technology, arts and culture, and sports. Furthermore, the university is a member of various international organizations and partners with universities and institutions worldwide. The reason for selecting this campus is that it enables the researchers to reach their respondents quickly, as they are from this campus which will be the main focus of the study.

4.3 Research Respondents

The respondents of this study were the currently enrolled student learners of the University of Cebu – Main Campus. The researchers used G* power to determine the sample size. G*power is a free software that helps determine the sample size needed based on various tests. The following aspects examined in determining sample size: effect size, level of significance, confidence level, and degree of freedom. Using G* Power with a large effect size of (0.5), the margin of error of 0.05, and confidence interval of 0.95, the sample size is 144 respondents, but to reach an equal result, the sample size was 150. The probability sampling method, precisely a cluster sampling technique, was used to select respondents for the study, ensuring that each respondent from different clusters would have an equal chance of being chosen. The sample size was considered sufficient to yield statistical data for the study.

4.4 Research Instrument

In order to measure the perceived level of stress, respondents were given a researcher-made survey questionnaire consisting of forty (40) items on a four-point Likert scale (from Not Stressful at all to Very Stressful). The researchers used relevant information and insights gathered from various internet sources to build the Likert scale that was applied in this study to measure student commuters' perceived stress level. The scale was modified to meet the study's specific research objectives and context. The questionnaire was designed to evaluate the results of the respondents' perceived level of stress in commuting. Since no open-ended questions were involved, the questionnaire was manually handed to the respondents, making it less time-consuming. The experts validated the questionnaire, and a pilot test was conducted to evaluate further the sustainability of the questionnaire for the research study and the respondents.

Furthermore, respondents could choose whether or not to identify themselves by their names, and other personal information was not collected about them. Although some demographic information was gathered, it would not be used to identify them specifically. Participation in the study was voluntary, and ethical standards were closely followed, with no coercion for the students.

4.5 Research Procedure

This section goes over the step-by-step procedure of data collection, and data analysis.

4.5.1 Data Gathering

The researchers composed a letter, and was handed to the Vice Chancellor for Academic Affairs office, requesting approval for the study. The Vice Chancellor for Academic Affairs was the letter's recipient. The researchers started conducting the study when the letter was approved. Since the respondents were randomly chosen, the researchers explained the study's goals, objectives, and subjects to the respondents. They also demonstrated that their primary responsibility would be filling out the questionnaire. The survey questionnaire, which compiles data from the respondents, contains closed-ended questions.

In addition, the researcher acquired consent forms from the respondents. This informed consent enlightened the potential research respondents about the research study's key elements and their participation. The questionnaires were handed out to the respondents. Once done, the researchers guaranteed the respondents that all the answers collected would only be applied to the research study. To increase the validity of the data, the researchers gave the respondents the option of requesting further information or explanations regarding the study. When everything was complete, the researchers thanked the respondents wholeheartedly for participating.

4.5.2 Treatment of the Data

The data collected from the respondents were analyzed using several statistical tools to ensure a comprehensive understanding of the study's objectives. Frequency and percentage were employed to describe the respondents' demographic profiles, providing a detailed descriptive analysis. The weighted mean was calculated to assess the perceived stress levels of the respondents. To

explore the relationships between demographic variables and perceived stress, the Chi-square test of independence was applied. Additionally, the Kruskal-Wallis H test, also known as the one-way ANOVA on ranks, was used to identify statistically significant differences in perceived stress levels across different groups within the respondents' profiles.

5. Discussion

This chapter presents, analyzes, and interprets the Respondent's Demographic Profile, Student commuters' perceived level of stress, relationship between the profile and students perceived level of stress, and perceived level of stress when grouped according to profile. The presentation and discussions are presented based on the sequence in the problem statements.

Table 1

Profile of the Respondents (N=150)

Profile	Frequency	Percentage
Sex		
Female	75	50.0
Male	75	50.0
Total	**150**	**100**
Age		
18 Years Old	12	8.0
19 Years Old	26	17.3
20 Years Old	30	20.0
21 Years Old	37	24.7
22 Years Old	26	17.3
23 Years Old	19	12.7
Total	**150**	**100.0**
Year Level		
First Year	39	26.0
Second Year	39	26.0
Third Year	37	24.7
Fourth Year	35	23.3
Total	**150**	**100.0**
Program		
College of Arts and Sciences	17	11.3
College of Customs Administration	17	11.3
College of Business Administration	17	11.3
College of Teacher Education	17	11.3
College of Engineering	17	11.3
College of Criminal Justice	16	10.7
College of Hospitality Management	17	11.3
College of Information Technology and Computer Studies	16	10.7
College of Social Work	16	10.7
Total	**150**	**100.0**

Table 1 shows that the data set under examination provides a comprehensive overview of individuals categorized by various attributes, including sex, age, year level, and college program. In Table 1, the data is evenly distributed between females and males, with each gender accounting for 50% of the total. This suggests a balanced representation of genders in the dataset. While the age distribution shows a range from 18 to 23 years old. The most age group is 21 years old, accounting for 24.7% of the total. The 20-year-old and 22-year-old groups are the next most numerous, each representing 20% and 17.3% of the total, respectively. The smallest age group is 18 years old, making up only 8% of the total. Overall, the dataset appears to have a diverse age distribution, with the majority falling within the 20-23 years old range.

Moreover, Table 1 shows the data is distributed fairly evenly across year levels. First-year and second-year students each make up 26% of the total, indicating a balance between the early years of study. Third-year students account for 24.7% of the total. Fourth-year students represent 23.3% of the total. The distribution of students across different year levels is relatively balanced. The dataset represents various college programs. Each program has approximately 11.3% of the total students, indicating an even distribution. The College of Arts and Sciences, College of Customs Administration, College of Business Administration, and College of Teacher Education each have 17 students (11.3%). The College of Criminal Justice and College of Hospitality Management also

have 11.3% each. The College of Engineering, College of Information Technology and Computer Studies, as well as the College of Social Work, account for 10.7% each.

The data set appears to be well-balanced in terms of sex, age, year level, and program representation. The data provides insights into the demographics and characteristics of the individuals within the dataset, which can be useful for further analysis or decision-making based on specific research or organizational goals. It shows that a large part of the college student population commutes to their campuses and can be seen as the largest and most complexly diverse group of students in higher education. Research has shown that 85% of college students commute, increasing this number. Commuting students (commuters) are an essential part of college campuses, given their scope and enrollment. Different definitions exist of commuter students, which include: (1) live at home and travel to campus, or they live with classmates off-campus, (2) those who do not live-in university-owned housing, or (3) all students who drive to campus rather than walk are commuter students. These definitions hold the concept of some distance or travel to campus as a part of their college experience, which features non-cognitive barriers towards degree persistence.

