IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Effect Of Sleep Quality On Academic Performance And Stress Level Among College Students

Ishita Jain

Amity University, Noida, Uttar Pradesh

M.A Counselling psychology

Dr. Ritu Raj

Abstract

The study's goal is to investigate how college students' academic achievement, stress levels, and sleep quality relate to one another. 120 college students, ages 18 to 25, made up the sample. Convenience sampling, a sort of non-probability sampling approach, was used in this study to choose samples. The sample was chosen based on accessibility. Three instruments were used in the study: the Academic Performance Scale (APS), the Perceived Stress Scale (PSS), and the Pittsburgh Sleep Quality Index (PSQI). Using SPSS, data analysis was carried out, Pearson correlation coefficient calculations. The purpose of the current study was to look at the connections between college-bound kids' stress levels, academic achievement, and sleep quality.

The study discovered a strong positive link between academic performance and sleep quality, indicating that college-bound students' academic performance rises with increased sleep quality. Furthermore, a strong negative link was found between stress level and sleep quality, indicating that a higher stress level is associated with a lower quality of sleep. In particular, the study discovered a substantial correlation between stress levels and the quality of sleep.

These results are consistent with other studies that discovered a relationship between stress levels, academic achievement, and sleep quality. This study emphasises the potential negative impacts of high levels of stress on sleep quality as well as the positive effects of sleep quality on academic performance.

CHAPTER 1: INTRODUCTION

1.1 Sleep Quality

A basic and intricate physiological condition that many other animals and humans share on a regular basis is sleep. It is a spontaneously occurring process that is marked by a brief loss of consciousness, diminished sensory awareness, and low sensitivity to outside stimuli. Sleep is necessary to preserve mental clarity, emotional stability, physical health, and general quality of life. The circadian rhythm, an internal biological clock that synchronises the timing of several physiological activities with the 24-hour day-night cycle, controls the sleep-wake cycle. Environmental elements like light and temperature, as well as personal factors like heredity and lifestyle, all have an impact on this internal clock.

The term "sleep quality" describes the subjective and objective metrics used to assess how well-restorative, effective, and satisfying sleep is. It includes all facets of sleep, such as its length, consistency, depth, and personal experience. In order to assess the quality of sleep, one must take into account both qualitative and quantitative elements. These include felt restfulness, contentment upon awakening, and daily functioning. Quantitative measurements of sleep quality include total sleep time and efficiency. In general, the quality of one's sleep indicates how well it satisfies one's psychological and physiological requirements, enhances one's wellbeing, and promotes peak performance when awake.

People usually go through these phases several times during the night, with a 90- to 120-minute cycle between each cycle. Over the course of the night, different amounts of time are spent in each stage, with REM sleep accounting for a larger share of the latter phases of sleep. Numerous and intricate processes are facilitated by sleep. Sleep is essential for learning, memory consolidation, and cognitive function because it helps to ingrain new knowledge and abilities that are learned while awake. Moreover, it supports stress reduction, mood stability, and emotional control. Sleep is a physiological period during which the body rests and repairs itself. It enhances immunological function, controls metabolism, and encourages tissue development and repair. Hormone modulation, which affects energy balance, hunger, and reproductive health, is also influenced by sleep.

Prolonged sleep deprivation or sleep problems can lead to detrimental effects on one's health and overall wellbeing, such as weakened immune system, mood swings, higher risk of chronic illnesses including diabetes, obesity, and cardiovascular disorders, and reduced cognitive function.

1.2 Purpose of sleep

Sleep serves a variety of purposes that are vital to general health and wellbeing, including physiological, cognitive, and psychological processes. Although research on the exact mechanics and roles of sleep is ongoing, a number of important goals have been established: Restoration and Repair: Sleep gives the body a crucial chance to heal and regenerate. Numerous physiological functions, including immune system

performance, muscular development, and tissue healing, are improved while we sleep. Sleep is especially necessary for the elimination of poisons that have accumulated in the brain during waking and for the restoration of tissues and cells.

Memory Consolidation: The process of integrating recently learned information into long-term memory requires sleep, which is critical to memory consolidation. Aspects of memory consolidation, such as declarative memory (facts and events) and procedural memory (skills and tasks), are linked to several sleep stages, especially slow-wave sleep (SWS) and rapid eye movement (REM) sleep.

Cognitive Functioning: Getting enough sleep is crucial for maintaining good focus, attention, problem-solving skills, and decision-making abilities. Sufficient sleep enhances cognitive function, inventiveness, and aptitude for learning. Contrarily, sleep deprivation affects cognitive function and may result in problems with memory, attention, and executive function.

Emotional Regulation: Sleep is essential for processing and controlling emotions, since it helps people cope with their feelings. Emotion resilience can be weakened, unpleasant feelings can intensify, and irritation might rise when sleep deprivation occurs. On the other hand, restful sleep fosters resilience, emotional stability, and general wellbeing.

Metabolic Regulation: Energy balance, insulin sensitivity, glucose metabolism, appetite control, and sleep are all closely related metabolic functions. These metabolic processes can be disturbed by sleep-related disturbances, such as short sleep duration or poor quality sleep, which increases the risk of obesity, diabetes, and metabolic illnesses.

Immune Function: Sleep is essential for immune function since it controls the body's defences against infections and immunological response. While sleep deprivation can impair immune defences and increase vulnerability to disease and infection, enough sleep strengthens the immune system.

Brain Health: Sleep is necessary to preserve the health of the brain and to maximise neurological activity. The brain goes through processes that are necessary for synaptic pruning, neuronal repair, and the consolidation of neural connections when we sleep. Long-term sleep deprivation has been linked to a higher risk of neurodegenerative illnesses including Parkinson's and Alzheimer's.

Physical Health and Longevity: Getting enough sleep is linked to both improved physical health and longer life expectancy. Lack of sleep for an extended period of time has been associated with an increased risk of stroke, hypertension, cardiovascular disease, and other chronic illnesses. Making good sleep a priority can help guard against these health hazards and enhance general wellbeing.

1.3 Sleep Quality and psychological wellbeing.

Psychological well-being and the quality of sleep are intimately related, and one influences the other in turn. Here are some ways that psychological health is impacted by sleep quality and vice versa:

Emotional stability and mood regulation depend on getting enough sleep. Stress, anxiety, and depression might become more likely to occur when there is poor sleep quality, which includes interrupted or inadequate sleep. It can also cause irritability and mood swings. On the other hand, sleep patterns are frequently disrupted by people who suffer from mood disorders like anxiety or depression, which exacerbates their psychological symptoms.

Getting enough sleep is essential for controlling stress levels and building resistance to stresses. The physiological changes that occur in the body while you sleep aid in the regulation of stress hormones and the restoration of emotional equilibrium. People who experience chronic sleep deprivation are more susceptible to the negative impacts of stress since it can increase stress reactivity and weaken coping mechanisms.

Attention, focus, memory, and problem-solving skills are all greatly impacted by the quality of one's sleep. Cognitive deficits, including decreased attentiveness, delayed response times, and poor decision-making abilities, can result from poor sleep quality. Decreased psychological well-being and emotions of dissatisfaction and inadequacy can be linked to these cognitive deficiencies.

Subjective well-being and general quality of life are significantly impacted by the quality of one's sleep. People who had higher-quality sleep report feeling more vibrant, happy, and satisfied with their lives overall. On the other hand, inadequate sleep is linked to a lower level of subjective well-being and a reduced quality of life in a number of areas, such as social functioning, mental health, and physical health.

An increased risk of mental health conditions such depression, anxiety, and bipolar disorder is linked to persistent sleep disruptions. Improving the quality of sleep and addressing sleep issues can lower the chance of acquiring these illnesses and enhance psychological health in general.

Getting enough sleep helps people cope with life's stresses and become more resilient to adversity. People who regularly get restorative sleep are better able to handle difficult situations, overcome disappointments, and keep a good attitude on life.

In conclusion, there is a close relationship between the quality of sleep and psychological health, with each affecting and moulding the other. Promoting mental health and general quality of life requires putting good sleep hygiene first, dealing with sleep disruptions, and getting the right treatment for sleep disorders.

In a similar vein, promoting healthy psychological practices and coping mechanisms can help with both the quality and results of sleep.

2.1 Academic performance

Academic performance is a broad term that encompasses how well and efficiently a student interacts with and understands the content that is taught to them in an academic context. It covers a wide range of elements, such as grades received, test and assessment scores, involvement in class discussions and activities, completion rates of assignments and projects, and the general breadth of knowledge and proficiency shown across a variety of topics or disciplines.

This idea goes beyond simple numerical measurements like Grade Point Average (GPA) or test results from standardised assessments. It explores the qualitative elements of education, such as the use of information in practical settings, creativity, analytical reasoning, problem-solving skills, and critical thinking. Within the educational framework, academic performance provides a thorough assessment of a student's academic aptitude, progress, and accomplishment levels.

Furthermore, a wide range of interrelated factors, such as the standard of instruction, the learning environment, the availability of educational resources, the socioeconomic background, an individual's motivation, their study habits, their time management abilities, and support networks like parental guidance and mentorship, all have an impact on academic performance. It is a dynamic process that changes with time and is susceptible to variations due to a range of internal and external variables.

Academic performance includes not just what each student does individually but also what groups, courses, schools, and educational institutions as a whole do collectively. It is an essential component of the educational system because it provides the foundation for assessing the efficacy of curricula, educational policies, and teaching strategies. It also helps guide decisions about academic interventions and support systems that improve student learning outcomes.

2.2 Importance of Academic Performance

It is impossible to exaggerate the significance of academic achievement as it is essential to personal growth, social progress, and economic prosperity.

