

**Management of Test Anxiety and Stress among Nursing Students
through Cognitive Behaviour Therapy**

Thesis Submitted in Partial Fulfillment for the Degree of
Doctor of Philosophy in Counselling Psychology

By

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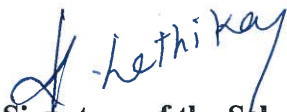
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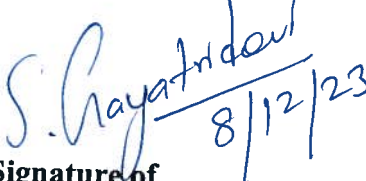
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List of Abbreviations

CBT	Cognitive Behaviour Therapy
SWOT	Strengths, weaknesses, Opportunities and Threats
GAS	General Adaptation Syndrome
Ram	Roy's Adaptation syndrome
DSM	Diagnostic and Statistical Manual
SARS	Social Adjustment Rating Scale
SPSS	Statistical Package for Social Science

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Management of Test Anxiety and Stress among Nursing Students through Cognitive Behaviour Therapy

Abstract

Stress is a prevalent and serious problem among nursing students, affecting their mental and physical health, academic achievement, and future jobs. Nursing education is noted for its severe standards, which include substantial curriculum burdens, rotations in the clinic, and the need to reconcile academic knowledge with practical abilities. Excessive stress can significantly impact nursing students test anxiety and achievement motivation, hindering their ability to concentrate on test questions and remember previously acquired knowledge. Although mild stress can provide a motivational boost, it is essential to prevent burnout and a loss of drive caused by excessive stress. As a nursing student, it's imperative to understand how test anxiety and stress can impede academic achievement. This study extensively analyzed the efficacy of cognitive behaviour therapy (CBT) in managing test anxiety and stress and in enhancing achievement motivation. The study's sample size comprised one hundred and fifty (150) students. One hundred and fifty first-year nursing students were selected using the purposive sample method for a study on Test anxiety, Stress, and Achievement motivation. To gather data, the students completed the exam anxiety measure developed by Sharma in 2000, the students stress scale created by Agrawal M in 2012, and the achievement motivation scale created by Bhargava in 2009. After careful analysis, 52 students met the requirements and agreed to participate in the study, which underwent Cognitive Behaviour Therapy (CBT) for one month on alternate days for two hours each session. The students underwent reassessment using the same set of questionnaires, with a one-month time interval, and were reassessed again for the follow-up phase. The CBT program targeted maladaptive behaviour, frequent minor exam practices, mindful reading, cognitive rehearsal, thought stopping, breathing exercises, balloon blowing, emotion regulation, auto-suggestions, self-monitoring, role-play/modelling, Guided Imagery, videos on motivational talks, SWOT Analysis, cognitive rehearsal, Journaling/Daily log. The study observed three phases: before, after, and follow-up. The calculations were done using Mean, Standard Deviation, Repeated Measures ANOVA, and the Bonferroni Post Hoc Test. The results indicate that there were significant reduction in test anxiety, stress, and significant improvement in achievement motivation after the intervention. Cognitive Behaviour Therapy was found to be effective on managing test anxiety and stress and in enhancing achievement motivation.

Chapter I

Introduction

“Caring is the essence of nursing”

- **Jean Watson.**

Definition

“Nursing encompasses autonomous and collaborative care of individual of all ages, families, groups and communities, sick or well and in all settings. Nursing includes the promotion of health, prevention of illness, and the care to ill, disabled and dying people. Advocacy, promotion of a safe environment, research, participation in shaping health policy and in patient and health systems management, and education are also key nursing roles” (International Council of Nurses, 2002).

Meaning

Nursing education enables students to advance the data, abilities, and attitudes necessary to deliver nursing care through a blended form of both theoretical and practical learning practices (Nabolsi, Zumot, Wardam and Abu-Moghli, 2012). Nursing can be defined as an action or set of characteristics displayed by a caregiver in the context of a person's relationship with their surroundings (Fawett, 1984). One of the chief nursing theorists Watson (2006) asserts that the disease might be cured, but sickness would persist because lack of caring, health is not achieved and healing does not occur.

One among many healthcare experts nurses take proper action in administering medications and treatment, scheduling care plans for patients, 24-hour care on vital signs and keeping medical records. Nurses deal with patients in hospitals and clinical, also they provide in-home care services. In some administrations like schools, colleges, MNC companies have nurses as on-staff to assist in case of emergencies. Nurses play an important role in dealing with patient and their families and other healthcare providers to ensure that they provide attentive care at all times.

General Responsibilities

In a healthcare setting, nurses perform a number of on-going responsibilities, each with a different set of tasks:

Rudimentary Health Providers

Certain sorts of patient treatments and procedures are directly provided by nurses. Depending on their position and level of training, some nurses have more duties than others. Treatment-related tasks consist of:

- Blood sampling
- Diachylon
- Intra-cutaneous injection
- Administering medications to patients on time
- Keeping an eye on the heart rate as well as other vital markers
- Taking out stiches
- Preparing patients for surgery

Patient Assistance

A patient's primary point of contact with the healthcare system is frequently a nurse. Regarding their overall care plan, they speak with patients personally and provide additional forms of continuing support. Some of these tasks are

- Interpreting care plans
- Providing directions for recovery
- Connecting patients to support groups and other resources
- Explaining meaning of each diagnosis
- Educating patients on healthy living practices
- Promoting patient's rights to the greatest care

Management

By coordinating interactions between doctors, technicians, and other nurses, they play a crucial administrative role. When treating patients, they carry out a variety of tasks to keep the entire team synchronized such as

- Updating patient chart with current information
- Arranging for medical treatment
- Discussing a patient's health and medical history with the doctor
- Examining medical standards
- Contacting insurance companies

- Contacting emergency contacts
- Preparing medical supplies and materials (Nursing duties and responsibilities, 2023).

Therefore, nursing is a highly stressful job, wherein students who learn nursing also experiences many physiological, psychological and social difficulties in order to provide a healthy medical care to the patients.

Nursing in India

After finishing the four-year Pre Service Education (PSE) program, which is required in India and attempts to impart skills for both the nursing and midwifery professions, a nurse can join the healthcare field. The same midwifery program, named General Nursing and Midwifery, is offered for three years and also as a component of a four-year B. Sc. in nursing degree. Throughout their academic and professional lives, nurses frequently experience discrimination and are treated with neglect. Another impediment is the unequal distribution of nursing facilities, and the privatization of education has resulted in an unequal output of health-related human resources.

In India, institutions with nursing council approval educate and provide practical experiences through many specialized courses. Institutions like CMC at Vellore, MAHE at Manipal, NIMHANS and St John's Medical College, Bengaluru playing a key contribution in changing role of nurse in India. Although the nurses specialises in different expertise they have been serving in poor structure roles in clinical domains. This condition leads the Indian nurses to go abroad and compete at international levels. United Kingdom and other nations have embraces Indian nurses and their self-less services towards patient care; however, in India systematic development is highly required to improve their professional quality of nurses.

SECTION I

Test Anxiety

Psychological mechanism whereby the current intensification of a dangerous drive results in the elicitation of defences. (Rosenwald, 1961).

As per the American Psychology Association, test anxiety is the feeling of stress and unease that comes with taking a test, often leading to a decline in one's performance

on the test. Test Anxiety is a term used to describe the various feelings, physical reactions, and actions that occur when someone is worried about potentially experiencing negative outcomes or failing during an exam or other evaluative event (Zeidner, 1998). Students who experience test anxiety have a very low level of anxiety tolerance when it comes to evaluating situations, often seeing test situations as personally challenging or intimidating. When put in situations where they are being evaluated, they often respond with significant concern, mental confusion, stress, and physical stimulation. (Spielberger and Vagg, 1955) Test anxiety is commonly experienced alongside unhelpful thoughts such as seeing things as threats, having a lack of belief in oneself, assuming failure before it happens, and dealing with the situation by being overly critical of one self (Matthews et al.). A definition proposed by Spielberger (1980) that is widely agreed upon describes test anxiety as the stimuli and environments related to tests, as well as the varying levels of stress encountered during a test. In general, evaluative settings and trait test anxiety may interact to cause anxiety states (Sarason et al., 1995).

Meaning

The concept of test anxiety is seen as a characteristic that varies among individuals and determines how much they feel threatened by exams (Spielberger and Vagg, 1995). There are wide and limited definitions within this general perspective. These highlight the importance of how others perceive one's performance and the impact of social interactions. According to Spielberger (1966), the concept of 'ego threat' can be understood in a broader sense as it encompasses threats to one's self-esteem, as well as the outcomes of success or failure in performance. This definition also takes into account the possibility of facing negative judgments from others. Zeidner (1998) further breaks down test anxiety into three main components.

Cognitive: The pessimistic opinions and self-critical reports that occur while evaluating oneself throughout assessments (such as exams or evaluations) 'If I don't succeed in this exam, my entire life is considered a failure,' implies that failing the exam would result in the perception of one's entire life as a failure. Additionally, anxiety can lead to obstacles in performance, such as decreased capabilities. Remembering information and struggling with comprehending and interpreting prompts

Affective: The individual evaluates their physical condition in terms of their level of tension, muscle tightness, and trembling.

Behavioural: The behavioural aspects such as poor study skills, escaping and postponement of work.

Test anxiety is a significant issue that impacts approximately 30% of nursing students, according to Driscoll, Evans, Ramsey, and Wheeler (2009). Nursing students face greater levels of test anxiety compared to students in other health science fields. This is primarily due to the demanding nature of nursing curricula, as well as the challenge of juggling many work and personal responsibilities while dedicating long hours for studying (Beggs et al., 2011). These consistent and tireless job responsibilities contribute to a highly stressful atmosphere in which students have a greater chance of achieving success.

Test anxiety shoots from poor readiness towards test, unwanted negative thoughts leading distress with the challenging situation in spite of adequate knowledge of the material, and/or wrong insights regarding test-taking skills (Beggs et. al., 2011). Test anxiety is being perceived as a menace, resulting in negative consequences like helplessness, increased feeling of fear (Oermann and Gaberson, 2009). One of the most common phenomenon among students of various fields test anxiety. As per DSM-V there is no specific category for test anxiety but it falls under anxiety disorders and specifically classified as specific phobia.

Emotionality: The physiological and/or bodily symptoms are dizziness, feelings of panic, increased heart rate. These conditions would involve in heightened level of emotionality which displays the declining performance of an individual (Cassidy and Johnson, 2001).

Symptoms

The symptoms of test anxiety may range from mild to severe based on their experiences in dealing with test related performance. There are few other physiological, behavioural, emotional and cognitive aspects provided by Anxiety and Depression Association of America. They are as follows; Physical Symptoms (Sweating, Trembling, Quick Heartbeat, Dry Mouth Black out and Queasiness). Cognitive and Behavioural Symptoms; Avoiding situations when tests are administered, Skipping class or even tardily leaving school, Problems in retrieving and remembering, Difficulties in attention and concentrating, Negative self-talk. Emotional Symptoms; Unhappiness/Sadness, low self-worth, outrage and anguish

Theories of Test Anxiety

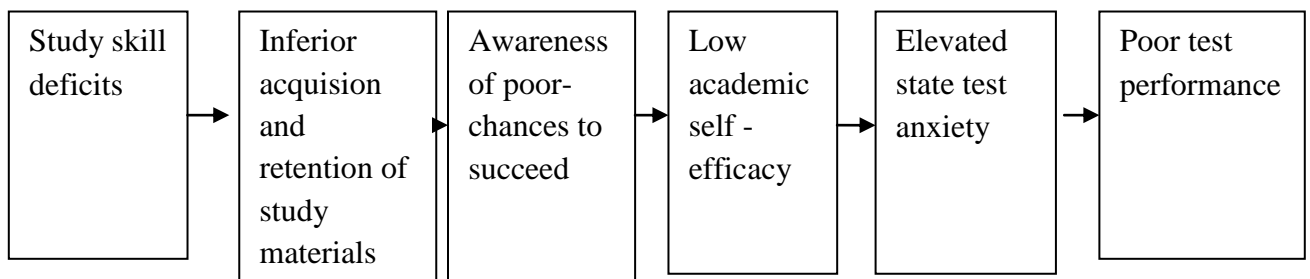
Theories of test anxiety should offer recommendations for reducing anxiety and improving performance through targeted treatments.

Cognitive-Attentional (Interference) Model

Current test anxiety theory is largely influenced by a "cognitive-attentional" or "interference" approach (Culler & Holahan, 1980; Weinstein, Cubberly, & Richardson, 1982; Wine, 1971b; I. G. Sarason, 1980a). According to this model, high- and low-test-anxious students differ in their attentional focus, resulting in performance differences. Individuals with high test anxiety may become excessively focused on themselves during evaluative tests, which may hinder their performance by diverting them from the task at hand (Wine, 1971b).

Skills-Deficit Model

This model suggests that poor study habits can develop independently of worry, with anxiety resulting from repeated academic failures (Covington & Omelich, 1988).



SECTION II

Stress

Meaning

Stress involves changes affecting nearly every systems of the body, influencing how people feel and behave. Severe stress is manifested by the general adaptation syndrome. By causing these mind-body changes, stress contributes directly to psychological and physiological disorder and disease and affects mental and physical health, reducing quality of life (Hans Selye, 1940).

CAUSES OF STRESS AMONG STUDENTS

Exams are stressful for students for four reasons (Denscombe, 2000), consequences of marking self-esteem, judgment of others, fear of teachers.

- Consequences: exams are stressful because of their academic and/or career consequences.
- Markers of self-esteem: students rate each other based on their scores, with high scores translating into high appreciation. To a greater or lesser extent, there has been uptake of the message that respect can be enhanced by academic success.
- Judgement from others, especially from parents, family members, peer groups
- Fear appeals by teachers: the repetitive messages that teachers convey to students about importance and timing have been identified as a cause of stress in some students.

Theories of Stress

To comprehend how to handle stress, it is crucial to initially contemplate the various ways stress is defined and how coping strategies have advanced in response to different stress theories. Stress has been seen and understood in various ways, such as a reaction, a trigger, and an interaction. This involves when someone perceives stress influences how they react, adapt, or deal with it.

General Adaptation Syndrome

The general adaptation syndrome of stress by Selye's (1936) created a model that analyses a person's response to long-term stress, divided into three main stages, the initial stage, the intermediate stage, and finally the exhaustion stage.

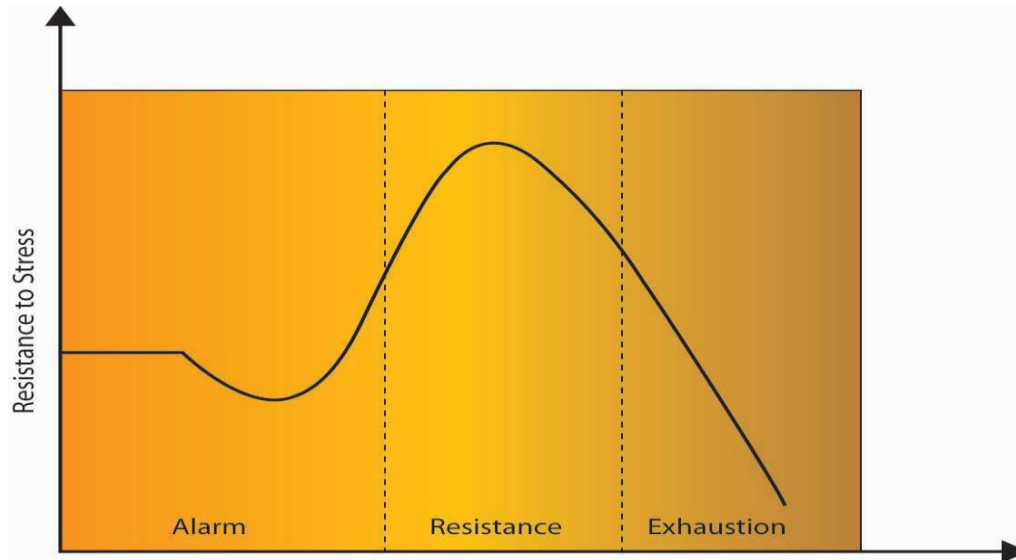


Figure 1: General Adaptation Syndrome (GAS) Model

The alarm phase, the body responds to the stressor by triggering the "fight or flight" response. This activates the parasympathetic nervous system and results in the release of hormones from the adrenal medulla (Richard Gross, 2010). If the source of stress persists, the body enters a stage of resistance. During this stage, the body appears to function normally, but levels of blood glucose, cortisol (triggered by ACTH hormones), and adrenaline remain higher than usual. Additionally, the individual's heart rate, blood pressure, and breathing will be higher than normal. The person might seem calm, but they are mentally and physically prepared for action. In the last stage, known as the exhaustion stage, the hormones that have already been triggered inhibit the continued release of ACTH. Additionally, the levels of ACTH circulating in the blood also contribute to this inhibition. At this stage, the body starts to deplete its stored energy or resources, resulting in inadequate functioning. When the level of glucose in the blood decrease, the person's susceptibility to illness and mortality increases. According to Nicky Hayes (1994), this last stage results in an immediate and intense response to even minor sources of extra stress, which can sometimes be excessive

Stress Response and Nursing Knowledge

The understanding of stress response in nursing has been built through the development of theories, application in nursing practice, and empirical research. The Roy's Adaptation Model (RAM, 1964) is a theory that centre on the person as an adaptive bio-psychosocial system. It describes nursing as a humanistic profession that places an emphasis on the individual's coping mechanisms in order to achieve excellent health.

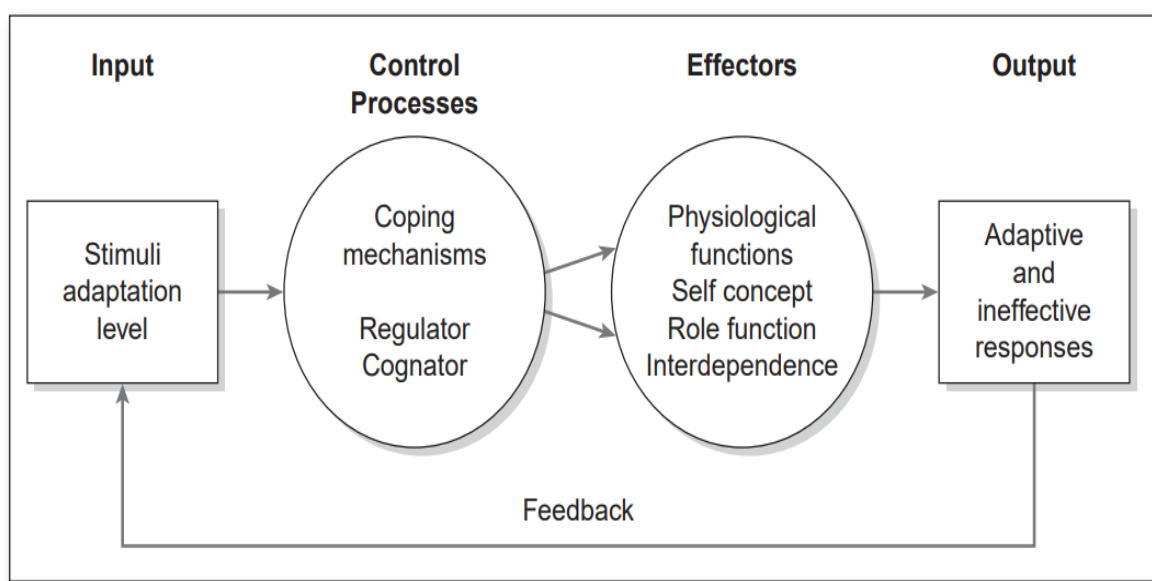


Figure 2: Roy's Adaptation Model (RAM)

This approach mainly focuses on the notion of stress, the idea of adaptation, and the capacity of nurses to help clients adapt or cope with stress. The author selects the notions of stressors, stress, and adaptation for his model from the stress theory. She defines stress as “a constantly changing point, made up of focal, contextual, and residual stimuli, which represent the person’s own standard of the range of stimuli to which one can respond with ordinary adaptive responses” (Roy, 1984). This proposal theorizes that there is a reciprocal interaction between the adaptive system (a person) and different stimuli (input) both from the surrounding environment and from the adaptive system itself. The processing of responses to stimuli involves subsystems, comprising of two control mechanisms, namely coping processes, and four adaptive modes. The regulator subsystem is one form of a control mechanism. It reacts naturally through neural, chemical, and endocrine procedures. Sensory inputs from both the internal and external environment are received by the

nervous system, circulatory system, and endocrine system within the body.

Automated, instinctual (coping) reactions are generated. The second subsystem, known as the cognator, is responsible for accepting information from both external and internal sources that trigger psychological reactions related to perception, learning, decision-making, and emotional experiences. The regulator and cognator are connected in facilitating this process. There are four different modes within this subsystem.

- (a) Physiological functioning (biological integrity derived from basic needs)
- (b) Self-perception (interaction with others and the psychic integrity regarding perception of self)
- (c) Role functioning (social propriety and carrying out obligations based on social status)
- (d) Interconnection for more support systems (seeking assistance, love, and attention, as well as maintaining close bonds with loved ones and support networks) (Roy and Andrews, 1991).

Changes can happen mostly in unimodal or can occur concurrently in multiple modes. The results of the adaptive system can be either adaptive (effective) responses or maladaptive (ineffective) responses. Illness arises as a consequence of inadequate coping mechanisms. Being able to adapt to the challenges results good health. The objective of nursing is to preserve and improve the ability to adapt to different situations while also transforming behaviours that are not effective into ones that are. Each person has a limited capacity to adapt, which can be influenced by their circumstances and their ability to deal with them. This concept brings in the concept of control regarding stress, which expands upon previous theories that viewed individuals as being passive in response to external stimuli. It also presents a positive perspective on what humans are capable of achieving and their potential (Rice, 2012).

Stress as a Stimulus

The stress as a stimulus theory, which was first put forth in the 1960s, considers stress to be a significant occurrence or change in life that calls for a reaction, adaptation, or adjustment. The Social Adjustment Rating Scale (SARS), developed by

Holmes and Rahe in 1967, rates the estimated degree of adjustment that each of life events (such as marriage, divorce, moving, change or loss of life, employment, and loss of loved ones) requires of the individual experiencing it. Both writers propose that stress, rather than being the experience itself, is the source of an experience and an independent variable in the stress-health-coping equation. There are issues with the stress-as-stimulus idea, notwithstanding the association between SARS scores and sickness (Rahe, Mahan, and Arthur, 1970; Johnson and Sarason, 1979) there are problems with the stress-as-stimulus theory. The stress as stimulus theory assumes:

- Change by its very nature is stressful.
- There is a common threshold of adjustment beyond which sickness will result.
- Life experiences demand the same levels of adjustment across the community.

According to this theory, the theorists considered human beings as a reflexive receiver of stress or stressors. Further, in detailing this theory has an extension over analysing the results of both positive experiences and negative experiences rely on their cognitive and emotional factors of each individual. Although, the real life experiences deals with the cognition and emotional aspects however, the components such as social, cultural, support systems, personality and learning has been excluded (Rahe and Arthur, 1978).

Stress as a Transaction

A dynamic process of understanding stress in better perspective Richard Lazarus advanced a method called Transactional Theory of Stress and Coping (TTSC) (Lazarus, 1966; Lazarus and Folkman, 1984), presenting that, the stress is a result of matter (which includes physiological, psychological, cognitive, affective and neurological backgrounds) between a person and his or her multipart environmental aspects. Hardiness was a term used to represent stress given by Kobasa (1979). A pattern of characteristics helps in identifying the differences that people maintain a healthy lifestyle under life stress compared with those who develop health related issues.

In the late 1970s, the toughness notion was established by Maddi and Kobasa (1984) and team of graduate students at the University of Chicago. Toughness has prominent resemblances with other character constructs in psychology, including locus

of control (Rotter, 1966), coherent consciousness (Antonovsky, 1987), self-efficacy and self-esteem. Self-efficacy (Bandura, 1997) and optimistic personality (Scheier and Carver, 1985). All of this will be discussed in the next section. Investigators have included several stress variables as transactional models, developing and classifying different issues to account for the multifaceted system involved in the experience of a stressor (Werner, 1993). The nature of stress has been described in many ways: acute, episodic or episodic and chronic. Different types of stressors emerge, such as events, situations, cues, and conditions, which are then classified into categories based on locus of control, predictability, tone, impact and duration.

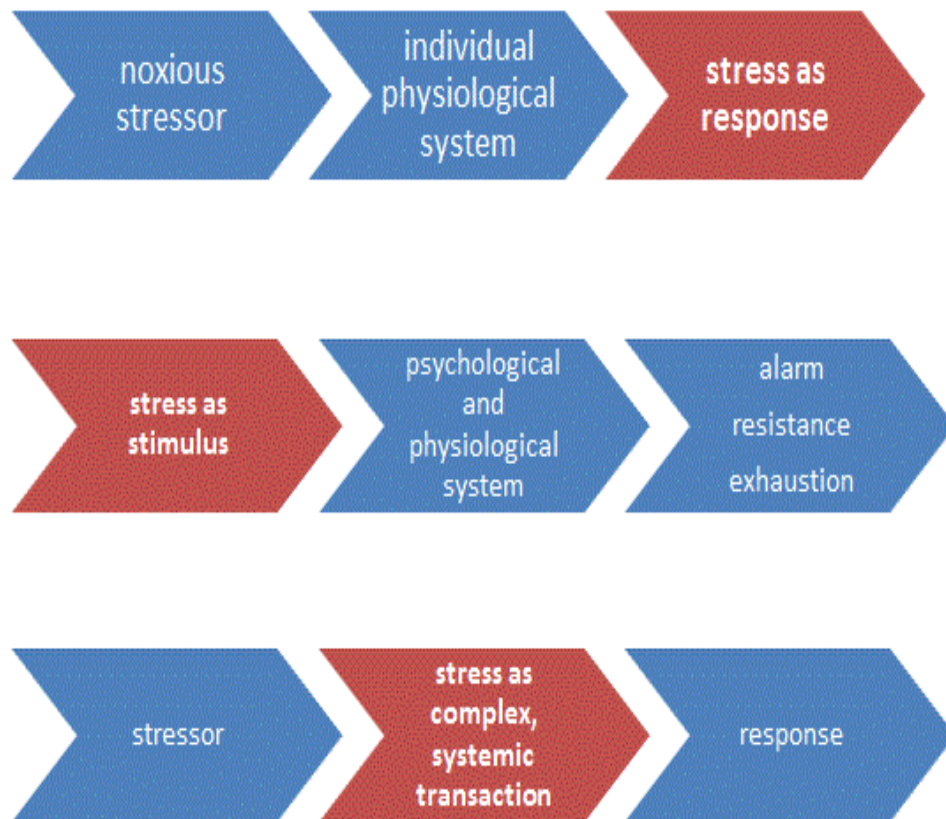


Figure 3: Theories of stress as response, stimulus and transaction

Lazarus and Folkman (1984) expanded the idea of construal in their model of stress appraisal; including primary, secondary, and reappraisal components (see Figure 16.5, "Transactional Theory of Stress and cope"). The basic assessment is to determine whether the stressor poses a threat. Secondary appraisal includes the individual's assessment of the resources or coping strategies available to deal with any

perceived threat. The process of reassessment is on-going and involves on-going reassessment of the nature of the stressor and the resources available to respond to it. (Walinga, 2012)



Figure 4: The transactional theory of stress and coping

Nursing Students and Stress

Due to the transitional nature of college life, nursing students are prone to stress. It is well recognized that stress has negative effects on one's health and academic performance. Students deal with a variety of stresses, including the strain of an educational program with the responsibility to succeed, an unknown future, and challenges assimilating into the system. Stressors can come from personal relationships, health issues, finances and personal expectations. By 2020, according to the World Health Organization (WHO), stress-related diseases will rank among the top causes of disability. Nursing schools are now considered stressful environments, often negatively affecting students' academic and psychological performance. Research studies from the UK and India reflecting the alarming state of stress in the field of nursing is being noticeably increasing every year (Gomathi and Jasminedebora, 2017).

According to Pulido-Martos, Augusto-Landa, and Lopez-Zafra (2011), nursing students experience both academic and professional stress while undergoing their training. In order to better understand how stress develops in organizational contexts, research on work stress focuses on the sources of stress, or stressors (Spielberger and Reheiser, 2005). Time restraints, workload, decision-making, on-going change, and financial blunders made at work are some of the most frequent stressors. Stress has an impact on practically all professions, according to several reports from occupational health groups. The health of healthcare professionals, particularly nurses, is negatively impacted by higher

stress levels and more stressors (Demeuroti et al. 2000; Humpel andCaputi 2001; Lim et al. 2010).

SECTION III

Achievement Motivation

Achievement motivation is affected by evaluated performance when competing with an excellent standard was crucial(McClelland, Atkinson, Clark, and Lowell, 1953).

Definition

Motivation is defined as the internal and external factors that stimulate desire and channel a person's energy to continue effort until a goal is achieved. Motivation is the product of the complete combination of desire and aptitude. Research in organizational behaviour has practically developed towards the development of various motivational theories for effective human resource development. For convenience, theories of motivation can be broadly classified as naturalistic, rational, and content- and process-based. Naturalistic theory is based on the study of natural forces (motivations, needs, desires) on human behaviour, rational theoretical structures (tools, identity), internal theory content studies the “what” and process theory focuses on the “how” motivation takes place. The applicability of motivation theories may seem unscientific, but proper control of motivation can help achieve desired goals. It is important to understand employee motivation and plan motivational techniques.

The Latin word "movere"—which means to move—is the source of the English word "sample" The internal energy that activates and controls behaviour is referred to as motivation. The processes that explain why and how human behaviour is engaged and directed are referred to as motivational theory. It is regarded as one of the most crucial fields of research in organizational behaviour. Content theory and process theory are two types of motivation theories. Although there are many distinct incentive theories, none is embraced by the general public. The content theory of motivation, also referred to as the needs theory, places a strong emphasis on the internal forces that drive and influence behaviour in people. Some key content hypotheses (Singh, 2011).

Maslow's Theory

There are five levels of hierarchy of needs which is often represented as hierarchical pyramid. A total of five levels has been developed, whereas, the first four levels were categorized as lower-order needs which are highly considered as the physiological needs, whereas, on top of all four levels is represented as growth needs. The lower-order needs should be satisfied before they reach the higher-order need which can influence the behaviour of an individual. Below depicted the Maslow's Hierarchy of needs;

- Self-actualization – includes morality, creativity, problem solving, etc.
- Esteem – includes confidence, self-esteem, achievement, respect, etc.
- Belongingness – includes love, friendship, intimacy, family, etc.
- Safety – includes security of environment, employment, resources, health, property, etc.
- Physiological – includes air, food, water, sex, sleep, other factors towards homeostasis, etc (Maslow, 1943).



Figure5: Maslow's Hierarchy of Needs Pyramid

Mc Clelland's Theory of Motivation:

The book "Successful Society" explains three primary reasons that are related to McClelland's theory of motivation. This idea can be broken down into three main parts: the needs for power, affiliation, and achievement. This idea is often referred to as "Learning Needs Theory" or "Three Social Motivation Theory." Depending on their dominating motive, people will have varying traits. The distinctive mixture that gives each person their identity is the product of variations in relative demands. He also discovered that these three social reasons account for 80% of daily mental activity or cognitive processing (1987, McClelland). The generalized figure below describes three social motives:



Figure 6: McClelland's Achievement Motivation Theory

Need for Achievement - The desire to accomplish something difficult, master complex tasks, achieve high levels of success, and outperform others. Therefore, the individual who pursues the need for achievement will be known as someone who is willing to question his or her goals and is realistic.

Need for Power—Lussier and Achua (2007) define the need for power as an unconscious concern to influence others and seek positions of power. It is described as the desire to make others, behave in the same way that the individual appears. Daft (2008) defines the need for power as the desire to control or influence others, have power over others, and be responsible for others. Individuals also tend to produce performance to gain influence over others.

Need for Affiliation— Desire to form close personal relationships, avoid conflicts and establish warm friendships. People with a need for affiliation seek social approval, friendships, and interpersonal relationships.

Alderfer's ERG Theory

According to Alderfer's (1969) concept, these three demands are what drive all human motivation. This theory's most focused and compelling idea is survival, which is really about both bodily and psychological survival. The yearning to belong, a sense of belonging, and a healthy relationship with us make up the next level. Alderfer's growth need, which truly has to do with growth, fulfillment, and feeling like one's potential is being fulfilled, is the least defined but nonetheless significant need in the ERG model. According to Alderfer's ERG theory of motivation, people can be driven by several different levels of requirements at once, and their priorities may shift over time. In other words, an individual's priorities and motivations can change and shift between existential levels, relationships, and the evolution of needs over time. They can move up and down at any point depending on their level of motivation.



Figure 7: Alderfer's ERG Theory

Features of High Achievement Motivation

According to theorists such as John Murray, David C. McClelland, and John Atkinson, individuals with high achievement motivation have a moderate problem-solving and challenge orientation.

Moderate Challenge

People who are highly motivated to succeed prefer tasks and problems that are moderately difficult. As a rule, these people aim at ambitious but achievable goals, the results of which their abilities and efforts can influence.

Personal Reinforcements

Rather than being motivated by the potential for reward, individuals who are highly motivated to achieve use reinforcements, such as professional recognition and financial benefits, as a way to measure their achievements. These people place greater value on a sense of personal accomplishment.

Relevant Feedback

Another characteristic of individuals with high achievement motivation is the desire to receive feedback. These individuals seek feedback not on their personal qualities but on the success of their efforts. Feedback is used to measure their work performance.

Problem-solving

Individuals who are highly motivated to succeed also have a strong problem-solving orientation. They spend a lot of time thinking about potential solutions to current problems, as well as actively brainstorming and analysing other opportunities for improvement.