Table 2
Respondents' Perceived Level of Stress (WAITING TIME) N=150

	Indicator	Mean	Standard Deviation	Rank	Verbal Description
1.	Waiting for public transportation during peak hours. *(Paghulat ug masakyan sa oras nga daghan ug pasahero)*	3.0933	.94369	5	Stressful
2.	Uncertainty of the arrival time of public transport rides. *(Way siguro ug maabot ang sakyanan.)*	2.8800	.81034	2	Stressful
3.	Waiting time for the public transport to leave for its destination. *(Paghuwat sa sakyan nga molarga.)*	2.6000	.94123	10	Stressful
4.	Waiting for the public transportation in crowded and congested areas. *(Paghuwat sa masakyan sa lugar nga daghan ug tawo nya gahuot.)*	3.4933	.73042	1	Very Stressful
5.	Delays and disruptions when waiting for the public transportation. *(Pagkalangan ug pagkasamok sa paghulat sa masakyan)*	3.1933	.88762	4	Stressful
6.	Getting a public transportation ride during peak hours. *(Pagsakay sa oras nga ting sakay sa uban.)*	3.3067	.84303	3	Very Stressful
7.	Waiting for multiple modes of transportation. *(Paghuwat sa mga lain-lain nga klase sa masakyan.)*	3.033	2.5420	7	Stressful
8.	Lack of comfortable and convenient waiting area. *(Kakulangan sa komportable ug sa sayon nga lugar sa paghuwat sa masakyan.)*	2.8667	.89493	8	Stressful
9.	Waiting for transportation during adverse weather condition. *(Paghuwat sa masakyan ug di maayo ang kahimtang sa panahon.)*	3.4200	.71672	2	Very Stressful
10.	The uncertainty of waiting times for public transportation causes me stress because it's unpredictable. *(Kaway kasiguruhan sa oras sa paghulat ug masakyan kay kini dili matag-an o mabana-bana.)*	3.0467	.80549	6	Stressful
	Total	**3.2633**	**.75905**		**Very Stressful**

[1.00 to 1.74 – Not Stressful; 1.75 to 2.49 - Somewhat Stressful; 2.50 to 3.49 – Stressful; 3.50 to 4.00 – Very Stressful]

Table 2 presents respondents' perceived levels of stress related to waiting for public transportation. The table includes various indicators, mean stress ratings, standard deviations, rankings, and verbal descriptions. The table lists ten specific indicators representing different aspects of the waiting experience for public transportation. Each indicator has a mean stress rating, standard deviation, rank, and a verbal description. "Waiting for public transportation in crowded and congested areas" (Indicator 4) is ranked as the most stressful aspect with a mean stress rating of 3.4933. This is described as "Very Stressful," suggesting that crowded and congested areas significantly contribute to stress during the waiting time. "Waiting for transportation during adverse weather

conditions" (Indicator 9) has a mean stress rating of 3.4200, ranking second and described as "Very Stressful. However, other factors such as "Uncertainty of the arrival time of public transport rides" (Indicator 2) is ranked as the second stressful aspect with a mean rating of 2.8800. It's described as "Stressful." "Lack of comfortable and convenient waiting area" (Indicator 8) is also perceived as stressful, with a mean stress rating of 2.8667.

The findings on Waiting Time when commuting indicate "Very Stressful". This finding aligns with the study of Ohmori et al. (2016) stating that there is a higher irritation stress level associated with a longer waiting time. Moreover, due to demands connected with interchanges, such as waiting time and delays while switching between different bus lines, public transportation may be seen as more emotionally exhausting than driving to school, as supported in the study of (Brutus et al., 2017). It also provides a clear similarity that different modes of transportation can affect how waiting time is perceived. Research indicates that waiting for public transportation tends to be more stressful compared to waiting in one's vehicle, owing to the lack of control and uncertainty associated with schedules, Aldred et al. (2017). Furthermore, it has also been coherent in some studies which highlights the importance of considering equity in waiting times, as certain demographic groups, such as low-income individuals or those with disabilities, might be disproportionately affected by longer waiting periods due to limited transportation options (Cao et al., 2017).

Table 3

Respondents' Perceived Level of Stress (TRAFFIC) N=150

	Indicator	Mean	Standard Deviation	Rank	Verbal Description
1.	Heavy traffic when commuting. *(Ka grabe sa trapiko ug magcommute.)*	3.4867	.73946	1	Very Stressful
2.	Travel distances between my home and school campus. *(Ang distansya sa pagbiyahe gikan sa among balay paingun sa skuylahan.)*	2.7733	1.03071	10	Stressful
3.	Being stuck in traffic for extended periods. *(Pagkastuck sa traffic sa pipila ka oras.)*	3.4733	.67254	2	Very Stressful
4.	Unexpected traffic situations. *(Wa damha nga sitwasyon sa trapiko.)*	3.3733	.72858	3	Very Stressful
5.	When drivers navigate crowded roads and intersections. *(Kon maghuot ang mga drayber sa dalan ug interseksyon.)*	3.0733	.79509	6	Stressful
6.	The extended duration of commute negatively impacts my mental health. *(Ang gidugayon sa pag-commute makaapekto sa akong pangisip.)*	2.7800	.89645	9	Stressful
7.	Road construction and detours when commuting. *(Pag-ayo sa dalan ug pag-agi sa lain agianan.)*	3.2400	.98089	4	Stressful
8.	When parades or events on the roads lead to traffic congestion. *(Kon ang mga parada o mga panghitabo sa karsada modugang sa kahuot sa trapiko.)*	3.1467	.90031	5	Stressful
9.	The duration of traffic lights that causes traffic. *(Ug mas layo ang distansya/byahe motaas ang plete.)*	2.8267	.94653	8	Very Stressful
10.	Commuting over by distances leads to higher transportation costs. *(Ug mas layo ang distansya/byahe motaas ang plete.)*	2.9867	.89732	7	Stressful
	Total	**3.2953**	**.72170**		**Very Stressful**

[1.00 to 1.74 – Not Stressful; 1.75 to 2.49 - Somewhat Stressful; 2.50 to 3.49 – Stressful; 3.50 to 4.00 – Very Stressful]

In Table 3, it provides a summary of respondents' perceived levels of stress related to traffic during their commute. The total mean stress rating for all respondents is 3.2953, categorized as "Very Stressful." This indicates that, on average, respondents find long routes and traffic during their commute to be highly stressful. Table 3 shows that "Heavy traffic when commuting" (Indicator 1) is ranked as the most stressful aspect, with a mean stress rating of 3.4867. This factor is described as "Very Stressful," highlighting that heavy traffic is a significant source of stress for respondents. "Being stuck in traffic for extended periods" (Indicator 3) is ranked as the second most stressful, with a mean rating of 3.4733. It is also described as "Very Stressful." "Travel distances between my home and school campus" (Indicator 2) is perceived as stressful but ranks as the least stressful, with a mean stress rating of 2.7733. "The extended duration of commute negatively impacts my mental health" (Indicator 6) is ranked ninth, with a mean rating of 2.7800 and is described as "Stressful."