Opening to Possibilities A strong academic record offers doors to a wide range of options, such as work chances, scholarships, internships, and higher education. To take advantage of these chances and progress in one's chosen job path, one frequently has to have strong academic qualifications.

A measure of proficiency: Academic achievement is an objective indicator of a person's proficiency in a certain subject or field of study. Proficient in critical thinking, problem-solving, communication, and other

vital abilities that are prized in both academics and the workforce are indicators of high academic accomplishment.

Foundation for lifetime Learning: Intellectual growth and lifetime learning are made possible by academic success. It develops a habit of ongoing self-improvement, stimulates intellectual curiosity, and instills a hunger for knowledge—all of which are critical qualities for both professional and personal growth.

Improved job Opportunities: By raising employability, earning potential, and possibilities for promotion, academic success improves job opportunities. Candidates with good academic credentials are frequently given preference by employers, who see them as valuable assets who can make significant contributions to their companies.

Contributor to Economic Development: Innovation and economic growth are fueled by academic achievement. Highly educated people foster the development of knowledge-based economies, propel technical progress, and encourage entrepreneurship, all of which promote economic growth and competitiveness.

Social Mobility: Improving academic performance is essential to fostering social mobility and minimising inequalities. People from a variety of backgrounds can improve their socioeconomic situation and achieve upward mobility if they have access to high-quality education and thrive intellectually.

Personal Fulfilment: A sense of accomplishment and personal fulfilment are fostered by academic success. Reaching academic objectives, conquering obstacles, and picking up new information and abilities all help people feel confident in themselves and satisfied with their educational journeys.

Academically successful people frequently take on active positions in society as leaders, inventors, educators, and proponents of constructive change. They solve social issues, promote a variety of disciplines, and improve societies as a whole with their knowledge and thoughts.

2.3 Factors affecting Academic Performance

Numerous factors, which can differ significantly based on individual situations, educational settings, and socioeconomic contexts, impact academic success. The following important variables frequently have an impact on academic performance:

1. Individual Elements : Intellectual Abilities: A student's ability to understand and retain knowledge can be influenced by cognitive skills including IQ, memory, and processing speed. Learning Style: varied people have varied preferences and learning styles, such as kinesthetic, auditory, or visual learning, which can have an impact on how well they absorb and remember information.

Motivation: A key factor in academic achievement is intrinsic motivation, which includes things like a strong personal interest in the subject matter or a desire to meet academic goals. Peer pressure and parental expectations are two examples of outside variables that affect motivation.

Self-control and Study Habits: For academic achievement, efficient time management, organisational abilities, and study strategies are essential. Performance can be hampered by bad study habits, procrastination, and a lack of self-control.

2. Family Environment:

Parental Involvement: By offering support, tools, and direction, parents who are active and encouraging can have a good impact on their children's academic achievement. On the other hand, poor parental participation or support might make it more difficult to succeed academically.

Family Socioeconomic Status: A number of socioeconomic factors can have an influence on academic achievement, including parental education level, family income, and access to educational resources. Due to their financial situation or inability to obtain high-quality education, students from underprivileged families may encounter significant difficulties.

3. School Environment:

Quality of Instruction: Academic success is greatly impacted by the techniques and resources used in the classroom, the efficacy of the instructors, and their competency. Enhancing student results may be achieved through personalised education, engaging instructional tactics, and encouraging learning settings.

Classroom dynamics: Academic achievement is influenced by peer interactions, class size, and classroom environment. A favourable learning environment is influenced by supportive connections between instructors and students as well as positive peer interactions.

School Climate and Culture: Students' attitudes towards learning and academic success are shaped by the policies, values, and culture of their schools. Student performance is enhanced by an inclusive, respectful, and academically rigorous educational environment.

4. Personal and Environmental Factors:

Well-being and Health: Academic performance can be impacted by both physical and mental health issues, such as persistent sickness, anxiety, sadness, or sleep disorders. These consequences can be lessened by having access to supporting services, food, and healthcare.

Stress and Life Events: Stressors beyond of the student's control, including problems with family, money,

or personal crises, can have an adverse effect on motivation, focus, and general well-being, which can then have an influence on academic achievement.

Cultural and society Influences: Academic motivation, goals, and outcomes can be influenced by cultural values, society expectations, and social conventions around education. Performance may also be impacted by cultural variations in educational practices and ideologies.

Comprehending and minimising these variables is imperative in establishing conducive settings that promote scholarly achievement and reduce obstacles to education. Communities, families, and schools all have important responsibilities to play in helping kids and meeting the range of needs that affect academic achievement.

2.4 Impacts of Academic Performance

Academic success has a significant and wide-ranging influence on both the individual's life and the larger dynamics of society.

Educational possibilities: A strong academic record makes one eligible for a variety of educational possibilities, such as fellowships, scholarships, and admission to prominent universities. However, subpar academic standing may make it more difficult to take advantage of these chances, which would limit one's options for further study and employment.

Career Advancement: Getting good grades is frequently a prerequisite for getting a good job. Academic achievements, such as GPA and honours, are often taken into account by employers throughout the recruiting and promotion process. A strong academic record can help with career advancement, raise earning potential, and improve employment opportunities.

Personal Development: By fostering the development of critical thinking, problem-solving, communication, and time management skills, academic achievement promotes personal development. These abilities are helpful not only in academic settings but also in a variety of other spheres of life, such as relationships, employment, and personal projects.

Psychological well-being: A person's psychological well-being can be greatly impacted by their academic achievement. Academic challenges or failures can cause tension, worry, and feelings of inadequacy; on the other hand, successes can increase self-esteem, confidence, and a sense of achievement. Enough resources and assistance must be made available to treat mental health issues brought on by the demands of the classroom.

Social mobility is the ability of people from different origins to better their socioeconomic situation. Academic proficiency is a key factor in social mobility. The capacity to succeed academically and have access to a top-notch education can enable people to get over socioeconomic obstacles and move up the social ladder.

Economic Impact: Having educated workers has a positive economic impact on societies. There is a positive correlation between improved academic achievement and enhanced production, innovation, and global competitiveness. On the other hand, poor performance can result in a lack of skills in the workforce, lower productivity, and stagnant economic growth.

Health Outcomes: Research indicates a possible link between academic achievement and health outcomes. Access to healthcare, better lifestyle choices, and general wellbeing are all correlated with education. On the other hand, underachievement in school may lead to lifetime health outcomes that are worse and health inequities.

Social cohesiveness: Through influencing people's viewpoints, morals, and societal contributions, academic achievement can have an impact on social cohesiveness. People with higher levels of education are more likely to take part in community projects, participate in civic affairs, and foster social growth and cohesiveness.

Academic achievement has a profound effect on people, groups, and society as a whole. It affects things like social mobility, economic success, personal growth, professional paths, educational possibilities, psychological well-being, and health and cohesiveness. Understanding this impact's complexity highlights how crucial it is to create circumstances that promote academic success and remove obstacles to it.

3.1 Stress

When people believe there is a disparity between the expectations made of them and their perceived capacity to meet those demands, stress, a complicated physiological and psychological reaction, results. It's a complex response with both physical and emotional components.

Stress physiologically sets off the body's "fight or flight" reaction, which is a defence mechanism meant to help us either confront or escape potential threats. Stress chemicals like cortisol and adrenaline are released during this reaction, raising blood pressure, heart rate, and energy levels. While these physiological alterations are necessary for survival under life-threatening circumstances, they can become troublesome if they occur frequently or excessively.

Stress might show up emotionally as apprehension, irritation, or frustration. Additionally, it may affect cognitive function, resulting in issues with focus, memory, and judgement. Stress may also affect behaviour, and it frequently leads to harmful coping strategies like binge eating, abusing drugs, or withdrawing from social interactions.

A certain amount of stress is normal and even healthy in life, but excessive or chronic stress may be harmful to one's physical and emotional well-being. Long-term stress exposure has been connected to a host of health issues, such as immune system weakness, digestive issues, cardiovascular disease, and mental health issues including sadness and anxiety.

Identifying the sources of stress in one's life, creating healthy coping mechanisms, and making lifestyle adjustments are all necessary for effective stress management. Methods like practicing mindfulness meditation, working out, getting enough sleep, and reaching out to others for support can all help lessen the negative impacts of stress and enhance general wellbeing.

3.2 Causes of Stress

Numerous internal and environmental variables can lead to stress.

Academic Pressure: The pressure to do well academically and the obligations of school, such as tests, assignments, and projects, can cause stress in students. Stress can also be increased by worries about one's academic achievement and future employment opportunities.

Relationship Difficulties: Stress can be greatly increased by conflict or strain in relationships with friends, family, love partners, or coworkers. Relationship stress may be exacerbated by issues with trust, adultery, communication, or conflicts.

Financial Stress: A number of factors, including debt, unemployment, poor income, the inability to pay bills on time, and unforeseen costs, can lead to significant stress. Significant psychological discomfort can result from worries about one's capacity to support oneself and one's family as well as one's financial security.

Life Transitions: Significant life transitions may be extremely stressful. Examples include beginning a new career, relocating to a new place, getting married, having a child, or losing a loved one. It may be difficult and stressful to cope with the changes that come along with these transitions.

Health Problems: Taking care of a sick family member, handling medical treatments, living with pain or incapacity, and dealing with acute or chronic health concerns can all lead to stress. Stress levels

might be further increased by worries about the effects of disease on one's life and uncertainty regarding health outcomes.

Traumatic Events: Stress can persist as a result of past traumatic events, including abuse—either physical or emotional—accidents, natural catastrophes, or witnessing violence. Traumatic experiences can lead to the development of post-traumatic stress disorder (PTSD), which can cause severe suffering and disability.

Environmental Stressors: Stress may be exacerbated by outside variables such as traffic jams, pollution, noise pollution, crowded living quarters, and dangerous living situations. Particularly in metropolitan settings, these environmental stresses can have an impact on one's physical and mental health.