Interpersonal Skills

Due to their focus on success and achievement, individuals who are highly motivated to succeed are often characterized by poor interpersonal skills. These people tend to overemphasize results and have difficulty managing people effectively (Switzer, 2018).

SECTION IV

Cognitive Behaviour Therapy (CBT)

Cognitive behavioural therapy (CBT) is a psychotherapeutic technique that uses a variety of explicit and goal-directed systematic techniques to treat dysfunctional emotions, maladaptive behaviours, and behavioural problems, Cognitive response, process, and content. Cognitive behavioural therapy is a combination of behavioural therapy and cognitive therapy based on the cognitive behavioural concepts and research explicitly mentioned in this term. This technique is problem-focused, which implies that it is used to solve specific problems, and is action-oriented, suggesting that the therapist helps the client choose specific techniques to solve these problems (Schacter et al., 2010).

CBT (cognitive behavioural therapy) is a short-term, goal-oriented psychotherapy and problem-solving approach. The main goal of cognitive behavioural therapy is to change people's problems and thereby change the cognitive or behavioural patterns that create their emotions. It is used to treat various problems in a person's life, such as insomnia, relationship problems, drug and alcohol addiction, anxiety, and hopelessness (Martin, 2016). Individuals with the cognitive and behavioural abilities to promote adaptive functioning and improve health are the target of cognitive-behavioural therapy (Kazantzis, 2006). CBT is a structured, short-term therapy in which the therapist must conceptually visualize (or frame) the client to better understand emotional, behavioural, and physiological patterns (Beck, 1995a, 2005b; Leahy, 2004; People, 1989).

Deep Breathing practices supports to decreases anxiety by slowing heart rate, lowering blood pressure, and triggering a feeling of relaxation. Continuous practice of deep breathing practices helps in improving concentration and thus leading a pathway in distracting themselves away from negative thoughts and feelings oriented towards test and test-related anxiety and/or fear.

Relaxation Techniques is method which helps to reduce anxiety of the students. The students learn to slowly relax concentrating only on the breathing of an individual. This technique of relaxation helps them to learn consciously to relax their despite of place or situation in order to feel calm and composed.

Cognitive restructuring is a technique that helps identify cognitive distortions which are irrational thoughts that tend to be negative in nature. These irrational thoughts lack evidence but can still lead to feelings such as depression, anger, and increased anxiety levels leading to poor test results.

e.g., “I am going to fail”

“All my classmates are smarter than me. There is no way that I will do well in this test”

“I failed in the exam, I cannot become a nurse”

Cognitive distortions constitute the second stage. Once harmful cognitive distortions are identified, students can challenge them by examining the evidence. Socratic questioning, Catastrophizing, and thought tracking are techniques that can be used for this purpose. Once cognitive distortions are resolved, they can be replaced with rational thoughts.

Using positive thoughts helps to improve the inner dialogue or statements people say to themselves. Negative self-talk increases test anxiety, while positive self-talk leads to positive feelings about the test, which improves student performance.

e.g., “I am well prepared for this test”

“I am going to do my best”

“I can see myself passing this test” (Therapist Aid, 2023)

In addition to the above techniques, Cognitive Behaviour Therapy log and mindfulness also play a key role in reducing test anxiety.

CBT therapy for stress enables one to understand about thinking and behaviour patterns of an individual which can increase stress levels. It can also help to develop new thinking and behaviour patterns which enable in identifying stress causing triggers and increase confidence and ability to deal with stressful situations more effectively (Morrow, 2023). It helps to reduce the level of stress using progressive relaxation training and controlled breathing techniques, which helps to bring down the level of anxiety, physical tension and overall stress level. Assertiveness and effective communication training skills can be used as a combination to reduce the level of stress. CBT log on identifying the stress and the events triggering the stressful situation helps to aid the level of stress. CBT also helps to improve problem-solving skills resulting reduced stress (ABCT, 2023). CBT

helps to reduce physical, emotional, cognitive and behavioural symptoms also it reduces the internal and external stress of an individual (Salaun, 2022).

NEED FOR THE STUDY

Nursing school is indeed challenging, but anything worthwhile is worth working hard to achieve. Rigid curriculum plans are one of the greatest obstacles that make nursing school difficult. Medical terminology, basic anatomy, physiology, psychology, nutrition, microbiology, and nursing theory are the first subjects covered in undergraduate nursing programmes. The time and effort required to study and learn the required material is one of the key factors contributing to nursing school's difficulty. Prior to clinical, nursing students should participate in hands-on practical lab experiences, also referred to as simulation lab experiences. Clinical rotations in nursing school can be exciting. The chance to apply the theories they acquired in class to oversee patient care comes to nursing students during clinical rotations. Nursing students may feel overburdened at this time. As clinical practicum's demand applying what was acquired in the laboratory in addition to class for the start of functioning like a nurse. Nursing students implement the nursing process for patients, families, and/or visitors during clinical under the direction and supervision of the clinical instructor, a registered nurse employed by the facility. She or he evaluates the patient's condition by checking the temperature, pulse, blood pressure, and other vital indicators to look for deviations from the norm.

A total of 121 studies were included in the Metaanalysis. Most nursing students (42.1%) reported moderate stress, while 19.4% to 25.1% reported mild to moderate anxiety. In their third or fourth years, the level of stress for nursing students was significantly higher compared to its first and second years, at 29,0 % versus 15,1 % (Vo , Chiu , Chuang , Huang ,2023). Test anxiety is a major issue for nursing students across all levels. It creates a variety of negative symptoms, both physical and emotional, that are adverse to academic progress (Shapiro, 2014). The study examined the incidence and degrees of exam anxiety among nursing students at University Sultan Zainal Abidin in Terengganu, Malaysia. According to the study findings, just 1.7% of respondents reported no anxiety, 36.7% had mild anxiety, 58.3% had moderate anxiety, and 3.3% had severe anxiety. The majority of first-year nursing students experienced test anxiety (Farrahdilla and Mat, Khairi and Bhagat, Vidya and Amaran, Safiya and Haszalina, 2018). Tavakoli, Hadanzadeh, and Emadian (2022) analysed the effect of Mind Wandering in mediating the

relationship among motivation to succeed and perceived academic stress in nursing students. Mind wandering between achievement motivation and perceived academic stress was found to perform a moderating role in nursing students. It can be argued that in nursing students, mind wandering between success motivation and perceived academic stress plays a mediation role.

Stress and test anxiety are two closely connected concepts that can have an important effect on a person's academic achievement and overall well-being. Stress is the body's reaction to demands or problems, whether they are physiological, emotional, or psychological. Test anxiety, on the other hand, refers to the feelings of uncertainty, nervousness, and panic that can emerge when taking exams or tests. While there have been many quantitative and qualitative studies to understand the stress, test anxiety and achievement motivation of nursing students the research focuses the importance of timely intervention in helping nursing students to feel a blissful life. The main focus of this study is to improve the Psychological efficiency among nursing students. Therefore, the present study provides an insight to understand and manage test anxiety, stress and enhancing achievement motivation through Cognitive Behaviour Therapy.

Chapter II

Review of Literature

“Nurses dispense comfort, compassion, and caring without even a prescription”

- Val Saintsbury.

The present chapter focus on the studies related to the research under investigation. Review of literature identifies, evaluates and synthesises the related field of research. It clarifies how knowledge has evolved within the field. In the present chapter it is clearly stated into thematic paragraphs to systematically and grouped into the following manner.

- 2.1. Studies on test anxiety
 - 2.1.1. Studies on test anxiety and intervention.
2. 2 Studies on stress among nursing students.
 - 2.2.1 Studies on Stress and intervention.
- 2.3. Studies on achievement motivation.
- 2.4. Studies on cognitive behaviour therapy.

2.1 Studies related to Test anxiety among nursing students

Dodson (2021) explained that test anxiety in nursing students is a common problem that greatly affects individual performance in nursing school. The purpose of this quasi –experimental evidence –based practice improvement project is to reduce test anxiety in nursing students through mindfulness practices. A convenience sampling of approximately 40 students from the first semester cohort of a Midwestern university pre-licensure nursing program participated. Data analysis of pre and post intervention scores demonstrated a significant decrease in test anxiety post – intervention.

Liu, Pan, Yang, Wang, Rao, Zhang, and Pan (2021) investigated the links between psychological resilience, emotion regulation and test anxiety in addition to exploring the differences about socio demographic factors. A sample 1266 students was selected through cross-sectional survey from medical university in china during 2019. Data were obtained by network technique using designed questionnaire, which assesses the level of test anxiety, emotion regulation and psychological resilience respectively. Results revealed

medical students experienced test anxiety at different levels, 33.7% of these were seriously. It revealed significant effects of the gender and academic performance on test anxiety. Results logistic regression indicated that test anxiety was significantly associated with emotion regulation and psychological resilience ($P < 0.01$). Psychological resilience played a mediating role on the relationship between emotion regulation and test anxiety. These findings highlight the importance of psychological resilience relates to test anxiety in medical students. Resilience training intervention may be developed to support students encountering anxiety during the exam.

Park and Byun (2021) stated the effect of perceived stress, self-esteem and major satisfaction on test anxiety in nursing students and to provide the basic data of control test anxiety. Data was collected from 251 nursing students in B city and analysed by t-test, ANOVA, Pearson correlation and multiple regression was analysed. There was significant difference in test anxiety with respect to gender. There was positive correlation between test anxiety and perceived stress, negative correlation was found between test anxiety and self-esteem. The factors affecting the test anxiety of the study subjects were perceived stress. Through this research can be used as basic data by identifying factors affecting test anxiety of nursing students.

Abeasi and Agyei (2021) study explained the examination anxiety level of students of nursing and Midwifery College, Agogo and Presbyterian University College and evaluate the factors affecting them. A total 160 undergraduate nursing students comprising 80 degree and 80 diploma students were conveniently sampled for the study. The study was conducted using a descriptive cross-sectional design. The Westside test scale was used to measure examination anxiety among the participants. A researcher -designed questionnaire in which participants respond to a three-point likert scale was used to assess factors influencing examination anxiety. The findings of the study showed that test anxiety was higher among the diploma the diploma candidates than the degree candidates. The factors found to influence examination anxiety among students were volume of materials to study, level of preparation, perceived difficulty of question and myth about examination. The perceived importance of the examination and schedule of the exams did not influence examination anxiety. The conclusion of the study was that candidates of the licensure examination organised by nursing and midwifery council of Ghana should be assessed for test anxiety and offered the necessary psychological support where necessary.

Farcasiu, and Andrei (2021) study explored the prevalence of test anxiety, gender difference variables that moderate it among students of Dentistry Department, Oradea university, Romania. Spielbergers test anxiety inventory (TAI) adopted. The sample consisted of 201 undergraduate students (56 males, 27.86%) out of 360 students. The large majority of students presented high level of anxiety.

Lohiya, Kajale, Lohiya, Khadilkar, Khadilkar, Gondhalekar, and Agarkhedkar (2021) investigated to assess test anxiety (TA) and factors affecting Test Anxiety in school-going children. To observe the impact of TA on quality of life (QOL). Indian school children 9 to 18 year old were the students. Children were administered Test Anxiety Inventory (TAI) and Peds QL (Paediatric Quality of life). TAI Score (factors affecting it in both rural and urban children) and QOL scores were assessed. Data on 2158 children were analysed (1162 boys). Girls and rural children had higher TA. Two-thirds of children studied had moderate to high TA. Increasing age, urban living, QOL and maternal education had an impact on TA. Evaluating TA and developing appropriate strategies for stress-reduction in school children is necessary.

Naeim, Rezaeisharif, Zandian (2020) stated the relationship between internet addiction and social adjustment and test anxiety among the female students of Aradabil university of medical sciences. The sample consisted of 349 students were selected by simple random sampling. The results showed that there was a significant positive correlation between internet addiction and test anxiety. There is also an inverse correlation between social adjustment and test anxiety. It can be concluded that the level of test anxiety in students can be controlled through the necessary training to make better use of the internet and prevent it addiction.

Shukla, Gajpal, Jha and Mitra (2020) were to investigate academic achievement in relation to study habits, test anxiety and gender. The study sample consisted of 80 students (36 boys and 44 girls) were selected randomly from Baloda Bazaar District. Study habit inventory (Mukhopadhyaya and Sansenwal, 2005) and test anxiety questionnaire (Nist and Diehl, 1990) were used for data collection. The results indicate that there is a three dimension (Recording, Interaction, Task orientation) positive relationship with academic achievement of students and test anxiety. Gender of students is not likely to have any major effect on academic achievement of students.

Ahmad, Hussaine and Khan (2018) investigated undergraduate students test anxiety, to measure the correlation between undergraduate students test anxiety with their academic achievement, and to measure the correlation of undergraduate students test anxiety from the perspective of their gender. Students of eight departments at university of swat constituted the study sample. Among these, 126 undergraduate level students were selected through simple random sampling. The tool used for the study was West Wide Test Anxiety scale. Analysis data was done using SPSS Version 21. Moderately high-test anxiety was found in undergraduate university students which was similar in both male and female students. Female students showed better performance as compared to male students.

Balogun, Balogun and Onyencho (2017) investigated the role of achievement motivation in the relationship between test anxiety and academic performance. Three hundred and ninety-three participants (192 males and 201 females) selected from a public university in Ondo state, Nigeria using a purposive sampling technique participated in the study. Results showed that test anxiety had a negative impact on academic performance. Also achievement motivation significantly moderated the relation between test anxiety and academic performance. The findings suggest psycho-education intervention.

Numen and Hasan (2017) explained the effects of study habits on test anxiety, academic achievement of undergraduate students. A purposive sample comprised of 180 undergraduate students (84 boys and 96 girls) was drawn from public university. Multivariate analysis indicated that study habits have a significant effect on test anxiety and academic achievement. The findings revealed that students having effective study habits experience low level of test anxiety and perform better academically than students having ineffective study habits. It was also indicated that girls experience higher level of test anxiety as compared to boys. Correlation analysis indicated significant positive relationship between study habits and academic achievement and test anxiety was negatively correlated with academic achievement and study habits. These findings highlighted the need to improve study habits of undergraduate students in order to overcome test anxiety.

Duraku (2017) stated the difference in test anxiety among Bachelor and Master level students at the Department of Psychology, University of Prishtina by identifying the most common factor influencing test anxiety changes. The first research question was aim

to examine difference in test anxiety across levels of study, while the second research question aims to identify the most influential factors which impact the reduction or increase of test anxiety level on the abovementioned students. The measuring instrument consists of an online survey distributed to a sample of (N=59) students. According to the study, undergraduate students reported significantly higher levels of test anxiety compare to graduate students. Regarding the anxiety reduction factors Masters Students have reported a high level of confidence, study skills, receiving good grades and prior information gained compared to undergraduate students. With regard to anxiety increasing factors, Bachelor level students tended to cite lack of preparation, fear of failing, family responsibilities, characteristics of the professor and exam, lack of time management skills and lack of study skills as factors related test anxiety as compared to Masters students.

2.1.1. Studies on Test Anxiety and Intervention

Putwain and Embse (2020) Cognitive Behavioural Intervention have been shown to be effective treatment for Test Anxiety study evaluated a six session Cognitive Behaviour Intervention for anxiety in a sample of secondary school student aged 14-16 years preparing for high stakes examinations. Test Anxiety showed a large reduction following Intervention compared to control group participants who showed a moderate reduction.

Ganaprakasam and Selvaraja(2020)were aimed at examining the effectiveness of cognitive behavioural group therapy in alleviating Test Anxiety among primary school students. The study employed one –group pre-test and post-test design. Findings revealed reduction in Test Anxiety scores among the respondents who have received cognitive behavioural group therapy.

Ugwuanyi et al., (2020) determined the effect of cognitive behavioural therapy (CBT) with Music in reducing physics test anxiety among secondary school students as generalized test anxiety scale pre-test, post-test randomized control trial experimental design was adopted in this study. The treatment group was exposed to a 12week CBT-MUSIC program. The results showed a significant effect of CBT with MUSIC in reducing physics Test Anxiety among secondary school students.

Agah, Ede, Zudonu, Asor and Onyishi (2020) tested the efficacy of the fear model of Cognitive Behaviour Therapy in treating Test Anxiety in chemistry students. They adopted a randomized pre-test and post-test trial experimental design. The researcher

concluded that FEARModel of Cognitive Behaviour Therapy is efficient in the reduction of Test Anxiety among undergraduate chemistry studies in public universities.

Son and Kim (2019) conducted a study among nursing students. They often experience Anxiety and stress when taking exams that test their fundamental nursing skills. The results suggest that nursing education that includes aromatherapy combined with music therapy may be effective for improving the skills and reducing Anxiety and Stress among Nursing Students.

Krispens, Gort, Schultke and Dickhauser (2019) studied the effects of an inquiry – based stress reduction. (IBSR) Intervention on student Academic Self –Efficacy, their Test Anxiety and subsequent procrastination in the final stage of an academic term – longitudinal quasi –randomized intervention control trial. Findings provide preliminary evidence that IBSR might help individuals to cope with their Test Anxiety and Procrastination.

Shen, Yang, Zhang and Zhang (2018) explore the effect of Expressive Writing of Positive Emotions on Test Anxiety among Senior-High School students. Long term expressive Writing of Positive Emotions appears to help reduce Test Anxiety by using insight and positive emotion words for Chinese students. Efficient and effective intervention programs to ease Test Anxiety can be designed based on this study.

Kaur, Thapar, Saini and Mishra (2017) were aimed to assess the effectiveness of Guided Imagery on Test Anxiety among nursing students. Guided Imagery as an intervention in the form of audio tape for 30 minutes was to experimental group. It was found that improved anxiety level among Nursing students after Guided Imagery($P=0.0001$).

Shahidi, Akbari and Zargar (2017) aimed to explain the Effectiveness of Mindfulness based Stress (MBSR) Therapy on emotion regulation and Test Anxiety of students and test the remaining effect of this treatment after 3 months. Participants randomly divided into experimental and control groups. The Study findings were analysed using analysis of variance with repeated measures. The results indicated that the effect of MBSR Lasted through the follow –up for both these variables.

Lothes, Wilsom, Mochrie, and Hakan (2017) assessed the effects of over-all Test Anxiety reduction through the use of Dialectical Behaviour Therapy's (DBT's)

Mindfulness skills an eightweek period among college students. Mindfulness intervention that specifically teaches about the “what” and “How” skills of DBT can help students reduce not only Test Anxiety, but overall Anxiety.

Hullu, Sportel, Nauta, and Jong (2017) evaluated the long-term outcomes of two early intervention that aimed at reducing social and Test Anxiety in young adolescents at risk for social anxiety disorder. In thesis RCT, moderately socially anxious adolescents (N=240 mean age 13.6years) were randomly assigned to a 10 week internet –based multifaceted cognitive bias modification training (CBM) a 10 week school based Cognitive Behavioural group training (CBI) or no intervention control condition. This RCT does not support the longer term efficacy of school based CBT or CBM as early intervention for school and Test Anxiety. Rather it emphasizes the positive natural course of highly socially anxious adolescents over two years.

Cho, Ryu, Noh and Lee (2016) examined the effectiveness of daily mindful breathing practices on Test Anxiety of university students. A total of 36 participants were randomly assigned to one of three Conditions; training Mindful Breathing Condition (N-12) a training Cognitive reappraisal condition (contrast group, n-12) and Non training condition (control group n-12). The finding of this study suggests that both daily breathing and cognitive reappraisal practices were effective in reducing Test Anxiety; however Mindful breathing increased positive automatic thoughts to a greater extent than Cognitive development.

Rajiah and Saravanan (2014) were to analyse the effect of psychological intervention on reducing performance Anxiety and the consequence of the intervention on first year pharmacy students. Psychological intervention helped significantly reduce scores of Test Anxiety, psychological distress and lack of motivation and it helped to improve the performance of the students.

Afshariniya, Kakabaraee, and Amiri (2014) aimed a comparing the effectiveness of restructuring method on the reduction of Anxiety in the students of Islamic Azad university of Karmanshah branch. The research design was pre-test, post-test with control group. The experimental groups were instructed with of cognitive restructuring and Mindfulness methods in control group. The results showed that this two methods effective during one and therapy (two months later). Any significance difference in efficacy was not observed between the Cognitive restructuring and Mindful methods.

A biofeedback assisted relaxation training program was created to reduce Test Anxiety among nursing students by Prato and Yucha(2013). Participants were introduced to diaphragmatic breathing, progressive muscle relaxation and autogenic training. Autogenic training session was most effective in showing statistically significant change in decreased respiratory and pulse rates and increased peripheral skin temperature.

According to Nimati (2013) in an educational setting Anxiety is often experienced by students when taking a test which he called Test Anxiety. Study intends to investigate the effect of doing Pranayama on Test Anxiety and Test performance. Pranayama seems to have significant positive effect on Test Anxiety and Test Performance.

Lwazi (2013) investigated the effect of breathing techniques on Test Anxiety among students at the University of Zululand. The study consisted of the intervention group (N=60) and the control group (40). On the whole the intervention suggests the Breathing have a positive effect on test taking Anxiety.

Jain and Rubino (2012) attempted to determine the efficacy of single brief intervention –Emotional Freedom Techniques (EFT) to support participant's ability to shift attention appropriately to achieve optimal levels of both Test Anxiety and Test Performance. Group 1 learned EFT, Group 2 learned Diaphragmatic breathing (DB) and Group 3 no treatment, control. Subsequent analyses of variance revealed significant importance in the both the DB and EFT group on most measure, with gains maintained in follow up.

Ejei, Razaeei and Lavasani (2011) investigated the effectiveness of coping strategies training the irrational beliefs (cognitive approach) on Test Anxiety of students in one graders of high school. The sample consisted of 60 students who were selected randomly according to multistage sampling method. Randomly assigned to experimental and control groups. Repeated measure analysis revealed that the effect OF coping strategies training process on decreasing Test Anxiety.

Eizadifard (2011) investigated the efficacy of Cognitive Behavioural Therapy accompanying with instruction of problem-solving skill, in reducing the Test Anxiety symptoms in female high school students. This study is experimental with pre-test, post-test design. The studied population was all the high school female students of first to third grade Feraydoon Kenar, Mazandaran. The experimental group was receiving Cognitive

Behavioural Therapy with problem solving skill instruction for 10 seconds while the control group did not receive any intervention. Results showed Test Anxiety symptoms in subjects of experimental group significantly reduced comparing with control group.

2. 2 Studies on stress among nursing students.

Elazeem, Mohamed Ahmed and Nabawy Abo Zeid (2023) investigated the relationship between nursing students' perceptions of stress, resiliency, and problematic mobile phone usage at the nursing faculty at Benha University. Nearly half (42.4%) of the nursing students studied noticed moderate stress, nearly half (49.2%) had moderate resilience, and over two-thirds (60.4%) had high problematic usage of mobile phones. A highly statistically significant positive correlation existed between problematic mobile phone use and perceived stress, while a highly statistically significant negative correlation existed between total resilience and both perceived stress and problematic mobile phone use. The study recommended immediate intervention, a stress management programme.

Hansen,Olsen, Brynhildsen and Leonardsen (2023) examined (1) nursing students' perceived stress, self-efficacy, control, and evaluation before and after simulation as part of a structured course in physical assessment, (2) whether factors such as gender, age, or previous work experience were associated with perceived stress during simulation, and (3) nursing students' evaluation of the course. The results revealed students tension before the simulation, but a lower level of activation, a more positive mood, a greater sense of control, and self-efficacy after the simulation.

Martin et al.,(2022) explored perceived stress and measures of well-being (self-compassion,happiness, and life satisfaction) along with self-reported health promoting behaviours and health status in affect stress and wellbeing in nursing students. Baccalaureate nursing students from Texas participated in a web-based survey.More than half (56.6. %) of students reported worsening health since starting nursing school. Targeted interventions to improve well-being among students may be necessary and would fit with national recommendation for nursing education programmes

. Ayaz-Alkaya and Simones (2022)compared stress, coping behaviour of nursing students in two different countries. The sample consisted of 986 students in total (807 students from turkey and 179 students from the United States).Datawere collected by a questionnaire using the nursing education stress scale and the coping behaviour inventory.

Turkish students were significantly higher than the United States students ($p < 0.005$). Where mean score of the optimistic coping behaviour sub group of the scale of Turkish students were lower ($p < 0.05$). This study revealed that the nursing students from different countries had different stress level in nursing education. The most used coping strategies by the nursing students from two countries were avoidance and problem-solving behaviour.

Bhurtun et al., (2020) explored changes in stress levels and coping strategies among nursing students at clinical environment. Nursing students ($N=131$) were followed during their first and second study year. Descriptive statistics and paired sample t-test used to measure changes in the variables within the same cohort. Nursing students perceived more stress in their second clinical practice compared to first one, with mean score of 1.03 and 1.66 respectively. Stress from lack of professional knowledge and skills remained the main stress factor while transference was the main coping strategy across the two study years. Nursing educators should support nursing students to develop effective coping strategies from clinical stressors such as lack of professional knowledge and skills and prepare their students mentally for clinical placement.

Kupcewicz, Grochans, Kadučáková, Mikla and Óźwik (2020) examined relationship between stress intensity and coping strategy and the quality of life of nursing students in Poland, Spain and Slovakia. Most of the surveyed students rated their stress intensity over the last month as moderate or high. Comparison of the results of the stress levels in relation to the country of residence did not reveal statistically significant differences.

Ahmed and Mohammed (2019) explored degree of stress experienced by nursing students at Albaha University, KSA and the coping strategies they subsequently employ. Noise, social interaction, and personal illness were main stressors. The main stressors were noise, moving location. Social interaction and personal illness (seven; 5.6%). The perceived stress provoking factors included taking care of patients, assignments and workload, lack of professional knowledge and skills, field of practice, peers and daily life and teachers and nursing staff at hospitals. The strategies used by students to minimise stress included taking a problem-solving approach staying optimistic, transference, and avoidance.

Yıldırım, Karaca, Cangur, Acikgoz, and Akkus (2017) investigated the relationships between nursing students' education-related stress and stress coping, self-esteem, social support, and health status. The findings revealed that self-esteem and social support influenced nursing students' stress coping levels. Furthermore, this relationship appears to have an impact on overall health.

Bartlett, Taylor and Nelson (2016) explored the sources of stress among nursing students and to compare stress levels and selected mental health indicators between nursing students and the general student body. Nursing students were found to have significantly more stress, anxiety, sleep disturbances, and stress-related illnesses than the general student body.

Sun, Gao, Yang, Zang, and Wang (2016) evaluated the amount of professional identity and role stress among nursing students at the end of the first sub-internship, as well as the impact of professional identity and other variables on role stress. A cross-sectional study was the method employed. The level of role stress among nursing students was significant at the end of the first sub-internship. Students who valued their professional identities more exhibited lower levels of role stress. When compared to other personal factors, professional identity and education level had the greatest influence on nursing students' role stress. This is a novel viewpoint that suggests that nursing students may benefit from building and refining their professional identities.

Rathnayake and Ekanayaka (2016) study examined depression, anxiety and stress and associated factors among undergraduate nursing students in Sri Lanka. Depression, anxiety and stress are highly prevalent among undergraduate nursing students and correlations between these variables are positive. Self-rated physical health and self-rated mental health are the factors most closely related to negative emotional states. The improvement of mental health among nursing students is essential. The findings call for initiation of stress management interventions and increased counselling facilities for nursing students.

2.2.1 Studies on Stress and intervention

Torné-Ruiz, Reguant, and Roca (2023) determined whether a mindfulness intervention delivered online is effective at lowering stress and anxiety in nursing students during clinical simulations. Stress and anxiety among nursing students are predicted to be

brought on by the clinical simulation. It needs to be controlled, hence actions must be taken. In the clinical simulation, the intense online mindfulness intervention that was proposed in this study decreased physiological markers, stress, and anxiety.

Varalakshmi and Trainer (2023) explored the impact of yoga on academic stress and academic achievement on a randomly selected sample of 60 girl students in the age group of 15-17 years living in rural areas of Ananthapur district of Andhra Pradesh. The findings of the study revealed that yoga practice has significant influence on academic stress and academic achievement of secondary school students.

Sultan, Amin and Khan (2020) was to determine the effectiveness of stress management training in reducing stress and developing emotional intelligence in university students. The intervention can be viewed as a feasible strategy for reducing stress and increasing emotional intelligence among students.

Lemay, Hoolahan and Buchanan (2019) investigated the effects of a six-week yoga and meditation intervention on college students' stress perception, anxiety levels, and mindfulness skills. Students experienced a reduction in stress and anxiety levels after completing a six-week yoga and meditation program preceding final examinations. Results suggest that adopting a mindfulness practice for as little as once per week may reduce stress and anxiety in college students.

Son, So and Kim (2019) examined the individual and combined effects of aromatherapy and music therapy on test anxiety, state anxiety, stress, and fundamental nursing skills among nursing students in Korea. The results suggest that nursing education that includes aromatherapy combined with music therapy may be effective for improving the performance of fundamental nursing skills and reducing anxiety and stress among nursing students.

Lin, He, Yan, Gu and Xie (2018) evaluated the effects of a modified mindfulness-based stress reduction (MBSR) program on the levels of stress, affect, and resilience among nurses in general hospitals in mainland China. The modified MBSR program is an effective approach for nurses to decrease stress and negative affect and improve positive affect and resilience. In addition, the program has the potential to improve job satisfaction.

Phang, Mukhtar, Ibrahim, Keng and Mohd. Sidik, (2015) examined effectiveness of the A 5-week mindfulness-based stress management (MBSM/Mindful-Gym) program in reducing stress among students in a medical school in Malaysia. Seventy-five medical students participated in the program. This study indicates that the program is potentially an effective stress management program for medical students in Malaysia.

Ratanasiripong, Park, Ratanasiripong and Kathalae (2015) investigated the efficacy of two brief intervention programs—biofeedback and mindfulness meditation—on levels of state anxiety and perceived stress in second-year Thai nursing students as they began clinical training. Findings indicated that biofeedback significantly reduced anxiety and maintained stress levels in nursing students. Mindfulness meditation similarly decreased anxiety levels, while also significantly lowering stress levels. The biofeedback group exhibited significant reduction in anxiety levels among the three groups at post intervention.

2.3. Studies on achievement motivation.

Anttila, Lindfors, Hirvonen, Määttä and Kiuru (2023) examined how adolescent beliefs, behaviours, and temperament affect their dropout intentions in the first year of upper secondary school. Results show that high success expectations and low task avoidance decrease dropout intentions. Extraversion, negative affectivity, and effortful control also influence dropout intentions through success expectations. However, an increase in task avoidance mediates the relationship between extraversion and dropout intentions.

Mahdavi, Valibeygi, Moradi and Sadeghi (2021) examined the possible relationships between mental health, achievement motivation, and academic achievement and to study the effect of background factors on mentioned variables. The sample group consists of students of Kurdistan University of medical sciences. Our findings indicated that mental health is significantly correlated with achievement motivation ($p < 0.001$), but has no correlation with educational success ($p \leq 0.37$). Also, a significant relationship was observed between achievement motivation and academic achievement ($p \leq 0.025$). Students who are more motivated to achieve their educational and academic goals, will be more likely to be successful in their education and have stronger academic performance.

Kusumawati, Fauziddinand Ananda (2023) examined how reward and punishment affect students' extrinsic motivation. The qualitative descriptive approach was utilised in the

study of the fourth grade homeroom instructors and three pupils at a state elementary school in Kumantan. The study's findings indicate that providing incentives and punishment has an effect on student development when done correctly and effectively.

Ali and Abdel Azeem (2022) analyzed the influence of self-management and self-efficacy among university students on their academic achievement. Additionally, the study explored the variations in the perceptions of self-management abilities and self-efficacy in academic achievement between Egyptian and Saudi students. The results of the study indicate that both self-management and self-efficacy have a positive impact on academic achievement in both countries. Moreover, self-management skills were found to enhance self-efficacy, which in turn greatly affects academic success. Lastly, the Multi-Group Analysis (MGA) showed no significant differences between Egyptian and Saudi students in terms of self-management, self-efficacy, and academic achievement.

Pambudi (2022) Study aimed to explore how implementing the Outdoor Learning in Mathematics (OLM) technique affects primary students' motivation and learning achievement in geometry. The research was conducted at a public elementary school located in Jember, East Java, Indonesia, using an experimental approach. The experimental group was taught geometry concepts with the OLM approach, while the control group received traditional teaching methods. The results indicated that students had a highly positive attitude towards the OLM approach and preferred it in primary schools. Additionally, the OLM technique boosted student motivation and improved their learning outcomes in geometry.

Quispe-Bendezú, Araujo-Castillo, García-Tejada, García-Tejada, Sprock and Villalba-Condori, (2020) investigated the association between academic procrastination and motivational attributions of performance in students in the seventh cycle of the EBR in the province of Arequipa. The findings indicate that the modified General Achievement Motivation Scale (EAML-G) is valid and reliable in identifying the causal attributions of general performance in secondary school pupils. The second study focused on determining the relationship itself, and it discovered that procrastination is inversely related to attributions to interest, capacity, task characteristics, and teacher evaluation in representative sample of 677 students aged 14 to 19, with an average age of 15.78, of which 476 were male and 201 female.

Partovi and Razavi (2019) Study was to determine the effects of Game-Based Learnings on the academic achievement and motivation of primary school children. The experimental group was exposed to Misha and Kosha Game-Based Learnings, whilst the control group received traditional instruction. The covariance analysis test (MANCOVA) demonstrated that the experimental group had considerably higher ratings for academic achievement motivation than the control group. Furthermore, the results revealed that the computer educational game influenced the academic achievement motivation of primary kids. According to the findings, computer-based games are necessary for primary school kids.

Steinmayr, Weidinger, Schwinger, and Spinath (2019) investigated whether the reported previous findings can be replicated when ability self-concepts, task values, goals, and achievement motives are all assessed at the same level of specificity as the achievement criteria (e.g., hope for success in math and math grades). Relative weight analyses revealed that domain-specific ability self-concept, motives, task values and learning goals but not performance goals explained a significant amount of variance in grades above all other predictors of which ability self-concept was the strongest predictor.