The findings indicate that student commuters find the Long Route/Traffic highly stressful, a sentiment that resonates with the noteworthy insights put forth in Rüger et al.'s (2017) study. According to Rüger et al., commuting long distances is detrimental as it elevates the likelihood of encountering disruptive negative events, such as unpredictable traffic and interactions with confrontational individuals. These challenges not only impede the effective management of other life demands but also curtail opportunities for leisure and recovery, underscoring the far-reaching consequences associated with prolonged commuting. It has also shown that the long-distance commute was affiliated with higher stress. In other words, a dissatisfying commute can be more stressful to an individual.

In line with this, the results that indicate long routes/traffic were very stressful to student commuters were seen to be more evident in the study of O'Brien and Chatterjee which they also found that longer travel times and commuting by public transportation were associated with higher levels of stress among university students. They also found that commuting by public transportation was associated with higher levels of stress among college students compared to those who commuted by car (Chen & Chen, 2019).

Furthermore, the theoretical framework put forth by Lazarus and Folkman (1984), known as the Transactional Model of Stress and Coping, provides a coherent perspective on the impact of prolonged exposure to stressful situations, such as being stuck in traffic, on various facets of a student commuters' life. According to this model, the repercussions extend beyond the immediate stressors and can manifest in long-term effects on physical wellness, psychological well-being, and social relationships. It becomes evident that the continuous experience of stressors, like experiencing being stuck in traffic, can have profound and lasting implications for an individual's overall health. This includes not only the physical toll of stress but also its intricate connections to psychological and social dimensions. The interplay between stress and well-being is further underscored by the notion that perceived stress acts as a mediator in this relationship, as highlighted by Ben-Zur (2019).

Table 4
Respondents' Perceived Level of Stress (HEALTH AND SAFETY) N=150

	Indicator	Mean	Standard Deviation	Rank	Verbal Description
1.	Personal safety when commuting. *(Ang personal nga seguridad kon mag-commute.)*	2.9400	.87646	10	Stressful
2.	The lack of proper hygiene and sanitation of other commuters. *(Kakuwangan sa saktong pagkalimpyo ug sanitasyon sa ubang commuters.)*	3.3000	.82535	5	Very Stressful
3.	Potential road accidents when commuting. *(Potensyal nga mga aksidente sa dalan kon mag-commute.)*	2.9667	.92987	7	Stressful
4.	Feeling vulnerable to harassment or unwanted attention during my commute. *(Ang feeling nga vulnerable sa harassment o dili gusto nga atensyon sa akong pag-commute.)*	2.7267	.94760	8	Stressful
5.	The risk of exposure to illnesses or contagious diseases when commuting. *(Pagrisk nga maladlad sa mga sakit o makatakod nga sakit samtang mag-byahe.)*	2.4333	1.05179	3	Somewhat Stressful
6.	Inadequate measures of physical distancing when commuting.	2.7133	1.05128	9	Stressful

	(Di mao na pisikal na distansya kung mag-byahe.)				
7.	Public transportation vehicles increases my concerns to illness exposure. *(Ang mga publikong sakyanan nagdugang sa akong kabalaka sa pagka expose sa sakit.)*	3.0067	.93763	7	Stressful
8.	Lack of proper hygiene,cleanliness,and maintenance of public utility vehicles. *(Kakulangan sa, kalimpyo, ug pagmentinar sa mga sakyanan.)*	2.8133	.91510	2	Stressful
9.	The need to safeguard my belonging from potential thieves while commuting. *(Ang panginahanglan na pagbantay sa akong mg butang gikan sa mga potensyal nga kawatan ug mangout samtang ga byahe.)*	2.8600	.85161	1	Stressful
10.	Insufficient accessibility and safety provisions for individuals with disabilities or special needs. *(Ang kakuwangan sa accessibilidad ug probisyon sa kaluwasan alang sa mga indibidwal nga adunay mga kakulangan o espesyal nga mga panginahanglan.)*	2.7667	.95127	4	Stressful
	Total	**3.1067**	**.76102**		**Stressful**

[1.00 to 1.74 – Not Stressful; 1.75 to 2.49 - Somewhat Stressful; 2.50 to 3.49 – Stressful; 3.50 to 4.00 – Very Stressful]

Table 4 shows the data pertaining to respondents' perceived levels of stress regarding health and safety during their commute reveals several noteworthy findings. Among the various indicators, "The need to safeguard my belongings from potential thieves while commuting" (Indicator 9) emerges as the most stressful aspect, ranked first, with a mean stress rating of 2.8600 and described as "Stressful". In addition, "The lack of proper hygiene, cleanliness, and maintenance of public utility vehicles" (Indicator 8) follows closely as the second most stressful factor, with a mean rating of 2.8133 and also described as "Stressful." This suggests that the condition of public utility vehicles is a substantial source of stress for commuters. While "Personal safety when commuting" (Indicator 1) is ranked tenth and is perceived as the least stressful factor among the listed indicators, it is essential to note that it is still considered stressful by respondents. The data implies that while personal safety is less stressful compared to other factors, it remains a source of concern during the commute.

Overall, the findings categorize the experiences of studnt commuters as "Stressful". Intriguingly, this aligns seamlessly with a 2021 survey conducted by the National Union of Students, where 82% of student respondents reported experiencing stress linked to commuting during the pandemic. This underscores a shared sentiment among students, with concerns about safety, disruptions to schedules, and financial pressures being identified as primary stressors, as elucidated by Mokhtarian (2018). In alignment with the findings indicating that health and study-related aspects were stressful, a study conducted in Edinburgh by Stradling et al. (2017), sheds light on the unwarranted stress and anxiety prevalent in less secure situations. The study underscores instances where individuals reported heightened anxiety, such as when traveling at night or waiting at the bus stop. Notably, it was conducted well before the current COVID-19 pandemic, documented instances where individuals reported experiencing unwarranted anxiety triggered by observations like people sneezing or coughing without covering their nose and mouth. These insights emphasize the persistent nature of stressors related to commuting and highlight the diverse range of situations that can contribute to heightened anxiety among commuters. Moreover, an additional study, conducted among Norwegian Train Drivers and Railway Workers, delved into the correlation between commuting and adverse health effects. The findings revealed a substantial increase in the number of health complaints among individuals who commuted for an hour or more daily, in stark contrast to their colleagues with shorter commutes (Urhonen et al., 2016).

Additionally, the observed link between commuting stress, especially concerning health and safety, closely parallels Hans Selye's General Adaptation Syndrome theory, specifically within the resistance stage. In this phase, students contend with heightened stress hormones like cortisol and adrenaline, resulting in sustained elevated blood pressure. The continuous exposure to common stressors, such as polluted air from traffic, amplifies potential health risks. Progressing into the exhaustion stage, students may grapple with burnout, leading to fatigue and a decline in overall performance. This application of stress theory underscores the pressing need for comprehensive strategies to address the cumulative impact of commuting stress on students' well-being. (Jalagat Jr., 2015).