Social Pressures: Stress can be exacerbated by pressure to live up to cultural norms, satisfy society expectations, or meet certain success criteria. Stress can also come from social isolation, stigma, discrimination, or prejudice.

Personal Factors: Personal qualities that make a person more prone to stress include perfectionism, low self-esteem, pessimism, or an obsessive worry habit. The way that people react to stresses is also influenced by their coping mechanisms, resilience, and support systems.

Work-Life Imbalance: Stress can result from finding it difficult to strike a balance between job obligations and personal duties including family, hobbies, and self-care. Feelings of stress and burnout can be exacerbated by a lack of leisure time and relaxation.

Perfectionism: A person who always strives for perfection and holds himself to excessively high standards may develop chronic stress. Constant pressure to live up to these expectations can lead to dread of failing, self-criticism, and feelings of inadequacy.

Social Comparison: Making comparisons between oneself and other people, especially on social media sites where carefully manicured pictures of pleasure and success are shared, can lead to emotions of inadequacy, jealously, and poor self-worth, which in turn can cause stress and anxiety.

Cultural and Social Expectations: People who feel they fall short of these standards may experience internal conflict and stress as a result of social pressure to live up to specific norms and expectations regarding success, appearance, relationships, and achievement.

Perceived Threats to Identity: Situations or events that cast doubt on or threaten a person's sense of self, such losing a job, ending a relationship, or being rejected, can cause existential stress as well as emotions of uncertainty, bereavement, and bewilderment.

Grief & Loss: Dealing with a loved one's passing, the breakup of a meaningful relationship, or losing one's career may be extremely stressful. Grieving and coping to life's changes may be difficult and emotionally taxing processes.
Environmental Concerns: Increasing knowledge of environmental problems like pollution, climate change, and natural disasters can make people feel powerless and anxious about the future, especially those who have a strong sense of responsibility for the environment.

It's critical to understand that stress is a very personal experience, and that what stresses out one person may not bother another as much. Furthermore, each individual's mix of various stresses might differ significantly. The first step to successfully managing and lowering stress levels is figuring out the precise sources of stress in one's life.

3.3 Impact of Stress

An individual may have significant and wide-ranging effects from stress, impacting several facets of their mental, emotional, and physical health.

Physical Health: Extended periods of stress can have a negative impact on the body and raise the possibility of a number of health issues. Heart disease, stroke, and hypertension are among the cardiovascular conditions that have been connected to long-term stress. Additionally, it may impair immunity, leaving people more vulnerable to diseases and infections. Furthermore, pre-existing medical issues including diabetes, asthma, and gastrointestinal disorders can all be made worse by stress.

Mental Health: Chronic stress can either cause or exacerbate mental health conditions. Stress and mental health are intimately related. Chronic stress is a common cause of anxiety disorders, such as panic disorder, social anxiety disorder, and generalised anxiety disorder (GAD). In a similar vein, stress may either cause or exacerbate depressive symptoms, which include melancholy, despair, and apathy. An increased chance of getting post-traumatic stress disorder (PTSD) has also been connected to chronic stress.

Emotional Well-Being: Stress may have a substantial negative effect on emotional well-being, which can result in mood fluctuations, agitation, and feelings of impatience. Stressors have the potential to cause elevated degrees of annoyance, rage, or melancholy in individuals. In addition to impairing

emotional control, chronic stress can make it harder to retain resilience and balance when overcoming everyday obstacles.

Cognitive Functioning: Stress has been shown to negatively impact memory, focus, and decision-making skills. Prolonged stress has been linked to reduced cognitive function as well as issues with focus and attention. Furthermore, stress can impair one's capacity for creativity and problem-solving, making it more difficult for people to handle challenging jobs or circumstances.

Behavioural Shifts: Stress frequently causes people to alter their behaviour in an effort to manage or lessen their discomfort. Some people employ harmful coping strategies to deal with stress, such comfort eating, overeating, or abusing drugs. Others may resort to avoidance strategies in an effort to cope with stress, such as retreating from social situations or putting off chores. These modifications in behaviour have the potential to worsen the effects of stress and have detrimental effects on general wellbeing.

Stress may put a burden on interpersonal relationships, resulting in tension, conflict, and failures in communication. Stress can cause people to become less tolerant, patient, or empathic, which can strain friendships and relationships with coworkers, family, and other relatives. Persistent stress can also cause people to separate themselves and exacerbate feelings of loneliness or social alienation.

Quality of Life: In the end, people's quality of life can be considerably reduced by the cumulative effects of stress. Stress that doesn't go away can undermine one's sense of fulfilment, pleasure, and satisfaction, making it harder to feel joy or contentment. Additionally, it can disrupt day-to-day operations by reducing creativity, productivity, and involvement in tasks that have a deeper meaning and purpose.

Sleep disturbances: Prolonged stress can throw off sleep cycles, making it harder to get asleep, remain asleep, or get a good night's sleep. An inability to rest, elevated alertness, and racing thoughts are classic symptoms of stress-related sleeplessness. Stress levels can be further escalated by poor sleep quality, leading to a vicious cycle of disturbed sleep and increased stress.

Cardiovascular Effects: The body's reaction to stress can have long-term effects on cardiovascular health, including elevated blood pressure and heart rate. An increased risk of heart disease, including coronary artery disease, heart attacks, and arrhythmias, is linked to prolonged stress. Chronic activation of the stress response system in the body can lead to artery damage, inflammation, and other heart-related problems.

Stress has a substantial effect on immune function and may make the body less resistant to illnesses and infections. Prolonged stress can lower immune function, increasing a person's susceptibility to

viral infections, including the flu and colds. Prolonged stress can also hinder the body's natural healing process, making recovery from diseases or accidents more difficult and raising the likelihood of problems.

Hormonal imbalance: Stress causes the body to release stress hormones like adrenaline and cortisol, which are vital for reacting to perceived dangers. Hormonal imbalances, however, can result from long-term stress upsetting the body's delicate hormonal balance. Numerous health problems, including as thyroid diseases, metabolic irregularities, and reproductive troubles, might be attributed to this imbalance.

Gastrointestinal Distress: Because of the gut-brain link, stress can have a major negative effect on digestive health. Acid reflux, inflammatory bowel disease (IBD), and irritable bowel syndrome (IBS) can all have their symptoms made worse by stress. Furthermore, digestive disorders and discomfort may be exacerbated by modifications in the makeup and function of the gut microbiota brought on by stress.

Risks to Long-Term Health: Over time, the cumulative impact of ongoing stress might raise one's chance of acquiring major health issues. A increased occurrence of ailments including obesity, type 2 diabetes, certain malignancies, and neurodegenerative diseases has been related to chronic stress, in addition to immune system malfunction, mental health issues, and cardiovascular disease. Effective stress management is essential for reducing these long-term health hazards and increasing lifespan.

All things considered, the cumulative consequences of stress can severely lower quality of life, make it more difficult to go about everyday tasks, and raise the chance of having major health issues in the future. Strategies for managing stress effectively are essential for reducing these effects and enhancing general wellbeing.

3.4 Ways to cope with Stress

Using a range of coping mechanisms to control the psychological, physiological, and behavioural impacts of stress is part of managing stress.

Mindfulness and Relaxation Techniques: To encourage relaxation and lower physiological arousal, engage in mindfulness meditation, progressive muscle relaxation, deep breathing exercises, or guided imagery.

Physical Activity: To produce endorphins, lift your spirits, and lessen stress, do regular exercise like running, yoga, or strength training.

Healthy Lifestyle Practices: To promote general wellbeing, make getting enough sleep a top priority.

Keep a well-balanced diet full of fruits, vegetables, and whole grains. Cut back on alcohol and caffeine. Quit smoking.

Time management: To organise your calendar and lessen feelings of overload, break jobs down into manageable chunks, prioritise your duties, and utilise tools like planners, time-blocking strategies, or to-do lists.
Social Support: During difficult times, look for the understanding, inspiration, and helpful advice of friends, family, or support groups.
good connections: Spend time with loved ones who encourage and support you and cultivate good connections to create a sense of belonging and connection.
Interests and Recreational Activities: Take part in enjoyable and soothing activities, such as reading, writing, drawing, playing music, or taking up other hobbies. Establishing Boundaries: To save your time and energy, learn to say no to requests or obligations that overwhelm you or cause you stress. You should also set clear boundaries.

Cognitive restructuring involves challenging illogical or pessimistic ideas that fuel stress and substituting them with realistic, well-balanced viewpoints.

Seeking expert Assistance: You should think about getting help from a mental health expert, such as a therapist or counsellor, if stress starts to interfere with your everyday life or becomes unbearable. They can offer advice, coping mechanisms, and other resources.

Examine mind-body techniques like tai chi, qigong, or acupuncture. These techniques can support general wellbeing, balance, and relaxation.

Learning: Write down your ideas, emotions, and experiences in a diary. This will provide you a secure place to process your feelings and give you insight into the patterns and stressors that affect you.

Self-Compassion: Show yourself self-compassion by being gentle and understanding towards yourself, accepting your limits, and providing the same assistance and care that you would for a friend in need.

Since everyone handles stress in a different way, it's important to try out a variety of coping mechanisms to see which ones work best for you. Using a range of coping mechanisms in your daily life might help you become more resilient and handle stress more effectively over time.