Ebadi and Shakoorzadeh (2015) investigated the incidence of academic procrastination and its association with academic self-regulation and achievement motivation among high-school students in Tehran. The results of academic procrastination prevalence using descriptive statistics revealed that almost half of students procrastinate almost usually or always. The results also revealed that boys and girls postpone at the same rate in general. Boys are more than girls, delay solely on intellectual work. Regression study also revealed that academic self-regulation and achievement motivation strongly influence academic procrastination.

2.4. Studies on cognitive behaviour therapy

Chung, Lee, Au, Kam, Lee, Yeung, Ying Lau, Yan-Yee Ho and Ho (2023) Study evaluated the effectiveness of small-group nurse-administered cognitive behavioural therapy for insomnia (CBTI) as an early intervention of mood disorders with comorbid insomnia. Depression remission rate was 28.6%, 40.3%, and 59.7% at 3, 6, and 12-month, respectively in CBTI group and 28.4%, 31.1%, and 37.9%, respectively in no CBTI group. CBTI may be a useful early intervention to enhance depression remission and

reduce medication burden in patients with first-episode depressive disorder and comorbid insomnia.

Abbas, Latif, Ayaz Habib, Shahzad, Sarwar, Shahzadi and Washdev (2023) investigated the efficacy of Cognitive Behaviour Therapy (CBT) to treat depressive symptoms in patients with type 2 diabetes mellitus (T2DM) using experimental and waitlist control conditions. It is concluded that Cognitive Behaviour Therapy is an effective and promising intervention for depressive symptoms, diabetes distress, and health anxiety which also helps the person to promote quality of life, treatment adherence and physical activity.

Egbe, Ugwuanyi, Ede, Agbigwe, Onuorah, Okon and Ugwu (2023) investigated the effect of cognitive behavioural play therapy (CBPT) in reducing social anxiety disorders in school children with speech impairments. The study was conducted as a group-randomized control group trial involving 122 schoolchildren attending inclusive schools in Enugu state of Nigeria. The results showed that CBPT was significantly effective in reducing social anxiety disorders among children with speech impairments over time. On the other hand, no changes were observed among no-contact control group participants. Based on the treatment outcome, the study concludes that CBPT intervention is effective and significant in decreasing social anxiety disorders in children with speech impairments. This is great news for parents and educators who are looking for effective ways to help children with speech impairments overcome social anxiety and thrive in school.

Ritola, Lipsanen, Pihlaja, Gummerus, Stenberg and Joffe (2022) aimed to evaluate the effectiveness of a new 12-session internet-delivered cognitive behavioural therapy (iCBT) program for Generalized Anxiety Disorder (GAD) in nationwide routine care. The results showed that the nationwide, free-of-charge, therapist-supported HUS Helsinki University Hospital-iCBT for GAD was effective in routine care. However, further research is needed to establish its effectiveness against other treatments and optimize the design of iCBT for GAD for different patient groups and individual patients.

Wood, Kendall, Wood, Kerns, Seltzer, Small and Storch (2020) compared the relative efficacy of 2 cognitive behavioural therapy (CBT) programs and treatment as usual (TAU) to assess treatment outcomes on maladaptive and interfering anxiety in children with ASD. The secondary objectives were to assess treatment outcomes on

positive response, ASD symptom severity, and anxiety-associated adaptive functioning. In this study, CBT was efficacious for children with ASD and interfering anxiety, and an adapted CBT approach showed additional advantages. It is recommended that clinicians providing psychological treatments to school-aged children with ASD consider developing CBT expertise.

Nahman-Averbuch, Schneider, Chamberlin, Kroon Van Diest., Peugh and Powers (2020).study examined the changes in brain activation and resting-state connectivity after 8 weeks of CBT in youth with migraine.Alterations in brain function and Amygdalaconnectivity with areas involved in nociceptive processing, cognitive function, and emotional regulation may underlie the ability of CBT to aid in the prevention of headaches in migraine patient.

Jarvis, Padmanabhanunni and Chipps (2019) implemented and evaluated a low-intensity Cognitive Behaviour Therapy (LI-CBT) mHealth-supported intervention which targeted maladaptive cognitions in older people (≥ 60 years) experiencing loneliness. The three-month intervention using WhatsApp was implemented with older people in four inner-city residential care facilities. The intervention included three components: technology acceptance, psycho-education, and individualized positively worded messages addressing maladaptive cognitions.At 1-month follow-up, even with a significant reduction in WhatsApp usage, a significant reduction in loneliness was maintained. LI-CBT delivered via instant messaging may be effective in reducing loneliness experienced by older people.

Freedland, Carney, Rich,Steinmeyer and Rubin (2015) determined the efficacy of an integrative cognitive behaviour therapy (CBT) intervention for depression and heart Failure self-care.A CBT intervention that targets both depression and heart failure self-care is effective for depression but not for HF self-care or physical functioning relative to enhanced UC. Additional benefits include reduced anxiety and fatigue, improved social functioning, and better health-related quality of life.

Blattman, Jamison and Sheridan (2017) recruited criminally engaged men and randomized one-half to eight weeks of cognitive behavioural therapy designed to foster self-regulation, patience, and a noncriminal identity and lifestyle. We also randomized \$200 grants. Cash alone and therapy alone initially reduced crime and violence, but effects

dissipated over time. When cash followed therapy, crime and violence decreased dramatically for at least a year. We hypothesize that cash reinforced therapy's impacts by prolonging learning-by doing, lifestyle changes, and self-investment.

Querstret, Cropley, Kruger and Heron (2016) evaluated the effect of a one-day CBT workshop on work-related rumination, chronic fatigue, and sleep quality. Participants who attended the workshop reported significantly lower levels of rumination and fatigue, but no significant differences in sleep quality. The workshop may help with recovery at work and outside of work, and adds to the recovery from work literature.

Chapter III

Method

“Constant attention by a good nurse may be just as important as major operation by a surgeon”

- Dag Hammarkjöld

This chapter presents in details the objective of present study, the operational definition of variables and the tools used for the study. It also gives the sampling techniques used for the investigation, the research design, structural model of the study; the statistical tools used for analyses the data and the details of the intervention program in each of the following sections.

Section – I : Research Problem and Objective of the Study

Section – II : Hypotheses of the study

Section – III : Operational Definition of the Study

Section – IV : Research Design of the Study

Section – V : Flow Chart

Section – VI : Sample, Ethical Consideration, Inclusion and Exclusion Criteria

Section – VII : Tools used

Section – VIII : Statistical Analysis

SECTION – I Research Problem

Nursing profession is one of the finest areas dealing with patients of various health complaints. As a health professional it is highly stressful in several ways even though nursing career is considered to be the most valuable work. As an aspiring students choosing nursing degree gives the young female students a lot of energy to completely work and engage themselves in treating and healing the pains of the patients. However, during the initial days of the course was found to be highly stressful witnessing a lot more anxiety troubles. Therefore, this study aims at reaching out to answer the following research questions.

- Does Cognitive Behaviour Therapy reduce stress in female nursing students?

- Does Cognitive Behaviour Therapy help to reduce test anxiety in female nursing students?
- Does Cognitive Behaviour Therapy enhance achievement motivation in female nursing students?

Objectives

This research study focusing on the past, present and future implications of the stress, test anxiety and achievement motivation of female nursing students. The study helps to understand the impact of the stress and test anxiety when nursing students find it highly incompatible in dealing with their schedule and daily life situations. The core objective of this research was to understand the seriousness of stress and test anxiety among female nursing students, also understanding the achievement motivation aspects of female nursing students.

- To assess Stress, Test Anxiety and Achievement Motivation among Nursing Students
- To find out the efficacy of Cognitive Behaviour Therapy in reducing test anxiety, stress and also enhancing achievement motivation among nursing students.

SECTION – II

Hypotheses

The following are the hypotheses have been framed to fulfill the above stated objective

1. There will be a significant reduction in test anxiety among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
2. There will be a significant reduction in stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.1. There will be a significant reduction in financial stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.2. There will be a significant reduction in family stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy

- 2.3. There will be a significant reduction in social stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.4. There will be a significant reduction in education stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.5. There will be a significant reduction in ego threat among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.6. There will be a significant reduction in bereavement among nursing students Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.7. There will be a significant reduction in separation stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.8. There will be a significant reduction in personal setback among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
- 2.9. There will be a significant reduction in health of others among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
3. There will be a significant improvement in Achievement Motivation among Nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
4. Cognitive Behaviour Therapy will reduce test anxiety, stress and enhance achievement motivation among Nursing Students.

SECTION – III

Operational Definition

Test Anxiety When student feels uneasy before, during, or after taking a standardized academic test, they are said to be experiencing test anxiety, which is characterized as a significant increase in heart rate (measured with a heart rate monitor) a personal sense of unease

(rated on Likert scale from 1 to 10)

Stress

It is a physiological and psychological reaction to various external pressures or demands, which frequently produces feelings of tension, worry and trouble coping, changes in the heart rate, hormone levels, and behaviour such as heightened irritation or decreased concentration, may be involved.

Achievement Motivation

Achievement Motivation typically involves measuring a person’s drive to succeed or complete a task. This can be accomplished using a variety of techniques, including self-report questionnaires, behaviour observations and performance observations.

SECTION - IV

Research Design

The essential steps in a research programmed are selecting an appropriate design. Therefore, the experimental research designs method especially Before, After and Follow-up without control group design was used for the present study.

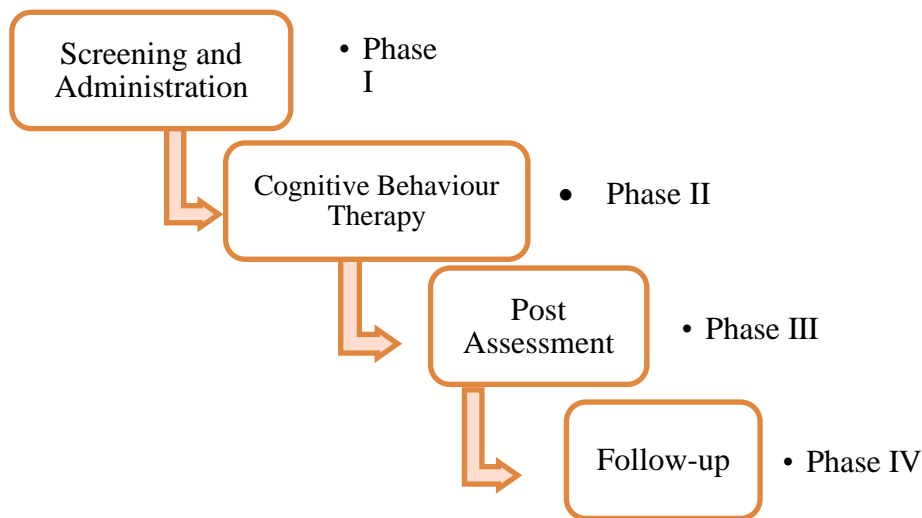


Figure 8. Before, After and Follow-up without Control Group Design

Conceptual Frame Work

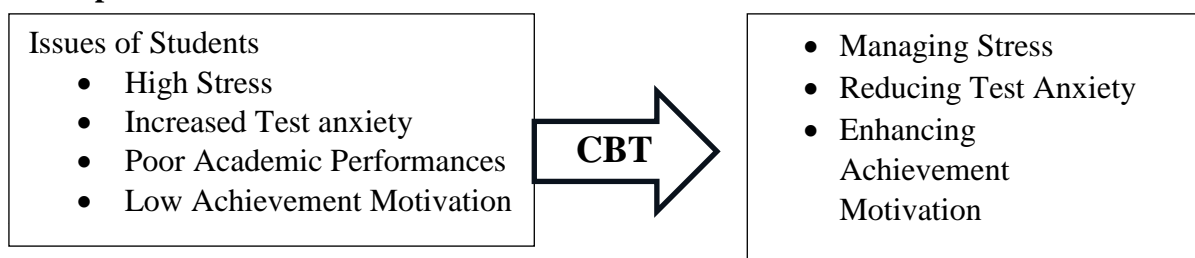


Figure 9. Conceptual Framework of the Research

SECTION - V Flow Chart

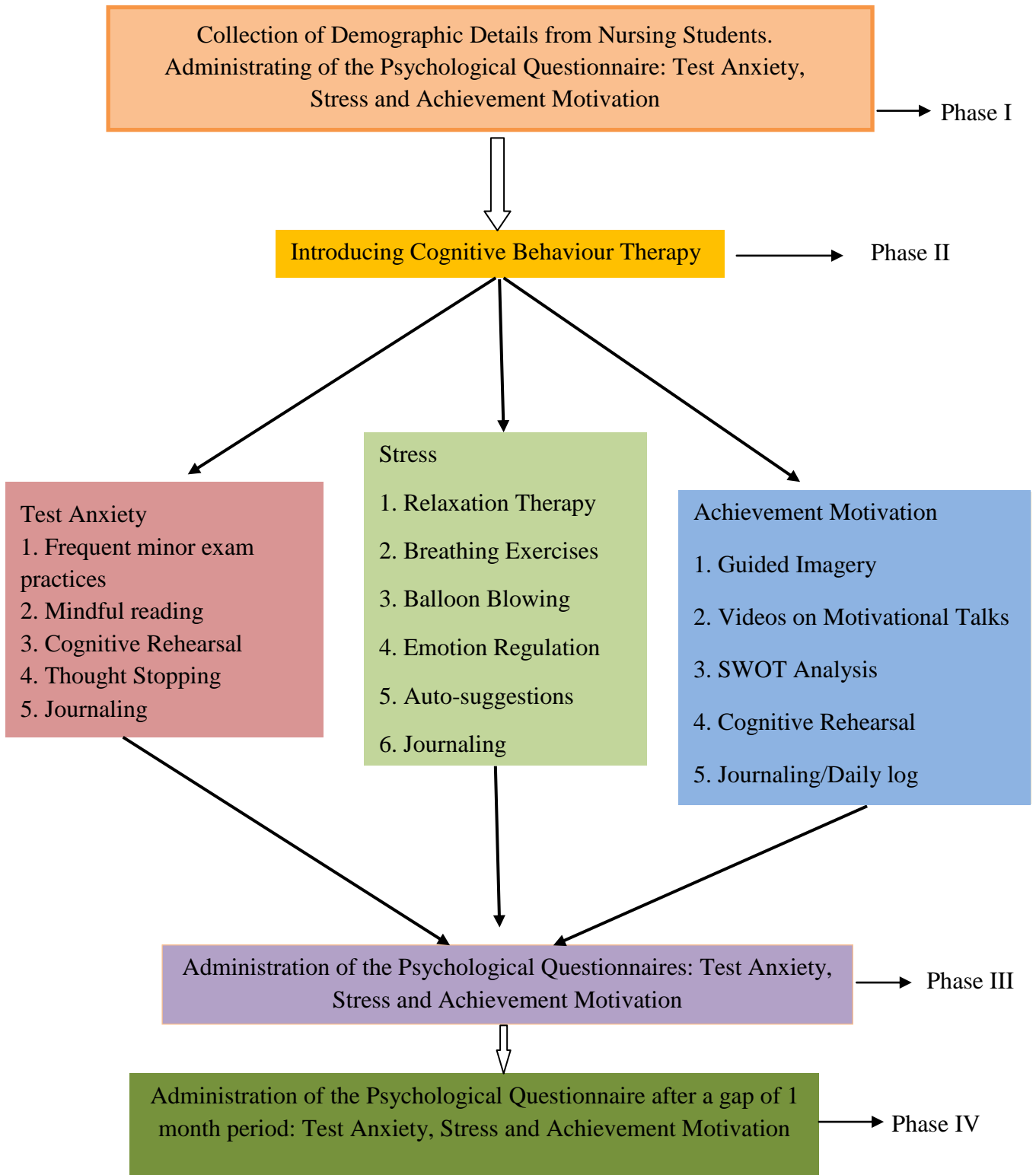


Figure10.Flow Chart

SECTION – VI

Pilot Study

The participants of the study were from the Baby memorial college of Nursing, Kozhikode, Kerala. The twenty students have participated in the pilot study.

Location of the Study

The data for the researcher was collected from 52 nursing students in Baby Memorial Nursing College, Kozhikode, and Kerala.

Sampling Procedure

The participants were recruited through the purposive sampling technique. One hundred and fifty students have participated in the study. Among that 52 students were selected for the study. They were divided into three batches.

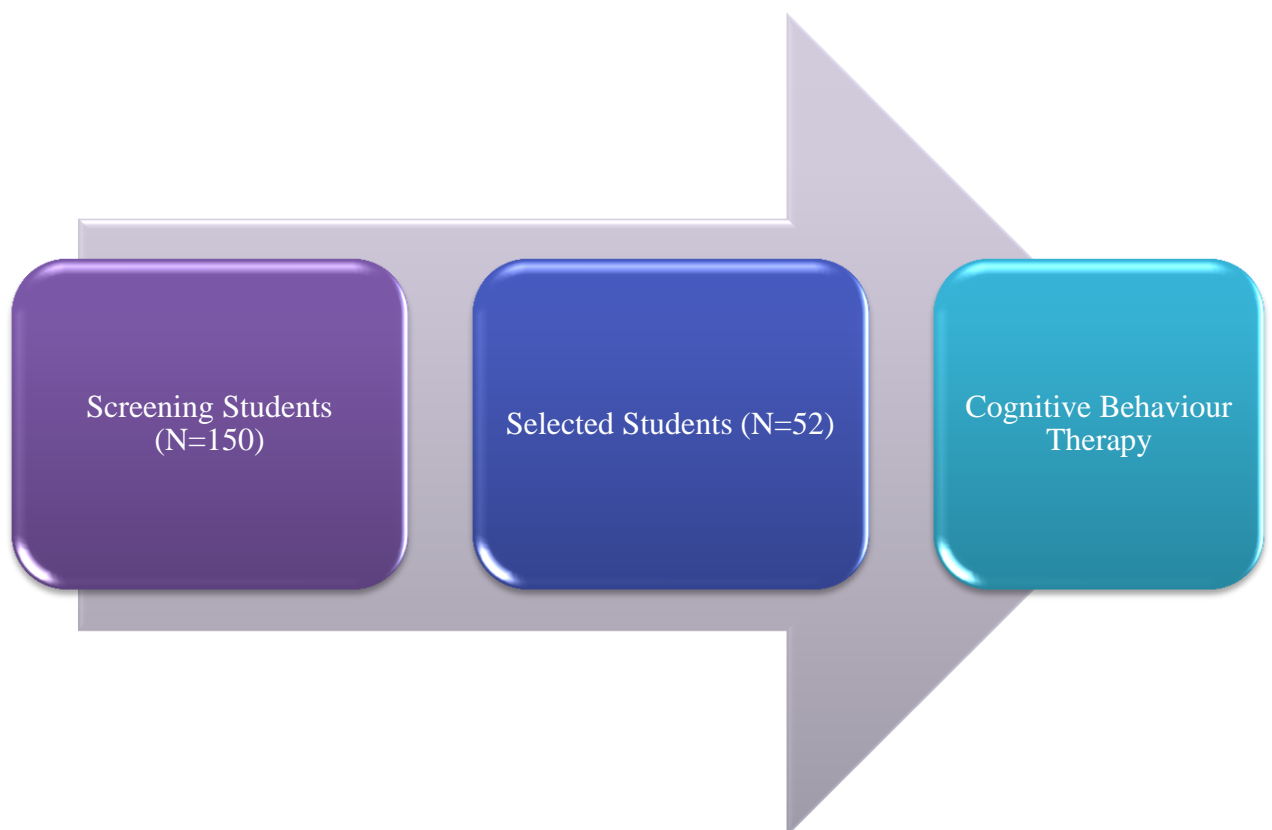


Figure. 11.Sampling Procedure

Institutional Human Ethics Committee

The proposal was submitted to the scientific committee of the Baby Memorial College of Nursing at the Baby Memorial Hospital, Kozhikode, Kerala. Prior to conducting the research, ethical clearance was obtained from the hospital's research ethics committee. The ethical clearance approval number has been enclosed in (**Appendix I**).

A proposal was also submitted through the supervisor and Head of the Department to Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, Tamil Nadu, India and obtained permission to conduct the present study. Before conducting the study, ethical clearance has been obtained from the university ethical committee. The ethical clearance approval number has been enclosed in (**Appendix I**). Informed written consent was obtained from the participants. During the data collection, the procedure was explained to the students and told that information would be kept confidential. The students were specified freedom to withdraw from the study at any stage. The tool was given to each student to give self-report by providing a peaceful and relatively environment is spacious meeting hall arrangement for the institution. The above consideration was followed for Phase I, Phase II, Phase III and Phase IV.

Inclusion Criteria

- The students who scored high in test anxiety
- The students who have scored high in stress
- The students who have scored low in achievement motivation
- Female participants were included in the study
- Students who consented and willing to take part in the therapy

Exclusion Criteria

- Students who were third and fourth year were excluded
- Students from other health and allied courses were excluded
- Students who were affected by COVID were excluded

SECTION - VII

Tools Used

- Informed Consent Form was used to get the consent from the college nursing students
- Demographic Details was evolved to collect the personal details from the participants.
- Test Anxiety (Annexure VI)
- Student Stress Scale (Annexure VI)
- Achievement Motivation (Annexure VI)

Informed Consent

Informed consent form developed by the researcher, providing a brief description of the purpose and procedure of the research, obtaining their consent to take part in the research and also explaining their rights to withdraw from the research if they are willing to.

Description of the Tools

Test Anxiety (Appendix IV)

Test Anxiety Scale was developed by Sharma (2000). It includes 25 items each having 5 response opinions ranging from minimum to maximum test anxiety.

- First Alternative – 1
- Second Alternative – 2
- Third Alternative – 3
- Fourth Alternative – 4
- Fifth Alternative – 5

The answers ticked by the participants are to be taken into consideration and the interpretations would be drawn for each situation. Based on the responses the students may be interpreted as

- Extremely high (Hyper) Test Anxiety
- High Test Anxiety

- Normal Test Anxiety
- Low Test Anxiety
- Extremely Low Test Anxiety

The reliability coefficient of stability by Test-Retest method was .92 and the validity of the test was 0.76 respectively.

Student Stress Scale (Appendix IV)

The Student Stress Scale has developed by Manju Agarwal (2012). It includes 64 questions to be responded to only if the subject has experienced stressful situations in the past year. The subject mark their responses on a Likert scale from 1 – 7, were

- 1 – No stress at all
- 2 – Very little stress
- 3 – Somewhat stress
- 4 – Average stress
- 5 – Much Stress
- 6 – Too much Stress
- 7 – Unbearable Stress.

Students who secured above 60% in any of the sub-scale of the Student Stress Scale were considered at high risk of potential stress. The Students Stress Scale is one of the standardized questionnaires, and the reliability and validity were established. The tool reliability is 0.87 (Mvrraju, 2018).

Sub Scales of Student Stress Scale

Financial Stress

Financial stress may lead to a variety of unhealthy behaviours and limited resources. Unfortunately, the resources are not enough to meet the needs and want of an individual.

Family Stress

Family is a part of an individual's immediate environment, any conflict amongst family members can cause stress. Family member's conflict may directly or indirectly affect an individual.

Social Stress

Social Stress can appear in several social situations, especially relationship, a sense of belonging within a group, etc.

Education stress

Educational stress can occur in various cases, i.e. failure in an examination, the anxiety of performing well in an examination, incomplete course or unhelpful teachers or a hostile academic environment.

Ego threat

Ego threat means a threat or a significant obstacle to one's Self-esteem, worth and image.

Bereavement

Bereavement is the fact of being dispossessed or bereaved of something or someone. It is the period of sadness that you feel when you lose someone. It causes an intolerable amount of stress, and people often slip into rejection and depression.

Separation stress

Separation Stress is mental and physical stress arising from separation from a near one or pets or materialistic possessions.

Personal setback

Personal setback consists of losing a position or title or going a step-down, which meant a great deal to individuals and society.

Health of others

The health of others includes the adverse or worsening health of someone. Adolescents cannot make the individual feel better.

Achievement Motivation (AppendixIV)

Achievement motivation scale was constructed by Bhargava (1994). The test consists of 50 items of incomplete sentences/items/which are to be completed by the students by putting a check-mark on any one of the three alternative responses given

against each item. The reliability of the test is .78 and the validity of the test is .75. The students who have secured a score of

- 23 above – High of Achievement Motivation
- 20-22 – Above Average Level of Achievement Motivation
- 17-19 – Average level of Achievement Motivation
- 15-16 – Below Average Level of Achievement Motivation
- 11-13 – Low Level of Achievement Motivation

Table 1:

Intervention Schedule

1. Identification and analysis of problem

- Rapport establishment
- Identification of problems
- Brief outline of dealing issues

2. Elucidate upon test anxiety with Cognitive Behaviour Therapy

- Brief explanation on cognitive behaviour therapy
- Understanding the meaning of Test anxiety
- Test anxiety during examination
- Physical and Psychological changes in Test Anxiety
- Learning coping styles and patterns of behaviour
- Assigning homework and journaling

3. Cognitive Restructuring

- A detailed explanation of the chief complaints
- Analysing maladaptive behaviour, taught, self-monitoring
- Coping skills, self-reinforcement, role play
- Assigning homework

4. Practice and Learning New Skills

- Evaluation and steps in progress
 - Identifying their difficulties or issues they experience
 - Planning new set of beliefs, behaviour and emotions
-

-
- Practicing in a simulated situation
 - Assigning homework

5. Explanation of reducing stress with Cognitive Behaviour Therapy

- Understanding stress and its physiological changes
- Explaining the benefits of stress-free academic examination
- Coping skills and learning techniques to reduce stress
- Assignment

6. Cognitive restructuring

- **Identifying stress causing and/or triggering situations**
- Maintaining calm mind-set
- Practicing mindful breathing to reduce stress
- Assignment homework and journaling

7. Practice of learning new skills

- Maintaining calm and composed mannerism
- Relaxation therapy
- Improved interpersonal relationships
- Journaling

8. Explanation of achievement motivation with cognitive behaviour therapy

- Understanding the basic concept and meaning of achievement motivation
- Identifying the motivating factors in daily life situations
- Journaling

9. Learning New belief systems

- Evaluation and assessment of progress
 - Rectifying minor issues
 - Practicing the techniques in simulate situation
 - Watching motivational videos
 - Assignment and Journaling
-

10. Skill practices

- Coping skills
- Auto-suggestion
- Relaxation
- Emotion regulation
- Cognitive rehearsal

Session 11-15: Session 2-11 was repeated each day along with skill training

- Recap of all sessions
- Techniques on relapse prevention

PHASE III: After Therapy

- Data collection with the same set of questionnaires
- Feedback from the students

PHASE IV: Follow-up

- Data collection was done after one month
- Difficulties faced during time interval between after phase to follow-up phase
- Coping skills used and outcomes
- Motivating the students to continue the coping skills
- Relapse prevention techniques
- Final termination

Table 1 depicts the intervention schedule to be followed throughout the Cognitive Behaviour Therapy programme. With the aid of this intervention schedule, the session to be conducted was well planned and scheduled accordingly and executed in perfect manner without any distribution. Each session was discussed briefly in the below mentioned headings.

PHASE – I

Before Intervention Phase

During the before intervention phase, the questionnaire was distributed to the participants and the researcher instructed the students to complete their personal details

(demographic data), the questionnaires on test anxiety, stress and achievement motivation was distributed and the students were advised to respond to each statement carefully, and they were also informed that there is no time limit but they were requested to complete the questionnaire within the given time. The students were strictly informed not to skip any of the statements. As there is no right or wrong responses, the students can give their response without biases. Also, the researcher notifies the need of data collection without communicating the purpose of the research in order to avoid biased responses.

PHASE II

Administering Cognitive Behaviour Therapy

The researcher has completed the training course conducted by the department of Clinical Psychology (Behavioural unit), NIMHANS, Bengaluru. Cognitive Behaviour Therapy was given to all 52 students after the pre-assessment by the researcher. The intervention consists of various techniques involved in cognitive behaviour therapy. The training was conducted in 15 sessions, for three groups, twice a week covering all three groups. The time duration of each session was two hours. The session includes identifying cognitive distortions, which leads to increased level of test anxiety, psychological and physiological symptoms of test anxiety and stress, sharing experiences, open talk, motivational videos, role play, challenging negative thoughts, positive self-talk, continuous practice of skills, breathing practices, SWOT analysis to improve achievement motivation, relaxation therapy. The intervention was held at Baby Memorial Nursing College at Kozhikode, Kerala. There were a total of 52 nursing students; they were divided as 17 students in two groups and 18 in one group. The complete intervention was done at conference hall to ensure a relaxed and convenient space to maintain confidentiality.

Session I

The first session of the intervention programme was started with an ice-breaking and warm-up sessions. The researcher had a cluster of instructions to cover the initial session using self-introduction about the researcher and also from the participants and few mind games were conducted to draw students' attention completely and also fun elements were added to reduce the level of stress and developing interest and curiosity about the intervention programme. Further, the students were given few tongue twister games to make them feel free and engage in the programme in well efficient manner. Rapport

building was well established during this session and students started to communicate better with one another. This session was used as a base to uncover the general issues that as nursing students what all they experience in their day-to-day hospital and college set-up. It includes anxiety, disappointments, fear of future, sense of doubtfulness, irritable moods, health issues etc., the first session was found to be effective in dealing with the issues and the practical difficulties of the nursing students and the ways to rule out few issues has been discussed.

Session II

A short review was given about the Session I; this review helped the students to understand their level of attachment and importance they give to the existing major issues on test anxiety, stress and achievement motivation. Before addressing the key aspects, the students were given a brief explanation about cognitive behaviour therapy, to unfold the clarifications from the students with regards to the test anxiety. Once, the nursing students were given a good discussion upon CBT, they were taken into the topic of test anxiety.

Initially nursing students were allowed to have a general discussion upon test anxiety. Students were asked to feel free and express their emotions and thought about test and test appearing situations. An explanation about anxiety meaning and definition was given to understand a basic concept of anxiety and the symptoms of anxiety. Once students understood about the causes and symptoms of anxiety, students were given a good explanation about the physiological and psychological symptoms of anxiety. On clear understanding about the meaning of anxiety and its symptoms, slowly the students were taken into the actual topic called test anxiety.

Test anxiety meaning, causes and symptoms were briefed to the nursing students. Later on students gained insight about the nature of test anxiety and its effects on physiological and psychological changes occurs being anxious. Students were allowed to express their experiences during written and/or practical examinations. Those typical experiences were noted down for better understanding about the test anxiety.

Furthermore, simulated situations were narrated to different group of students in order to display the actual behaviour of the students during examination. Typical behaviours such as forgetting, shivering, avoidance, poor performance were picked up for

further detailing. Then, the students were taught with few coping skills and pattern of behaviour which they were supposed to follow during examination time.

The end of the session was used for journaling and homework. The students were asked to maintain the journal to record their behaviours and thought process on thinking about the exam or exam related events or causes that influence the behaviour of the student.

Table 2:

Journaling/Daily Log: Test Anxiety

Session Test Anxiety					
Situation	Feelings	Unhelpful thoughts/ behaviours	Alternative Thoughts	Alternative Behaviour	Feelings after alternative thought and behaviour

Session III

The session III began with a small recap of the past session to share their experience on following the journaling/homework. This session was focusing more on the chief complaints in order to concentrate on brain storming to come out of the presenting complaints. Students reported that being more anxious towards examination; they develop a sense of failure and fear about of future in failing the examination. Few students have reported that increased test anxiety leads to increased urge to use washroom, while few other students informed that they completely forget the concepts and answers which were already learnt. Common issues such as faint, nausea, anger, headaches, palpitations, frustrations, inability to concentrate were the symptoms which has been reported as a repeated course of symptoms during or before appearing to an examination.

On analysing the chief complaints, especially the thought process of the students, they were taught with few coping skills. For instance: Students were informed to take minimal test on daily basis, as a process of exposure technique, a small quantity of test the students were allowed to take. This helped the students to gain confidence towards approaching the test effectively. Self-reinforcement was taught to the students to maintain

the behaviour also students were asked to have a consistent self-monitoring about the physiological and psychological changes before facing examination. This helps them to take precautionary actions to avoid unnecessary troubles during examination.

Finally, the session ends informing the students to continue their daily log activity to keep on monitoring their progression level.

Session IV

Review of previous session was given. This session concentrates on the steps involved in reducing test anxiety. They are:

- Relaxation techniques
- Mindful reading
- Get enough sleep
- Regular meal intake
- Increased study time
- Thought stopping

The students were also taught to improve their cognitive aspects such as positive thought about the exam and the result, this method of approaching examinations was way more effective and useful to the students as they became more capable of identifying the challenging thoughts and able to use appropriate technique to overcome the existing issue. Therefore, it helped them to improve their academic performance not only their marks but also their way of handling a similar situation even in their hospital training and handle patients effectively.

Session V

Session V was initiated with a short recap of the session IV which acts as a motivating factor to continue a new behaviour by few of the techniques taught. This session dealt with the student's level of stress in various aspects such as family stress, financial stress, ego threat, bereavement, health of others, and so on. Prior the students were taught about stress and its consequences. They were briefed about the meaning and concept of stress and its different forms. As a medical professional student, stress can be experienced in various forms such as physical stress, psychological stress, family stress, academic stress, professional stress. Therefore, students were given an opportunity to

identify and rank the stressors that has more influence over their personal and professional life.

Students were taught about the physiological and psychological changes which occur due to stress. Symptoms such as increased heart rate, palpitations, breathe shortness, anger, sleeplessness, poor appetite, poor concentration, poor interpersonal relationship, negative thoughts about self and others, increased inferiority complexes. Such symptoms lead to negative consequences among students. Therefore, students were given a short talk about the major benefits of stress-free learning methods and few coping skills which in-turns helps the students to reduce the level of stress and test anxiety.