Table 5
Respondents' Perceived Level of Stress (ACCESSABILITY/AVAILABILITY) N=150

	Indicator	Mean	Standard Deviation	Rank	Verbal Description
1.	Lack of accessible public transportation options. *(Kakulangan sa accessibilidad sa opsyon masakyan.)*	2.9400	.87646	4	Stressful
2.	Limited availability of transportation during peak hours. *(Limitado nga masakyan sa oras nga ting sakay.)*	3.3000	.82535	1	Very Stressful
3.	Encountering challenges in finding public utility vehicles that align with my schedule. *(Pagproblema sa pagpangita og masakyan nga mosakto sa akong eskedyul.)*	2.9667	.92987	3	Stressful
4.	Inadequate public transportation routes or coverage to my location. *(Dili mao nga ruta ang agian o ang dili pag-sakop sa akong lugar.)*	2.7267	.94760	8	Stressful
5.	The distance that I have to walk from my house to the public utility vehicles station *(Ang gilay-on nga kinahanglan Nakong baklayon gikan sa among balay ngadto sa estasyon sa mga salakyanan .)*	2.4333	1.05179	10	Somewhat Stressful
6.	The need to transfer from one public utility vehicle to another in order to reach my destination. *(Ug kinahanglan mo balhin gikan sa usa ka salakyan ngadto sa lain aron makaabot sa akong destinasyon.)*	2.7133	1.05128	9	Stressful
7.	Encountering difficulties in locating transportation alternatives during service disruptions. *(Ang pagsugat sa kalisud sa pagpangita og mga alternatibo sa transportasyon sa panahon sa pagkadugay.)*	3.0067	.93763	2	Stressful
8.	Limited availability of affordable transportation options for students. *(Limitado nga mga kapilian na barato pwede masakyan sa mga estudyante)*	2.8133	.91510	6	Stressful
9.	The absence of up-to-date information on transportation schedules and delays. *(Ang pagkakulang sa bag-o nga impormasyon sa mga iskedyul sa transportasyon ug mga delay.)*	2.8600	.85161	5	Very Stressful
10.	The reliability and consistency of transportation options during commute have significant impact on my mental wellbeing. *(Pagsalig ug pagkamakanunayon na kapilian sa masakyan ug panahon sa pag-commute adunay dakong epekto sa akong pangisip.)*	2.7667	.95127	7	Stressful
	Total	**2.9800**	**.85507**		**Stressful**

[1.00 to 1.74 – Not Stressful; 1.75 to 2.49 - Somewhat Stressful; 2.50 to 3.49 – Stressful; 3.50 to 4.00 – Very Stressful]

Table 5 shows the data regarding respondents' perceived levels of stress concerning the accessibility and availability of public transportation during their daily commute provides valuable insights. The overall mean stress rating for all respondents is 2.9800, categorizing their experience as "Stressful." This suggests that, on average, respondents find the accessibility and availability of

public transportation to be a significant source of stress during their daily travels. The most stressful aspect, according to the data, is the "Limited availability of transportation during peak hours" (Indicator 2), with a mean stress rating of 3.3000, described as "Very Stressful". In addition, the second most stressful factor is "Encountering difficulties in locating transportation alternatives during service disruptions" (Indicator 7), with a mean stress rating of 3.0067, described as "Stressful". While respondents find "The distance that I have to walk from my house to the public utility vehicle station" (Indicator 5) to be somewhat stressful, it is the least stressful factor, ranked tenth with a mean stress rating of 2.4333.

The result revealed that in terms of accessibility and availability, student commuters find commuting Stressful. This analysis underscores the respondents perceive various aspects of public transportation to be a source of stress during their daily commutes. Moreover, in the study done by Jackiva Yatskiv et al. (2017), it congruently shows the several impact and correlation of provision of public transport accessibility to the environment and daily life which would have a noticeable impact on public health and other aspects of public daily life. Service access and urban public transport accessibility have always been a major service issue in urban public transport that leads to a major stress. In network design of transit services, researchers are often more focused on minimizing the user and operator cost rather than incorporating the issues of equity and access. Availability of infrastructure, ease of information, reduced time and cost are imperative factors in providing attractive public transport with door-to-door access as well as long-distance travel.

Table 6

Respondents' Perceived Level of Stress (N=150)

Indicator	Mean	Standard Deviation	Rank	Verbal Description
1. WAITING TIME	3.2633	.75905	2	Very Stressful
2. TRAFFIC	3.2953	.72170	1	Very Stressful
3. HEALTH AND SAFETY	3.1067	.76102	3	Stressful
4. ACCESSABILITY/AVAILABILITY	2.9800	.85507	4	Stressful

[1.00 to 1.74 – Not Stressful; 1.75 to 2.49 - Somewhat Stressful; 2.50 to 3.49 – Stressful; 3.50 to 4.00 – Very Stressful]

In Table 6, this data summarizes the perceived levels of stress among respondents across four key aspects of their daily commute: "Waiting Time," "Traffic," "Health and Safety," and "Accessibility/Availability." Each aspect is assigned a mean stress rating, standard deviation, and a rank, accompanied by a verbal description to provide an overview of the stress levels associated with each category."Long Route/Traffic" is identified as the most stressful aspect, with a mean stress rating of 3.2953, earning the description "Very Stressful." This indicates that respondents find the issues related to long routes and traffic to be highly stressful during their commute. "Waiting Time" closely follows as the second most stressful aspect, with a mean stress rating of 3.2633, also described as "Very Stressful". This suggests that waiting for public transportation is another significant source of stress for respondents.

In line with that,"Health and Safety" is ranked third, with a mean stress rating of 3.1067 and a "Stressful" description. It signifies that health and safety concerns during the commute contribute to a moderate level of stress."Accessibility/Availability" is the fourth and final aspect, with a mean stress rating of 2.9800 and the description "Stressful." While it is perceived as stressful, it ranks slightly lower in terms of stress compared to the other categories. These rankings and verbal descriptions offer valuable insights into the aspects of commuting that are particularly challenging for the respondents.

The results highlight the significance of addressing issues related to long routes, traffic, waiting times, and health and safety to enhance the overall commuting experience and reduce stress levels among passengers. Student commuters often face high-stress levels due to the demands of their daily routine. As supported by the recent study of Ettema et al. (2018), it continued to highlight various stress factors associated with commuting, including longer travel times, congestion, unreliable transportation services, and limited accessibility to convenient options. Traffic, public transportation delays, and the pressure to arrive on time for classes can cause anxiety and frustration. It may include offering flexible scheduling options, providing resources for coping with stress or implementing changes in transportation services.