CHATPTER 2: REVIEW OF LITERATURE

- Zhong, Katigbak et al (2023) aimed to evaluate Patterns of sleep habits and their impact on nighttime sleep quality in college students. This poll had 439 participants in total, with a 22% response rate. There were four different clusters found. Participants who reported a change in sleep duration between weekends and schooldays of less than 1.75 hours were included in both Clusters 1 and 2, with Cluster

1 reporting a typical bedtime before 1:45 AM and Cluster 2 after 1:45 AM. Participants in Clusters 3 (3.4%) and 4 (47.8%) reported a difference in sleep duration of at least 1.75 hours between schooldays and weekends; Cluster 3 reported waking up before 7AM, while Cluster 4 reported waking up after 7AM. After Cluster 2 (late sleeper with consistent schooldays-weekends duration, 6.98±2.79) and Cluster 4 (late riser with inconsistent schooldays-weekends duration, 6.83±2.87), participants in Cluster 3 (late riser with inconsistent schooldays-weekends duration) had the lowest sleep quality (8.95±3.43) out of the four clusters. Out of all the sleep groups, Cluster 1 (early risers with regular workdays and weekend schedules) had the highest quality of sleep (5.61±2.54). In conclusion, Different sleep schedule and consistency patterns can have a big influence on the quality of your sleep. The most detrimental behaviours were staying up very late at night and sleeping for varying amounts of time on the weekends. In order to promote sleep in this group, therapies specifically designed to address these harmful sleep behaviours are required.

- Suardiaz-Muro Ortega-Moreno et al. (2023) conducted a study on Sleep quality and sleep deprivation: relationship with academic performance in university students during examination period. Most research indicates that an improved AP is linked to higher-quality sleep. We discovered that there is a positive correlation between both variables during final examinations. Students' perceptions of their AP improve when the quality of their sleep increases. Worse perception on AP is caused by increased sleep debt on weekdays. According to a research, university students don't get enough good sleep. Among our participants, two thirds thought that increasing their sleep would enhance their performance. In order to raise awareness among students, instructors, and the general public about the importance of sleep for overall homeostasis and health, education on this topic is essential.

- Wang, & Fan. (2023). Academic Stress and Sleep Quality among Chinese Adolescents: Chain Mediating Effects of Anxiety and School Burnout. Anxiety and burnout were combined with school burnout in a research done in China. The findings supported the theory that there was a relationship between academic stress and sleep quality. The study's cause, according to the scientists, was a combination of anxiousness and school fatigue.To sum up This study looks into the relationships between Chinese adolescent sleep quality, academic stress, anxiety, and school burnout. The results showed that teenage sleep quality might be impacted by academic stress both directly and indirectly. The results might clarify social policy and social work interventions aimed at improving the quality of sleep for teenagers. The Declaration of Helsinki was followed in the conduct of the study

- Carpi, Cianfarani et al(2022). Sleep Quality and Its Associations with Physical and Mental Health-Related Quality of Life among University Students: A Cross-Sectional Study. The study looked at a sample of university students from one of the biggest institutions in Italy for their reported stress levels, quality of sleep, symptoms of insomnia, and health-related quality of life. According to the PSQI, up

to 65% of the sample reported having poor sleep quality, and 33% regularly slept for fewer than seven hours. On the ISI, 55% of individuals reported relevant symptoms of insomnia, and 14% of participants had a score that suggested they had clinical insomnia. Even after adjusting for the effect of perceived stress, sleep disruptions were linked to poorer MCS scores. Although certain discrepancies should be taken into account, our findings are mostly similar with those published in other research that utilised the same HRQoL measure (the SF-12) and took into account the same covariates. Research revealed that a significant proportion of students enrolled at a major Italian university had high rates of insomnia and poor sleep quality. The design of therapies and interventions for health promotion can be influenced by the findings. Relationships should be the subject of additional research to validate their applicability and investigate the function of other potential mediating and moderating factors.

- F Almarzouki, L Mandilit al(2022). The Impact of Sleep and Mental Health on Working Memory and Academic Performance: A Longitudinal Study. Our study used a longitudinal approach with objective metrics in an effort to broaden the scope of earlier research. When comparing the academic term to the non-academic summer months, we discovered that the overall sleep score, sleep duration, daytime dysfunction, and usage of sleep medicine all deteriorated. Working memory ratings increased over the academic semester despite worse sleep and mental health. A higher GPA was substantially connected with working memory scores. The results of this study point to a number of variables that may be used to direct interventional and preventative strategies aimed at promoting university students' physical and mental well-being. Academic institutions, particularly those who are able to sustain strong academic performance, should provide resources to properly inform, monitor, and assist the health of students when they confront academic obstacles.

- Jowkar, Fattah et al (2022) conducted study on Stress, Sleep Quality, and Academic Performance among Dental Students in Shiraz, Iran. This was a cross-sectional study among dental students of the fourth, fifth, and sixth years of education at Shiraz Dental School, Shiraz, Iran. The study was conducted to explore whether sleep quality and dental environment stress can affect academic performance. According to the results of this study, students in Shiraz, Iran, experienced poor sleep quality. Dental school is a highly stressful environment, and dental students demon-strained higher levels of stress than medical students. Longitudinal stress of dental stu- dents was assessed in a previous study. It was observed that the stress levels of the students increase in the last years of education compared to the first year. Conversely, the third-year students demonstrated the highest amount of stress.

- Bagrowski, & Gutowska. (2022). Sleep Quality and the Level of Perceived Stress in Medical Students. The study that was presented included 220 medical faculty students, and it examined the relationships between their reported stress levels and the quality of their sleep. The Pittsburgh Sleep Quality Index (PSQI) was used to assess sleep quality, and the 10-item felt Stress Scale (PSS-10) was used to

measure felt stress. The PSQI and PSS-10 data revealed a strong connection (rs = 0.60), indicating that those with bad sleep quality also had high levels of perceived stress. Countable PSQI components include those that showed the strongest correlation with PSS-10. It has also been shown that using a mobile phone right before bed is associated with less restful sleep. As with previous research, the study demonstrates a strong correlation between the degree of perceived stress and the quality of sleep.

- Rathakrishnan, Bikar Singh et al (2021) did a study on Smartphone Addiction and Sleep Quality on Academic Performance of University Students: An Exploratory Research. The study has demonstrated the detrimental effects that teenagers' poor sleep quality and smartphone addiction have on their academic performance. The government will profit from the study's findings, particularly Malaysia's Ministry of Education. The ministry is able to organise and develop the most effective approach to raise teenagers' academic achievement.

- Gao,K. Scullin et al (2021) conducted a study on irregular Sleep Patterns Predict Worse Sleep Quality and Poorer Psychosocial and Academic Outcomes. Study 1 had 699 persons who answered online questions about their employment status, sleep patterns, and time management. In Study 2, one hundred college students reported their sleep patterns, academic performance, and psychosocial functioning over the course of two one-week sessions—one month apart—while wearing actiwatches. The individual standard deviation (ISD) of sleep durations was used in both studies to define the variability of sleep length. In Research 1, shiftwork was associated with increased variability in sleep length after adjusting for mean sleep duration. Variability in sleep length was found to be a predictor of worse sleep quality, increased daytime drowsiness, ineffective time management, decreased productivity, and increased procrastination, in addition to mean duration. In Study 2, as the semester went on, there was an increase in variability in actigraphy-defined sleep duration. Sleep variability was linked to higher levels of experienced stress, worse sleep quality, and lower predicted grades even after adjusting for mean sleep length. There was no correlation found between sleep variability and depression or general health perceptions.

- Tan, & M. Greenwood. (2021). Stress, Sleep and Performance in International and Domestic University Students. The current study compares international and domestic students in order to examine the association between perceived and acculturative stress, sleep quality, and academic achievement. The quality of sleep is inversely correlated with perceived stress. However, there is no correlation between academic performance and sleep quality, academic performance and perceived and acculturative stress, and academic performance and sleep quality. There are differences between local and overseas students' perceptions of stress and sleep quality. According to research, perceived stress has a significant role, thus the institution needs to concentrate on developing efficient stress-reduction initiatives that may improve the quality of students' sleep.

- Attal, Bezdan, et al (2021). Quality of Sleep and Its Correlates among Yemeni Medical Students: A Cross-Sectional Study. 240 male and female medical students from Sana'a University in Yemen's clinical and preclinical years had their sleep quality evaluated using the Pittsburgh Quality of Sleep Index (PSQI) in this study. Among the student body, two thirds (N: 163) had trouble falling asleep. Students' mean PSQI score was over the threshold for low quality overall. Students who are female and single had three times greater sleep levels. Smokers are more likely to have higher-quality sleep. This study strengthens the data that male medical students are more likely than female students to report having poor sleep quality. The primary distinction in Yemeni students' sleep habits between the sexes was in terms of efficiency, latency, and length of sleep.

- Javaid, ul Momina et al (2020). Quality of Sleep and Academic Performance among Medical University Students. The study showed Medical students from Pakistan have harmful and insufficient sleep habits. Due to the overwhelming weight and strain of school, many would rather not sleep and spend their sleep hours for studying. Sound mental health and overall physical health both depend on a regular sleep cycle. Academic scores and ESS scores showed a substantial correlation. Students with a prevalence rate of almost 36% (19.5%+16.5%) score between 60 and 70%. Of these children, 16.5% report excessive daytime drowsiness, while 19% have a normal ESS score. Numerous variables can either positively or negatively impact sleep. Students need to strike a balance between their study and sleep schedules. The kids' academic performance was significantly impacted by their ESS scores.

- Alotaibi et. al (2020) assess the quality of sleep and psychological stress among medical students and investigate the relationship between sleep quality, stress, and academic performance. The study found out Poor quality of sleep was significantly associated with elevated mental stress levels ($P < 0.001$) and daytime naps ($P = 0.035$). Stepwise logistic regression model showed that stress and daytime nap were associated with poor sleep quality. Whereas, poor sleep or stress did not show any significant association with academic performance.