Session V was concluded with a CBT daily log/journaling. This journaling practice involved as introspection in analysing the effects of stress based on the days in a week. It helped the students to identify the increased course of stress based on week schedule.

Table 3:

Journaling/Daily Log: Stress

Stress				
	Pleasurable activity	Activity with a sense of achievement	Physical activity	Social activity
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

Session VI

Session VI began with a short review of the previous sessions. Students reported that they became more skilled in dealing with the stress and test anxiety. The current

session concentrated highly about the major stress causing or triggering event and/or situations and to rule out those situations using the taught techniques.

In this session, the students were provided with an activity involving 3 groups. Each group of students were asked to make a circle so that the next group of students would circle around the first group, and the same would be followed by the third group. Only 3 volunteers would be picked up from each circle and ask them to be at the centre of the inside circle. Now the rules of the game will be disclosed stating, those three students who were inside the circle will try to escape whereas the students guarding may not allow them to escape from the 3-tire circle. The inference from the game was, to understand that stress can emerge from any direction; it can affect one person in different forms, so it is always important to stay alert and handle stress in any form that it may appear.

The students were taught with simple breathing exercises to control their emotion and reduce the level of stress at the fastest phase. The session ended up by motivating the students to carry on with their daily journaling assignment.

Session VII

This session started with a few minutes recap of the previous sessions. The current session was fully designed with relaxation therapy. Students were asked to lie down on the floor using a yoga mat. They were asked to lie comfortably. The researcher instructed the students to follow only the researcher's command. The relaxation therapy was given to the students for a period of an hour to completely relax them. Practicing relaxation therapy has improved their interpersonal relationship in both personal and social life, enhanced inner peace of self, able to make good decision making.

This session was concluded in encouraging students to continuing their journaling practices.

Session VIII

A small review was done for the previous sessions, and this session dealt with the factor influencing achievement motivation. First the students were taught with what is motivation? Later, they were taught about why motivation is an important factor, Benefits of better motivation, Importance of motivation. Furthermore, the students were given an introduction about achievement motivation and its benefits. Students were given real life examples of achievement motivation and identifying the motivating factors in daily life

situations. Hence, the students were given homework assignment in understanding what all the achievement motivating factors in their life.

Session IX

This session covered all the new belief systems in evaluation and assessment process of achievement motivation among the students. It also helps them to rectify the minor issues which actually acted as a hindrance of their present growth. Practising the taught techniques, watching motivation videos, listening to motivational real-life stories, acting as a role model for the younger sibling all would add credit to an individual's increased achievement motivation. The students were advised to continue their homework assignment.

Session X

This session filled with techniques such as coping skills, auto-suggestion, relaxation, emotion regulation, cognitive rehearsal. Therefore, the students became highly sensitized towards their strengths and weakness; Opportunities and talents to identify their abilities and focus on their weakness to change or transform for the betterment. Journaling was the assignment given at last as a concluding part.

Session XI-XV

All these 5 sessions were a continuous practice of entire previous sessions from session I to Session X.

After Cognitive Behaviour Therapy

After intervention program, assessment was done with the same set of questionnaire set the end of the last session. The participants were instructed clearly to take their own time and answer genuinely to the statements given in the questionnaire. There were no right or wrong responses, but it will be used for assessing test anxiety, students stress and achievement motivation. They were also informed that the obtained data will be used only for the research purpose. They were assured that the obtained data will not be used for discriminating of the students. On briefing all details clearly, the students were allowed to take time in filling out the questionnaires.

PHASE IV

Follow-up Phase

After one month of the intervention program the participants were reassessed with the same set of questionnaires which were used during before and after intervention program. Once again, the participants were administrated clearly about the questionnaires and asked the participants to give genuine response in answering each question.

Statistical Analysis

The data was analysed using SPSS 22.0 for Windows (SPSS). Descriptive statistics such as Mean and Standard Deviation was used to identify the intensity of the problems among female nursing students. Percentage Analysis was done to assess the demographic details. Repeated Measures ANOVA, Bonferroni post-hoc analysis was computed to ascertain the data. Significant results were further illustrated using graphs. The results of the discussion are included in the fourth chapter.

Chapter IV

Results and Discussion

**“Every nurse was drawn to nursing because of a desire to care, to serve, or to help”
- Christina Fiest-Heilmeier**

The present research is intended to explore the “**Management of Test Anxiety, Stress and Enhancing Achievement Motivation among Nursing Students through Cognitive Behaviour Therapy**”. The descriptive statistics include mean, standard deviation was computed. The results of Repeated Measures Analysis of Variance and Bonferroni Post-hoc Analysis were used to identify the effectiveness of cognitive behaviour therapy, and the results are presented in this chapter.

The sample consists of 52 nursing students from Baby Memorial College of Nursing, Kozhikode District, and Kerala. The inclusion criteria consisted of nursing students who had scored high in test anxiety, stress and low in achievement motivation. Participants who have consented and are willing to participate were taken into the study. The student’s were chosen using the purposive sampling method. Fifty-two nursing students were selected and taken into the study. Cognitive Behaviour Therapy was administered to fifty-two nursing students. For clear understanding, this chapter has been divided into four sections.

Section I deals with the demographic details of the nursing students and its characteristics are given in frequencies and percentages.

Section II represents the results of levels, descriptive statistics, Repeated Measures ANOVA, and Bonferroni Post-hoc analysis of nursing students during before, after and follow-up phases of Cognitive Behaviour Therapy in test anxiety.

Section III presents the results of descriptive statistics, Repeated Measures ANOVA, and Bonferroni Post-hoc analysis of nursing students during before, after and follow-up phases of Cognitive Behaviour Therapy in stress. The sub scales of stress are

- (i) Financial
- (ii) Family
- (iii) Social

- (iv) Education
- (v) Ego thread
- (vi) Bereavement
- (vii) Separation
- (viii) Personal Setback
- (ix) Health of Others
- (x) Stress

Section IV represents the results of levels, descriptive statistics, Repeated Measures ANOVA, and Bonferroni Post-hoc analysis of nursing students during before, after and follow-up phases of Cognitive Behaviour Therapy in enhancing achievement motivation.

SECTION I

Demographic details of the Nursing Students

The Demographic details of the nursing students were assessed are presented in the following table.

Table 4

Demographic details of the nursing students

N=52

Demographic Details	Options	Frequency	Per-cent
Age	18	38	36
	19	26	27
	20	15	15
	21	8	8
	22	6	6
	23	7	8
Gender	Female	52	100
	Rs. 10,000 – 20,000	40	76
Socio-economic Status	Rs. 21,000 – 30,000	6	12
	Rs. 31,000 – 40,000	5	10
	Rs. 41,000 – 65,000	1	2
Residence	Rural	32	62
	Urban	20	38

Table 4 illustrates the demographic details of the nursing students consisting of 52 students from Baby Memorial College of Nursing, Kozhikode District, Kerala, who were selected for the study with 36% of the students belongs to the age range of 18 years, 27% were in the age group of 17 years, 15% of the nursing students were in the age of 20 years, 8% of the students were in the age range of 21 years, 6 % of the students were in the age range if 22 years, and finally 8% of the nursing students belongs to the age range of 23 years. Of the students all 100% of the nursing students were female participants who actively participated throughout the study.

The social-economic status of the nursing students states that a majority of 76% the nursing students falls under the income of Rs. 10,000/- to Rs. 20,000/-. 12% of the students falls under the category of family earning Rs. 21,000/- to Rs. 30,000/-, Ten percent of the nursing students were from the family income of Rs. 31,000/- toRs. 40,000/- , and finally 2% of the nursing students belongs to the family income of Rs. 41,000/- to Rs. 65,000/- as their monthly family income.

Majority of the nursing students were from rural area with 62%, whereas only 38% of the students belong to urban area.

SECTION II

Test Anxiety

Table 5

Level of Test Anxiety among Nursing Students

N=150

Test Anxiety	Frequency	Percentage
Low Test Anxiety	2	1
Normal Test Anxiety	96	64
High Test Anxiety	46	31
Extremely High Test Anxiety	6	4

The table 5 depicts the levels of test anxiety among nursing students. From this table it is evident that 4% of the students faces extremely high level of test anxiety, followed by 31% of the students experiences high level of test anxiety. However, 64% of the nursing student's experiences normal level of test anxiety which is essential to take-up the exams and approach them into a positive manner. Finally, only 1% of the students

experience low level of test anxiety. The students who have secured high and extremely high test anxiety were taken into cognitive behaviour therapy and they were reassessed using the same set of psychological questionnaires after completion of the intervention therapy.

Figure 12

Level of Test Anxiety among Nursing Students

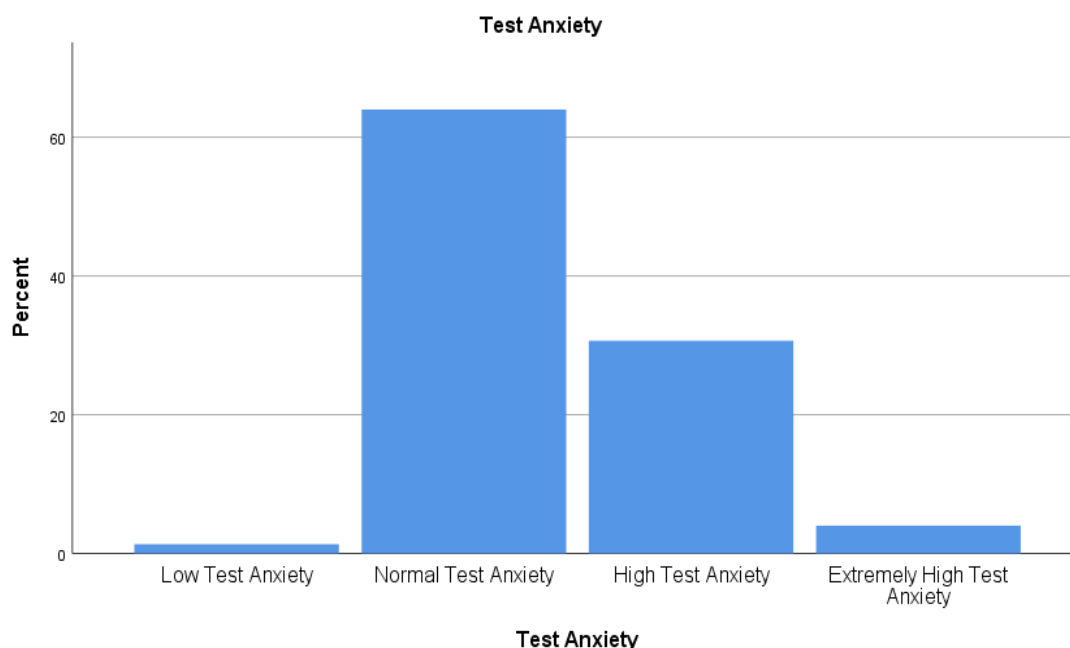


Table 6

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behaviour Therapy in Test Anxiety

Variable	Groups	Phases	Mean	SD	N
Test Anxiety	Nursing Students	Before	85.52	5.22	52
		After	73.87	2.13	52
		Follow-up	70.29	1.45	52

Table 6 shows the descriptive statistics of test anxiety of nursing students. The mean score and standard deviation of test anxiety among nursing students in before CBT program was recorded as 85.52 and 5.22 respectively, after CBT programme, the mean score was recorded as 73.87 with the standard deviation score of 2.13 respectively, and in follow-up phase of CBT programme, the scores of mean and standard deviations was

70.29 and 1.45. From the inferred results it is evident that test anxiety has been reduced gradually following various methods taught during CBT intervention programme.

The students were taught to read and learn mindfully, in order to practice better learning experiences which helps them to reduce the anxiety levels especially during semesters examination. The students were exposed to minor level of tests on a regular basis to give more exposure towards facing multiple tests so that which helps them to reduce the test anxiety in various aspects.

Cognitive Behaviour Therapy (CBT) was found to be efficacious along acceptance and commitment therapy (ACT) in reducing test anxiety, general anxiety and rumination of the students (Uysal et al., 2023). Njidekaand Ezeugo (2023), has inferred that CBT was found to be effective in reducing test anxiety among secondary school students.

Table 7

Repeated Measures ANOVA during before, after, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Test Anxiety

N=52

Phases	Sum of Squares	Df	Mean Square	F
Sphericity Assumed	6596.77	2	3298.39	412.01
Greenhouse-Geisser	6596.77	1.19	5507.88	412.01
Huynh-Feldt	6596.77	1.21	5450.12	412.01
Lower-bound	6596.77	1.00	6596.77	412.01

** Significant at 0.01 level

Table 7 represents the results of Repeated Measures ANOVA in test anxiety of nursing students and it clearly specifies that there was a significant difference between before, after and follow-up phases of Cognitive Behaviour Therapy programme. The result showed that the compared to before scores, there was a significant reduction in the level of test anxiety in after Cognitive Behaviour Therapy programme. The students were taught a technique known as auto suggestion. With the help of continuous practice of auto-suggestion and journaling practice, they become highly familiar with the test aspects and

gradually reduced the level of exhibiting test anxiety. Thus, it helped the students to improve their academic marks, also it improved their performance.

Greve, (2023) shown that the techniques such as coping self-talk, expressive writing, cognitive behaviour therapy, and improved classroom test performance and ACT has reduced the level of test anxiety. As the high grades and professional degrees feed even more test anxiety and thus, CBT plays a key role in reducing the test anxiety and improved performance among students (Jerrim, 2022).

Table 8

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Test Anxiety

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Test Anxiety	Nursing Students	Before	After	11.65*	.000
			Follow-up	15.23*	.000
		After	Before	-11.65*	.000
			Follow-up	3.57*	.000
		Follow-up	Before	-15.23*	.000
			After	-3.57*	.000

*Significant at 0.05 level

Table 8 shows the result of Post-hoc Analysis in Test anxiety of nursing students. Bonferroni Post-hoc Analysis proved that test anxiety reduced significantly when compared to before and after phases of Cognitive Behaviour Therapy programme. It clearly indicates that there was a high mean difference between before and after Cognitive Behaviour Therapy programme was 11.65, and before and follow-up phases of the programme was 15.23 which were statistically significant and the mean differences between after and follow-up phases was 3.57 which was statistically not significant. Thus, the effect of Cognitive Behaviour Therapy had a greater impact in managing test anxiety, but did not further improve in follow-up phase, but it sustained. CBT helps to improve cognitive adaptability which results in positive outcomes among the students.

The techniques such as cognitive rehearsal, and self-monitoring were found to be more efficacious in dealing with test anxiety. Text anxiety has been reduced eventually when they tried implementing the learnt techniques in efficient manner. Thus, students reported that along with other techniques, relaxation therapy was highly effective in reducing test anxiety at the current moment of anxiety.

Hence the Alternative Hypothesis 1, “There will be a significant reduction in Test Anxiety among Nursing Students in Before, After and Follow-up without control group through Cognitive behaviour Therapy”, is accepted.

Figure13

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Test Anxiety

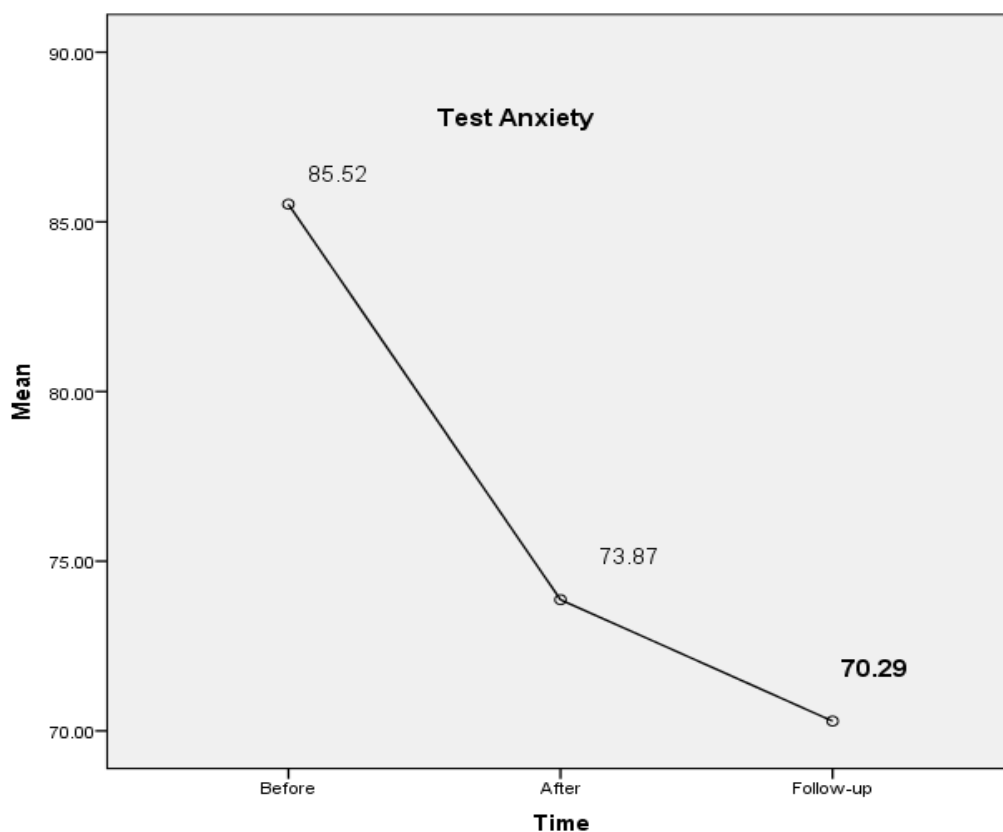


Figure 12 shows the before, after, and follow-up test phases of nursing students in test anxiety. The graph shows a drastic reduction in the level of test anxiety in the group after therapy. The follow-up data shows a slight decrease in the test anxiety level in the

Follow-up phase of the group. By using a very simple method of mindful reading, self-monitoring, thought-stopping techniques, was found to be effective in handling test anxiety had enthroned a light on nursing students.

SECTION II

(i) Financial Stress

The results of levels descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students during before, after and follow-up phases of Cognitive Behaviour Therapy in Financial Stress.

Table 9

Level of Financial Stress among Nursing Students

N=150

Financial Stress	Frequency	Percentage
Very High	1	1
High	27	18
Above Average	51	34
Average	31	21
Below Average	35	23
Low	5	3

The above table shows the first sub-scale of student stress scale namely financial stress. In this table 9, the level of financial stress was depicted and it is understood that only 1% of the student experiences very high level of financial stress, 18% of the students go through high level of financial stress. The reason could be the student's familial background. A total of 34% of students falls under average level of financial stress, 21% of student's experiences below average and only 3% of the students experiences low level of financial stress.

Figure 14

Level of Financial Stress among Nursing Students

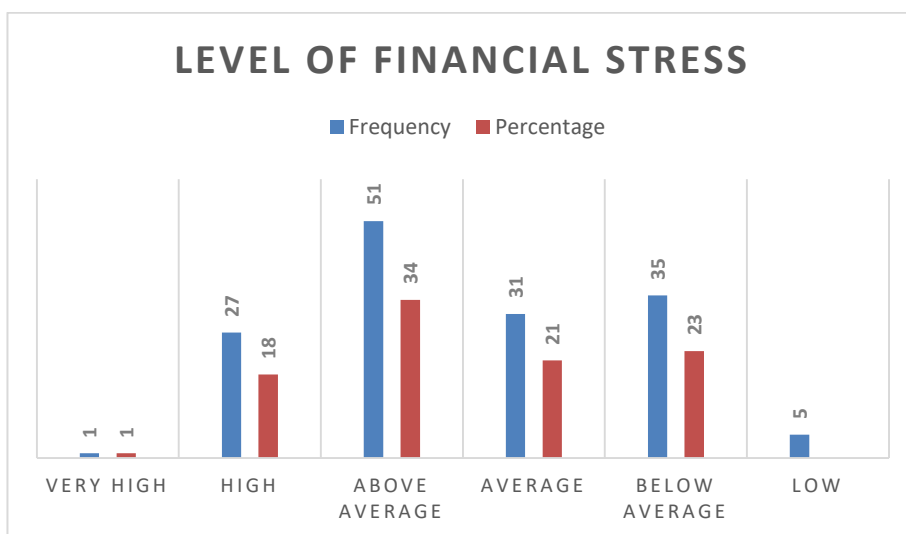


Table 10

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Financial Stress

Variable	Groups	Phases	Mean	SD	N
Financial Stress	Nursing Students	Before	22.15	4.31	52
		After	16.42	4.07	52
		Follow-up	13.42	3.89	52

Table 10 shows the descriptive statistics of financial stress of nursing students. The mean score and standard deviation of test anxiety among nursing students in before CBT program was recorded as 22.15 and 4.31 respectively, after CBT programme, the mean score was recorded as 16.42 with the standard deviation score of 4.07 respectively, and in follow-up phase of CBT programme, the scores of mean and standard deviations was 13.42 and 3.89. From the inferred results it is evident that test anxiety has been reduced gradually following various methods taught during CBT intervention programme.

The students reported that the technique of identifying the actual threatening/worrying event which occurs completely due to student error the situations which is beyond their limit. The financial stress is one such area, where as regular nursing students their only job is to study and commit to their training sessions. Whereas, the

money aspects would be taken care of their family, therefore the students were asked to show their thankfulness in the aspects of scoring higher academic performance and excellent knowledge and practicing more of training skills. This method help the students to become even more aware of being emotional aspects.

Table 11

Repeated Measures ANOVA during before, after, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Financial Stress

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	2046.513	2	1023.256	238.936**
Greenhouse-Geisser	2046.513	1.406	1455.060	238.936**
Huynh-Feldt	2046.513	1.434	1426.738	238.936**
Lower-bound	2046.513	1.000	2046.513	238.936**

** - Significant at 0.01 level

Repeated measures ANOVA were performed to compare the effect of CBT intervention programme on reaction time of before, after and follow-up phases were presented in the above table 11. The table shows us a clear picture that there was a statistically significant difference in the before, after and follow-up phases. A study done by Santos (2020), nursing students in South Korea were taken into study to understand the nursing human shortages and how the pandemic COVID-19 has its impact on before and after consequences. Although the students initially decided to continue with the nursing programme but soon after the pandemic the students decided to quit the study in consideration between financial factor and personal sacrifice. Whereas, as study conducted by Weiner et al., (2020), dealt with online CBT was conducted among healthcare workers especially nursing students in-order to reduce depression, sleep disorders, and post-traumatic stress disorder (PTSD) was taken into considerations. Healthcare professionals who were exposed to online CBT programme proved to be effective in treating and preventing number of stress-related disorders. Thus, Cognitive Behaviour Therapy was found to be highly useful in treating people who experiences stress and creating a hotline

link to deal with such psychological stress would play a key role in dealing with the aspects of stress-related disorders. Henceforth, the result showed that the before, after and follow-up scores were significant in reducing the level of financial stress among nursing students.

Table 12

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Financial Stress

N=52					
Measure	Group	Phases	Phases	Mean Difference	Sig.
Financial Stress	Nursing Students	Before	After	5.73*	.000
			Follow-up	8.73*	.000
		After	Before	-5.73*	.000
			Follow-up	3.00*	.000
		Follow-up	Before	-8.73*	.000
			After	-3.00*	.000

*-Significant at 0.05 level

Table 12 shows the result of Post-hoc Analysis in financial stress of nursing students. Bonferroni Post-hoc Analysis proved that financial stress reduced significantly when compared to before and after phases of Cognitive Behaviour Therapy programme. It clearly indicates that there was a high mean difference between before and after Cognitive Behaviour Therapy programme was 5.73, and before and follow-up phases of the programme was 8.73 which were statistically significant and the mean differences between after and follow-up phases was 3.00 which was statistically significant. Thus, the effect of Cognitive Behaviour Therapy had a greater impact in managing financial stress, also the intervention techniques was highly sustained even in the follow-up explaining that the nursing students were highly consistent in following the techniques taught during the programme. CBT helps to improve cognitive adaptability which results in positive outcomes among the students.

Hence the Alternative Hypothesis 2.1, “There will be a significant reduction in financial stress among Nursing Students in Before, After and Follow-up without control group through Cognitive behaviour Therapy”, is accepted.

Figure 15

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Financial Stress



Figure 15 shows the before, after, and follow-up test phases of nursing students in financial stress. The graph shows a drastic reduction in the level of financial stress in the group after therapy. The follow-up data shows a slight decrease in the financial stress level in the Follow-up phase of the group.

(ii) Family Stress

The results of levels descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in *family* stress.

Table 13

Level of Family Stress among Nursing Students

<i>N=150</i>		
Family Stress	Frequency	Percentage
Very High	79	53
High	18	12
Above Average	17	11
Average	4	3
Below Average	27	18
Low	5	3

The above table shows the second sub-scale of student stress scale namely family stress. In this table 13, the level of family stress was depicted and it is understood that 53% of the student experiences very high level of family stress, 12% of the students go through high level of family stress. The students who fall under above average level of family stress were 11% and 3% of students scored average level of family stress. Eighteen per cent of the nursing students have scored as below average and only 3% of the student's falls under low level of family stress. The reason behind very high level of family stress may be the fact that the students were residing in institution and/or private hostel for their education purpose leaving their family and stay away from them. This contributes as the high level of family stress among the students.

Figure 16

Level of Family Stress among Nursing Students

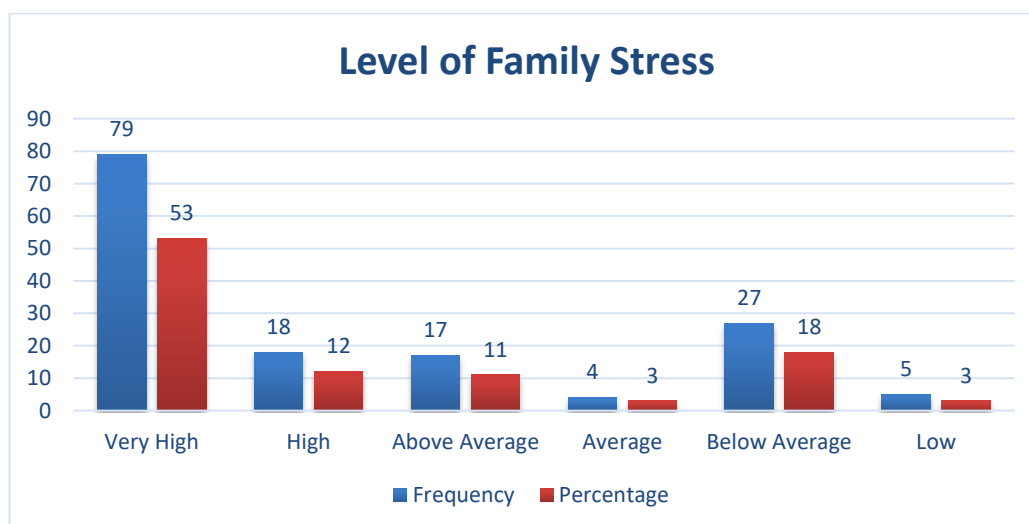


Table 14

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Family Stress

Variable	Groups	Phases	Mean	SD	N
Family Stress	Nursing Students	Before	35.09	6.83	52
		After	26.15	5.69	52
		Follow-up	21.00	5.23	52

The descriptive statistics of family stress of nursing students are in table 14. The mean score and standard deviation of family stress of nursing students before therapy were 35.09 and SD= 6.83, after Cognitive Behaviour Therapy program the mean score obtained was 26.15 and the standard deviation score was 5.69 and the follow-up phase of the program the mean and standard deviation scores were recorded as 21.00 and 5.23 respectively showing a change from before Cognitive Behaviour Therapy program to follow-up phase. The results showed a remarkable reduction in family stress when compared to before and after phase among the nursing students. In the follow-up phase the same level was maintained. There was a considerable decrease in family stress in all three phases of the therapy

Family stress occurs due to staying away from the family. Majority of the students were brought-up along with their parents until completing their higher education, soon after their school studies the students were put under different educational institutions for betterment of the degree conveniences. Therefore, to adapt to the hostel, nursing college, training timings, hospital postings, the students find it highly difficult to find comfort in it. It makes them feel and get overtly stressed thinking about their family. Hence, the students were taught to set a clear goal and the purpose of studying in the college. Once the purpose of their education is being clearly routed then the nursing students gained a lot more confidence in continuing with their studies rather than worrying about their family.

Table 15

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Family Stress

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	5290.628	2	2645.314	181.571**
Greenhouse-Geisser	5290.628	1.281	4131.505	181.571**
Huynh-Feldt	5290.628	1.299	4072.631	181.571**
Lower-bound	5290.628	1.000	5290.628	181.571**

** Significant at 0.01 level

Table 15 reveals the results of Repeated Measures ANOVA for family stress before, after and follow-up phases of Cognitive Behaviour Therapy and it clearly indicated significant differences. The results showed that when compared to before therapy score, there was a significant reduction in the level of family stressing after phase. There was a statistically significant differences were observed after Cognitive Behaviour Therapy program. Thus, Cognitive Behaviour Therapy was found to be effective in reducing family stress among nursing students.

A study done by Ernst, O'Brien, Scott, Powers (2015) conducted a study to understand the connectedness between Cognitive Behaviour Therapy can increase family openness in treating paediatric migraine. This study shows that Cognitive Behaviour Therapy was quick satisfying in better communication and increasing the family interpersonal relationship and thus, resulting in reduced level of family stress among the participants. Therefore, Cognitive Behaviour Therapy was found to be effective in dealing with family stress and also it helps improvement of better interpersonal relationship with family members.

Table 16

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Family Stress

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Family Stress	Nursing Students	Before	After	8.94*	.000
			Follow-up	14.09*	.000
		After	Before	-8.94*	.000
			Follow-up	5.15*	.000
		Follow-up	Before	-14.09*	.000
			After	-5.15*	.000

*-Significant at 0.05 level

Table 16 depicts the result of Post-hoc Analysis in family stress of nursing students. Based on the significant reduction in the level of family stress, Bonferroni Post-hoc analysis was carried out to identify which particular differences between pairs of mean and significant. The mean difference of before and after Cognitive Behaviour Therapy programme was 8.94, before and follow-up was 14.09 which were statistically significant. The mean difference between after and follow-up phase of Cognitive Behaviour Therapy programme was recorded as 5.15. Therefore, it's concluded that the therapy was effective in the management of family stress among nursing students. The techniques such as goal settings, the aim and achievement, the purposes of choosing this particular field gave them a clear path of identifying their purpose of choosing nursing course rather than any other. This way of highlighting them their primary goal helps them to improve their passion and enlighten the worthiness of the course they have opted for.

Hence the Alternative Hypothesis 2.2, "There will be a significant reduction in Family stress among nursing students in Before, After and Follow-up without control group through Cognitive Behaviour Therapy", is accepted.

Figure 17

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Family Stress

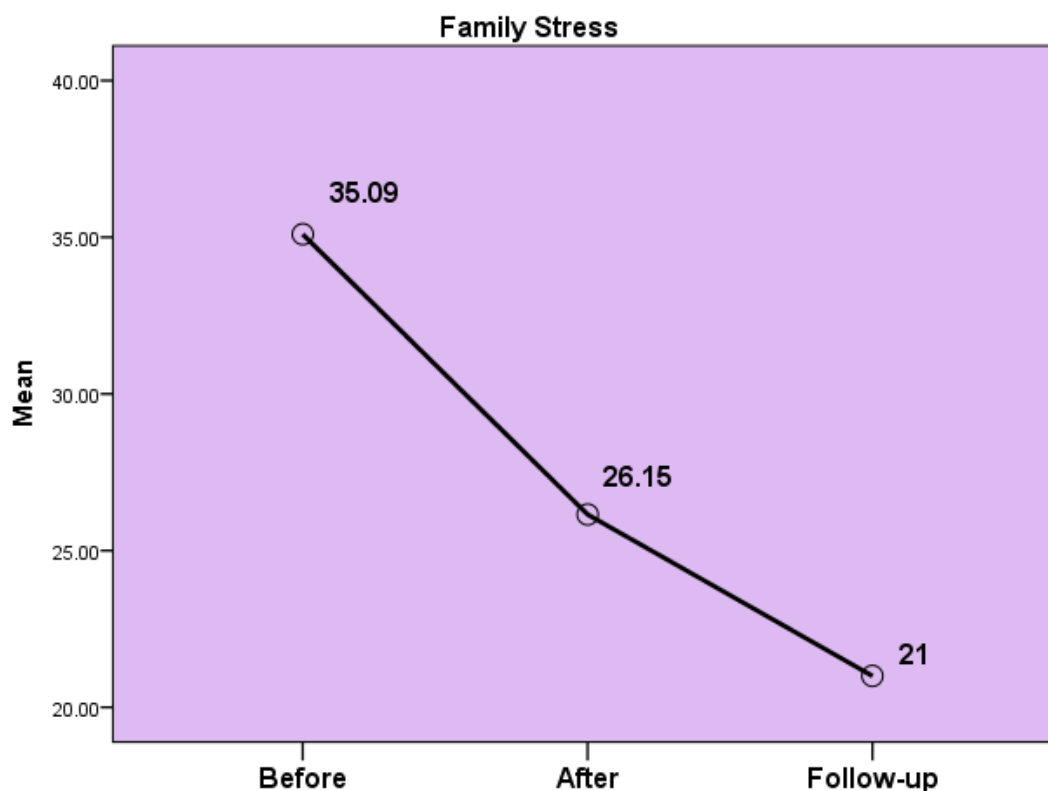


Figure 17 shows the before, after, and follow-up test phases of nursing students in family stress. The graph shows a drastic reduction in the level of family stress in the group after therapy. The follow-up data shows a decrease in the family stress level indicating that the students were well-versed in following the taught techniques and they become more insightful in dealing with their family stress with the learnt techniques of cognitive behaviour therapy.