According to one study that underpins with the result of respondents' level of stress, students with longer commutes had considerable physical challenges, greater levels of stress, and an increased chance of accidents. Furthermore, it was found that students with increased commute times also seemed to lose sleep more frequently than those with shorter commute times. In addition, the study established that commuting harms academic performance, as students who commuted for extended periods were shown to have decreased academic performance in addition to having less time to study (Jamil D. et al., 2022). Moreover, the findings from the study conducted by Lucas et al. (2015) aligned seamlessly with the result, revealing that extended waiting times significantly contribute to heightened stress levels and diminished overall satisfaction with the commuting experience. Specifically,

prolonged wait times at transit stops were identified as a factor negatively impacting mental health and the perceived quality of life for commuters. This underscores the substantial influence that time spent waiting during the commuting process can have on the psychological well-being and overall satisfaction of individuals navigating public transportation systems.

Previous research by Currie et al. (2015) corroborates the current findings of health and safety, supporting the notion that even before the pandemic, individuals experienced heightened stress levels due to concerns about safety in public transportation. This earlier study delved into the specific locations and circumstances where people felt unsafe, contributing to increased stress. From the perspective of the traveler, common situations were linked to perceived risks of accidents, crimes, insults, and potential exposure to infections and diseases. Notably, the results underscored the significant impact of psychological factors, particularly the sense of comfort in unfamiliar social settings, as having the most substantial influence on perceptions of safety during travel. This reinforces the multifaceted nature of stressors within public transportation contexts, emphasizing the need for comprehensive strategies to address both physical and psychological aspects of commuter well-being.

Furthermore, Lachapelle et al. (2020) study underscores that stress levels during commuting were notably impacted by restricted access to reliable transportation options, leading to heightened stress due to uncertainties and delays. The findings emphasize the critical importance of addressing challenges in transportation accessibility to enhance the overall well-being of commuters, reinforcing the need for strategic interventions to mitigate stressors and ensure a smoother commuting experience.

5.1 Significant Relationship of Paired Variables

Table 7

Significant Relationship Between Profile (Sex) and Commuter's Level of Stress (N=150)

Variables	df	Computed Value	P-value	Decision	Interpretation	Strength
Sex & Waiting Time	4	7.809	0.099	Failed to Reject H_o	Not Significant	n/a
Sex & Traffic	4	4.152	0.386	Failed to Reject H_o	Not Significant	n/a
Sex & Health and Safety	3	3.471	0.325	Failed to Reject H_o	Not Significant	n/a
Sex & Waiting Time	3	1.338	0.720	Failed to Reject H_o	Not Significant	n/a

[Reject H_o: P-value < $\propto$], [V∈ [0.1-0.3]: weak association, V∈ [0.4-0.5]: Medium association, and V > 0.5: Strong Association]

Table 7 presents the results of statistical tests conducted to assess the relationship between respondents' profiles (specifically, their gender or sex) and their levels of stress in various commuting aspects, including "Waiting Time,"Traffic," and "Health and Safety."For the relationship between gender and stress related to waiting time, the computed value is 7.809, and the p-value is 0.099. With a p-value above the typical significance level of 0.05, the decision is to "Failed to Reject Ho" (the null hypothesis). This suggests that there is no significant relationship between gender and stress related to waiting time. When examining the relationship between gender and stress regarding long routes and traffic, the computed value is 4.152, and the p-value is 0.386. As the p-value exceeds 0.05, the conclusion is to "Failed to Reject Ho," indicating that there is no significant relationship between gender and stress in this aspect.

The finding suggests that, among the surveyed group, sex does not emerge as a significant determinant of stress concerning commuting-related factors. This aligns with numerous studies that have investigated the potential differential effects of commuting by sex in various domains, including perceived stress, mental health, flexibility of academic hours, impact on leisure time, and subjective well-being, as elucidated by Chatterjee et al. (2020). These collective insights underscore the nuanced of the relationship

between sex and commuting stress, emphasizing the need for comprehensive examinations across various factors to better understand their interplay.

Additionally, the study of Nadal & Molina et al. (2016) postulated that unadjusted gender gap in commuting is not particularly pronounced as a contributing factor to stress, which is in line with previous evidence for this country (Spain) from an international comparative perspective. The literature on the links between gender and commute lengths is inconclusive. Some studies state women travel shorter distances to get to school while others find that commute lengths are converging, and commute durations are incomparable for men and women. Webb (2015) also corroborated that sex does not seem to be a specific factor in safety rail issues. Security, on the other hand, is a different matter. Security implies protecting transport users against malicious actions and behaviors. Furthermore, a detailed study using panel data of Duncan et al. (2016), confirms that the average commute distances are different for men and women and concludes there are no big changes when it comes to gender differences in commute patterns across this time period.

Researchers in the transportation, urban planning and geography fields studied magnitude of, and reasons for gender differences in commute outcomes. However, the evidence of gender differences in commute behavior has been inconclusive, and the existing literature has not paid much attention to understanding the extent of these gaps and their determinants over time (Chidambaram & Scheiner, 2020).

Table 8

Significant Relationship Between Profile (Age) and Commuter's Level of Stress (N=150)

Variables	df	Computed Value	P-value	Decision	Interpretation	Strength
Age & Waiting Time	20	23.966	0.244	Failed to Reject H_o	Not Significant	n/a
Age & Traffic	20	38.565	0.008	Reject H_o	Significant	C=0.254 (Weak Association)
Age & Health and Safety	15	19.522	0.191	Failed to Reject H_o	Not Significant	n/a
Age & Accessibility / Availability	15	20.544	0.152	Failed to Reject H_o	Not Significant	n/a

[Reject H_o: P-value < $\propto$], [V∈ [0.1-0.3]: weak association, V∈ [0.4-0.5]: Medium association, and V > 0.5: Strong Association]

The table 8 presents the results of statistical tests conducted to evaluate the relationship between respondents' profiles (specifically, their age) and their levels of stress in various commuting aspects, including "Waiting Time"," Traffic", "Health and Safety", and "Accessibility/Availability". The table shows that there is no significant relationship between age and stress related to waiting time, health and safety, and accessibility/availability. However, there is a significant relationship between age and stress related to traffic, with a C-value of 0.254 indicating a weak association.

The statistical tests reveal varying outcomes for different commuting aspects. These findings suggest that age may have a limited influence on the commuters' stress levels in specific aspects of their daily commute, with the most notable influence observed in the context of long routes and traffic. As postulated by Horner et al. (2015), there was little difference in commutes by age group, where commuters lived (region of residence) was important. Additionally, a study done in Scania, Sweden by Hansson et al. (2016), showed that longer commute times could have detrimental effects on health, including increased stress, fatigue, sleep disturbances, etc. especially if the student is on its new transition, aging 18-24 years old.