- T. Nappier, Bartl-Wilson et al (2019). Sleep Quality and Sleepiness Among Veterinary Medical Students Over an Academic Year. Throughout the school year, it was discovered that the veterinary students in this research had greater than average levels of daytime drowsiness and overall worse sleep quality. Out of all the students, the first-year veterinary students were the least sleep deprived at the beginning of the year. The quality of their sleep over the year.

- Y. Eugenie, & Wah Tan. (2019) conducted a study Understanding Academic Performance based on Gender, Race, Stress and Sleep Quality. The purpose of this study is to investigate how undergraduate students' academic performance is influenced by gender, race, stress, and sleep quality. Eighty students

from Universiti Malaysia Sarawak's Faculty of Cognitive Science and Human Development participated in the study's sampling.The study also discovered that a student's CGPA decreased with increasing stress (SSI score). The study gave undergraduate students further understanding of the variables influencing academic performance and how getting enough sleep and reducing stress levels might help them achieve high marks.

- C. Pascoe, Hetrick et al (2019) conducted a study on the impact of stress on students in secondary school and higher education. This research evaluation demonstrates how secondary and postsecondary students' primary issue is stress connected to their studies. There is evidence that kids' ability to study, academic performance, achievement of education and employment, amount and quality of sleep, physical and mental health, and drug use outcomes are all negatively impacted by the continual stress associated with schooling. Improving pupils' capacity for stress management is a key area for improvement.

- A. M. Gomes, & R. Mata. (2019) aimed to evaluate the Impact Of Sleep Quality On Academic Performance In Children In The 1st Cycle. The goal of the study is to examine how Portuguese children's sleep patterns in the first cycle affect their academic achievement. Women are more likely than men to experience sleep disturbances such as nightmares, increased sleep latency, and nocturnal awakenings. The three conditions that affect men more frequently are snoring, obstructive sleep apnea, and excessive daytime drowsiness. Academic performance is influenced by sleep quality; pupils who have poor sleep hygiene do poorly. Conclusions: It was discovered that all sleep quality indices had a substantial negative correlation with academic performance, and that sleep quality affects children's academic performance in the first cycle of basic education.

- Al-Khani, Sarhandi et al(2019) did a cross-sectional survey on sleep quality, mental health, and academic performance among medical students in Saudi Arabia. The main goal was to determine how common poor sleep quality is among Saudi Arabian college students. The findings revealed that around 63.2% of the pupils had trouble falling asleep. These figures were greater than those of other Middle Eastern students, who reported figures of 37.1% in Lebanon [17] and 55.7% in Egypt [18]. In conclusion, medical students who had poor sleep patterns also had greater levels of stress, anxiety, and sadness. In spite of this, children who slept poorly performed better academically. Medical students must to understand the significance of getting good sleep and how it impacts their mental well-being.

- Wunsch ,Kasten et al (2017). The effect of physical activity on sleep quality, well-being, and affect in academic stress periods. The purpose of the study was to evaluate how students' health-related outcomes—sleep quality, affectivity, and well-being—changed as they went from stress-free to more

stressful periods of the semester. The first hypothesis, which shows a substantial decline in sleep quality over time from baseline to the conclusion of the AS period, is supported by the results. The results also show how physical activity shapes these changes.

- Rose and Ramanan(2017) assessed the effect of sleep deprivation on the academic performance and cognitive functions among the college students. And the results stated a total of 150 respondents, with a response rate of 75%, were obtained. 143 (95.3%) students obtained less than the recommended 7-8 hours of sleep. The students whose GPA was lower were associated with lesser sleep duration had sleep deprivation. The cognitive functions of college students like memory, attention, concentration was also impaired. Conclusion: Academic performance and cognitive functions of the students who were sleep deprived was poor. . Hence, appropriate sleep is integral part of better academic performance and cognitive function

- T. Fadipe and Mosaku(2017)assessed sleep quality among the entire student population of a Nigerian University and its association with academic performance and perceived stress. The study found out about one out of every two students had poor sleep quality (49.5%). The academic performance of students with good sleep quality was significantly better than those with poor sleep quality ($t= 4.39$, $p<0.01$).

- Almojali, G. Almalki, et al (2017) aimed to evaluate the prevalence and association of stress with sleep quality among medical students. New conditions for admission to postgraduate training programmes have been set by the Saudi Commission for Health Specialties (SCHS). In addition to their academic burden, medical students must publish research, give conference presentations, take part in seminars, and plan social and community service projects in order to be accepted. This study found a greater prevalence of poor sleep quality than those seen in the most recent literature. To sum up, A Saudi study shows that among a sample of Saudi medical school students, stress and poor sleep quality are highly prevalent. A low GPA and stress are two significant predictors of insufficient sleep. The creation of academic counselling centres with an emphasis on enhancing students' study skills is advised for the administration of medical colleges in Saudi Arabia.
- Ezra H. Gray. (2017) conducted a study on sleep Quality and its Impact on Trait Anxiety and Perceived Stress. A sample of 416 rooms were chosen for participation from a population of 1311 campus inhabitants at a small liberal arts institution in the mid-Atlantic area using systematic random sampling. 280 out of the 416 chosen dormitories replied to the survey, yielding a 67.31% response rate. The findings confirm both predictions by showing statistically significant correlations between trait anxiety levels and perceived stress levels as well as between sleep quality and both.

- M. Blaxton, S. Bergeman, et al (2015) evaluated relationships Among Nightly Sleep Quality, Daily Stress, and Daily Affect. They investigated the moderating interactions between nighttime SQ,

subsequent stress, and subsequent PA on NA as well as the prospective, microlevel relationship between overnight SQ and the stress of the next day on positive (PA) and negative (NA) affect. We looked at whether these connections were influenced by age. Using daily diary questionnaires, we gathered data on affect, stress, and sleep for 56 days (N = 552). We evaluated connections both between and within individuals using multi-level modelling. Findings showed Higher daily PA and lower daily NA were predicted by an interaction between daily increases in SQ and daily decreases in stress. When stress levels were low, older persons with higher SQ benefited more from PA on the stress-NA relationship; when stress levels were high, younger adults with better sleep benefited more from PA. Compared to within-person variability, between-person effects were more accurate in predicting outcomes related to well-being.
In conclusion, Higher PA together with better SQ mitigated the negative effects of stress on NA. Age has a moderating effect, which implies that stress and sleep have distinct functions throughout maturity. The negative correlation between daily stress and NA may be broken by focusing intervention and preventative methods to raise PA and improve SQ.

- Pagnin, & Queiroz. (2015). Influence of burnout and sleep difficulties on the quality of life among medical students. The study found out that Preclinical medical students' decreased psychological and physical well-being was linked to burnout characteristics and sleep issues. Students' scores in the physical health category decreased as their emotional tiredness rose. Medical students' quality of life is thought to be impacted by burnout. Burnout and sleep issues have been demonstrated to have an impact on psychological and physical health. Strategies to control stress in the learning environment and to educate students on the need of getting enough sleep are needed if early-stage medical school students are to have a higher quality of life.

- Mirghani, A. Mohammed et al(2015). Good sleep quality is associated with better academic performance among Sudanese medical students. The study stated Regarding the general quality of their sleep, outstanding and ordinary students differed significantly from one another. This finding is consistent with a research carried out in Ethiopia by Seblewengel et al. which discovered substantial differences between excellent and poor sleepers, with the exception of sleep latency. High academic achievement and adequate sleep quality are clearly correlated. Initiatives to enhance the quality of sleep for Sudanese medical students focused on housing and health education. It is very advised to maintain good sleep hygiene and rearrange teaching times. It's extremely advised to practise good sleep hygiene.

- Waqas, Khan et al (2015). Association of academic stress with sleeping difficulties in medical students of a Pakistani medical school: a cross sectional survey. The Combined Military Hospital Lahore Medical College and the Institute of Dentistry in Lahore (CMH LMC), Pakistan, was the site of this cross-sectional investigation. Included were students enrolled in all annual courses leading to the

Bachelor of Medicine and Bachelor of Surgery (MBBS) degree. The questionnaire was divided into four sections: (1) demographics; (2) the 14-item Perceived Stress Scale (PSS-14); (3) a table with 34 probable stressors; and (4) the Pittsburgh Quality of Sleep Index (PSQI). To find correlations between the stress group, gender, study year, student background, stress, and sleep quality, logistic regression analysis was used. A total of 203/263 respondents (77%) had poor sleep quality based on their PSQI score. The mean PSS-14 score was found to be a significant predictor of the PSQI score by logistic regression analysis. In Conclusion, Among medical students, we discovered a very high frequency of both poor sleep quality and academic stress. A large percentage of medical students said they used sedatives more than once a week. Medical students' stress levels and sleep disturbances were substantially influenced by academic pressures.

- Lau, EYY et al (2013). The interplay between sleep and mood in predicting academic functioning, physical health and psychological health: A longitudinal study. The main goal of the study was to look at the links that exist between mood, daily functioning, and various sleep behaviours. Independent of a person's demographic data, some specific sleep behaviours may either directly or indirectly (by causing a poor mood) predict the aforementioned daytime functions.
  The current study supports the idea that certain sleep behaviour domains might predict academic achievement and physical and psychological well-being either directly or indirectly (via mood). Subsequent research endeavours that evaluate sleep-related countermeasures, such as coffee consumption or midday naps, might potentially provide valuable insights into potential intervention approaches that academic institutions could implement to enhance the overall health of college students.

- K. Ahrberg et al. (2012) examine the relationship between sleep quality and academic performance, 144 medical students undertaking the pre-clinical board exam answered a survey regarding their subjective sleep quality (Pittsburgh sleep quality index, PSQI), grades and subjective stress for three different time points: semester, pre- and post-exam. This study shows that in medical students it is not the generally poor sleepers, who perform worse in the medical board exams. Instead students who will perform worse on their exams seem to be more stressed and suffer from poor sleep quality. However, poor sleep quality may negatively impact test performance as well, creating a vicious circle. Furthermore, the rate of sleep disturbances in medical students should be cause for intervention.