(iii) Social Stress

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in social stress.

Table 17

Level of Social Stress among Nursing Students

N=150

Social Stress	Frequency	Percentage
Very High	3	2
Above Average	26	17
Average	20	13
Below Average	82	55
Low	19	13

The table 17 displays the level of social stress among nursing students. As the table represents clearly that 2% of the students experiences very high level of social stress, 17% of them go through above average level of social stress, 13% of them falls under the category of average level of social stress, a majority of 55% experiences below average level of social stress and 13% of the students faces low level of social stress. The social stress represents the stress faced by the nursing students by the social aspects which influence them to get more stressors of being highly responsible for themselves and the patients.

Figure 18

Level of Social Stress among Nursing Students

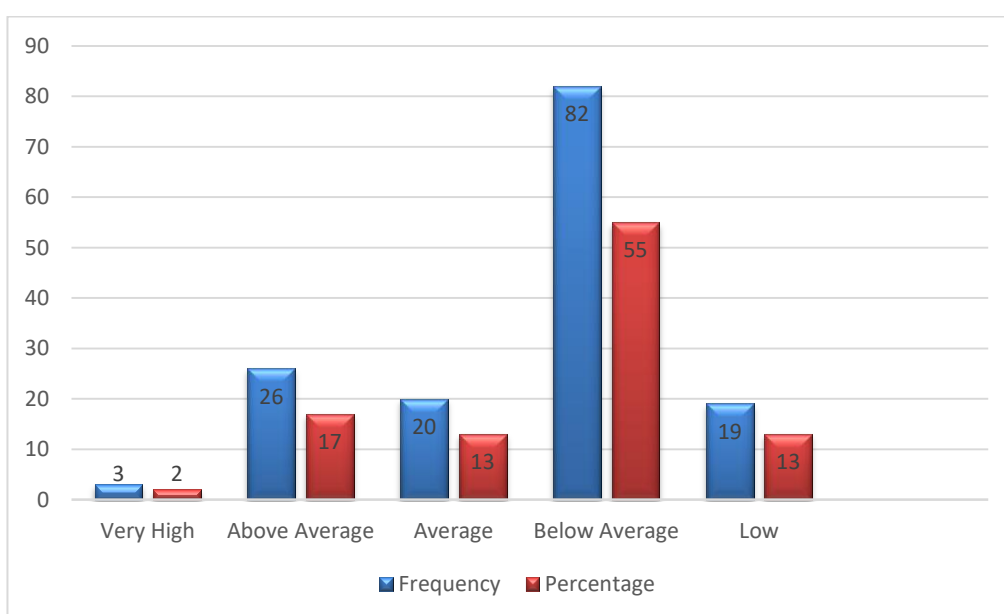


Table 18

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Social Stress

Variable	Groups	Phases	Mean	SD	N
Social Stress	Nursing Students	Before	15.59	5.67	52
		After	11.50	3.46	52
		Follow-up	8.98	2.67	52

Table 18 displays the mean and standard deviation of social stress among nursing students before, after and follow-up phases. The mean score for social stress before Cognitive Behaviour Therapy program was 15.59 and the standard deviation was 5.67, and it reduced to 11.50 as the mean score, 3.46 as standard deviation, after Cognitive Behaviour Therapy program and it was further reduced to 8.98 and 2.67 as mean and standard deviation scores in the follow-up phase. The students had shown a significant change from the before to the after phase of the Cognitive Behaviour Therapy program. Also, they were able to conserve the changes in the follow-up phase once the intervention was discontinued. Cognitive Behaviour Therapy was effective at handling the social stress.

Students were taught to identify the social stressors, which improved their ability to identify and rectify the social stress. This helps them to easily make out what could be possible reasons of social stressors which induce even more stress among students, and the possible ways to reduce the level of social stress. Therefore, it helped the students to enhance their perception towards social stress and eliminate the unwanted stressors for better performances.

Table 19

Repeated Measures ANOVA during before, after, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Social Stress.

N=52

Phases	Sum of Squares	Df	Mean Square	F
Sphericity Assumed	1159.397	2	579.699	92.207**
Greenhouse-Geisser	1159.397	1.232	941.234	92.207**
Huynh-Feldt	1159.397	1.247	929.872	92.207**
Lower-bound	1159.397	1.000	1159.397	92.207**

** - Significant at 0.01 level

Table 19 reveals the results of Repeated Measures ANOVA for social stress before, after and follow-up phases of Cognitive Behaviour Therapy and it clearly indicated significant differences. The results showed that when compared to before therapy score; there was a significant reduction in the level of social stress in after phase. There was a statistically significant differences were observed after Cognitive Behaviour Therapy program. Thus, Cognitive Behaviour Therapy was found to be effective in reducing social stress.

The techniques such as deep breathing worked like magic. Students whenever they experience social stress, especially in training set-ups, they were taught to maintain a calm and composed body language which the students were taught on how to remain calm and composed for better performance. This technique of deep breathing practices was found to be effective also less time consuming in the aspects of quick refreshment both psychologically and professional aspects.

Cognitive Behaviour Therapy was good in treating the repeated social stress resulting in greater cortisol stress response in child social anxiety disorder. Children with social anxiety disorder and increased social stress was exposed to CBT reflecting stronger cortisol reactivity and a higher responder rate (Asbrand, Heinrichs, Nitschke, Wolf, Schmidtdrof and Tuschen-Caffier, 2019).

Table 20

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Social Stress

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Social Stress	Nursing Students	Before	After	4.09*	.000
			Follow-up	6.61*	.000
		After	Before	-4.09*	.000
			Follow-up	2.51*	.000
		Follow-up	Before	-6.61*	.000
			After	4.09*	.000

*-Significant at 0.05 level

Table 20 depicts the result of Post-hoc Analysis in social stress of nursing students. Based on the significant reduction in the level of social stress, Bonferroni Post-hoc analysis was carried out to identify which particular differences between pairs of mean and significant. The mean difference of before and after Cognitive Behaviour Therapy program was 4.09, before and follow-up was 6.61 which were statistically significant. The mean difference between after and follow-up phase of Cognitive Behaviour Therapy programme was recorded as 2.51. Therefore, it is concluded that the therapy was effective in the management of social stress among nursing students. The most followed technique to reduce the social stress was to good body language, maintaining calm and composed face, a tension free psychological mind set, deep breathing practices helped the nursing students to deal efficiently in order to manage with their social stress.

Hence the Alternative Hypothesis 2.3, "There will be a significant reduction in Social stress among nursing students in Before, After and Follow-up without control group through Cognitive Behaviour Therapy", is accepted.

Figure 19

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Social Stress

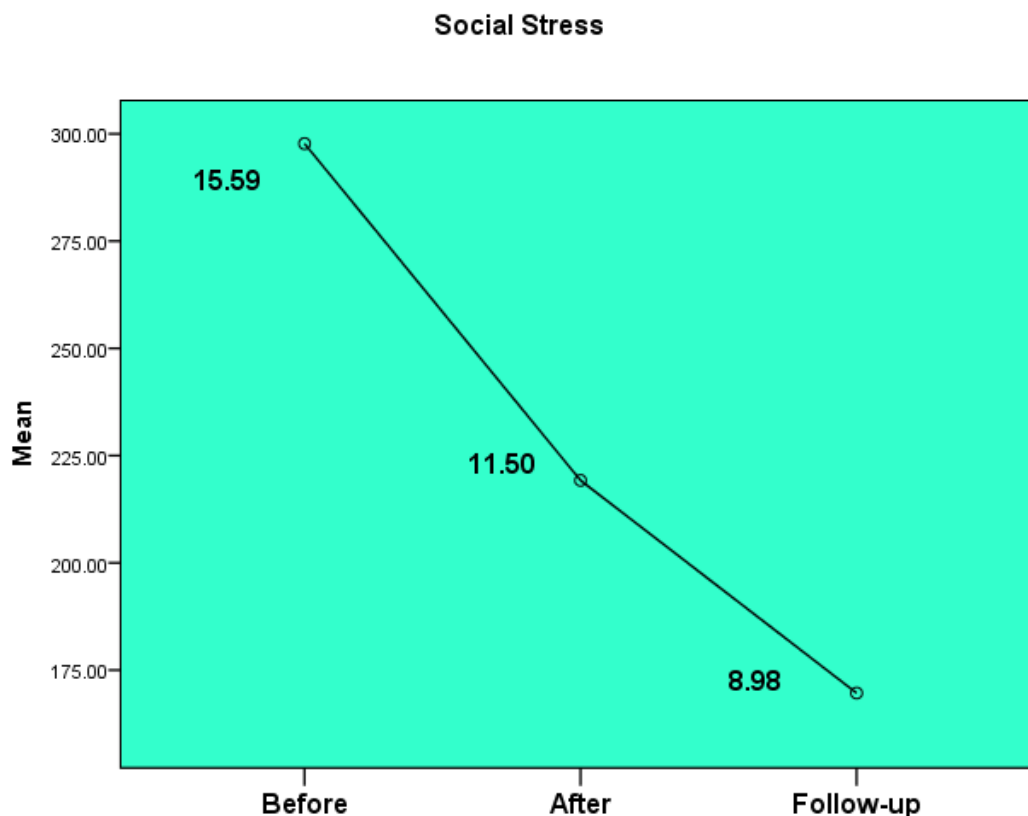


Figure 19 shows the before, after, and follow-up test phases of nursing students in social stress. The graph shows a drastic reduction in the level of social stress in the group after therapy. The follow-up data shows even more reduced level of social stress expressing the nursing students were good in handling the social stress causing situations and dealing effectively using the taught training. Thus, CBT was good in dealing with social stress of the nursing students which was more effective and useful.

(iv) Educational Stress

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in social stress.

Table 21
Level of Educational Stress among Nursing Students

N=150

Educational Stress	Frequency	Percentage
Very High	35	23
High	26	17
Above Average	31	21
Average	9	6
Below Average	13	9
Low	36	24

Level of educational stress is represented in the above table 21. As per the results obtained 23% of the students experiences very high level of educational stress, 17% of the students experiences high level of educational stress, 21% of the students score above average level of educational stress, 6% of the nursing students falls under average category, 9% of them scored as below average and 24% of them scored as Low level of education stress. Students who have scored above average, high and very high level of educational stress may experience the initial difficulties in understanding the clinical terms as they need to adapt to the habit of excessive reading along with the clinical posting. This contributes to the higher level of educational stress among nursing students.

Figure 20
Level of Educational Stress among Nursing Students

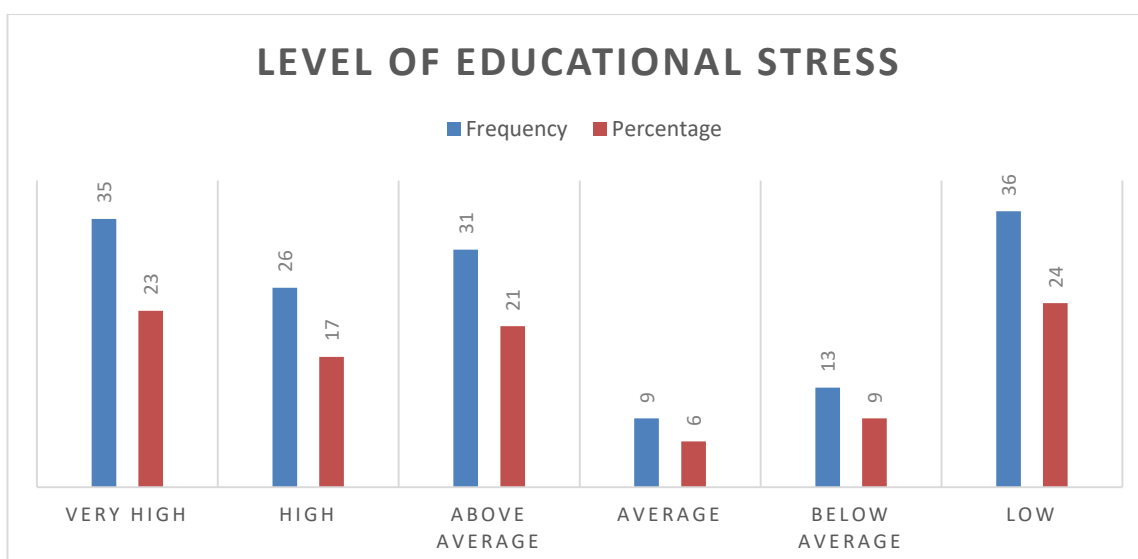


Table 22

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Educational Stress

Variable	Groups	Phases	Mean	SD	N
Educational Stress	Nursing Students	Before	87.00	14.27	52
		After	64.67	14.11	52
		Follow-up	50.78	11.20	52

Table 22 displays the mean and standard deviation of educational stress among nursing students before, after and follow-up phases. The mean score for educational stress before Cognitive Behaviour Therapy program was 87.00 and the standard deviation was 14.27, and it reduced to 64.67 as the mean score, 14.11 as standard deviation, after Cognitive Behaviour Therapy program and it was further reduced to 50.78 and 11.20 as mean and standard deviation scores in the follow-up phase. The students had shown a significant change from the before to the after phase of the Cognitive Behaviour Therapy program. Also, they were able to conserve the changes in the follow-up phase once the intervention was discontinued. Cognitive Behaviour Therapy was effective at changing educational stress coping skills.

A study done by Simon et al., (2021) states that Cognitive Behaviour Therapy acts in the first line to treat educational stress among students compared to yoga. Students were exposed to CBT programme for a duration 12 weeks of time interval and they resulted in better improved in lowering the level of educational stress and thus enhancing their academic performances gradually.

Table 23

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Educational Stress.

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	34710.859	2	17355.429	269.617**
Greenhouse-Geisser	34710.859	1.537	22586.143	269.617**
Huynh-Feldt	34710.859	1.575	22035.759	269.617**
Lower-bound	34710.859	1.000	34710.859	269.617**

**.- Significant at 0.01 level

Table 23 depicts the results of Repeated Measures ANOVA for educational stress before, after and follow-up phases of Cognitive Behaviour Therapy and it clearly indicated significant differences. The results showed that when compared to before therapy score; there was a significant reduction in the level of educational stress in after phase. There was statistically significant differences were observed after Cognitive Behaviour Therapy programme. Thus, Cognitive Behaviour Therapy was found to be effective in controlling educational stress.

Stress level in the field of education is growing bigger each day and strongly rooted among students. Cognitive Behaviour Therapy shows a significant reduction in the stress level among students. This study proves that there was a great reduction in the study stress especially in the domain of education, therefore, this educational stress can be put down efficaciously using Cognitive Behaviour Therapy programme (Otu, Dike, Ebizie, Chigbu and Out, 2021).

Table 24

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Educational Stress

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Educational Stress	Nursing Students	Before	After	22.32*	.000
			Follow-up	36.21*	.000
		After	Before	-22.32*	.000
			Follow-up	13.88*	.000
		Follow-up	Before	-36.21*	.000
			After	-13.88*	.000

*-Significant at 0.05 level

Table 24 depicts the result of Post-hoc Analysis in educational stress of nursing students. Based on the significant reduction in the level of educational stress, Bonferroni post-hoc analysis was carried out to identify which particular differences between pairs of mean and significant. The mean difference of before and after Cognitive Behaviour Therapy program was 22.32, before and follow-up was 36.21 which were statistically significant. The mean differences between after and follow-up phase was 13.88. Cognitive Behaviour Therapy techniques such as cognitive rehearsal practices were taught to the students and they were asked to follow the cognitive rehearsal patterns to avoid getting more of educational stress. Making a regular routine of learning helped them to perform better and increases the rate of academic performance among the nursing students. Therefore, it is concluded that the therapy was effective in the management of educational stress among nursing students.

Hence the Alternative Hypothesis 2.4, "There will be a significant reduction in Educational stress among nursing students in Before, After and Follow-up without control group through Cognitive Behaviour Therapy", is accepted

Figure 21

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Educational Stress

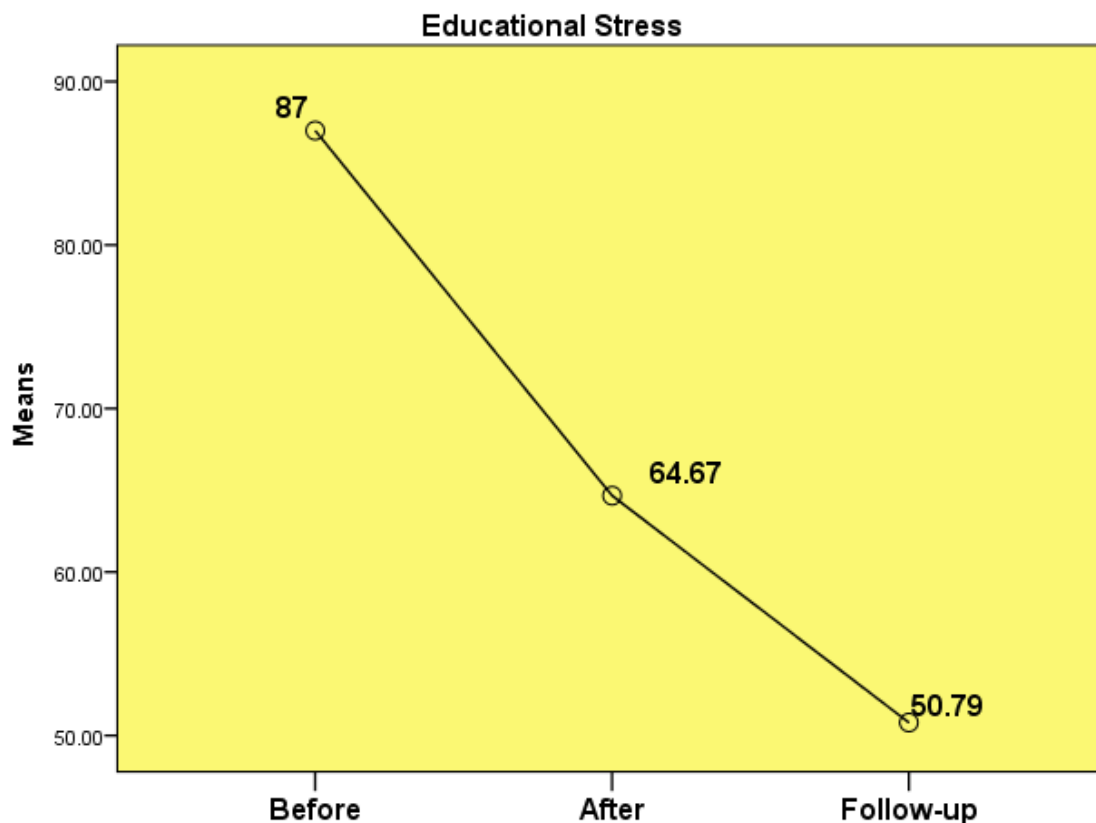


Figure 21 shows the before, after, and follow-up test phases of nursing students in educational stress. The graph shows a drastic reduction in the level of social educational in the group after therapy. The follow-up data shows even more reduced level of educational stress expressing the nursing students were good in handling the study-oriented stress causing situations and dealing effectively using the taught training. Thus, CBT was good in dealing with educational stress of the nursing students and improved their academic performances.

(v) Ego Threat

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in Ego threat.

Table 25

Level of Ego Threat among Nursing Students

N=150

Ego Threat	Frequency	Stress
Very High	127	85
High	15	10
Above Average	8	5

Table 25 displays the level of ego threat among nursing students. Majority of the nursing students come under the category of very high level of ego threat with 85% this state clearly explaining that the nursing students experiences higher the level of psychological distress and that undermines the ability of their performance to normal day-to-day daily life activities. This results in enhanced level of diminishing person’s opinion on herself/himself. Ten percent of the students fall under the category of high and only 5 percent of the students scored above average level of ego threat.

Figure 22

Level of Ego threat among Nursing Students

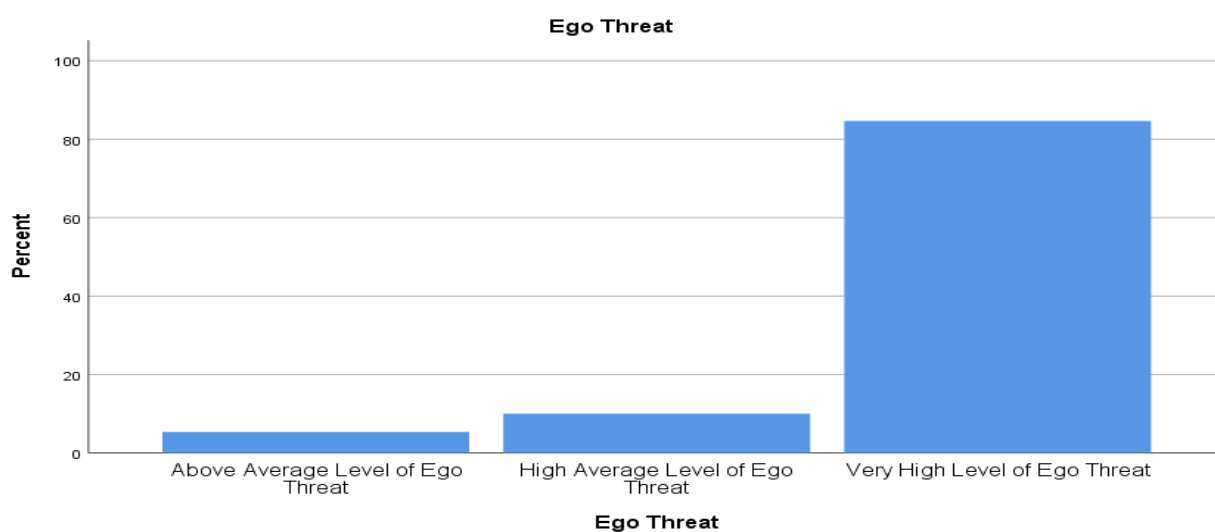


Table 26

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Ego Threat.

Variable	Groups	Phases	Mean	SD	N
Ego-threat	Nursing Students	Before	38.98	8.18	52
		After	28.92	6.48	52
		Follow-up	21.98	5.16	52

Table 26 displays the mean and standard deviation of ego-threat among nursing students before, after and follow-up phases. The mean score for ego-threat before Cognitive Behaviour Therapy program was 38.40 and the standard deviation was 8.17, and it reduced to 28.38 as the mean score, 6.86 as standard deviation, after Cognitive Behaviour Therapy program and it was further reduced to 21.81 and 5.16 as mean and standard deviation scores in the follow-up phase. The nursing students had shown a significant change from the before to the after phase of the Cognitive Behaviour Therapy program. Also, they were able to conserve the changes in the follow-up phase once the intervention was discontinued.

The students were asked to well identify and understand on the aspects of what could be the reasons for ego threat thus identifying these patterns would help them to act with caution and learn to avoid such ego threats and improve with their personal growth henceforth, reducing the level of stress caused by ego threat. Cognitive Behaviour Therapy was effective in dealing with ego-threat.

Table 27

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Ego-threat.

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	7598.115	2	3799.058	230.399**
Greenhouse-Geisser	7598.115	1.480	5132.403	230.399**
Huynh-Feldt	7598.115	1.514	5017.952	230.399**
Lower-bound	7598.115	1.000	7598.115	230.399**

** - Significant at 0.01 level

Table 27 shows the results of Repeated Measures ANOVA for ego-threat in before, after and follow-up phases among nursing students and it clearly indicates significant differences. The results showed that there was a significant reduction in the level of ego threat in after and follow-up phases of Cognitive Behaviour Therapy program. Students were trained on emotion regulation which helped them channelize at the right path of problem-solving and improve their well-being. The technique of emotion regulation was found to be highly effective as they found right direction on the aspects of dealing with emotions with less ego-threat. It provided them to handle situations in a better manner comparatively before CBT intervention programme. The emotion regulation method also added on a skill of problem solving giving them a better critical thinking practice and solve the issues at the emerging level. Therefore, the nursing students who were exposed to the Cognitive Behaviour Therapy intervention programme was way more better and gave us a significant results in dealing with the ego-threat among nursing students in before, after and follow-up phases of the programme.

Table 28

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Ego-threat

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Ego threat Stress	Nursing Students	Before	After	10.06	.000
			Follow-up	17.00	.000
		After	Before	-10.06	.000
			Follow-up	6.94	.000
		Follow-up	Before	-17.00	.000
			After	-6.94	.000

*-Significant at 0.05 level

Table 28 depicts the result of Post-hoc Analysis in ego-threat of nursing students. Bonferroni post-hoc analysis was carried out to identify which particular differences between pairs of means are significant. The mean differences between before and after Cognitive Behaviour Therapy was 10.06, before and follow-up phase was 17.00 which were statistically significant. The mean differences between after and follow-up phase was noted as 6.94. Therefore, it can be concluded that the Cognitive Behaviour Therapy program was found to be effective in reducing ego-threat. A collaboration of CBT with mindfulness helps to prevent and manage psychological/mental issues also it promotes well-being and building a foundations of adaptability and flexibility in dealing with the long-term uncertainty and profound changes to the social, economic aspects (Antonova, Schlosser, Pandey and Kumari, 2021).

Hence the Alternative Hypothesis 2.5, "There will be a significant reduction in Ego-threat among Nursing Students in Before, After and Follow-up without control group through Cognitive Behaviour Therapy", is accepted

Figure 23

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Ego threat

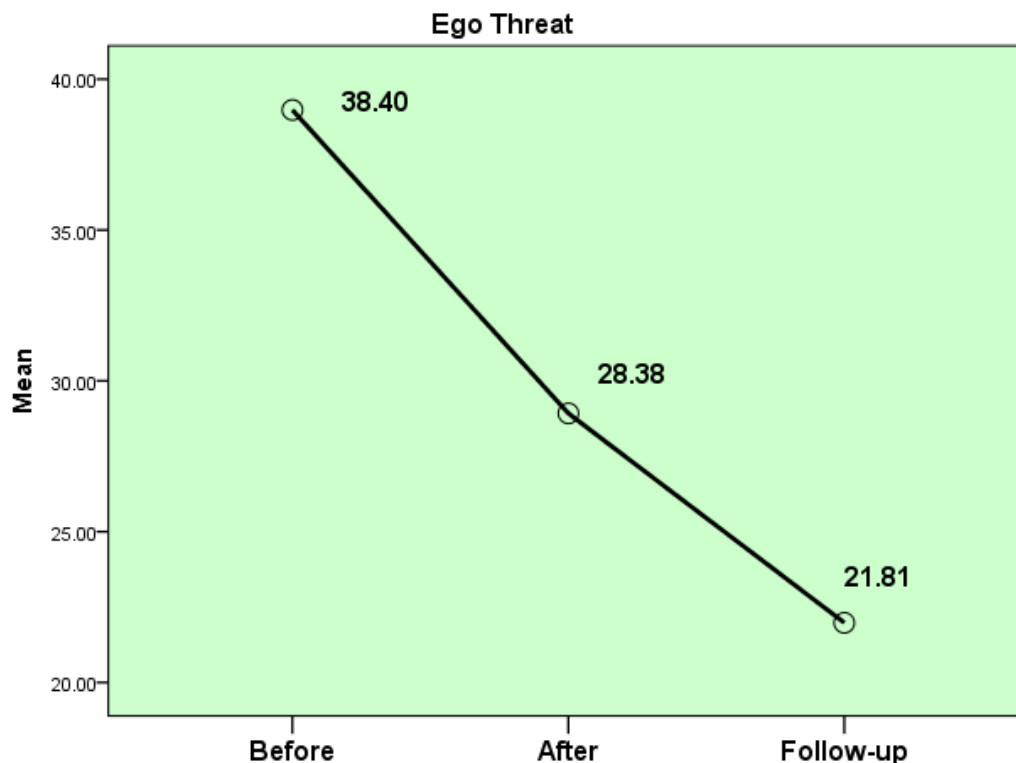


Figure 23 shows the before, after, and follow-up test phases of nursing students in ego threat. The graph shows a drastic reduction in the level of ego threat in the group after therapy. The follow-up data shows even more reduced level of ego threat indicating that the nursing students were good in dealing with the event or situating that could lead to ego threat resulting in increased. Thus, CBT was found to be highly efficacious in dealing with the ego threat and thus improving the student’s ability to handle their ego threat in wise manner.

(vi) Bereavement

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in Bereavement.

Table 29

Level of Bereavement among Nursing Students

N=150

Bereavement	Frequency	Percentage
Very High	43	29
High	63	42
Above Average	39	26
Average	2	1
Below Average	3	2

The above table 29 presents the level of bereavement among nursing students. The obtained data helps us in understanding the nursing student’s experiences critical level of bereavement which is a complex and highly personal process that involves a range of emotions, thoughts and behaviour that individuals come to terms with loss. Thus, the nursing students experiences bereavement during training sessions. Twenty nine percent of the students reported as very high level of bereavement, 42% of the students shows high level, 26% showed as above average level of bereavement and finally only 1% and 2% recorded as average and below average level of bereavement.

Figure 24

Level of Bereavement among Nursing Students

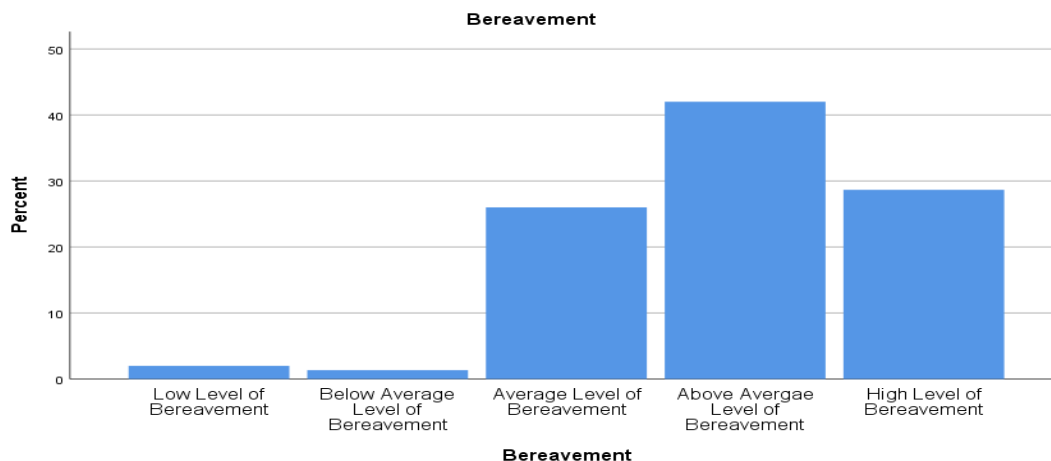


Table 30

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behaviour Therapy in Bereavement.

Variable	Groups	Phases	Mean	SD	N
Bereavement	Nursing Students	Before	22.73	4.10	52
		After	15.88	4.43	52
		Follow-up	12.36	4.11	52

Table 30 shows the descriptive statistics of the bereavement among nursing students. The mean score and standard deviation of the bereavement of the students before Cognitive Behaviour Therapy program was 22.73 and 4.10. After Cognitive Behaviour Therapy program the mean score recorded as 15.88 and the standard deviation score was 4.43, and during the follow-up phase the mean and standard deviation scores were 12.36 and 4.11. The students had shown a significant change from the before to the after phase of the research. Students with bereavement were taught with open-up talks with their beloved person whom they were close with. A genuine conversation would be helpful in dealing with bereavement. They nursing students were provided with one-to-one counselling in order to provide them complete exposure towards healing them. Cognitive Behaviour Therapy was effective in dealing with bereavement and thus it brings-up a change from within and helps the bereaved persons to restore back their normal life after few sessions of CBT programme. Different strategies of CBT techniques would provide even more highly beneficial seen differences among the presented participants (Currier, Holland and Neimeyer, 2010).

Table 31

Repeated Measures ANOVA during Before After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Bereavement.

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	2889.397	2	1444.699	190.567**
Greenhouse-Geisser	2889.397	1.436	2011.726	190.567**
Huynh-Feldt	2889.397	1.467	1970.233	190.567**
Lower-bound	2889.397	1.000	2889.397	190.567**

** - Significant at 0.01 level

Table 31 shows the results of Repeated Measures ANOVA in bereavement during before, after and follow-up among nursing students and it clearly indicates significant differences. The results showed that there was a significant reduction in the level of bereavement in after and follow-up phase of cognitive behaviour. As a professional group of students it is understandable that they experience death of patients which affects them psychologically leaving behind in the aspect of bereavement or grief. Students were taught with few techniques, one of the most important part was acceptance. Accepting that the existing patient was no more given them a practical and reality oriented mindfulness in dealing with the situation. Students were taught with thought stopping technique which helped them way more effective comparatively, and stops the negative pattern of thought.

A study done by Stephen and Paul (2001) states that Cognitive Behaviour Therapy would be helpful in reconstruction of meaning in dealing with bereavement of an individual. Following few cognitive tasks would be highly helpful to deal with the bereavement which is more of therapeutic oriented interaction within bereaved individuals.