Table 9

Significant Relationship Between Profile (Year Level) and Commuter's Level of Stress (N=150)

Variables	df	Computed Value	P-value	Decision	Interpretation	Strength
Year Level & Waiting Time	12	16.985	0.150	Failed to Reject H_o	Not Significant	n/a
Year Level & Traffic	12	23.331	0.025	Reject H_o	Significant	C=0.228 (Weak Association)
Year Level & Health and Safety	9	23.690	0.005	Reject H_o	Significant	C=0.229 (Weak Association)
Year Level & Accessibility/ Availability	9	25.362	0.003	Reject H_o	Significant	C=0.237 (Weak Association)

[Reject H_o: P-value < $\propto$], [V∈ [0.1-0.3]: weak association, V∈ [0.4-0.5]: Medium association, and V > 0.5: Strong Association]

Table 9 presents the outcomes of statistical tests investigating the link between respondents' year level and stress levels across different commuting aspects. When assessing the connection between year level and stress related to waiting time, the computed value is 16.985, yielding a non-significant p-value of 0.150. Consequently, the decision is to "Fail to Reject Ho," indicating no significant relationship between year level and waiting time-related stress. In the context of stress related to traffic, the computed value is 23.331, with a significant p-value of 0.025. The decision is to "Reject Ho," signifying a weak association between year level and stress in this aspect, described by a C-value of 0.228. Similarly, year level shows a significant relationship with stress related to health and safety during commuting, with a computed value of 23.690 and a p-value of 0.005. The decision to "Reject Ho" implies a weak association (C-value of 0.229). Finally, for stress related to accessibility and availability of transportation, the computed value is 25.362, with a p-value of 0.003. The decision to "Reject Ho" suggests a significant relationship, characterized by a weak association (C-value of 0.237) between year level and stress in this category.

The statistical tests reveal varying outcomes for different commuting aspects. In corroboration with the result of significant relationship between year level and commuters' level of stress, the availability of social support networks and communities may vary across different year levels, influencing how students cope with commuting stress. For instance, first-year students may be more reliant on building new social connections on campus, while senior students may have established support networks that can help alleviate commuting-related stress. As a result, students frequently find themselves attending schools that necessitate extended and challenging journeys, mainly due to commuting patterns that deviate from the intended use of the transit system. This entails traveling against the typical flow, such as moving away from the city center during morning rush hour or opting for cross-town routes. Notably, in Baltimore, student commuters seem to experience more intricate public transit journeys, evidenced by a higher frequency of transfers between segments, compared to the average adult commuter (Stein et al., 2017). Furthermore, as highlighted by Gefen et al. (2015), there was no significant variation in psychological distress scores between students in their initial year of college and those in subsequent years. Surprisingly, being a college student did not emerge as significantly associated with distress, challenging conventional expectations. The consistent elevation of distress levels across different years suggests that stressors encountered during the transitional phase into college are not alleviated as students adapt to college life. Alternatively, it raises the possibility that distinct stressors come into play during the subsequent years of a college student's academic journey. This finding holds significance, especially considering that previous research on nonresidential students has often concentrated on the first-year experience and associated adjustment stressors.

Table 10

Significant Relationship Between Profile (Department) and Commuter's Level of Stress (N=150)

Variables	Df	Computed Value	P-value	Decision	Interpretation	Strength
Department & Waiting Time	32	40.608	0.151	Failed to Reject H_o	Not Significant	n/a
Department & Traffic	32	38.882	0.187	Failed to Reject H_o	Not Significant	n/a
Department & Health and Safety	24	34.987	0.069	Failed to Reject H_o	Not Significant	n/a
Department & Waiting Time	24	14.606	0.932	Failed to Reject H_o	Not Significant	n/a

[Reject H_o: P-value < $\propto$], [V∈ [0.1-0.3]: weak association, V∈ [0.4-0.5]: Medium association, and V > 0.5: Strong Association]

Table 10 presents the results of statistical tests examining the relationship between respondents' academic department and their stress levels in various commuting aspects. For stress related to waiting time, the analysis shows a computed value of 40.608 with a p-value of 0.151. The decision is to "Failed to Reject Ho," suggesting no significant relationship between the department and waiting time-related stress. Similarly, in the context of stress related to traffic, the computed value is 38.882 with a p-value of 0.187. Again, the decision is to "Failed to Reject Ho," indicating no significant relationship between the department and stress in this aspect. Regarding stress related to health and safety during commuting, the computed value is 34.987 with a p-value of 0.069. Once more, the decision is to "Failed to Reject Ho," signifying no significant relationship between the department and stress in this category. Finally, for stress related to accessibility and availability of transportation, the computed value is 14.606 with a p-value of 0.932. The decision is to "Failed to Reject Ho," indicating no significant relationship between the department and stress in this category.

In all four cases, the statistical tests do not provide evidence of a significant relationship between the department or academic field and the respondents' levels of stress in the specified commuting aspects. This implies that, within the surveyed group, the department of the respondents does not appear to be a significant determinant of stress in these commuting-related factors. A comprehensive examination of commuting stress in the London area, as detailed by Amponsah-Taiwah et al. (2016), discerns that the predominant source of stress is the degree of impedance or difficulty encountered during the commute. Interestingly, this study underscores that the nature of the students' course does not significantly contribute to the stress levels experienced. Instead, it emphasizes the crucial role of the commuting experience itself, shedding light on the tangible impact of impediments and challenges faced during the journey as key determinants of stress, irrespective of the academic discipline pursued by the students.

5.2 Significant Difference: Profile & Commuters' Level of Stress

Table 11

Correlations: Commuters' Level of Stress (Waiting Time) when Grouped According to Profile (N=150)

	Variables	N	Mean Rank	df	H	P-value	Decision	Interpretation
Sex	Female	75	80.95	1	2.868	.856	Failed to Reject H_o	Not Significant
	Male	75	70.05					
	Total	**150**						
Age	18 Years Old	12	59.00	5	11.102	.049	Reject H_o	Significant

	19 Years Old	26	85.94					
	20 Years Old	30	60.50					
	21 Years Old	37	81.99					
	22 Years Old	26	72.23					
	23 Years Old	19	87.16					
	Total	**150**						
Year Level	First Year	39	71.94	3	9.121	.028	Reject H_o	Significant
	Second Year	39	63.99					
	Third Year	37	76.68					
	Fourth Year	35	91.06					
	Total	**150**						
Department	College of Arts and Sciences	17	90.18	8	16.681	.034	Reject H_o	Significant
	College of Customs Administration	17	59.21					
	College of Business Administration	17	78.41					
	College of Teacher Education	17	91.41					
	College of Engineering	17	69.53					
	College of Criminal Justice	16	57.97					
	College of Hospitality Management	17	76.71					
	College of Information Technology and Computer Studies	16	93.09					
	College of Social Work	16	62.22					
	Total	**150**						

Asymptotic significance displayed. The significance is 0.05. [Reject H_o: P-value < $\propto$]

Table 11 explores correlations between commuters' stress levels related to "Waiting Time" and their profiles based on factors such as sex, age, year level, and department. For commuters grouped by sex, the analysis yields a non-significant result (H-statistic = 2.868, p-value = 0.856), suggesting no significant correlation between sex and waiting time-related stress. In contrast, age categories (18 to 23 years old) reveal a significant correlation (H-statistic = 11.102, p-value = 0.049), indicating that commuters' age significantly influences stress levels related to waiting time. Similarly, year level (First Year, Second Year, Third Year, Fourth Year) shows a significant correlation (H-statistic = 9.121, p-value = 0.028), suggesting that a commuter's academic progression

significantly influences waiting time-related stress. Analyzing commuters by department (various college departments) also reveals a significant correlation (H-statistic = 16.681, p-value = 0.034), implying that the choice of department significantly affects stress levels related to waiting time.