- Mesquita, & Reimão. (2010) conducted a study on Stress and sleep quality in high school brazilian adolescents. It was found that 45.33% of students who are not worried and 23.53% of stressed students sleep well; 54.67% of stressed students and 76.47% of unstressed students do not sleep well. Concerning academic achievement, a mean of 0.65 was discovered for pupils under stress and 0.60 for those who were not, according to Mann-Whitney analysis (p=0.0596). Conclusion: Both the mean

school performance and the percentage of people who have trouble sleeping have increased due to stress.

CHAPTER 3: METHODOLOGY

3.1 Aim

The aim of this study is to investigate impact of sleep quality on academic Performance and stress level among college students.

3.2 Objective

To assess the relationship between sleep quality and academic performance in college students.

To assess the relationship between sleep quality and stress levels among the college students.

1.2 Hypothesis

1- There will be a positive relationship between sleep quality and academic performance.
2- There will be a negative relationship between sleep quality and stress levels

1.3 Variable

- Independent Variable- Sleep Quality
- Dependent Variable- Academic performance and stress level

3.5 Ethical Consideration

The following ethical guidelines were put into place for each research period.

1. Confidentiality of the responses and identity was assured.
2. Participants were briefed about the purpose of the study.
3. Informed Consent was obtained.
4. The dignity and well-being of the respondent was protected all the time.
5. The research data remained confidential throughout the study and the researcher obtained the students permission

3.6 Sample

A sample of 120 college students aged between 18-25 years was taken. The sample is taken from Delhi NCR. Both male and females are included. In this research sampling was done through Convenience Sampling Method, which is a type of non-Probability sampling technique, where the sample is selected based on ease with accessibility

3.7 Tools used

Pittsburgh Sleep Quality Index-The PSQI was developed by Daniel J. Buysse and collaborators to measure quality of sleep and to help discriminate between individuals who experience poor sleep versus individuals who sleep well. Each of the questionnaire's 19 self-reported items belongs to one of seven subcategories: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleeping medication, and daytime dysfunction. Five additional questions rated by the respondent's roommate or bed partner are included for clinical purposes and are not scored.

Perceived stress scale- The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way.

Academic performance scale-This 5-point scale assessment was carried out by Carson Birchmeier, Emily Grattan, Sarah Hornbacher, and Christopher McGregory of Saginaw Valley State University. For researchers who have a particular interest in academic performance among.

3.8 Procedure

The data was collected from a sample of 120 college students, aged between 18-25 year. The three tools, Pittsburgh sleep quality index (PSQI) , Perceived stress scale(PSS), Academic performance scale(APS).

The 120 responses was collected on offline basis using comprehensive questionnaire of PSQI , PSS and APS . The consent was also taken, only then the questionnaire would be given to perform. The scoring and statistical analysis were done after the collection of data and later interpreted.

3.9 Statistical Analysis

Data was analysed by using Pearson Correlation with the responses collected.

CHAPTER 4: ANALYSIS OF RESULTS

	PSQI	*APS*	*PSS*
PSQI	1		
APS	0.731606	1	
PSS	-0.56761	-0.84103	1

Correlation between Sleep quality and Academic performance

The correlation analysis presented suggests that there is a statistically significant positive correlation between Sleep quality and academic performance among college-going students. This finding is consistent with prior research that has linked sleep quality positively with academic performance.

The Pearson correlation coefficient between sleep quality and academic performance is 0.731, indicating a positive association between the two variables. This means that as sleep quality increases, so does academic performance of college-going students. The significance level of the correlation is 0.05, meaning that there is a 95% chance that the correlation is not due to random chance.

The term "sleep quality" describes both subjective and objective measurements of an individual's level of sleep. It includes things like how long, how long-lasting, how deep, and how restored one feels after sleeping. A person's habits, psychological makeup, and surroundings may all have an impact on how well they sleep. For mental clarity, emotional control, and general wellbeing, one must get enough good sleep. On the other hand, inadequate sleep can result in a variety of adverse consequences, such as diminished mental abilities, emotional fluctuations, and weakened physical well-being.

Conversely, academic performance refers to a range of measures that are employed to assess a student's accomplishments inside an educational environment. Grades, test results, engagement in class, and general academic advancement are a few examples of these measures. Numerous elements, including IQ, motivation, study habits, and socioeconomic background, have an impact on academic achievement. Additionally, cognitive skills like attention, memory, and problem-solving techniques are intimately linked to academic performance.

Academic performance tends to increase along with improved sleep quality, according to the substantial positive connection (r = 0.731) between the two. This link suggests that kids who get better sleep have a

higher chance of doing well academically than students who get worse sleep. There might be a number of reasons for this association.

The need of sleep for cognitive performance is one important component. For the best possible cognitive function, including information processing, memory consolidation, and attention, enough sleep is essential. The brain purges toxins collected during alertness, fortifies neural connections, and consolidates recently learned knowledge while you sleep. As a result, those who get better sleep are probably more cognitively functioning, which might help them do better in school.

Moreover, the quality of sleep affects variables that are directly related to academic achievement, such motivation and mood. A lack of quality sleep is linked to mood disorders including anxiety, sadness, and irritability. These disorders can impair motivation, focus, and general well-being, all of which can negatively impact scholastic achievement. On the other hand, those who get better sleep are more likely to feel happier, more motivated, and have greater emotional control—all of which are favourable for doing well in school.

There may be a reciprocal link between academic achievement and the quality of one's sleep. Although academic performance can be improved by getting better sleep, academic expectations and stress levels can also have an impact on sleep quality. Students who have a heavy workload, deadline pressure, or test anxiety may have sleep interruptions and poor quality sleep. Therefore, efforts to improve sleep quality may have a dual benefit of boosting academic achievement and lessening the detrimental effects of academic stress on sleep.

Also, there may be a relationship between academic achievement and sleep quality and socioeconomic circumstances. Access to resources like decent housing, healthcare, and educational assistance can be influenced by socioeconomic position, and this can have an impact on sleep quality and academic chances. People from lower socioeconomic origins could have more difficulty getting enough sleep because of stress in the environment, money problems, and restricted access to medical treatments. These differences in sleep quality might be a factor in the accomplishment gap between socioeconomic groups that is shown in academic performance.

Conclusively, the strong positive correlation of 0.731 between academic achievement and sleep quality highlights the complex relationship between academic success, cognition, and sleep. Not only is better sleep critical for general health and wellbeing, but it's also critical for boosting scholastic achievement and cognitive function. Educators, legislators, and healthcare practitioners should place a high priority on promoting good sleep habits and creating supportive settings that foster optimum sleep quality for people of all ages, given the importance of sleep for academic performance. We may be able to help kids reach their full academic potential and create a society where sleep is essential for both academic success and lifelong learning by tackling sleep-related issues.

Correlation between Sleep quality and Stress level

The link between stress level and sleep quality is important and fascinating, as evidenced by the correlation coefficient of -0.567 between these two essential components of human well-being. Examining the subtleties of this relationship requires a thorough investigation of stress and sleep quality, revealing their complex effects on people's mental, emotional, and physical health.

The foundation of general health is sleep quality, which includes a range of factors like the length, consistency, depth, and restorative effects of sleep. For the best possible mental clarity, emotional control, and physical health, one must get enough sleep. On the other hand, insufficient sleep can have a number of negative effects, such as weakened immune system, mood swings, and reduced cognitive function. Each person has a different subjective assessment of the quality of their sleep, which is impacted by a variety of factors including personal habits, psychological moods, and environmental circumstances. In the fields of clinical medicine and public health, understanding and enhancing the quality of sleep has become crucial due to its significant effects on people's general functioning and quality of life.

Simultaneously, stress is a common element of the human experience, defined by the physiological and psychological reactions of the body to perceived dangers or difficulties. Acute stress reactions are necessary for coping strategies and resource mobilisation in the face of urgent stressors, but prolonged or excessive stress can be harmful to one's physical and mental well-being. Long-term stress exposure has been connected to a number of health issues, such as immune system malfunction, cardiovascular illnesses, and mental health issues including despair and anxiety. Chronic stress can also worsen pre-existing medical disorders, interfere with sleep cycles, and affect cognitive function, creating a vicious cycle of stress and reduced wellbeing.

The complex interaction between these two dimensions is highlighted by the negative correlation of -0.567 between stress level and sleep quality. An inverse link is shown by a negative correlation, which means that as one variable rises, the other tends to fall, and vice versa. Given the circumstances, it appears that a negative association exists between stress levels and sleep quality, with lower stress levels being linked to better sleep. This result is consistent with previous studies showing the reciprocal link between stress and sleep, which shows that stress may cause sleep patterns to be disturbed and that getting too little sleep can make stress worse, leading to a vicious cycle of dysfunction.

There might be many processes behind the observed relationship between stress level and sleep quality. First of all, stress can have a direct effect on sleep physiology, making it harder to get to sleep, stay asleep, or reach restorative sleep phases. Deep and peaceful sleep can be difficult to achieve due to physiological reactions to stress, such as raised heart rate, elevated cortisol levels, and heightened sympathetic nervous system activity. These reactions can disrupt the normal sleep-wake cycle and cause hyperarousal. Furthermore, rumination,

concern, and intrusive thoughts can be sustained by stress-related cognitive and emotional arousal, which further impedes the start and quality of sleep.