Table 32

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Bereavement

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Bereavement	Nursing Students	Before	After	22.32*	.000
			Follow-up	36.21*	.000
		After	Before	-22.32*	.000
			Follow-up	13.88*	.000
		Follow-up	Before	-36.21*	.000
			After	-13.88*	.000

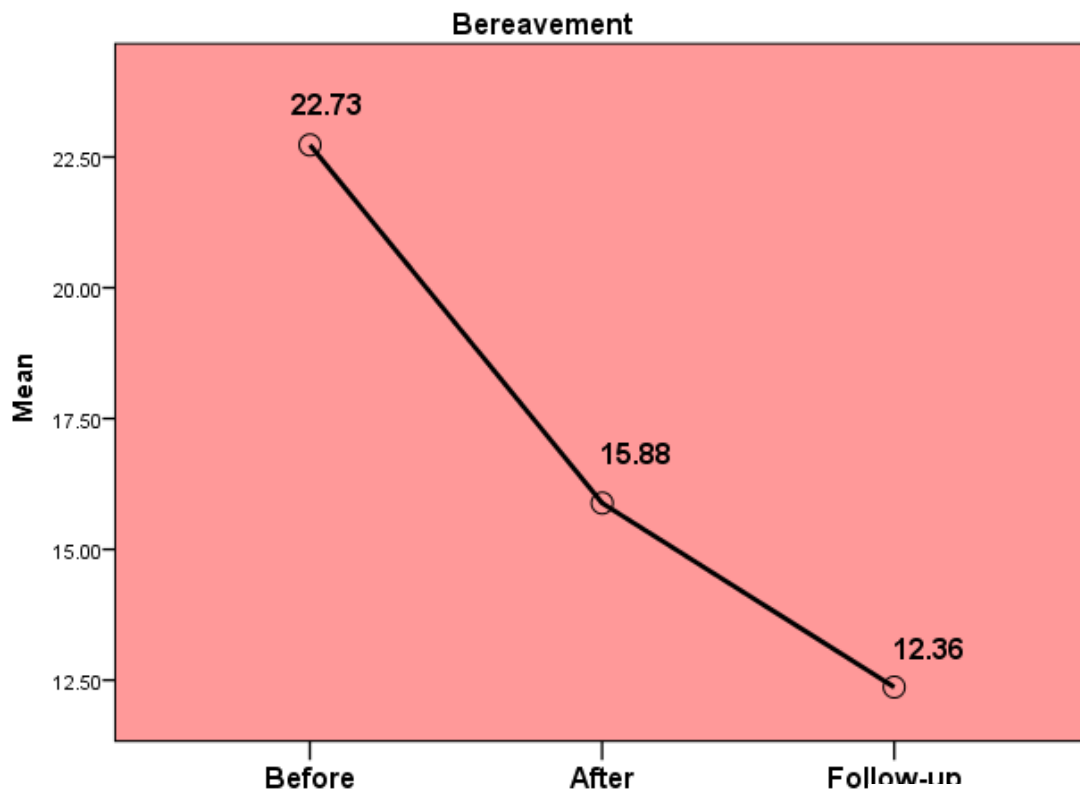
*-Significant at 0.05 level

Table 32 depicts the result of Post-hoc Analysis in bereavement of nursing students. Bonferroni Post-hoc Analysis showed that hostility reduced significantly from the before phase to the after phase with the score of 22.32, before and follow-up was 36.21 and after and follow-up was 13.88 which were statistically significant. The rational and practical technique of accepting the reality was found to be highly effective in accepting the real life scenario and thus resulting in the better understanding of not to indulge more into a loss of someone, and grief for long duration. Negative thought patterns were the disturbing as reported by the nursing students. Therefore, thought stopping and auto-suggestion techniques were found to be highly useful to treat them with positive outcomes. A study done by Boelen, Lonneke, Lenferink and Spuij (2021), reveals that prolonged grief and bereavement can be treated effectively with Cognitive Behaviour Therapy intervention programme. Supportive counselling was found to be superior long-term effect resulting in strengthening children and adolescent facing challenges with bereavement.

Hence the Alternative Hypothesis 2.6, "There will be a significant reduction in Bereavement among nursing students during before, after and follow-up without control group through Cognitive Behaviour Therapy Interventions", is accepted

Figure 25

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Bereavement



Footnote

The result of the bereavement in the before, after, and follow-up phases of the participants is presented in figure 25. The graph indicates that after the intervention, the results of the students reduced noticeably. Also, it is to be noted that even after the termination of the Cognitive Behaviour Therapy programme the bereavement has been reduced prominently. Students' follow-up result shows that they know they have needed skills to be competent.

(vi) Separation

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in Separation.

Table 33

Level of Separation among Nursing Students

N=150

Separation	Frequency	Percent
Very High	3	2
Above Average	3	2
Average	55	37
Below Average	81	54
Low	8	5

The above table 33 represents the level of separation stress among nursing students. The separation stress is being encountered among the nursing students however, from the obtained data it is understood that the students were well aware about their separation and thus, resulting as a majority of 54% of the nursing students recorded as below average level of separation issues and 37% of the students scored under average level of separation stress and only 2% of the students have recorded as above average and very high level of separation stress.

Figure 26

Level of Separation among Nursing Students

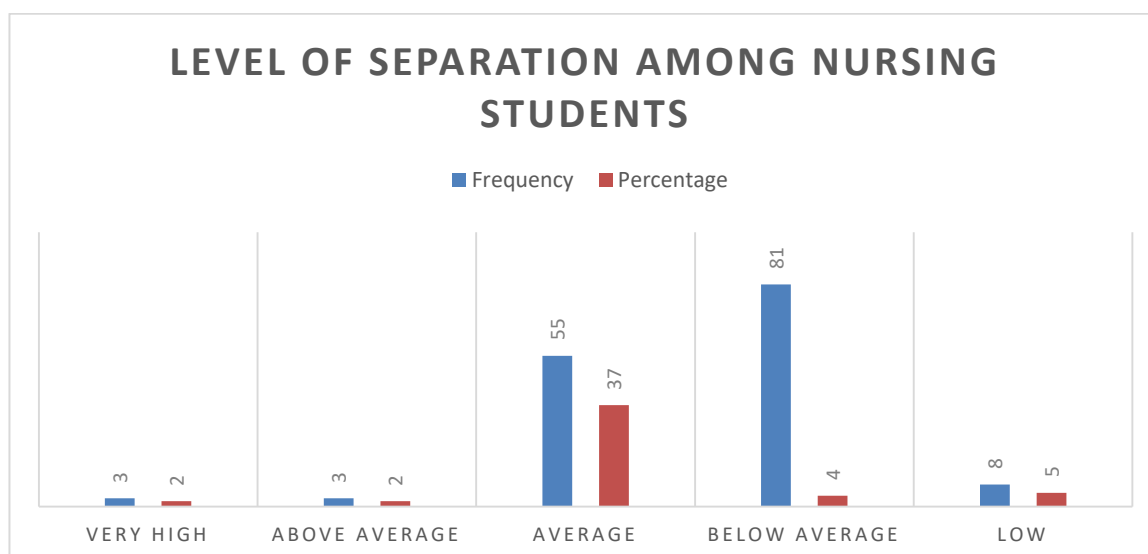


Table 34

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Separation

Variable	Groups	Phases	Mean	SD	N
Separation	Nursing Students	Before	15.19	4.58	52
		After	10.26	3.86	52
		Follow-up	8.13	3.30	52

Table 34 explains the descriptive statistics on separation of nursing students in before, after and follow-up phases. The mean score for separation before Cognitive Behaviour Therapy was 15.19, and it reduced to 10.26 after Cognitive Behaviour Therapy program and further reduced to 8.13 in the follow-up phase. This shows that the students who have undergone the Cognitive Behaviour Therapy found to be effective and useful in reducing their separation.

Separation is a part of stress which spoils the basic drive of each individual. Therefore, the students were first taught about the meaning of separation, and they were asked to pen down about the actual and factual reason behind the separation of staying away from family, friends and adjustment problems occurs to the new environment. Once initial understanding about the separation was discussed in details the students developed insight in understanding about the practical reality and then they sounded good in accepting and ready to face the real world with optimistic approach.

Cognitive Behaviour Therapy is one of the best therapies in treating separation anxiety issues, giving students a brief orientation about the separation anxiety, which intrudes their daily life events was found to be reduced. Especially in dealing with young students CBT would be the best in treating the separation issues (Caputi, Micheline and Scaini, 2022).

Table 35

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Separation.

N=52				
Phases	Sum of Squares	Df	Mean Square	F
Sphericity Assumed	1362.474	2	681.237	165.368**
Greenhouse-Geisser	1362.474	1.388	981.874	165.368**
Huynh-Feldt	1362.474	1.414	963.496	165.368**
Lower-bound	1362.474	1.000	1362.474	165.368**

**.- Significant at 0.01 level

Table 35 demonstrates the results of Repeated Measures ANOVA for separation in before, after and follow-up among nursing students and it clearly indicates the significant differences. The results showed that when compared to before Cognitive Behaviour Therapy program scores, there was a significant reduction in the level of separation was observed in after and follow-up phases of Cognitive Behaviour Therapy program. The students were debriefed about their purpose of their education. Knowing the worth and real service oriented profession of their education system, the students showed improved involvement and they started to concentrate more on their training.

Table 36

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Separation

N=52					
Measure	Group	Phases	Phases	Mean Difference	Sig.
Separation	Nursing Students	Before	After	4.923*	.000
			Follow-up	7.058*	.000
		After	Before	-4.923*	.000
			Follow-up	2.135*	.000
		Follow-up	Before	-7.058*	.000
			After	-2.135*	.000

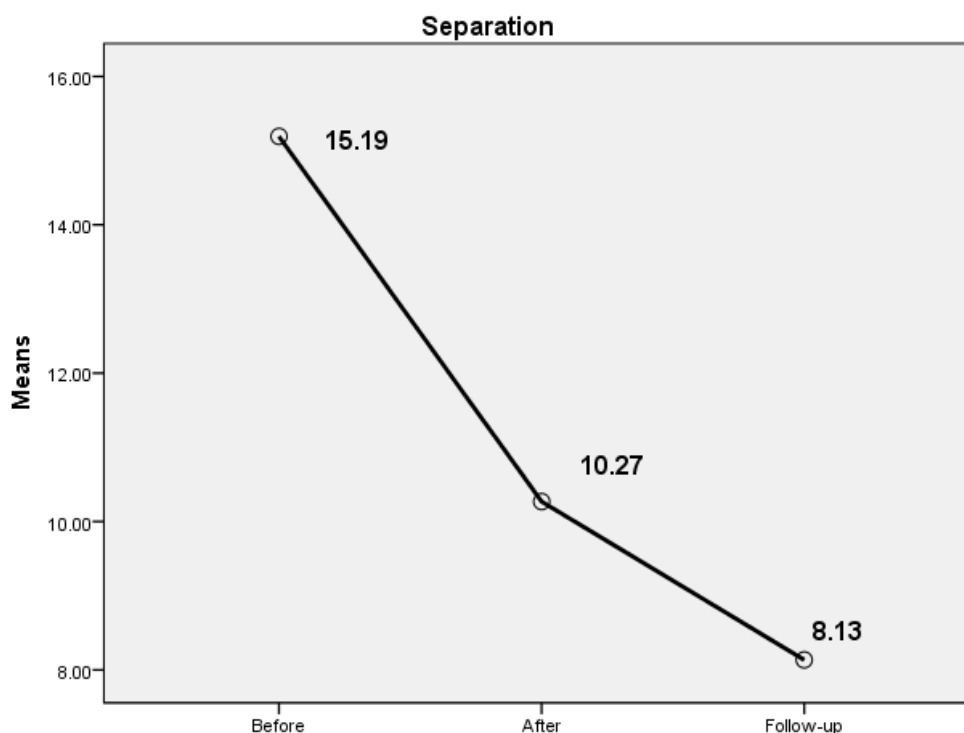
*.-Significant at 0.05 level

Table 36 depicts the result of Post-hoc Analysis in separation of nursing students. Bonferroni post-hoc analysis was carried out to identify which particular differences between the pairs of the means are significant. The mean difference of before and after Cognitive Behaviour Therapy program was 4.923 before and follow-up phase was 7.058 which were statistically significant and after the program and follow-up score was 2.135 which was statistically significant. The students were recommended to initially build a very good communication between friends and other classmates. Thus, Cognitive Behaviour Therapy was effective in building good interpersonal relationships resulting better training and learning experiences among the nursing students. Therefore, CBT was found to highly effective in dealing separation stress and helps them to find productive alternatives to improve them more professional and academically oriented students.

Hence the Alternative Hypothesis 2.7, “**There will be a significant reduction in separation stress of nursing students during before, after and follow-up without control group through Cognitive Behaviour Therapy Interventions**”, is accepted.

Figure 27

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Separation



The result of the separation in the before, after, and follow-up phases of the participants is presented in figure 27. The graph indicates that after the intervention, the results of the students reduced in both after and follow-up phases of Cognitive Behaviour Therapy programme. It clearly indicates that, the Cognitive Behaviour Therapy programme was highly beneficial in reducing the level of separation stress among nursing student.

(vii) Personal Setback

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in Separation.

Table 37

Level of Personal Setback among Nursing Students

<i>N=150</i>		
Personal Setback	Frequency	Percent
Very High	5	3
High	58	39
Average	31	21
Below Average	29	19
Low	9	6
Very Low	18	12

Personal setback is one of the sub scales of stress which has been depicted in table 36. A majority of 39% of the students showed high level of personal setback, only 3% of the students showed very high level of personal setback. Twenty one percent of the students recorded as average level of personal setback, 19% of them showed below average level, 6% displayed low and 12% of the students recorded as very low level of personal setback among nursing students.

Figure 28

Level of Personal Setback among Nursing Students

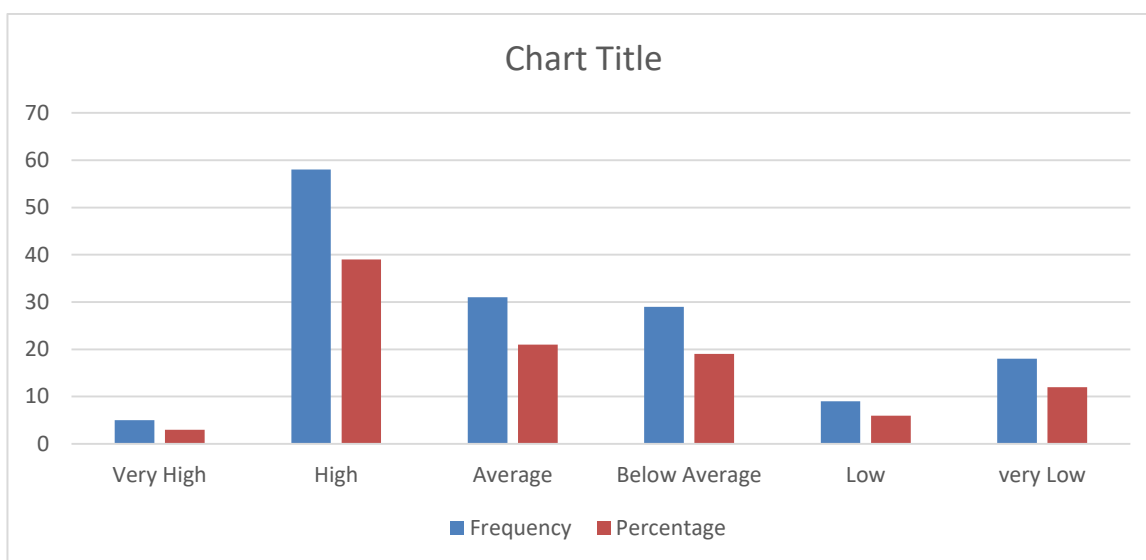


Table 38

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Personal Setback.

N=52

Variable	Groups	Phases	Mean	SD	N
Personal Setback	Nursing Students	Before	36.42	5.86	52
		After	27.36	5.54	52
		Follow-up	21.48	5.43	52

Table 38 explains the descriptive statistics on personal setback of nursing students in before, after and follow-up phases. The mean score for personal setback before Cognitive Behaviour Therapy was 36.42, and it reduced to 27.36 after Cognitive Behaviour Therapy program and further reduced to 21.48 in the follow-up phase. The standard deviation scores for personal setback were as follows 5.86 for before cognitive behaviour therapy, 5.54 was recorded after Cognitive Behaviour Therapy and 5.43 was inferred in follow-up phase of cognitive behaviour therapy. This shows that the students who have undergone the Cognitive Behaviour Therapy found to be effective and useful in identifying their personal setbacks .

Table 39

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Personal Setback.

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity Assumed	5892.346	2	2946.173	276.122**
Greenhouse-Geisser	5892.346	1.613	3653.198	276.122**
Huynh-Feldt	5892.346	1.658	3554.387	276.122**
Lower-bound	5892.346	1.000	5892.346	276.122**

**.- Significant at 0.01 level

Table 39 shows the results of Repeated Measures ANOVA for personal setback in before, after and follow-up phases among nursing students and it clearly indicates significant differences. The results showed that when compared to before intervention scores, there was a significant reduction in the level of personal setback and sustained in the after and follow-up phases. The personal setback is nothing but a loss which affects personal and professional life of an individual. The CBT intervention programme dealt with differentiating the personal and professional setbacks which acts as an hindrance in preventing their personal setbacks. On differentiating both personal and professional setbacks, the students become much aware about their presenting problems and they easily went through the events or situations which have nothing to do with their present life of the nursing students. Hence, this method of providing them a clear picture and improving them was found to be highly effective in dealing with their personal setbacks which has been experienced by the nursing students. As a result indicates, the students have shown a better performance in dealing with their personal setbacks and improved both personal and professional life.

Table 40

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Personal Setback.

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Personal Setback.	Nursing Students	Before	After	9.06*	.000
			Follow-up	14.94*	.000
		After	Before	-9.06*	.000
			Follow-up	5.88*	.000
		Follow-up	Before	-14.94*	.000
			After	-5.88*	.000

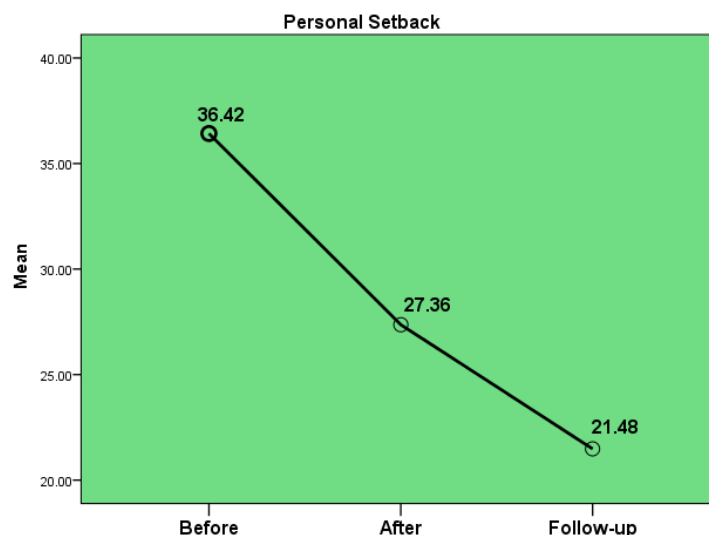
*-Significant at 0.05 level

Table 40 shows the results of Post-hoc Analysis in the aggression among adolescent boys. Based on the significant reduction in the level of aggression, Bonferroni post-hoc analysis was carried out to identify which particular difference between pairs of means are significant. The mean difference of before and after phases was 9.06 before and follow-up was 14.94 which were statistically significant and after and follow-up was 5.88 which was statistically significant. The technique of relaxation and identifying the personal and social setbacks was taught to the students. The relaxation technique involved with the practice of deep breathing, whenever the nursing students get a regressed thought or situation related to their personal setbacks. This method helped the nursing students to deal with their tensed and/or emotional situation which triggers personal setback. Therefore, Cognitive Behaviour Therapy was found to be efficacious in dealing with their personal setbacks by neglecting by their negative aspects and understanding the consequences of the personal setback.

Hence the Alternative Hypothesis 2.8, **“There will be a significant reduction in personal setback among nursing students in before, after and follow-up without control group through Cognitive Behaviour Therapy Intervention”**, is accepted

Figure 29

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Personal Setback.



The result of the overall aggression in the before, after, and follow-up phases of the participants is presented in figure28. The graph indicates that after the intervention, the results of the students reduced noticeably. However, the follow-up results showed the aggression reduced even after the intervention stopped. Students’ follow-up result shows that they know they have needed skills to be competent.

(ix) Health of Others

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in health of others.

Table 41

Level of Health of others among Nursing Students

N=150

Health of Others	Frequency	Stress
Very High	4	3
High	8	5
Above Average	40	27
Average	24	16
Below Average	68	45
Low	6	4

This table shows the level of health of others of the nursing students. Only 3% of the students recorded as very high, 5% reported as high and 27% of the students recorded as above average level of health of others showing they have high level of concern on the patients they handle with. Whereas, 16% of the students recorded as average, a majority of 45% reported as below average and 4% recorded as low level of health of others among nursing students.

Figure 30

Level of Health of others among Nursing Students

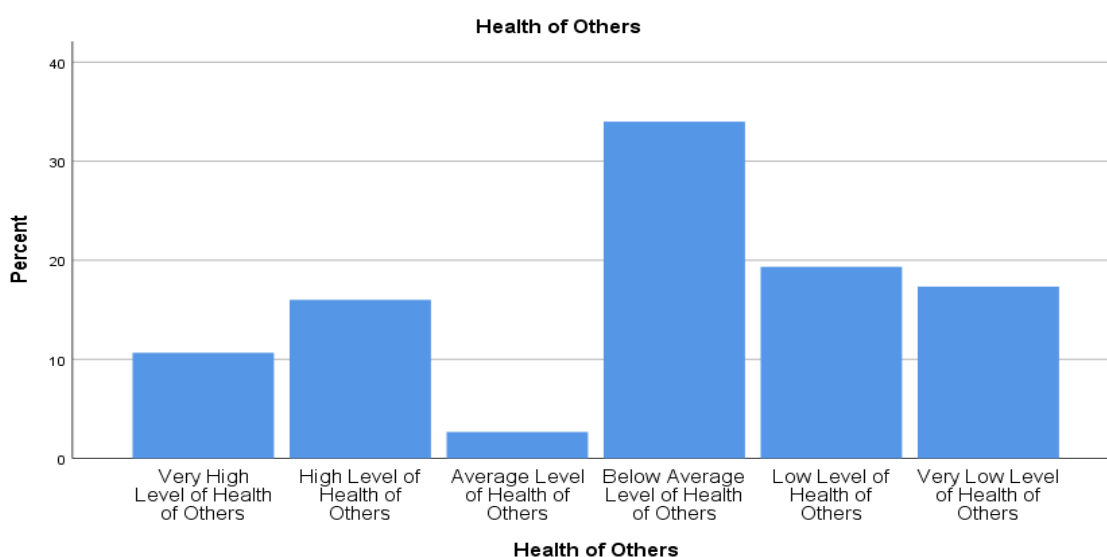


Table 42

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behaviour Therapy in Health of others.

Variable	Groups	Phases	Mean	SD	N
Health of others	Nursing Students	Before	25.92	4.57	52
		After	18.40	4.87	52
		Follow-up	13.92	4.74	52

Table 42 represents the descriptive statistics of health of others among nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy program. The mean score and standard deviation of health of others among nursing

students in before Cognitive Behaviour Therapy program was 25.92 and 4.57, after Cognitive Behaviour Therapy program the mean score was 18.40 and the standard deviation score was 4.87 and in follow-up phase the mean and standard deviation scores were 13.92 and 4.74. Therefore, it can be inferred from the above results that the health of others sub-scale of stress was found to be effective after Cognitive Behaviour Therapy program and sustained the change even during the follow-up phase. Therefore, the results show that Cognitive Behaviour Therapy played a significant role in bringing changes in students' concern towards health of others. Students were taught emotion regulation and self-control to understand and identify their emotion. Identifying the emotions helped them to control and train themselves into a professional aspects rather than normal people.

Table 43

Repeated Measures ANOVA during before, after, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Health of others.

N=52

Phases	Sum of Squares	Df	Mean Square	F
Sphericity	3824.01	2	1912.01	222.80**
Assumed				
Greenhouse-Geisser	3824.01	1.51	2534.58	222.80**
Huynh-Feldt	3824.01	1.55	2475.41	222.80**
Lower-bound	3824.01	1.00	3824.01	222.80**

** - Significant at 0.01 level

Table 43 shows the results of Repeated Measures ANOVA for health of others in before, after and follow-up phases among nursing students and it clearly indicates significant differences. The results showed that when compared to before intervention scores, there was a significant reduction in the level of health of others and even more reduced in the after and follow-up phases among nursing students. The health of others explains about the health of patients or the patients whom they meet in their training programme would create a level of stress among nursing students. Being the freshers, the nursing students who experiences a new professional area would not be limiting their empathy or care or concern towards patients leading to increased stress.

Table 44

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Health of others

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Health of others	Nursing Students	Before	After	7.52*	.000
			Follow-up	12.00*	.000
		After	Before	-7.52*	.000
			Follow-up	4.48*	.000
		Follow-up	Before	-12.00*	.000
			After	-4.48*	.000

*-Significant at 0.05 level

Table 44 shows the results of Post-hoc Analysis in the health of others among nursing students. Based on the significant reduction in the level of health of others, Bonferroni post-hoc analysis was carried out to identify which particular difference between pairs of means are significant. The mean difference of before and after phases was 7.52, before and follow-up was 12.00 which were statistically significant and after and follow-up was 4.48 which was statistically significant. The nursing students were taught with rationalising their professional work rather than crossing their limit as a health care professionals. Once they understood about their limit and boundary with the patients, the students felt, the right space which needs to be addressed between the nursing students and the patients.

Hence the Alternative Hypothesis 2.9, "There will be a significant difference in health of others among nursing students during before, after and follow-up without control group through Cognitive Behaviour Therapy Intervention", is accepted.

Figure 31

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Health of others.



The result of the overall aggression in the before, after, and follow-up phases of the participants is presented in figure 31. The graph indicates that after the intervention, the results of the students reduced noticeably. However, the follow-up results showed the aggression reduced even after the intervention stopped. Students’ follow-up result shows that they know they have needed skills to be competent.

(x) Stress

The results of levels, descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in stress.

Table 45

Level of Stress among Nursing Students

N=150

Stress	Frequency	Percentage
Very High	4	3
High	8	5
Above Average	40	27
Average	24	16
Below Average	68	45
Low	6	4

Table 45 displays the frequency of level of overall stress of the nursing students. A total of 150 nursing students responded to the variable stress. Whereas, 4 percentage of the student population showed low level of overall stress. A majority of 45 percentages of the students below average level of stress among nursing students. Sixteen percent of the students secured average level of stress, however 27 percent of the nursing students interpreted as above average level of stress, and 5 percent of the students have scored as high level of stress. Finally, 3 percent of the students scored very high level of stress. The students who fall under very high, high and above average level of stress was taken into the study and they were exposed to intervention program.

Figure 32

Level of Stress among Nursing Students

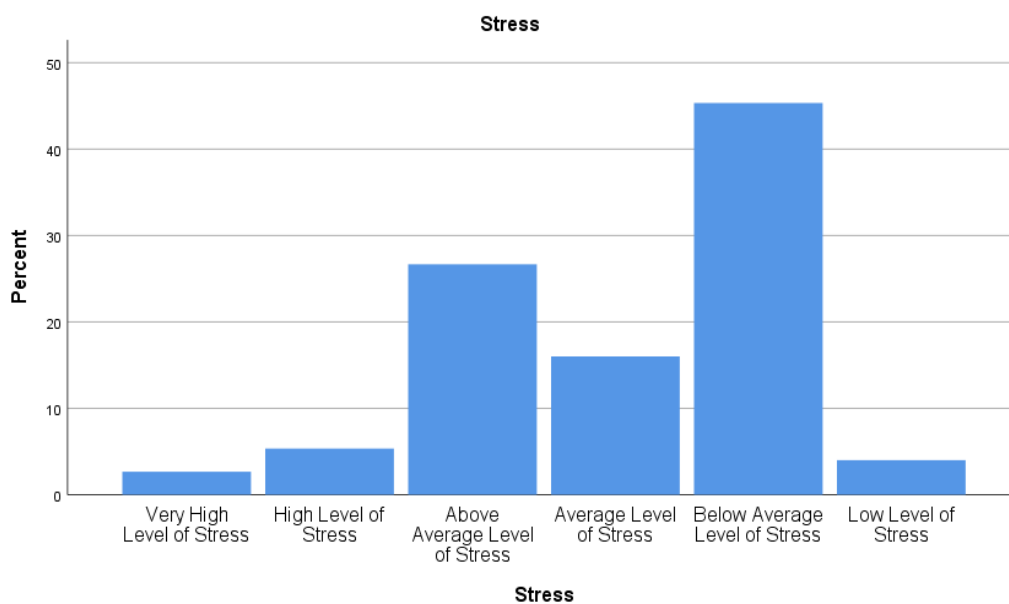


Table 46

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behaviour Therapy in Total Stress.

Variable	Groups	Phases	Mean	SD	N
Total Stress	Nursing Students	Before	297.73	36.63	52
		After	219.21	38.92	52
		Follow-up	169.65	28.99	52

Table 46 explains the descriptive statistics on stress of nursing students in before, after and follow-up phases. The mean score for stress before Cognitive Behaviour Therapy was 297.73, and it reduced to 219.21 after Cognitive Behaviour Therapy program and further reduced to 169.65 in the follow-up phase. This shows that the students who have undergone the Cognitive Behaviour Therapy found to be effective and useful in reducing their stress.

The students were well briefed about the nature of stress and both physiological and psychological changes occur when stressed. Once students understood about the causes of stress, they become more aware about the stress and its effects on both bodily and mental changes. Few techniques such as deep breathing, reverse counting, relaxing were taught along with prioritizing the stressful event. As few of stressful events cannot be neglected/avoided, students became well versed in handling those stressful events effectively.

Bryant, Moulds, and Nixon (2003) showed that treating stress during the initial stages would reduce the course or duration of long-term stress among people. Hence, it can be inferred that Cognitive Behaviour Therapy would help to reduce stress at its initial stages and sustain long-term duration.

Table 47

Repeated Measures ANOVA during before, after, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Total Stress.

N=52

Phases	Sum of Squares	df	Mean Square	F
Sphericity	433765.50	2	216882.75	508.82**
Assumed				
Greenhouse-Geisser	433765.50	1.53	283951.92	508.82**
Huynh-Feldt	433765.50	1.56	277127.08	508.82**
Lower-bound	433765.50	1.00	433765.50	508.82**

** - Significant at 0.01 level

Table 47 shows the results of Repeated Measures ANOVA for stress in before, after and follow-up phases among nursing students and it clearly indicates significant differences. The results showed that when compared to before intervention scores, there was a significant reduction in the level of stress and sustained in the after and follow-up phases. The results reveals that Cognitive Behaviour Therapy had a significant impact in reducing the level of stress among nursing students.

The nursing students were exposed well to critically analyze over a stressful situation so that they develop the skill of eliminating the unwanted stressors which causes unwanted troubles. Learning this skill patterns helps the students to understand better about the existing problem and neglect the unwanted stressful events and plan a strategy for better outcomes.

Sharanavard, Esmaeili, Dastjerdi and Salehiniya (2018) done a study on the effectiveness of stress-management-based cognitive-behavioural treatments on stress management was highly effective whereas it also reduced other symptoms such as anxiety sensitivity.

Table 48

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in TotalStress

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Stress	Nursing Students	Before	After	78.52*	.000
			Follow-up	128.07*	.000
		After	Before	-78.52*	.000
			Follow-up	49.56*	.000
		Follow-up	Before	-128.07*	.000
			After	-49.56*	.000

*-Significant at 0.05 level

Table 48 shows the results of Post-hoc Analysis in the stress among nursing students. Based on the significant reduction in the level of stress, Bonferroni post-hoc analysis was carried out to identify which particular difference between pairs of means are significant. The mean difference of before and after phases was 78.52, before and follow-up was 128.07 which were statistically significant and after and follow-up was 49.56 which was statistically significant. The techniques such as relaxation therapy was found to be highly effective in reducing the level of stress among nursing students. The reverse counting method added credit in bringing back the normal psychological status of the nursing students. During heightened level of stress, the students were asked to blow a balloon and blast it, in order to let go the critical stressful situations.

Hence the Alternative Hypothesis 2, "There will be a significant difference in stress of nursing students during before, after and follow-up without control group through Cognitive Behaviour Therapy Interventions", is accepted.

Figure 33

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in \Stress



The result of the overall stress in the before, after, and follow-up phases of the participants is presented in figure 33. The graph indicates that after the intervention, the results of the students reduced noticeably. Also, the follow-up results showed the stress among nursing students was even more reduced even after the termination of Cognitive Behaviour Therapy programme.

SECTION VI

Achievement Motivation

The results of descriptive statistics, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis of nursing students in before, after and follow-up phases of Cognitive Behaviour Therapy intervention in Achievement Motivation.

Table 49

Level of Achievement Motivation among Nursing Students

N=150

Achievement Motivation	Frequency	Percentage
Above Average	9	6
Average	64	43
Below Average	48	32
Low	23	15
Very Low	6	4

This table 49 shows the level of achievement motivation among nursing students. Achievement motivation is one of the basic components that every human inherited by nature. Motivation is a common phenomenon that every individual driven towards success of their life. Here among nursing students who have recorded in the categories of below average, low and very low level of achievement motivation were taken into the study and they were exposed to cognitive behaviour therapy and the same set of students were reassessed using the same set of psychological tools and reassessed. However, the students who have scored 43% which is average, 6% above average were not taken into the study.