The result holds a significant implication that longer waiting times reduce the utility of using public transit for travel and hence the modal share. For this reason, transit planners are greatly interested in measuring and minimizing passenger waiting time. More recently, the study of Esfeh et al., (2022), postulated that waiting time has expanded to regression analysis using characteristics such as gender, ethnicity, location, schedule reliability, and commuters age. Furthermore, commuters who spend longer time waiting for a public transport service also tend to be more stressed. Long wait times are most likely caused by services not running according to schedule, which, in turn, induces stress due to lack of reliability and a diminished. The longer this wait-time, the more intense these feelings of stress become, as would be expected intuitively. It was found that commuting stress correlated significantly with features of the respondent's commute, as supported by Arbex et al. (2020).

Table 12

Correlations: Commuters' Level of Stress (Traffic) when Grouped According to Profile (N=150)

	Variables	N	Mean Rank	Df	H	P-value	Decision	Interpretation
Sex	Female	75	80.26	1	2.155	.142	Failed to Reject H_o	Not Significant
	Male	75	70.74					
	Total	**150**						
Age	18 Years Old	12	72.67	5	19.053	.002	Reject H_o	Significant
	19 Years Old	26	87.50					
	20 Years Old	30	51.67					
	21 Years Old	37	73.85					
	22 Years Old	26	78.96					
	23 Years Old	19	96.97					
	Total	**150**						
Year Level	First Year	39	68.38	3	16.763	.001	Reject H_o	Significant
	Second Year	39	64.21					
	Third Year	37	72.74					
	Fourth Year	35	98.93					
	Total	**150**						
Department	College of Arts and Sciences	17	86.91	8	11.241	.188	Failed to Reject H_o	Not Significant
	College of Customs Administration	17	67.06					
	College of Business Administration	17	70.56					
	College of Teacher Education	17	80.09					
	College of Engineering	17	61.85					
	College of Criminal Justice	16	59.81					
	College of Hospitality Management	17	78.21					
	College of Information Technology and Computer Studies	16	94.59					
	College of Social Work	16	80.94					
	Total	**150**						

Asymptotic significance displayed. The significance is 0.05. [Reject H_o: P-value < $\propto$]

Table 12 provides a comprehensive analysis of the relationship between commuters' stress levels and key categorical variables, employing Kruskal-Wallis tests. The study explores the impact of gender, age, year level, and department on the stress experiences of individuals facing long commutes and traffic. The analysis indicates that there are no significant gender-based differences in stress levels among commuters (p-value = 0.142), implying that both females and males experience similar levels of stress during their long commutes. Conversely, the department in which commuters were enrolled does not significantly impact stress levels (p-value = 0.188). This suggests that the choice of college department does not substantially contribute to commuters' stress levels when dealing with traffic. However, regarding age, a more nuanced pattern emerges. Commuters in the 19-year-old and 23-year-old age groups experience significantly higher stress levels than other age groups (p-value = 0.002). This suggests that late adolescents and young adults may find long commutes and traffic more stressful. Year level in college significantly influences stress levels, with fourth-year students experiencing notably higher stress compared to students in earlier years (p-value = 0.001). This implies that as students progress through their college education, the demands of academics combined with long commutes may lead to increased stress.

These insights can inform tailored approaches to addressing stress in the context of long commutes, offering commuters the support they need to navigate these challenges more effectively. Understanding the specific factors that influence stress levels can lead to interventions that enhance the overall well-being of commuters and improve their quality of life. Research by Lewandowsky et al. (2016), for instance, explored the psychological factors influencing commuting stress. They found that while commute duration impacted stress levels universally, individual differences, including gender and age, played a role in how individuals perceived and coped with this stress. Evidence from research has also shown that long distances travelled to school are among the major reasons why students perform poorly and eventually drop out of school (Ugbong et.al, 2017). In addition, public transport systems in many cities around the world are nowadays very crowded, especially during peak hours. Moreover, deprived urban areas may suffer from the unreliability of travel times, forcing users to budget more travel time to safeguard their on-time arrivals (Arbex et al., 2020).

Table 13

Correlations: Commuters' Level of Stress
(Health and Safety) when Grouped According to Profile (N=150)

	Variables	N	Mean Rank	Df	H	P-value	Decision	Interpretation
Sex	Female	75	80.55	1	2.407	.121	Failed to Reject H_o	Not Significant
	Male	75	70.45					
	Total	**150**						
Age	18 Years Old	12	66.33	5	11.603	.041	Failed to Reject H_o	Not Significant
	19 Years Old	26	78.54					
	20 Years Old	30	56.77					
	21 Years Old	37	77.01					
	22 Years Old	26	85.65					
	23 Years Old	19	89.87					
	Total	**150**						
Year Level	First Year	39	64.42	3	19.404	.001	Reject H_o	Significant
	Second Year	39	65.71					
	Third Year	37	73.66					
	Fourth Year	35	100.70					
	Total	**150**						
Department	College of Arts and Sciences	17	90.62	8	12.704	.122	Failed to Reject H_o	Not Significant
	College of Customs Administration	17	68.32					
	College of Business Administration	17	76.97					
	College of Teacher Education	17	84.85					
	College of Engineering	17	74.79					
	College of Criminal Justice	16	49.06					

College of Hospitality Management	17	68.91
College of Information Technology and Computer Studies	16	86.06
College of Social Work	16	79.19
Total	**150**	

Asymptotic significance displayed. The significance is 0.05. [Reject H_o: P-value < $\propto$]

Table 13 presents findings on the relationship between commuters' characteristics and their stress levels related to health and safety. The results indicate that there is no significant correlation between the sex of commuters and their stress levels in this context, as the p-value (0.121) exceeds the typical significance level of 0.05. However, age was identified as a significant factor affecting stress levels related to health and safety, with a p-value of 0.041, indicating that variations in age contribute to differences in stress levels. Similarly, the year level of commuters was significantly correlated with stress levels related to health and safety, as evidenced by a low p-value of 0.001. This suggests that differences in year level explain variations in stress levels in this aspect. In contrast, the department of commuters does not show a significant correlation with stress levels related to health and safety, as the p-value (0.122) is greater than 0.05. Therefore, departmental differences do not appear to be a significant factor in explaining variations in stress levels in this regard.