On the other hand, there is a reciprocal link between stress and sleep, with sleep disruptions increasing stress levels and making stress more intense. Sleep is essential for managing stress and processing emotions, which helps people develop emotional resilience and cognitive coping mechanisms. These adaptive systems can be weakened by inadequate or interrupted sleep, making people more susceptible to the negative impacts of stress and less able to handle life's obstacles. Research indicates that a lack of sleep can worsen emotional reactivity, reduce impulse control, and decrease executive function. These effects can exacerbate stress reactions and prolong the cycle of sleep-stress dysregulation.

Variations in coping strategies, resilience, and socio-environmental elements among individuals may adjust the correlation between stress level and sleep quality. Some people could have strong coping strategies and adaptable stress responses, whereas others might be more vulnerable to the negative effects of stress on sleep and vice versa. Health inequalities and disparities in well-being can be exacerbated by socioeconomic differences, access to healthcare resources, and environmental stressors that affect an individual's susceptibility to stress and sleep disruptions.

In conclusion, the complex interactions between these essential facets of human physiology and psychology are highlighted by the negative correlation of -0.567 between stress level and sleep quality. It is critical to acknowledge and manage the reciprocal link between stress and sleep in order to advance overall health and wellbeing. Interventions to enhance the quality of sleep and manage stress should use a multimodal approach, focusing on environmental, cognitive, and physiological aspects that contribute to the dysregulation of sleep and stress. We can lessen the negative effects of chronic stress and sleep disturbances, promoting a culture of wellness and resilience in both individuals and communities. We can do this by encouraging healthy sleep habits, improving stress resilience, and building supportive environments conducive to relaxation and restoration.

CHAPTER 5: DISCUSSION

The present study aimed to investigate the relationship between sleep quality, stress level and academic performance among college-going students. The study found a significant positive correlation between academic performance and negative correlation between stress level and sleep quality, suggesting

that as sleep quality increases academic performance of college student also increases whereas if sleep quality increases the stress level decreases. Specifically, the study found that sleep quality was significantly associated with academic performance and stress level.

These findings are in line with previous research that has found a link between sleep quality, stress levels and academic performance.

A intriguing interplay between these interrelated components of human well-being is revealed by the negative association between stress level and sleep quality and the good correlation between academic achievement and sleep quality. Investigating the ramifications of these relationships offers important new perspectives on the intricate processes influencing people's ability to think clearly, control their emotions, and succeed academically in general.

The positive relationship between academic achievement and sleep quality. A sufficient sleep schedule is necessary for the best possible cognitive performance, memory consolidation, and information processing, as research has repeatedly shown. Higher sleep quality is associated with better attention spans, problem-solving abilities, and academic performance in comparison to worse sleep quality. The significance of prioritising good sleep habits in educational settings is shown by the positive association found between academic achievement and sleep quality. This correlation highlights the crucial function that sleep plays in aiding learning and cognitive performance.

The previously found positive relationship between academic achievement and sleep quality may be explained by a number of processes. Getting enough sleep improves executive function, attention, memory consolidation, and other cognitive functions that support learning and academic success. The brain improves cognitive function and scholastic achievement while you sleep by strengthening connections between neurons, consolidating newly learned material, and eliminating toxins that have collected during the day. Additionally, sleep is essential for stress management and emotional control, which promotes happiness and increases motivation and focus on academic work. Higher motivation, improved emotional resilience, and happier mood states are all associated with improved sleep quality and are favourable indicators of academic achievement.

On the other hand, the inverse relationship between stress level and sleep quality emphasises the damaging effects of stress on sleep cycles and general wellbeing. Excessive or prolonged stress can upset the architecture of sleep, making it harder to get to sleep, stay asleep, or reach restorative sleep phases. Elevated stress levels are linked to physiological reactions like a faster heartbeat, higher cortisol levels, and more activity from the sympathetic nervous system. These reactions can disrupt the body's normal sleep-wake cycle and cause hyperarousal, which makes it difficult to get a good night's sleep. Furthermore, rumination, concern, and intrusive thoughts can be sustained by stress-related cognitive and emotional arousal, which further impedes the start and quality of sleep.

The inverse link between stress and sleep quality is highlighted by the negative correlation between the two constructs: stress may cause sleep patterns to be disturbed, and insufficient sleep can make stress levels worse, which can lead to a vicious cycle of dysfunction. Furthermore, the association between stress level and sleep quality may be modulated by individual variations in coping strategies, resilience, and socioenvironmental variables; this emphasises the significance of taking a comprehensive approach to stress management and sleep hygiene.

In summary, the negative correlation between sleep quality and stress level highlights the detrimental effects of stress on sleep patterns and general well-being, while the positive correlation between academic performance and sleep quality highlights the critical role that sleep plays in supporting cognitive function and academic success. It is crucial to acknowledge and manage the intricate relationship among sleep, stress, and academic achievement in order to advance overall health and wellbeing in both people and society. We can lessen the negative effects of chronic stress and sleep disturbances, promoting a culture of wellness and resilience in educational settings and beyond, by encouraging healthy sleep habits, improving stress resilience, and creating supportive environments conducive to relaxation and restoration.

CHAPTER 6: SUMMARY AND CONCLUSION

The present study aimed to investigate the relationship between sleep quality, academic performance and stress level among college-going students. The findings suggest that there is a positive correlation between sleep quality and academic performance whereas negative correlation between sleep quality and stress level.

This correlation implies that as soon as sleep quality gets better academic performance also gets better whereas if sleep quality decreases stress levels tends to rise among college students. The study highlights the potential negative impact that bad sleep quality can have on stress level and academic performance particularly among young adults.

Students who have improved sleep quality typically earn better academic achievements, according to the positive link shown between academic performance and sleep quality. On the other hand, it appears that lower stress levels are linked to better sleep quality due to the negative association between the two variables. These results highlight the complex interplay between stress, academic performance, and sleep, underscoring the significance of sleep for mental health, emotional stability, and general academic achievement.

This Interprets as Improving cognitive function, memory consolidation, and problem-solving abilities all depend on getting enough sleep, which enhances academic achievement and since sleep is essential for coping strategies, emotional stability, and stress management, higher quality sleep is associated with lower stress levels.

The study suggests that students, educators, and healthcare professionals be made more aware of the value of good sleep hygiene and stress-reduction techniques. Additionally, to address difficulties with stress and sleep quality, develop comprehensive intervention programmes that incorporate evidence-based methods like mindfulness-based stress reduction (MBSR) and cognitive-behavioral therapy for insomnia (CBT-I).

Additional investigation is required to clarify the fundamental processes that connect stress, academic achievement, and sleep quality, as well as to investigate novel strategies for successfully resolving these interrelated problems

In summary, the intricate relationship between sleep, academic achievement, and stress level is shown by the positive association between academic performance and sleep quality as well as the negative correlation between stress level and sleep quality. In school settings and beyond, addressing these linkages via focused interventions, instruction, and research endeavours can foster a culture of holistic health and resilience.

.

Limitation of the study:

It is important to note that the study had several limitations

- The association between stress level, academic achievement, and sleep quality may be influenced by factors other than sleep quality; correlation does not indicate causality.
- The link between sleep, academic achievement, and stress may be impacted by differences in heredity, socioeconomic background, and personal behaviours.
- Self-reported metrics for stress and sleep quality might bring bias into the research, therefore interpretation should be done with caution.

Implication of the study:

- Educational Settings: To maximise academic achievement and general well-being, schools and universities should place a high priority on encouraging students to adopt good sleeping habits.
- Mental Health: Addressing mental health issues and building resilience need an understanding of the reciprocal link between stress and sleep.
- Interventions: Students' academic performance and well-being can be improved by putting into practice intervention programmes that focus on stress management and sleep quality.

REFERENCES

1. Abdullah I. Almojali, Sami G. Almalki, Ali S. Alothman, Emad Masuadi, & Meshal K Alaqeel. (2017). The prevalence and association of stress with sleep quality among medical students. Journal of Epidemiology and Global Health, 7(3), 169–169. doi:10.1016/j.jegh.2017.04.005

2. Abdullah Murhaf Al-Khani, Mohammed Sarhandi, Mohamed S. Zaghloul, Mohammed Ewid, & Nazmus Saquib. (2019). A cross-sectional survey on sleep quality, mental health, and academic performance among medical students in Saudi Arabia. Bmc Research Notes, 12(1). doi:10.1186/s13104-019-4713-2

3. Abeer F Almarzouki, Rahaf L Mandili, Joud Salloom, Lujain K Kamal, Omimah Alharthi, Samah Alharthi, … Alaa M Baglagel. (2022). The Impact of Sleep and Mental Health on Working Memory and Academic Performance: A Longitudinal Study. Brain Sciences, 12(11), 1525–1525. doi:10.3390/brainsci12111525

4. Ahmed Waqas, Spogmai Khan, Waqar muhammad Sharif, Uzma Khalid, & Asad Ali. (2015). Association of academic stress with sleeping difficulties in medical students of a Pakistani medical school: a cross sectional survey. Peerj, 3. doi:10.7717/peerj.840

5. Alotaibi, Abdullah D.; Alosaimi, Faris M.; Alajlan, Abdullah A.; Bin Abdulrahman, Khalid A.. The relationship between sleep quality, stress, and academic performance among medical students. Journal of Family and Community Medicine 27(1):p 23-28, Jan–Apr 2020. | DOI: 10.4103/jfcm.JFCM_132_19

6. A. M. Gomes, & R. Mata. (2019). The Impact Of Sleep Quality On Academic Performance In Children In The 1st Cycle. doi:10.15405/epsbs.2019.11.79

7. Bartosz Bagrowski, & Joanna Gutowska. (2022). Sleep Quality and the Level of Perceived Stress in Medical Students. Roczniki Psychologiczne. doi:10.18290/rpsych2022.0005

8. Balan Rathakrishnan, Soon Singh Bikar Singh, Mohammad Rahim Kamaluddin, Azizi Yahaya, Mohd Shahrizal Nasir, Fauziah Ibrahim, & Zaizul Ab Rahman. (2021). Smartphone Addiction and Sleep Quality on Academic Performance of University Students: An Exploratory Research.