Figure 34

Level of Achievement Motivation among Nursing Students

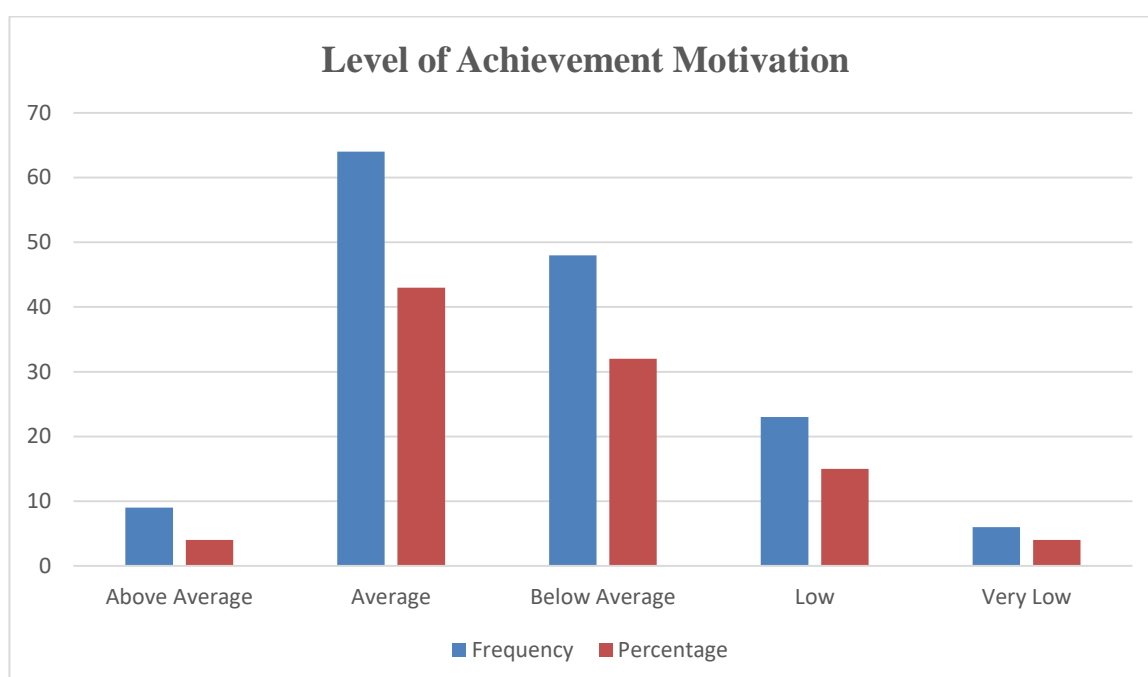


Table 50

Descriptive Statistics of Nursing Students during Before, After, and Follow-up phases of Cognitive Behavioural Therapy in Achievement Motivation

Variable	Groups	Phases	Mean	SD	N
Achievement	Nursing	Before	15.73	2.52	52
		After	21.85	1.38	52
		Follow-up	24.69	1.45	52
Motivation	Students				

Table 50 explains the descriptive statistics on achievement motivation of nursing students in before, after and follow-up phases. The mean score for achievement motivation before Cognitive Behaviour Therapy was 15.73, and it reduced to 21.85 after Cognitive Behaviour Therapy program and sustained to 24.69 in the follow-up phase. This shows that the students who have undergone the Cognitive Behaviour Therapy found to be effective and useful in enhancing achievement motivation among nursing students.

The techniques such as time management, feelings of failures, help was taught which acted as a base in understanding the basic cause and reasons behind failures. These techniques also help in strategy planning, few behavioural strategies in order to improve for better performances were taught to them. The technique feelings of failure was taught to them to experience the negative feelings attained despite the efforts made. These negative feelings help the students to gain knowledge and acquire more skills to show their talent in achieving their desired goals. Cognitive Behaviour Therapy along with self-determination helps to improve the achievement motivation of students especially the sophomores (Singh, James, Paul and Bolar, 2022).

Table 51

Repeated Measures ANOVA during Before, After, and Follow-up phases of Cognitive Behaviour Therapy on Nursing Students in Achievement Motivation.

N=52

Phases	Sum of Squares	Df	Mean Square	F
Sphericity Assumed	2180.66	2	1090.33	587.39**
Greenhouse-Geisser	2180.66	1.52	1431.19	587.39**
Huynh-Feldt	2180.66	1.56	1397.00	587.39**
Lower-bound	2180.66	1.00	2180.66	587.39**

** - Significant at 0.01 level

Table 51 demonstrates the results of Repeated Measures ANOVA for achievement motivation aggression in before, after and follow-up among nursing students and it clearly indicates the significant differences. The results showed that when compared to before Cognitive Behaviour Therapy program scores, there was a significant reduction in the level of achievement motivation was observed in after and follow-up phases of Cognitive Behaviour Therapy program.

The techniques such as achievement imagery, understanding the need of achievement, hope for success, success feelings, all these techniques involve for better shaping of the need for achievement motivation among nursing students. This method was very useful in shaping up their goal and leading a clear path to reach the goal. A study done by Murad (2021) states that Cognitive Behaviour Therapy helped to improve achievement motivation among university students. It includes the aspects such as problem-solving skills, time management acts as a catalyst in summing up the greater level of achievement motivation among students.

Table 52

Bonferroni Post-hoc analysis of before, after, and follow-up phases of Cognitive Behaviour Therapy among nursing students in Achievement Motivation.

N=52

Measure	Group	Phases	Phases	Mean Difference	Sig.
Achievement Motivation	Nursing Students	Before	After	-6.11 [*]	.000
			Follow-up	-8.96 [*]	.000
		After	Before	6.11 [*]	.000
			Follow-up	-2.84 [*]	.000
		Follow-up	Before	8.96 [*]	.000
			After	2.84 [*]	.000

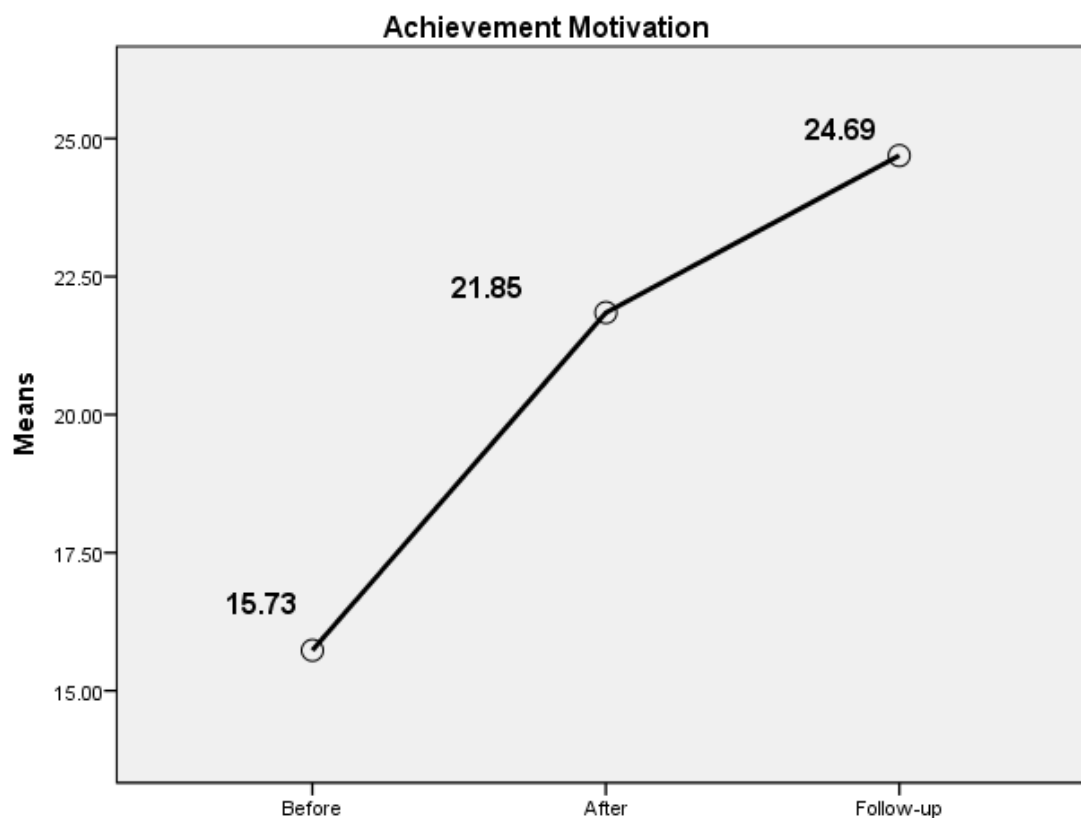
*-Significant at 0.05 level

Table 52 depicts the result of Post-hoc Analysis in achievement motivation of nursing students. Bonferroni post-hoc analysis was carried out to identify which particular differences between the pairs of the means are significant. The mean difference of before and after Cognitive Behaviour Therapy program was -6.11, before and follow-up phase was -8.96 which were statistically significant and after the program and follow-up score was 6.11 which was statistically significant. Henceforth, the overall achievement motivation of the students has been improved rapidly thus the techniques such as SWOT analysis, knowing the strength and weaknesses provided them a lot of information about their own abilities. The techniques of introspection was taught to them, thus the nursing students took this particular technique in a serious notion and done very critical self-evaluation. Therefore, CBT was way more effective in dealing with achievement motivation among nursing students.

Hence the Alternative Hypothesis 3, "There will be a significant enhancement in achievement motivation among nursing students during before, after and follow-up without control group through Cognitive Behaviour Therapy Interventions", is accepted.

Figure 35

Nursing Students during before, after and follow-up phases of Cognitive Behaviour Therapy in Achievement Motivation



The result of the overall achievement motivation in the before, after, and follow-up phases of the participants is presented in figure 35. The graph indicates that after the intervention, the results of the students improved noticeably both external and psychological aspects. The follow-up results showed the need for achievement motivation was even more sustained and increased comparatively even after the intervention training programme was once stopped. Students' follow-up result shows that they know they have needed skills to stay focused in achieving their aim and goal.

Chapter V

Summary and Conclusion

The present study intended to explore the extent to which Cognitive Behaviour Therapy programme that can help the nursing students to manage their test anxiety, stress and enhance achievement motivation. Cognitive Behaviour Therapy played a major in dealing with the aspects of understanding the concepts involves in test anxiety and various methods to cope up using few techniques learnt through Cognitive Behaviour Therapy programme. It helps the nursing students understands the major causes of stress triggering events and its consequences over various situations such as academic stress, stress caused by family, environmental stress, hospital duty shift stress, patient handling stress, financial stress, and so on. Among various events and contributing factors, the nursing students were also taught with an important factor called achievement motivation. This module helped them to set a clear goal and take a step ahead with a clear goal setting and aim.

Objectives

- To assess Stress, Test Anxiety and Achievement Motivation among Nursing Students
- To find out the efficacy of Cognitive Behaviour Therapy in reducing test anxiety and stress enhancing achievement motivation among nursing students.

Hypotheses

The following are the hypotheses have been framed to fulfill the above stated objectives

1. There will be a significant reduction in test anxiety among nursing students in before, after and follow-up without control group through Cognitive Behaviour Therapy.
2. There will be a significant reduction in stress among nursing students in before, after and follow-up without control group through Cognitive Behaviour Therapy. There will be a significant reduction in Financial Stress, Family Stress, Social stress, Education Stress, Ego Threat, Bereavement, Separation Stress, Personal Setback, Health Of Others among nursing students in before, after and follow-up without control group through Cognitive Behaviour Therapy.

3. There will be a significant improvement in Achievement Motivation among nursing students in before, after and follow-up through Cognitive Behaviour Therapy
4. Cognitive Behaviour Therapy will reduce Test Anxiety, Stress and Enhance Achievement Motivation among Nursing Students.

Research Design

The present study adopted the research design as Before, After and Follow-up without control group research design (Kothari, 2020). The nursing students were assessed before the program by using respective tools and those scored high in test anxiety and stress, and those score low in achievement motivation were screened. Cognitive Behaviour Therapy was administered for the selected nursing students. Fifteen sessions were taken whereas effectiveness of Cognitive Behaviour Therapy was assessed on three intervals i.e., before, after and follow-up. Informed consent from developed by the researcher, providing a brief description of the purpose and procedure of the research, obtaining their consent to take part in the research and also explaining their rights to withdraw from the research if they are willing to. The scale was developed by Sharma(2000). It includes 25 statements each having 5 response opinions ranging from minimum to maximum test anxiety. The Student Stress Scale has developed by Manju Agarwal (2012). It includes 64 questions to be answered to only if the participants has experienced stressful situations in the past year. Achievement motivation scale was constructed by Bhargava (2009). The test comprises of 50 unfinished sentences or items that must be completed by the students by checking one of the three options provided next to each item.

Procedure

From Baby Nurse Memorial College, Kozhikode, Kerala, initially 150 nursing students were screened, and the purpose of the research study was explained to them. The adolescent boys who showed willingness to take part in the research. The psychological tools were administered for 150 nursing students. Out of 150 nursing students, 52 of them scored high in test anxiety, stress and those students who scored less in achievement motivation were selected for the intervention and showed willingness to participate in the research. They were asked to read the consent form carefully to obtain their permission for taking part in the research. All 52 nursing students reported regularly and actively participated throughout the intervention programme for all session of before, after and follow-up phases of the study. A month later follow-up was done.

Phase I – Nursing students from Baby Memorial College of Nursing was covered for screening and administered. The following questionnaires, namely demographic data, test anxiety (1971), student stress scale (2012), and achievement motivation (1994). Were used before administering the Cognitive Behaviour Therapy to the nursing students.

Phase II – Cognitive Behaviour Therapy interventions were administered to the nursing students who have scored high in test anxiety, stress and low in achievement motivation

Phase III – after completing the Cognitive Behaviour Therapy programme, the questionnaires used for the before assessment were re-assessed.

Phase IV – The follow-up assessment was done after one month from the period of after assessment.

Cognitive Behaviour Therapy

Based on a review of previous research and the efficacy of therapeutic programmes based on Cognitive Behaviour Therapy to bring about change, the idea of applying Cognitive Behaviour Therapy in the selected nursing students was selected. Cognitive Behaviour Therapy includes identifying negative thought, cognitive distortions, relaxation therapy, reverse counting, emotion regulation, SWOT analysis, coping skills, auto suggestions, thought stopping exercises were administered by the researcher.

Statistical Analysis

The data collected was tabulated and analysed using SPSS – 22.0. Mean, Standard Deviation was computed. To test the efficacy of cognitive behaviour therapy, Repeated Measures ANOVA and Bonferroni Post-hoc Analysis was used.

Findings

The results of the study showed that the intervention to the nursing students was found effective. Cognitive behaviour therapy (CBT) can help the students to manage their test anxiety, stress and would enhance their achievement motivation by changing the thought processes and behaviour..

Conclusions

- Cognitive Behaviour Therapy intervention programme was found to be effective in reducing Test Anxiety and helped to score good marks in their academics.
- Cognitive Behaviour Therapy was effective in reducing level of stress. It would be helpful in the academic aspects of nursing students and also in their personal life.
- Cognitive Behaviour Therapy intervention programme was found to be effective in enhancing the level of Achievement Motivation.

Implications

Helpful in understanding the theoretical aspects of Test Anxiety, Stress and Achievement Motivation among Nursing Students.

- The results and intervention could help the college administration to gain insight About the problems of the college students and they will be able to bring a positive

Change in their life.

- The changed behavioural pattern will be very helpful for the significant others of the college students like parents, teacher, institutions and community as a whole.
- Findings of the present research can help various bodies of the society and for the Government in understanding about the seriousness of this problem and to take Necessary steps like imparting psycho education for college students and significant others to address these issues.
- The findings can also be very helpful in other aspects like creating individual level awareness among college students, taking care of psychological health of the young students of our country, changing policies and providing support and care for the students who are in need and can give insights for the future researchers in addressing other problematic aspects of the youth of our Nation and so on.

Recommendations

- The nursing colleges should hold training programmes and deliver lectures for the nursing students on coping with psychological problems.
- Provide Counselling services for the students with the trained counsellors.
- Organize workshops to help students improve study habits and time management techniques.
- Maintaining a list of External mental health professionals that students can access if they need any psychological support.

Limitations

- The area of the present research was restricted to a limited geographical location and hence generalizing the results would be done with care.
- Due to practical difficulties, control group could not be included and hence, the role of confounding variables might be present in the obtained results of the study.
- Owing to the time constraints parental and family counselling could not be exercised.

Suggestions for Further Research

- Future studies can include waitlist control group to find out the precise impact of the intervention.
- Conducting a longitudinal study will be more helpful to establish correct sequence of research and to identify changes over time.
- Qualitative or mixed experimental designs could be used to understand about the problems of nursing students.

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Appendix – 1

Ethical Clearance Certificate

Institutional Ethics Committee

(No. ECR/524/BMH/Inst/Ker/2013 RR-19 dated 26.09.2019 of the Drugs Controller General of India)

Baby Memorial Hospital Ltd.

KERALA'S FINEST MULTI DISCIPLINARY SUPER-SPECIALITY HOSPITAL

(NABH & NABL Accredited, ISO 9001: 2015 & ISO 14001: 2015 Certified Hospital)

Kozhikode - 673 004, Kerala, India

Phone: +91 495 2777777, 2723272, Fax: +91 495 2723484

Email: info@babymhospital.org Website: www.babymhospital.org



Chairman: **Prof.(Dr) Padmaja Krishnan MS**

Member Secretary: **Dr. Mohan Leslie Noone MD,DM**

No: BMH/Aca/IEC/05/2020

20.02.2020

To

Mrs. Lethika

Guest Faculty

Baby Memorial College of Nursing

Kozhikode. (Through Principal, BMCON)

Madam,

Sub:- Approval of PhD Research Proposal by the Institutional Ethics Committee

Ref:- Title - Efficacy of Cognitive Behaviour Therapy in Managing Test Anxiety, Stress and in Enhancing Achievement Motivation among NURSING STUDENTS.

Referring to your project, you are informed that the Institutional Ethics Committee of Baby Memorial Hospital, Calicut which met on 29th January 2020 has gone into the proposal and hereby accord sanction to proceed with the study on the topic "Efficacy of Cognitive Behaviour Therapy in Managing Test Anxiety, Stress and in Enhancing Achievement Motivation among NURSING STUDENTS"

The following members were present in the meeting.

1. Prof (Dr) Padmaja Krishnan, Chairperson
2. Adv. Shibu George, Legal Representative
3. Dr Mohan Leslie Noone, Member Secretary
4. Prof (Dr) Anuradha. M, Basic Medical Scientist
5. Prof (Dr) Rabiya, MD, Lady Representative
6. Rev Saju B John, Religious Leader
7. Prof K Venugopalan, Lay Person
8. Smt Samitha Varma, Lay Person
9. Prof (Dr) Jayakrishan Thavody, Clinician

The Institutional Ethics Committee of Baby Memorial Hospital is registered with Drugs Controller General of India as per Order No. ECR/524/BMH/Inst/Ker/2013-RR19 dated 26th September 2019.


Dr. Mohan Leslie Noone
Member Secretary.



INSTITUTIONAL HUMAN ETHICS COMMITTEE



Avinashilingam

Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3
of UGC Act 1956) Re-accredited with 'A+' Grade by NAAC.
Recognised by UGC Under Section 12 B
Coimbatore-641 043, Tamil Nadu, India

Chairman

Dr. S. Ramalingam
Principal, PSG Institute
of Medical Sciences
& Research, Coimbatore

Member Secretary

Dr.S.Uma Mageshwari
Professor & Head
Department of Food Service
Management & Dietetics

Members

Mr. K.Arulmoli (Legal Expert)
Dr.Subhashini K. Sripathi
Dr.A. Saraswathy
Ms.D.Kavitha
Dr.S. Muthulakshmi
Dr.G.Victoria Naomi
Dr. Judith Justin
Dr. Anitha Subash

20th January 2020

To
Ms. Lethika. K
Department of Psychology
Avinashilingam Institute for Home Science and
Higher Education for Women
Coimbatore – 641 043

Dear Lethika. K,

Ref: Your proposal No. IHEC /19-20/PSY /29 entitled
“Efficacy of Cognitive Behaviour Therapy in Managing Test
Anxiety, Stress, Enhancing Advancement Motivation among
Paramedical Sophomores” submitted for approval to the IHEC on
30.10.2019.

The Institutional Human Ethics Committee of our University hereby
grants approval to your research proposal No. IHEC /19-20/PSY /29
entitled “Efficacy of Cognitive Behaviour Therapy in Managing Test
Anxiety, Stress, Enhancing Advancement Motivation among
Paramedical Sophomores” submitted by you. The Approval number
for the same is AUW/ IHEC/PSY-19-20/XPD /29.

We wish you all the best in your research endeavours.

Regards,

S. Uma Mageshwari
Dr.S.Uma Mageshwari
Member Secretary



Appendix – 2

Details of Research Publications



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD
 Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category 1 by UGC
 Coimbatore - 641 043, Tamil Nadu, India

Appendix L2

(Item No 5 of
 Check List) Details of Research
 Publications

S.No	Article	Journal	Other Details Vol/No/Page No/ Year	Published in UGC- CARE / Scopus Indexed/ Web of Science
1	Psychological influence of Achievement motivation and family Environment on Stress coping Skills of Nursing Students ^a	Journal FOR Research Therapy and Developmental Diversities	Vol. 6 No. 5 2023 May 944-951	Scopus
2	Relationship between Stress and Test Anxiety among Nursing Students	Journal of the Indian Academy of Applied Psychology	Given acceptance Volume: 49 Number: 2 July, 2023	UGC - CARE

^aProof of list of Journals from Internet to be attached along with copies of reprints.

Scholar : Lethika. K
 Supervisor : N.V. Anudhe AS

Checked By: *S. Geetha Lakshmi*
 25/7/23
 HoD/Dean of respective School

4

The research scholar Mrs. Lettika, K (ISPHICPP03) has published/got acceptance from the following journals:

1. The paper published in "Journal of ReAttach Therapy and Developmental Diversities" - in Vol. 6, No. 55, May 2023. This title is indexed ^{and active} in Scopus from 2020 to present and
2. She got acceptance from "Journal of the Indian Academy of Applied Psychology" - is indexed and active in UGC Care Gr I from January 2023 to present.

J. J. Billi
24.07.23

Psychological Influence of Achievement Motivation and Family Environment on Stress Coping Skills of Nursing Students

Lethika. K^{1*}, Dr. AmudhaDevi.N.V²

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Received: 06- March -2023

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Abstract

Coping techniques cover a broad spectrum of responses and adjustments made in the face of stress, and they can play a significant role in shaping a child's or adolescent's future. In the current study, we looked at how nursing students' ability to cope with stress was influenced by their motivation for success and their familial environment. The cross sectional survey approach was used to collect data for the current study, which was descriptive in nature. The participants consisted of 209 first and third-year nursing students from government and private colleges in Kozhikode, Kerala, India. Stratified random sampling technique was used to select participants for this current study. In this present study, three standardized instrument were used to measure coping skills inventory by Shrink and Jerabek (1996), family environment scale by Chadha (2000), and Achievement motivation scale by Beena Shah (1986). Data analysis done by using mean, standard deviation, correlation structural equation modeling, Research findings reveals all the dimensions of coping skills were positively correlated with all the dimensions of achievement motivation. A positive relationship between the family environment and coping skills is reasonable. Students differed significantly in their coping skills based on their year of study, nature of college, area of living, and parents' education. Final-year students had a higher level of coping skills compared to first-year students. This might be because final-year students have attained a certain level of independence and have perfected their coping mechanisms to deal with stressful situations, as opposed to first-year students who are still adjusting to college life and yet to face challenges. All the magnitudes of the family environment had a significant positive influence on coping skills. Students who express their thoughts to their parents and maintain healthy relationships may have better-coping skills. Furthermore, dimensions of achievement motivation such as academic success, vocational achievement, and social achievement had a significant positive influence on coping. The results of the structural equation modelling demonstrate that academic success and achievement motivation play a larger influence in predicting coping abilities than does the cohesiveness of the family environment.

Keywords: *Coping skills, family environment, Achievement motivation, nursing students and correlation.*

Introduction

Coping is a behavioural and psychological response that seeks to mitigate the physical, emotional, and psychological strain associated with stressful life occurrences and daily challenges. According to this definition, coping strategies refer to the responses that are efficacious in mitigating the psychological distress (Snyder, 1999). Coping is the continuing behavioural, psychological, cognitive, and emotional process of stress management. The adverse impacts on people's lives might be biological, psychological, and social. Numerous components both intrinsic (such as personality traits) and extrinsic (such as environmental conditions) are necessary for effective coping (e.g., a supportive social network for the individual). The goal of coping strategies can be to avoid, reduce or eliminate or they can make the person feel better about themselves or the situation in general since stress exposure cannot be prevented effective coping skills are essential for preserving wellbeing (Blum, & Silver, 2012). The various subtypes of coping strategies include problem-solving,

information seeking, cognitive restructuring, emotional expression or ventilation, distraction, distancing, avoidance, wishful thinking, acceptance, seeking social support, and denial (Dubow & Rubinlicht, 2011). Shah et al (2020) this investigation analysed the influence of stress and coping mechanisms on the drive for academic success among college-level learners. The findings of the study indicate a noteworthy association between the stress experienced by students and their motivation to achieve. Additionally, the research highlights a positive correlation between coping strategies and achievement motivation.

Achievement motivation

Achievement motivation refers to processes that result in behaviour that tries to meet a specific standard or goal. The criterion can be any formal or informal aim or objectives established by a person or by others in any professional or recreational arena (such as school work, music gardening, social relationships, and moral behaviour). This served as the benchmark for assessing success and failure. Achievement motivation has been a key area of study in psychology since meeting standards is a fundamental human task (Kaplan, 2008). The most influential motivational theories for performance are from the middle of the 20th century. Among these thinkers, David Mc Clelland, John Atkinson, and their associates received the most attention from these researchers; achieving success was motivated by a dispositional drive to do well following predetermined standards of perfection. The researchers identified a motivation known as the "need for achievement," which is believed to originate in early childhood and is influenced by parental child-rearing practises. Specifically, parents who encourage and reward their children's independence, either through tangible means or through emotional support, are thought to foster the development of this motive.

Family Environment

The family is a significant social entity that requires individuals who share close and frequent interpersonal interactions, along with shared expectations regarding group member behaviour, to have enduring and extensive influence on one another. These family members of a primary group have a tremendous amount of power over that group and one another. The second component of the family definition pertains to the notion of obligation, which encompasses shared commitment and responsibility towards other members within the family system. The 3rd aspect of the definition encompasses the notion of shared dwellings where individuals who are related to each other reside together to a certain degree (astrow & Ashman, 2020). Studies suggest that poor home environments, such as those marked by high levels of conflict or low levels of emotional support are linked to stress reactions that are out of control in children and adolescents. In contrast, children and teenagers in homes with increased levels of emotional support or low levels of conflict seem to be protected from developing stress regulatory problems (Rachel, Thompson, Goldberg, 2011). There are hardly any studies exploring achievement motivation and family environment and stress coping skills among nursing students. Given these findings, the present study explores the correlation between achievement motivation and family environment on stress coping skills among nursing students. Studies in nursing students have found that coping skills and achievement motivation are the best predictors of overall coping skills.

Methods

Sample

This research used a quantitative method, correlation study. Participants were selected from nursing colleges in the government and private sectors in Kozhikode, Kerala state, India. Sample from the population was selected by using stratified random sampling technique. The total sample included 209 nursing students who participated in the survey; all first-year and third-year students are invited to participate in the survey. The needs of the study were fully introduced and consent was obtained before data collection.

TOOLS

Sociodemographic data sheet

A sociodemographic data sheet was developed for the research to collect numerous sociodemographic information such as year of passing, nature of college, area of living, community, parent's education, and family income.

Coping skills inventory

The coping skills inventory by Shrink and Jerabel (1996) was used in the present study. The inventory comprises a total of 45 statements that are categorised into 5 response options, namely almost, rarely, sometimes, quite often, and most of the time. The inventory comprises 45 distinct items that are categorised into seven distinct dimensions, namely responsiveness to stress, resourcefulness, ability to relax, self-reliance, proactive attitude, adaptability, flexibility, and ability to assess the situation. The inventory in question exhibited a split-half reliability coefficient of 0.82 and a test-retest reliability coefficient of 0.74. These values reveal that this inventory was highly reliable.

Family Environment

The study utilised Chadha's (2001) family environment scale. The inventory comprises of 69 statements that are categorised into three subscales, namely connection dimension, growing personally dimension, and system maintenance dimension. The dimension of relationship encompasses four distinct subscales, namely cohesion, expressiveness, conflict, acceptance, and caring. The personal growth measurement comprises two subscales, namely independence and active-recreational orientation. The dimension of system maintenance encompasses the aspects of organisation and control. The Family Environment Scale exhibits a split-half reliability coefficient of 0.873 and a test-retest reliability coefficient of 0.819. The tool's validity coefficient is 0.826. The obtained values indicate that Chadha's family environment scale exhibits a high degree of reliability and validity.

Achievement Motivation

The achievement motivation scale Beena Shah (1986) was used in this study. This test was a self-report questionnaire consisting of 40 items that were split to measure four achievement dimensions viz, academic success, vocational achievement, social achievement, and skill achievement. This tool possesses both split-half and test-retest reliability. The split-half reliability of this was 0.796 and the test-retest coefficient is 0.714. These values suggest that the test was highly reliable.

RESULTS AND DISCUSSION

From table 1, The research observed a positive correlation between various coping skill dimensions, including reactivity to stress, resourcefulness, proactive attitude, and ability to assess situations, and all dimensions of "achievement motivation", namely academic success, vocational achievement, social achievement, and skill achievement. The quality of resourcefulness is beneficial in optimising the utilisation of environmental resources (Ahmad, 2013). A proactive stance is characterised by a forward-looking approach that enables an individual to cultivate an enhanced outlook regarding the unpredictability of forthcoming events (Ahmad, 2013). A proactive stance is characterised by a forward-looking approach that enables an individual to cultivate an enhanced outlook regarding the unpredictability of forthcoming events (Goff, 2011) which would lead to academic success, and vocational, social, and skill achievements. A relevant study was done by Huang and Guo (2009) who reported that students with higher resourcefulness and proactive attitude were more likely to develop planning and problem-solving skills to achieve in their academics. It was also noticed from table 1 that ability to relax dimension of coping skills was positively correlated with social achievement of achievement motivation. Self-reliance was positively correlated with academic success and social achievement. Adaptability & and flexibility of coping skills had a significant positive correlation with academic success, vocational success, and social achievement.

Table 1: Correlation between achievement motivation and coping skills

Dimensions of coping skills/ Dimensions of achievement motivation	Reactivity to stress	Resourcefulness	Ability to relax	Self-reliance	Proactive attitude	Adaptability and flexibility	Ability to assess the situation
Academic Success	0.371**	0.344**	0.133	0.155*	0.387**	0.401**	0.326**
Vocational Achievement	0.215**	0.189**	0.102	-0.090	0.204**	0.236**	0.185**
Social Achievement	0.320**	0.325**	0.223**	0.179**	0.320**	0.331**	0.252**
Skill Achievement	0.163*	0.237**	0.007	0.044	0.174*	0.098	0.167*
Total	0.144*	0.143*	-0.084	-0.122	0.143*	0.136*	0.136*

Note: *p < 0.05; **p < 0.01.

From table 2, it is noted that reactivity to the stress of coping skills had a significant positive relationship with various dimensions of the family atmosphere such as cohesion, expressiveness, conflict, acceptance & caring, independence, active recreational orientation, organization, and control. The resourcefulness of coping skills had a significant positive relationship with cohesion, expressiveness, conflict, and acceptance & caring. Self-reliance was positively correlated with cohesion, expressiveness, active recreational orientation, and organization. Adaptability & flexibility was positively correlated with expressiveness and conflict. A relatively high degree of cohesion, expressiveness, and organization in the family may be associated with a variety of practices in the home that directly enhance the coping skills of the individuals, such as having a proactive attitude towards the future and the ability to assess the situation in a good manner (DuBois, 1994). Organization in the family also may help students to be self-reliant. Hence, the positive relationship between family environment and coping skills is reasonable.

Table 2: Correlation between family environment and coping skills

Dimensions of coping skills/ Dimensions of family environment	Reactivity to stress	Resourcefulness	Ability to relax	Self-reliance	Proactive attitude	Adaptability and flexibility	Ability to assess the situation
Cohesion	0.270**	0.198**	0.023	0.171*	0.163*	-0.015	-0.032
Expressiveness	0.304**	0.211**	0.108	0.165*	0.207**	0.148*	0.058
Conflict	0.269**	0.193**	0.149*	0.083	0.129	0.141*	0.076
Acceptance and Caring	0.271**	0.211**	0.081	0.071	0.200**	0.074	0.065
Independence	0.241**	0.088	-0.002	0.064	0.046	0.015	0.039
Active Recreational Orientation	0.189**	0.117	0.008	0.155*	0.092	0.047	-0.012
Organization	0.310**	0.136	0.119	0.162*	0.143*	0.092	0.030
Control	0.214**	0.077	0.069	0.056	0.176*	0.036	0.053

Note: *p < 0.05; **p < 0.01.

From table 3, it is clear that students differed significantly in their coping skills based on their year of study, nature of college, area of living, and parents' education. Final-year students had a higher level of coping skills equated to first-year students. This might be because final-year students have attained a certain level of independence and have honed their coping mechanisms to deal with stressful situations, as opposed to first-year students who are still adjusting to college life and yet to face challenges. Students from private colleges had shown a higher ability to cope with stress compared to students from government colleges. Because private colleges prepare their students for professional admission exams in an extremely competitive environment, it was anticipated that these students would have better stress coping mechanisms than those from government colleges (Augustine et al., 2011). Students differed meaningfully in their coping skills based on their area of living whereas students from urban had advanced level of coping skills. Students who reside in urban may have better infrastructure and enhanced lab facilities in their colleges. They may also have greater exposure to the real world which would develop their coping skills compared to students in rural areas. The educational backgrounds of the student's parents also made a significant difference. When compared to students whose parents had only completed high school education, those whose parents had graduated showed better coping skills. According to (Mohamed Firose, 2020), parents who have received a formal education tend to exhibit a heightened level of interest in their children's academic, career-oriented, and leisure pursuits. Parents assist their offspring by offering appropriate prospects, exposure, and prompt evaluation. According to (Mohamed Firose, 2020), parents who exhibit greater interest and positive attitudes towards their children's development may facilitate the enhancement of their children's coping abilities.