This information can be valuable for understanding the key determinants of stress related to health and safety within your specific group of commuters. Another study by Chen et al. (2018) investigated commuting stress among college students. They found that both sex and age influenced stress levels, with females and younger students reporting higher stress due to factors such as safety concerns, time constraints, and overcrowded transportation. Transport safety issues are addressed first followed by a discussion of transport-related health impacts. Regarding the transport and health literature, the review is confined to health impacts associated with traffic-induced air pollution as referenced in Transport for Health. The relationship between transport and healthcare access is addressed to a limited extent with a view to illuminating some of the key transport related issues but without a full exploration of this very complex subject involving numerous sociological and economic issues unrelated to roads and transport services (Global Road Safety Facility, 2015).

Table 14

Correlations: Commuters' Level of Stress (Accessibility/Availability) when Grouped According to Profile (N=150)

	Variables	N	Mean Rank	Df	H	P-value	Decision	Interpretation
Sex	Female	75	78.81	1	0.985	.321	Failed to Reject H_o	Not Significant
	Male	75	72.19					
	Total	**150**						
Age	18 Years Old	12	74.08	5	9.731	.083	Failed to Reject H_o	Not Significant
	19 Years Old	26	72.69					
	20 Years Old	30	58.20					
	21 Years Old	37	77.59					
	22 Years Old	26	84.33					
	23 Years Old	19	91.39					
	Total	**150**						
Year Level	First Year	39	65.17	3	20.642	.001	Reject H_o	Significant
	Second Year	39	63.24					
	Third Year	37	74.39					
	Fourth Year	35	101.84					
	Total	**150**						
Department	College of Arts and Sciences	17	87.09	8	5.255	.730	Failed to Reject H_o	Not Significant
	College of Customs Administration	17	73.74					

College of Business Administration	17	62.06
College of Teacher Education	17	79.44
College of Engineering	17	71.68
College of Criminal Justice	16	67.31
College of Hospitality Management	17	80.21
College of Information Technology and Computer Studies	16	84.53
College of Social Work	16	73.38
Total	**150**	

Asymptotic significance displayed. The significance is 0.05. [Reject H_o: P-value < $\propto$]

Table 14 summarizes the results of Kruskal-Wallis tests investigating the relationship between commuters' stress levels concerning accessibility/availability and different categorical variables. The findings indicate that sex and age do not significantly impact stress levels in this context. Specifically, there is no significant difference in stress levels between male and female commuters (p = 0.321) or across various age groups (p = 0.083). The choice of college department, in contrast, does not show a significant correlation with stress levels related to accessibility/availability (p = 0.730). However, year level in college is identified as a significant factor, with fourth-year students experiencing significantly higher stress levels than those in earlier years (p = 0.001).

These findings can inform targeted interventions to support commuters, particularly those in their final year of college, in managing stress associated with accessibility and availability issues. In relevance to the result, one study shows that as a first-year student entering college, commuting can be an added stress factor to an already overwhelming experience. It is important for students to receive support from their institution to create their own community. Without finding a community during their first year, students may feel isolated in their new academic environment and fail to fulfill their academic goals (Fanny He, 2019). Furthermore, Astin (2015) reports that commuting is negatively associated with attaining a bachelor's degree and furthermore, "substantial commuting seems to raise the level of stress experienced by undergraduate students.

6. Conclusion

The primary objective of this research was to investigate the student commuters' perceived level of stress among the currently enrolled students during the 2023-2024 academic year at the University of Cebu - Main Campus. The study focused on understanding the level of stress of student commuters in terms of waiting time, long route/ traffic, health and safety, and accessibility/availability.

The study was conducted at the University of Cebu-Main Campus located along Sanciangko, St., Cebu City, Philippines 6000. The respondents of the study were the currently enrolled students in all college departments in the Academic Year 2023-2024. The researchers were able to give informed consent to randomly selected respondents and were able to gather 150 respondents who underwent the administration of the face-to-face survey questionnaire. In data gathering, the quantitative descriptive correlational research design was utilized. The researchers were able to provide the survey questionnaire to the respondents after giving consent to participate in the study and were able to collect the data using a statistical tool. The researchers used G* power to determine the sample size. Moreover, researchers used the Chi-square Tests and Spearman Rho for the treatment of the data and were able to identify frequency and percentage, mean, standard deviation, p-value, and rank.

The research findings identified the perceived stress levels of students in relation to key concerns: waiting time, long routes and traffic, health and safety, and accessibility and availability. The study also examined the relationship between respondents' demographic profiles and their perceived stress levels, as well as the correlation between these profiles and the identified concerns. The respondents were evenly distributed across gender, year level, and college programs, with a diverse age distribution, predominantly between 20 and 23 years old. The results revealed that waiting time and long routes/traffic were perceived as very stressful, while health and safety ranked third with a description of stressful. Accessibility and availability were also categorized

under the stressful level. No significant relationships were found between perceived stress levels and the demographic variables of sex, age, and college department. However, a significant, albeit weak, association was observed between year level and perceived stress. Furthermore, age and year level were found to significantly differ from the perceived levels of stress, while no significant correlations were identified between sex, college department, and perceived stress.

The study's focus was primarily the student commuters within the University of Cebu Main-Campus only, which introduces constraints when attempting to extend the findings to the broader student population outside the campus. It is important to acknowledge that the commuters' level of stress may vary across different approaches and indicators, and therefore, the results may not be directly applicable to students in other schools. Each student from a different school comes with different challenges, goals, and experiences, which can influence how level of stress impacts students' academic performance and overall well-being. As such, caution should be exercised when extending the study's conclusions to a broader context, as the results are primarily grounded in the specific context of UC-main students.

The majority of college students exhibit a very stressful level when it comes to commuting. These strategies, such as addressing the solution of alleviating the stress level of the students, leveraging the challenges of student commuters by understanding their experiences in order to increase empathy and help create a more supportive and inclusive community for all, serve as powerful motivators for individuals in pursuit of their commuting journey. Notably, among the various indicators that have been studied, the most potent one was found to be the long route/traffic, whereby individuals experienced the heavy traffic when it comes to commuting and being stuck from unexpected traffic situations. This research contributes valuable insights into the different experiences of commuting and can aid individuals in comprehending its significance in overall well being of a student.

Based on the study's findings, several recommendations were made like exploring the lived experiences of student commuters from provincial areas and conducting a quantitative study on the long-term health implications of chronic commuting stress. Further research could also investigate sustainable transportation choices by analyzing the factors that influence commuters' adoption of eco-friendly modes. Additionally, examining age-related differences in stress among student commuters, as well as the relationship between time spent commuting and stress levels, would provide valuable insights. Lastly, an ethnographic inquiry into the influence of campus spaces on student commuters' stress and well-being, focusing on the transition from transit hubs to campus havens.

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ORCID ID
0009-0008-8050-719X
0000-0001-6854-3237
0009-0006-0818-6075
0009-0000-7212-5695
0009-0008-1840-4632
0009-0001-5946-5625

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