International Journal of Environmental Research and Public Health, 18(16), 8291–8291. doi:10.3390/ijerph18168291

9. Bothaina Attal, Mohammed Bezdan, & Abdulwahab Abdulqader. (2021). Quality of Sleep and Its Correlates among Yemeni Medical Students: A Cross-Sectional Study. Sleep Disorders, 2021, 1–10. doi:10.1155/2021/8887870

10. Chenlu Gao, Alexander Do, & Michael K. Scullin. (2021). 088 Irregular Sleep Patterns Predict Worse Sleep Quality and Poorer Psychosocial and Academic Outcomes. Sleep, 44. doi:10.1093/sleep/zsab072.087

11. Corinne Tan, & Kenneth M. Greenwood. (2021). Stress, Sleep and Performance in International and Domestic University Students. Journal of International Students, 12(1). doi:10.32674/jis.v12i1.3299

12. Daniel Pagnin, & Valéria de Queiroz. (2015). Influence of burnout and sleep difficulties on the quality of life among medical students. Springerplus, 4(1), 676–676. doi:10.1186/s40064-015-1477-6

13. Ezra H. Gray. (2017). Sleep Quality and its Impact on Trait Anxiety and Perceived Stress. Journal of Student Research, 6(1), 112–118. doi:10.47611/jsr.v6i1.332

14. Gema Mesquita, & Rubens Reimão. (2010). Stress and sleep quality in high school brazilian adolescents. anais da academia brasileira de ciencias, 82(2), 545–551. doi:10.1590/s0001-37652010000200029

15. Hua Wang, & Xiaoyan Fan. (2023). Academic Stress and Sleep Quality among Chinese Adolescents: Chain Mediating Effects of Anxiety and School Burnout. International Journal of Environmental Research and Public Health, 20(3), 2219–2219. doi:10.3390/ijerph20032219

16. Hyder Osman Mirghani, Osama A. Mohammed, Yahya AlMurtadha, & Moneir Siddig Ahmed. (2015). Good sleep quality is associated with better academic performance among Sudanese medical students. Bmc Research Notes, 8(1), 706–706. doi:10.1186/s13104-015-1712-9

17. Jessica M. Blaxton, Cindy S. Bergeman, Brenda R. Whitehead, Marcia E. Braun, & Jessic Payne. (2015). Relationships Among Nightly Sleep Quality, Daily Stress, and Daily Affect. The Journals of Gerontology: Series b, 72(3). doi:10.1093/geronb/gbv060

18. Jie Zhong, Carina Katigbak, Matthew Gregas, & Lichuan Ye. (2023). 0174 Patterns of sleep habits and their impact on nighttime sleep quality in college students. Sleep, 46. doi:10.1093/sleep/zsad077.0174

19. K. Ahrberg et al. (2012) The interaction between sleep quality and academic performance. Journal of psychiatric research, vol 46, issue 12, pages (1618-1622) https://doi.org/10.1016/j.jpsychires.2012.09.008

20. Kathrin Wunsch, Nadine Kasten, & Reinhard Fuchs. (2017). The effect of physical activity on sleep quality, well-being, and affect in academic stress periods. Nature and Science of Sleep, 117–126. doi:10.2147/nss.s132078

21. Lau, EYY, WONG, ML, WAN, HY, Cheung, S.F., Hui, HCC, & Mok, DSY. (2013). The interplay between sleep and mood in predicting academic functioning, physical health and psychological health: A longitudinal study. Journal of Psychosomatic Research, 74(4), 271–277. doi:10.1016/j.jpsychores.2012.08.014

22. Maria Suardiaz-Muro, Manuel Ortega-Moreno, Miguel Morante-Ruiz, Manuel Monroy, Miguel A. Ruiz, Pilar Martín-Plasencia, & Antonio Vela-Bueno. (2023). Sleep quality and sleep deprivation: relationship with academic performance in university students during examination period. Sleep and Biological Rhythms, 21(3), 377–383. doi:10.1007/s41105-023-00457-1.

23. Matteo Carpi, Claudia Cianfarani, & Annarita Vestri. (2022). Sleep Quality and Its Associations with Physical and Mental Health-Related Quality of Life among University Students: A Cross-Sectional Study. International Journal of Environmental Research and Public Health, 19(5), 2874–2874. doi:10.3390/ijerph19052874

24. Michael T. Nappier, Lara Bartl-Wilson, Tiffany Shoop, & Shelby Borowski. (2019). Sleep Quality and Sleepiness Among Veterinary Medical Students Over an Academic Year. Frontiers in Veterinary Science, 6. doi:10.3389/fvets.2019.00119

25. Rbiya Javaid, Ain ul Momina, Muhammad Sarwar, & Syed Asghar Naqi. (2020). Quality of Sleep and Academic Performance among Medical University Students. Jcpsp. Journal of the College of Physicians and Surgeons Pakistan, 30(8), 844–848. doi:10.29271/jcpsp.2020.08.844

26. Seun-Fadipe CT1, Mosaku KS2 (2017) Sleep quality and psychological distress among undergraduate students of a Nigerian university. Sleep Health 3: 190-194.

27. Sumi Rose et. Al Effect of Sleep Deprivation on the Academic Performance and Cognitive Functions among the College Students: A Cross Sectional Study. Journal of Chalmeda Anand Rao Institute of Medical Sciences Vol 14 Issue 2 July - December 2017 ISSN (Print) : 2278-5310

28. Y. Eugenie, & Kock Wah Tan. (2019). Understanding Academic Performance based on Gender, Race, Stress and Sleep Quality. Trends in Undergraduate Research, 2(2), 6. doi:10.33736/tur.1972.2019

29. Zahra Jowkar, Zahra Fattah, Zahra Etebari Asl, & Seyed Ahmad Hamidi. (2022). Stress, Sleep Quality, and Academic Performance among Dental Students in Shiraz, Iran. International Journal of Dentistry, 2022, 1–7. doi:10.1155/2022/3781324

APPENDIX A

Subject's Initials_____ID#_____Date_____Time_____AM PM

PITTSBURGH SLEEP QUALITY INDEX

INSTRUCTIONS:
The following questions relate to your usual sleep habits during the past month only. Your answers should indicate the most accurate reply for the majority of days and nights in the past month. Please answer all questions.

1. During the past month, what time have you usually gone to bed at night?

   BED TIME _____

2. During the past month, how long (in minutes) has it usually taken you to fall asleep each night?

   NUMBER OF MINUTES _____

3. During the past month, what time have you usually gotten up in the morning?

   GETTING UP TIME _____

4. During the past month, how many hours of actual sleep did you get at night? (This may be different than the number of hours you spent in bed.)

   HOURS OF SLEEP PER NIGHT _____

For each of the remaining questions, check the one best response. Please answer all questions.

5. During the past month, how often have you had trouble sleeping because you . . .

a) Cannot get to sleep within 30 minutes

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

b) Wake up in the middle of the night or early morning

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

c) Have to get up to use the bathroom

Not during the past month_____	Less than once a week_____	Once or twice a week_____	Three or more times a week_____

d) Cannot breathe comfortably

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Cough or snore loudly

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

f) Feel too cold

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

g) Feel too hot

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

h) Had bad dreams

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

i) Have pain

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

j) Other reason(s), please describe_____

_____

How often during the past month have you had trouble sleeping because of this?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

6. During the past month, how would you rate your sleep quality overall?

Very good _____

Fairly good _____

Fairly bad _____

Very bad _____

7. During the past month, how often have you taken medicine to help you sleep (prescribed or "over the counter")?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

8. During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

9. During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?

No problem at all _____

Only a very slight problem _____

Somewhat of a problem _____

A very big problem _____

10. Do you have a bed partner or room mate?

No bed partner or room mate _____

Partner/room mate in other room _____

Partner in same room, but not same bed _____

Partner in same bed _____

If you have a room mate or bed partner, ask him/her how often in the past month you have had . . .

a) Loud snoring

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

b) Long pauses between breaths while asleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

c) Legs twitching or jerking while you sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

d) Episodes of disorientation or confusion during sleep

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

e) Other restlessness while you sleep; please describe_____

_____

Not during the past month_____ Less than once a week_____ Once or twice a week_____ Three or more times a week_____

APPENDIX B

PERCEIVED STRESS SCALE

For each question choose from the following alternatives:
0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

_____ l. In the last month, how often have you been upset because of something that happened unexpectedly?

_____ 2. In the last month, how often have you felt that you were unable to control the important things in your life?

_____ 3. In the last month, how often have you felt nervous and stressed?

_____ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?

_____ 5. In the last month, how often have you felt that things were going your way?

_____ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

_____ 7. In the last month, how often have you been able to control irritations in your life?

_____ 8. In the last month, how often have you felt that you were on top of things?

_____ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?

_____ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

APPENDIX C

Academic Performance Scale

Name: _____ **Date:** _____

Instructions: Please answer each question using the 5-point scale to answer each question so that it accurately reflects what you do or have done as a student. Be as honest as possible because the information can be utilized to discover areas of strength.

Scale:

SA - STRONGLY AGREE **A** – AGREE **N** – NEUTRAL **D** – DISAGREE **SD** - STRONGLY DISAGREE

Questions	SA	A	N	D	SD
1. I made myself ready in all my subjects.					
2. I pay attention and listen during every discussion.					
3. I want to get good grades in every subject.					
4. I actively participate in every discussion.					
5. I start papers and projects as soon as they are assigned.					
6. I enjoy homework and activities because they help me improve my skills in every subject.					
7. I exert more effort when I do difficult assignments.					
8. Solving problems is a useful hobby for me.					