Table 3: Difference in coping skills based on demographic categories

Variables	Category	N=209	M	SD	t-value
Year of Study	First-year	74	111.88	17.39	3.15*
	Final year	134	120.36	19.27	
Nature of College	Private	103	126.65	14.40	7.99*
	Government	103	108.25	18.62	
Area of living	Rural	89	107.19	14.52	7.16*
	Urban	120	124.83	18.51	
Community	OC/BC/MBC	167	117.91	18.92	0.88 ^{NS}
	SC/ST	42	114.95	19.48	
Parents education	Upto 12 th	115	107.06	12.45	10.78*
	Graduated	93	130.04	18.18	
Family income	Below 25000	92	117.10	18.96	0.19 ^{NS}
	Above 25000	116	117.62	19.18	

Note: *p<0.05; NS=Non-Significant N=Number of participants; M=Mean; SD=Standard Deviation

Table 4 presents the influence of family environment and achievement motivation on coping skills. Expressiveness and organization dimensions of the family environment had a significant positive influence on coping skills. Students who express their thoughts to their parents and maintain healthy relationships may have better-coping skills. In addition, the various dimensions of achievement motivation, namely “academic success”, “vocational achievement”, and “social achievement”, were found to have a noteworthy positive impact on an individual's coping skills. Students who equip better with their academics tend to have better-coping skills. Moreover, students' coping skills were significantly predicted by their vocational, social, and skill achievements. Students who find success in their careers in the areas of occupation and social life will have better-coping skills. Therefore, it makes sense that academic success, vocational achievement, social achievement, and skill achievement have a favorable impact on coping skills. It is also noticed from the table that 54% of coping skills were predicted by expressiveness, organization, academic success, vocational achievement, and social achievement.

Table 4: Influence of family environment and achievement motivation on coping skills

Independent Variables	Un-standardized coefficient		Beta	't' value (Sig. at 0.05 level)	Model Summary
	B	Std. Error			
Expressiveness	0.599	0.235	0.180	2.544	F=18.176 R=0.740 R ² =0.548
Organization	1.204	0.573	0.128	2.101	
Academic Success	1.515	0.288	0.320	5.263	
Vocational Success	2.494	0.438	0.391	5.692	
Social Achievement	1.858	0.313	0.362	5.931	
Skill Achievement	2.277	0.396	0.377	5.756	

Table 5: Model fit summary and structural models comparison (N=209)

The study employed Structural Equation Modelling (SEM) to assess the adequacy of the model fit for coping skills as the dependent variable, while integrating the chosen predictor variables. The model incorporated family environment and achievement motivation as exogenous variables. To make the model more expressive and to improve the overall fit of the model, we trimmed the model by removing factors with non-significant and feeble coefficients from the model (Hooper et al., 2008). As such, we removed one factor from the family environment (conflict) and one from achievement motivation (skill achievement).

Indices	Obtained Values	Suggested values	References
Chi-Square	1.32	<5	Kline, 2005
GFI	0.92	>0.90	Hair et al.2006
AGFI	0.90	>0.90	Daire et al.2008
CFI	0.97	>0.90	Hu and Bentler.1999
SRMR	0.06	<0.08	Hu and Bentler.1999
RMSEA	0.03	<0.08	Hair et al.2006

Structural Equation Modeling Diagram

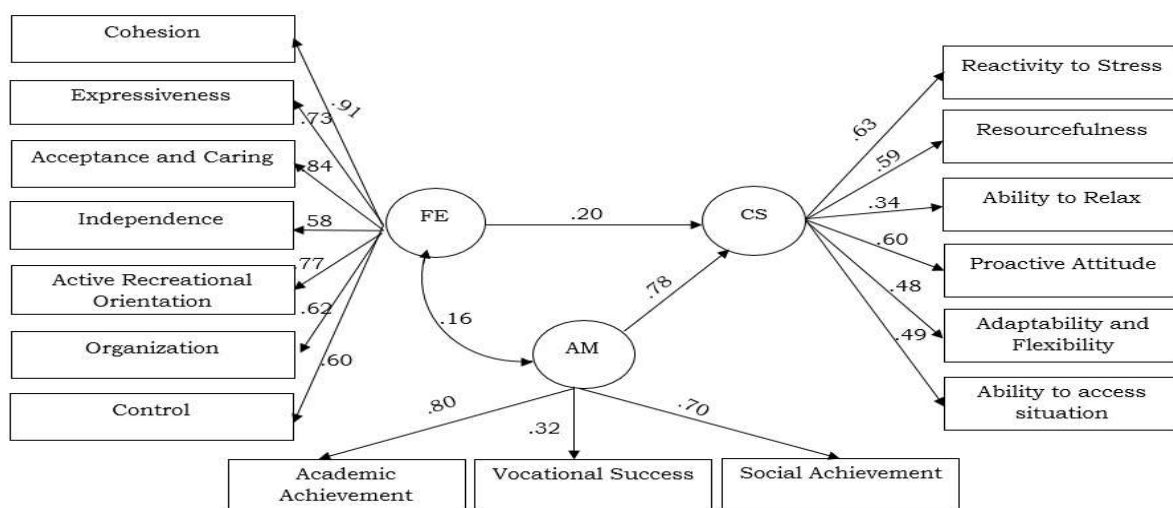


Figure 1: Summary of standardized path coefficient for the hypothesized code with full sample (209).

The path diagram has been utilised to illustrate the conventional solution of the Structural Equation Model (SEM). The competence of the model fit was evaluated based on the analysis of fit indicators. The results indicate that all indicators yielded satisfactory values, with a Comparative Fit Index (CFI) of 0.97, a Goodness of Fit Index (GFI) of 0.92, an “Adjusted Goodness of Fit Index (AGFI)” of 0.90, a “Root Mean Square Error of Approximation (RMSEA)” of 0.03, and a Standardised Root Mean Square Residual (SRMR) of 0.06. The present study presents a model that elucidates the outcomes of correlation and regression analyses, which demonstrate a significant structural and causal association among the variables. The model demonstrates that the relationship between the cohesiveness of the familial environment and academic achievement, as well as achievement motivation, is more influential in the prediction of coping skills.

Conclusion

Finally, a study has shown that family environment and academic achievement motivation play a significant role in determining coping skills among nursing students. Based on the aforementioned results, the researcher has suggested that nursing students who exhibit maladaptive stress coping mechanisms should receive training and encouragement to employ efficacious coping strategies. Academic institutions have the potential to arrange stress management programmes. The provision of guidance and counselling services is essential in addressing the academic needs of students and facilitating their effective attainment of academic goals.

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Relationship between Stress and Test Anxiety among Nursing Students

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One of the significant models on the topic of stress defined stress as a state of psychological and physiological imbalance caused by a discrepancy between situational demands and people's capacities and motivations to meet those demands. Nursing students become increasingly stressed during their education as they are exposed to several stressors. When stress is perceived as uncontrollable or unmanageable performance levels start to decline slowly to dramatically. This causes a decline in productivity and enthusiasm. It's momentous to find out the relationship between stress and test anxiety among nursing students. For this purpose, required data were randomly gathered from 208 nursing students taken from three different nursing colleges in Kozhikode District, Kerala, India. In this study, two standardized instruments were used student stress scale developed by Manju Agrawal (2012) and the test anxiety scale developed by Sharma, V. P. (2000). Data were analyzed by applying mean, standard deviation-test, correlation, and regression. Research findings reveal a significant correlation between stress and test anxiety. Stress related to familial, social, educational, ego threat, bereavement, and personal setbacks were found to be strongly associated with test anxiety. Furthermore, total stress was found to be positively related to test anxiety. Financial stress, separation, and the health of others had no significant association with test anxiety. It is suggested that higher authorities of an educational institution may organize regular stress management workshops, guidance, and counseling service to meet students' needs, help them to manage stress, and to reduce test anxiety among nursing students.

Keywords: Stress, Test anxiety, Correlation, Education, Nursing students.

Nursing students have significantly more stress, anxiety, sleep disturbances, and stress-related illnesses than the general student body (Bartlett et al., 2016; May et al;2021). Nursing is, by meaning, a stressful profession, partly owing to the specialized nature of the activity of those under their care (Augusto & Lopez-Zafra, 2010; José M. Augusto Landa et al.2011). We can conclude from the 12 reviewed studies that the most stressful factors for student nurses are certainly related to the world of academia. This finding is highlighted in six studies (Jones & Johnston, 1997, 2006; Lindop, 1999; Prijmachuk & Richards, 2007; Thyer & Bazeley, 1993; Timmins & Kalinszer, 2002). In four studies, clinical practice-related factors were identified as the most stressful among students (Chan, So, & Fong, 2009; Lindop, 1991; Sheu, Lin, & Hwang, 2002; Zupiria et al., 2007). Finally, two studies find the same significance for both stressors

(academic and clinical) (Evans & Kelly, 2004; Seyedfatemi, Tafreshi & Hagani, 2007)

Test anxiety can be defined as the subjective experience of acute physiological, cognitive, and/or behavioural anxiety symptoms before or during test-taking situations that disturb test performance (Miller,2011). Test anxiety has always been a common occurrence among college students. Extreme anxiety and stress, on the other hand, can have negative consequences before and during an exam. Test anxiety is a set of physical and emotional symptoms that impair one's capacity to perform well enough on tests. Many students experience varying degrees of test anxiety for a variety of reasons (learning center, university of north caroline at chapel hill, 2011)

Theories of Stress

Theories focusing on the specific relationship

between external demands (stressors) and bodily processes (stress) can be divided into two categories: approaches to systemic stress' based on physiology and psychobiology (among others, Selye 1976) and approaches to 'chronic stress' based on psychology. The term "psychological stress" originated in the cognitive psychology field (Lazarus 1966, 1991, Lazarus and Folkman 1984, McGrath 1982).

Systemic Stress: Selye's Theory

The prominence of the stress concept in scientific research and the media is largely due to the work of endocrinologist Hans Selye. According to Selye (1976, p. 64), stress is "a state manifested by a syndrome that consists of all the nonspecifically induced changes in a biological system. This stereotypical response pattern is referred to as the 'General Adaptation Syndrome' (GAS). (a) The alarm reaction consists of an initial shock phase followed by a countershock phase. Autonomic excitability increased adrenaline discharge, and gastrointestinal ulcerations are all symptoms of the shock phase. The counter-shock phase is characterized by increased adrenocortical activity and marks the start of defensive processes. b) If the noxious stimulation continues, the organism enters the resistance stage. The symptoms of the alarm reaction disappear at this stage, which appears to indicate the organism's adaptation to the stressor. However, as resistance to noxious stimulation increases, resistance to other types of stressors decreases. (c) If the aversive stimulation continues, resistance gives way to exhaustion. The organism's ability to adapt to the stressor has been depleted; the symptoms of the stage (a) reappear, but resistance is no longer possible. Irreversible tissue damage occurs, and the organism dies if the stimulation continues.

Psychological Stress: The Lazarus Theory

The Lazarus stress theory has undergone several critical revisions since its first presentation as a comprehensive theory (Lazarus 1966) (cf. Lazarus 1991, Lazarus and Folkman 1984, Lazarus and Launier 1978). Stress is considered in the most recent version (Lazarus 1991).

Stress is defined as a relational concept, not as a specific type of external stimulation or a

specific pattern of physiological, behavioural, or subjective reactions. Instead, stress is viewed as a relationship (or 'transaction') between people and their surroundings.

Psychological stress is defined as a relationship with the environment that a person perceives to be important for his or her well-being and in which the demands tax or exceed available coping resources. (Lazarus and Folkman 1986, p. 63).

Concept of Test Anxiety

Modern society can best be described as test-oriented and test-consuming (Zeidner & Most, 1992). Testing is widely used in education, as well as by the industrial, government, and military sectors to help make personnel decisions. Growing up in modern society is almost impossible without encountering some type of test, whether it is a classroom test in language, math, or science, a standardized competence or achievement test, a military placement or mechanical aptitude test, a scholastic aptitude test for college application, or an industrial, occupational placement test. Test and other assessment data may provide objective and reliable information that directly influences choices made in the processes of vocational guidance and counselling, selection, classification and placement, and screening and diagnosis—all of which help shape an individual's upbringing, education, and career. When one considers the numerous applications of tests in our culture and how they can affect the lives of those who take them, it's no surprise that the testing situation can cause anxiety in many people. Many children in our culture become test-oriented and test-anxious at a young age. Test anxiety is frequently mentioned in the literature as one of the main antagonists in the ongoing drama surrounding psycho-educational testing (Zeidner, 1990).

Test anxiety is characterized by physiological over arousal, feelings of worry and dread, self-deprecating thoughts, tension, and somatic symptoms that occur during testing situations. It is a physiological condition in which individuals feel extreme stress, anxiety, and discomfort while taking a test and/or before taking it. These reactions can significantly impair an individual's

ability to perform well and hurt their social, emotional, and behavioural development, as well as their feelings about themselves and school (Basha and Babu, 2013).

Stress

Stress has always been primarily a physical and psychological reaction to threats, pressure, and demand. The heart rate rises and the palms sweat. Concentration is difficult for the mind. (Porterfield, 2013). Adolescents with high levels of perceived stress were more likely to develop a mental disorder. Interventions to reduce perceived stress among adolescents could therefore potentially help to identify groups at high risk for later mental disorders (Lindholdt et al,2021).

The onset of stress, symptoms, and behaviour and experience patterns, particularly during the first two years, demonstrating rising study-related stress in the preclinical years, as well as the high proportion with an unambitious pattern at the end of the course of study, highlight the importance of prevention and health promotion at both the individual and contextual levels. (Voltmer et al,2021).

Test Anxiety

The study concludes that students' self-esteem can be enhanced and test anxiety can be reduced by creating an enabling environment for mentoring where they can practice assertiveness skills which will in turn boost their confidence to perform all academic tasks successfully (Thomas et al,2022). Both test anxiety and the tendency to procrastinate were present among undergraduate and postgraduate physiotherapy students, in varying degrees. There was a positive correlation between the two factors (Desai et al, 2021). Adolescents show a differential response to TA based on the physiological, cognitive, and motor components, mediated by the variables of gender, age, grade, academic performance, and type of exam. These results serve to design specific intervention programs to manage anxiety in situations of academic assessment (Torrano,2020).

The majority of studies on stress levels and test anxiety have been conducted on undergraduate and medical students. Only a

few studies on nursing students are known. Student nurses are significantly more stressed and anxious than the general student population. Numerous studies on stress have been conducted but no emphasis has been placed on test anxiety among nursing students.

The study on "Relationship between Stress and Test Anxiety among Nursing Students" was conducted with the objectives to investigate the relationship between stress and test anxiety among nursing students and to assess the difference in test anxiety and stress among nursing students based on demographic and find the effect of stress and test anxiety among nursing students.

The Hypotheses for the study were as follows:

1. There will be no significant difference between stress and test anxiety among nursing students.
2. There will be no significant difference in test anxiety and stress among students based on demographic.

Method

Tools:

Student Stress Scale:The Student Stress Scale was developed by Manju Agrawal (2012). It included 64 questions. The participants rate their responses on a Likert scale from 1 to 7, with 1 denoting no stress at all, 2 denoting very little stress, 3 denoting some stress, 4 denoting average stress, 5 denoting much stress, 6 denoting too much stress, and 7 denoting unbearable stress. The questionnaire has nine subscales, including financial stress, family stress, social stress, education stress, separation stress, ego threat, bereavement stress, other people's health stress, and personal setback stress. Students were deemed to be at a high risk of developing stress if they received any sub-test scores of greater than 60%. (Bajpai, et al., 2017). One of the standardized tests has been the Students Stress Scale, and its validity and reliability have been proven. The reliability of the tool is 0.878.

Test Anxiety: The scale was developed by Sharma, V. P. (2000). The questionnaire has 25

items, each having 5 response opinions, ranging from minimum to maximum test anxiety. The reliability of the scale was .92.

The study population consists of nursing students from the different colleges of the Kerala University of Health Science, Kozhikode district, Kerala state, India. Incredibly, 180 students from Baby Memorial College of Nursing, 193 Government college of nursing .150 National hospital college of nursing. The total population consists of 523. By random sampling method, 75 students were from the Baby memorial college of nursing, 78 were government nursing students, and 55 were from the National hospital college of nursing. So the present study involved 208 students (39.7% of the total population). This present study used a quantitative method, correlation study, to determine the degree of relationship between two variables stress and test anxiety. For variable stress, nine dimensions were included in the scale. For the test anxiety variable, the level of test anxiety was measured using 4 point scale. Data obtained from the variable were analyzed through inappropriate tests of the international Business Machines Corporation (IBM) Statistical Package for the Social Sciences (SPSS, version 20).

Results

From table 1, it was noticed that test anxiety was found to be strongly associated with stress related to familial, social, educational, ego threat, bereavement, and personal setbacks. Furthermore, total stress was also positively associated with test anxiety. Stress due to finances, separation, and health of others did not have any significant association with test anxiety.

Table 1: Correlation between stress and text anxiety among students

Stress	Test anxiety
Financial stress	.097
Family stress	.183**
Social stress	.148*

Education	.296**
Ego Threat	.175*
Bereavement	.166*
Separation	.100
Personal set back	.344**
Health of others	-.010
Total stress	.294**

Note: **p<.01; *p<.05

From table 2, it was observed that there was a significant difference in test anxiety based on gender, year of study, and area of living. Girls had a higher score than boys (M=87.25 vs M=83.90). First-year students scored higher in their test anxiety than final-year students (M=86.01 vs M=84.59). Furthermore, students from rural areas scored higher in their test anxiety than students from urban areas (M=85.64 vs M=84.85).

Table 2: Differences in test anxiety by demographic categories

Vari-ables	Cat-egory	N	M	SD	t-value
Gender	Male	123	83.90	0.75	19.425*
	Female	85	87.25	1.69	
Year of studying	First year	100	86.01	2.01	5.279*
	Final year	108	84.59	1.85	
Area of living	Rural	110	85.64	2.03	2.805*
	Urban	98	84.85	2.01	

Note: *p<.05

Table 3 demonstrated the influence of stress on test anxiety among students. It was clear from that table that stresses due to ego threat, and the health of others had a significant impact on test anxiety whereas stress due to financial, family, social, education, bereavement, separation, and personal setback did not have any significant impact.

Table 3: Influence of stress on test anxiety among students: Regression analysis

Predictors	Un-standardized coefficient		Beta	't' value	p value	Model Summary
	B	Std. Error				
Financial stress	-.069	.041	-.143	1.686	.093	F = 4.537 R = 0.433 R ² = 0.187
Family stress	-.035	.037	-.110	.940	.349	
Social stress	.008	.043	.018	.197	.844	
Education	-.022	.030	-.153	.731	.466	
Ego Threat	-.090	.036	-.357	2.497	.013	
Bereavement	.072	.047	.128	1.528	.128	
Separation	-.140	.083	-.193	1.677	.095	
Personal set back	.056	.044	.148	1.272	.205	
Health of others	-.119	.048	-.263	2.507	.013	
Total stress	.052	.027	.921	1.937	.054	

Note: *p<.05

Discussion

The present study aimed to determine the influence of stress on test anxiety among nursing students. Stress related to family, social, education, ego threat, bereavement, and personal set back was positively associated with students' test anxiety [Table 1]. The academic success of the students is significantly influenced by the family environment. Students with educated parents typically perform well in school, which helps them avoid test anxiety. Studies also revealed that students whose mothers had educational levels between elementary school and a high school diploma had significantly lower test anxiety (Kurt et al., 2014). A peaceful study environment, family financial support, social support, and participation in social activities are recommended to lessen exam anxiety (Kurt et al., 2014). Students may experience test anxiety due to the aforementioned factors' inadequacy. Lists of significant traumatic life experiences, including the loss of a loved one or close relative, may cause test anxiety in students. Students evaluate themselves based on their grades, with high regard for themselves emerging from a good mark. Such evaluation of oneself can occasionally result in ego threat as a result of a challenge to one's self-image or self-esteem.

Girls had a higher level of test anxiety compared to their counterparts [Table 3]. In general, female students usually report higher levels of test anxiety than their male peers (Núñez-Peña et al., 2016). In a study to gauge students' test anxiety, Nez-Pea et al. (2016) showed that female students reported higher levels of test, math, and trait anxiety, as well as greater, predicted anxiety in three of the four test conditions taken into account. These results are consistent with the current findings. Earlier studies on test anxiety also focused on gender differences, and it was repeatedly found that female students have higher test anxiety levels than male students. (Bandalos et al., 1995).

Additionally, it was observed that first-year students had more test anxiety than third-year students [Table 2]. Being a first-year student, having a heavy course load, and taking an oral exam are some of the elements that influence students' test anxiety. Additionally, students test anxiety is independently predicted by a lack of a systematic study plan, low social support, moderate social support, and psychological suffering (Tsegay et al., 2019). In the line with the current findings, Tsegay et al. (2019) demonstrated that first-year students had 10 times higher risk of developing test anxiety

than final-year students did and that having an excessive course load was 6 times higher in developing test anxiety compared to final-year students.

Furthermore, students from rural areas had a higher level of test anxiety than students from urban areas [Table 2]. Due to their general lack of preparation or fear of exam outcomes, students from rural areas tend to worry more and have higher levels of test anxiety than students from urban areas (Lohiya et al., 2021). Similar results have been reported by earlier studies (Deepika & Asha, 2013; Nweze, 2014); the reasons postulated are infrequent exposure to evaluative situations, economic disadvantage, and deprivation of exposure to educational facilities (Von Der Embse et al., 2013).

Moreover, it was revealed that exam anxiety among students was significantly predicted by stress due to ego threat and other people's health [Table 3]. Test anxiety is "the set of cognitive, physiological, and behavioral responses that accompany concern about possible negative consequences or failure on exams or similar evaluative situations" (Zeidner (2007). It creates "excessive amounts of concern, worry, and fear about negative evaluation during or in anticipation of performance or evaluative situations" (Goonan (2003,). In other words, individuals are afraid of getting embarrassed by their unsatisfactory performance since they consider it as a threat to their ego or self-esteem (Putwain, 2008; Goonan, 2003; Sapp, 1999) and consequently, they either avoid evaluative situations or experience excessive stress if they cannot flee from being tested (Sarason, 1978). Test anxiety appears in specific situations or contexts where one's performance is being evaluated and it has an evident social aspect due to the concerns with how that performance will be judged by others (Putwain, 2008).

Conclusion

It was revealed that stress related to familial, social, education, ego threat, bereavement, and personal setbacks were directly correlated with test anxiety. Financial stress, separation, and the health of others had no significant relation with test anxiety. There was a notable change

in test anxiety based on sex, year of study, and area of residence. In test anxiety, girls scored higher than boys. Test anxiety was higher in first-year students than in final-year students. Besides, that rural students scored higher than urban students.

Recommendation

In light of these findings, the researcher concluded that students who have high levels of stress and test anxiety should be trained and motivated to apply appropriate coping skills. Stress management programs should be included in the student's curriculum. To study the needs of the students and efficiently achieve their academic goals, higher authorities should organize orientation, seminars, regular stress management programs, and guidance and counseling services.

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- <https://www.google.co.in/url?sa=i&url=https%3A%2F%2Fnovapublishers.com%2Fshop%2Fnursing-professionals-and-nursing-students-stress-and-concerns-associated-to-clinical-practice>.

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Appendix – 3

Plagiarism Report



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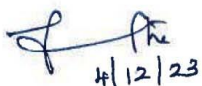
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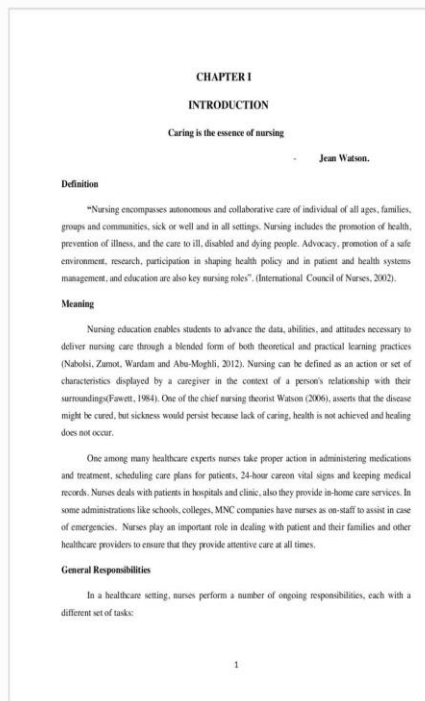


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Appendix – 4

Psychological Tests

 <p style="font-size: small;">T. M. Regd. No. 564838 Copyright Regd. No. © A-73256/2005 Dt. 13.5.05</p>	<p>Consumable Booklet of TAS-sv (English Version)</p>
Prof. V. P. Sharma (Raipur)	

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Name _____ Fathers' Name _____										
Age _____ Gender : Male <input type="checkbox"/> Female <input type="checkbox"/>										
Class _____ Area : Rural <input type="checkbox"/> Urban <input type="checkbox"/>										
College/University _____										

INSTRUCTIONS

This booklet contains some practical situations that you may come across in your daily life, and particularly at a situation when you are put to test. Some possible reaction to each of these situations have also been given below it. You are directed to select only one of the five alternative reactions which you believe would be frequently operative in your case. You have to put a tick mark against each of such reactions of your choice for every item in the appropriate box. Please mark only one reaction out of the five, and don't omit any item.

You are requested to give free and frank answer to every situation. These answers would be kept secret. Please feel free. It does not test your academic proficiency, and therefore, there should not be any fear of any answer being right or wrong. Now, I hope, you have understood the technique of taking this test. Have you any thing to ask.

Your Response will be Kept Confidential.

Scoring Table

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Sr. No.	STATEMENTS	Response	Score
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23. How will you react to your feeling of your being inferior in progress to other pupils of your class ?

- (i) I will not pay any attention to my progress.
- (ii) I would be satisfied with my progress.
- (iii) I will try to deviate my attention from the matters on progress in studies.
- (iv) I will develop anxiety thinking the opinions of my elders about me.
- (v) I will be extremely restless due to anxiety and shame.

24. How will you feel if the invigilator gives you the question paper of different subject by mistake in the examination hall ?

- (i) I will laugh at the invigilator.
- (ii) I will be angry with the invigilator.
- (iii) I will feel pity at the intelligence of the invigilator.
- (iv) I will be perplexed on the very sight of the question paper.
- (v) I will feel forgetting my subject because of excessive anxiety and confusion.

25. How will you feel if you come to know the date on which the annual examination is to start ?

- (i) My specific feeling would be generated in me on hearing this fact.
- (ii) I will feel relaxed on hearing the date on which the annual examination is to be started ?
- (iii) On hearing the information about the starting date of the annual examination, fear will be generated in me.
- (iv) I will be filled in with the feeling of doubts and uncertainty accompanied with fear of failure as I hear the information regarding the date of the annual examination.
- (v) I will start trembling on hearing the date on which the annual examination is to be started.

Total Score Page 8



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Consumable Booklet
of
TAS-sv
(English Version)

Prof. V. P. Sharma (Raipur)

Please fill in the following informations Date

Name _____ Fathers' Name _____

Age _____ Gender : Male Female

Class _____ Area : Rural Urban

College/University _____

INSTRUCTIONS

This booklet contains some practical situations that you may come across in your daily life, and particularly at a situation when you are put to test. Some possible reaction to each of these situations have also been given below it. You are directed to select only one of the five alternative reactions which you believe would be frequently operative in your case. You have to put a tick mark against each of such reactions of your choice for every item in the appropriate box. Please mark only one reaction out of the five, and don't omit any item.

You are requested to give free and frank answer to every situation. These answers would be kept secret. Please feel free. It does not test your academic proficiency, and therefore, there should not be any fear of any answer being right or wrong. Now, I hope, you have understood the technique of taking this test. Have you any thing to ask.

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Sr. No.	STATEMENTS	Response	Score
1.	How do you feel when the teacher asks you to prepare for the examination after the date of the examination is announced ?		
	(i) There would not be any reaction of his advice.	<input type="checkbox"/>	
	(ii) I would be irritated with his advice.	<input type="checkbox"/>	
	(iii) I would be extremely glad with his advice.	<input type="checkbox"/>	<input type="text"/>
	(iv) I would develop a little anxiety by his advice.	<input type="checkbox"/>	
	(v) Thinking about my preparation for the examination, I would be extremely afraid of it.	<input type="checkbox"/>	
2.	How do you feel on the day your examination begins ?		
	(i) I feel extremely glad.	<input type="checkbox"/>	
	(ii) I develop dilemmatic fear about the result of the examination, whether I would pass or fail.	<input type="checkbox"/>	<input type="text"/>
	(iii) I feel angry with the person who would talk on this matter.	<input type="checkbox"/>	
	(iv) I continue reading till last moment I enter the examination hall.	<input type="checkbox"/>	
	(v) I feel extremely confused as if I have forgotten every thing that I have learnt.	<input type="checkbox"/>	
3.	What ideas would divert your process of writing the answers of questions in the examination hall ?		
	(i) I am fully engrossed in writing the answers to questions.	<input type="checkbox"/>	
	(ii) I often feel that I am writing everything correctly.	<input type="checkbox"/>	
	(iii) I often experience anxiety on the point whether the examiner might get annoyed with my answers.	<input type="checkbox"/>	<input type="text"/>
	(iv) My heart starts beating fast thinking that I might fail.	<input type="checkbox"/>	
	(v) I fail to write anything because of excessive fear and anxiety.	<input type="checkbox"/>	
4.	How do you feel at the occasion when somebody interfered you at the time you are preparing for your examination ?		
	(i) I leave my study with pleasure and get engaged immediately in the work assigned.	<input type="checkbox"/>	
	(ii) I cannot do any other work but study for examination.	<input type="checkbox"/>	<input type="text"/>
	(iii) I feel annoyed if I am interfered by a way of assigning different task.	<input type="checkbox"/>	
	(iv) My heart starts beating excessively because of interference in my study.	<input type="checkbox"/>	
	(v) With the fear that I would not be able to prepare will my study for examination I develop anxiety accompanied with excessive heart beating.	<input type="checkbox"/>	
Total Score Page 2			<input type="text"/>

Sr. No.	STATEMENTS	Response	Score
5.	How do you feel if you are being helped by some one at the time when you are writing the answers in the examination hall ?		
	(i) I am extremely pleased.	<input type="checkbox"/>	
	(ii) I feel ashamed of his foolishness.	<input type="checkbox"/>	<input type="text"/>
	(iii) I do not care to look at him.	<input type="checkbox"/>	
	(iv) I am extremely angry with him.	<input type="checkbox"/>	
	(v) I start forgetting whatever I remember because of anxiety, confusion and conflict.	<input type="checkbox"/>	
6.	How do you feel at the moment you are asked by the invigilator in the examination hall to show your registration slip showing your Roll Number which you have forgotten to bring and without which you are not entitled to appear ?		
	(i) Without any hesitation, I will tell that I have forgotten.	<input type="checkbox"/>	
	(ii) I will not be confused at all.	<input type="checkbox"/>	
	(iii) I will be a little restless.	<input type="checkbox"/>	<input type="text"/>
	(iv) I will experience excessive heart beating because of the fear of being turned out of the examination hall.	<input type="checkbox"/>	
	(v) I will start weeping out of fear and anxiety, confusion and conflict.	<input type="checkbox"/>	
7.	You thoroughly prepared the ten probable questions as predicted by somebody with the impression that in the next-day examination only those questions would occur. At the examination hall, the next day, when the question paper was distributed, you were surprised to see that none of the questions that you had learnt thoroughly earlier have occurred there. How will you feel at that moment ?		
	(i) Without being disturbed, I will try to answer other questions.	<input type="checkbox"/>	
	(ii) I will be extremely angry with the paper setter.	<input type="checkbox"/>	
	(iii) I will be extremely disappointed.	<input type="checkbox"/>	<input type="text"/>
	(iv) I will develop anxiety and feeling of fear to failure in the examination.	<input type="checkbox"/>	
	(v) I will start weeping out of fear and anxiety, confusion and conflict, disappointed and disturbance.	<input type="checkbox"/>	
Total Score Page 3			<input type="text"/>

Sr. No.	STATEMENTS	Response	Score
8.	What will you do if you would not prepare to your satisfaction for the commencing examination because of some reason or other ?		
(i)	I will try to appear in the examination knowingly that I may not pass.	<input type="checkbox"/>	
(ii)	I will appear in the examination without any anxiety.	<input type="checkbox"/>	
(iii)	I will think all the while of not appearing at the examination.	<input type="checkbox"/>	
(iv)	I will try to avoid appearing at the examination having developed anxiety accompanied with the feeling of fear of failure in examination.	<input type="checkbox"/>	<input type="text"/>
(v)	I will not appear at the examination with the excessive feeling of conflict and anxiety that I might fail in the examination.	<input type="checkbox"/>	
9.	How will you feel if the invigilator makes a joke with you when you are busy in writing the answers in the examination hall ?		
(i)	I will participate in the joke and laugh with him.	<input type="checkbox"/>	
(ii)	Without caring for the joke, I will be busy in writing the answers.	<input type="checkbox"/>	
(iii)	I will be angry with the invigilator at his untimed joke.	<input type="checkbox"/>	
(iv)	My heart would start beating fast because of the distraction of my attention and fear of failure.	<input type="checkbox"/>	<input type="text"/>
(v)	I will forget the answers of the questions because of excessive anger and anxiety interfering the writing process.	<input type="checkbox"/>	
10.	How do you feel if a large number of guests comes to your home during the days you are preparing for your final examination ?		
(i)	I would be glad to receive my guests.	<input type="checkbox"/>	
(ii)	I would relax myself from the monotonous task of study and enjoy talking with them.	<input type="checkbox"/>	
(iii)	I would be angry with them for the untimed arrival as guests.	<input type="checkbox"/>	<input type="text"/>
(iv)	I would be extremely upset with the anxiety of appearing at the succeeding examinations.	<input type="checkbox"/>	
(v)	I feel forgetting everything whatever I learnt because of excessive anxiety and feeling of fear of failure.	<input type="checkbox"/>	
11.	How do you feel if you are caught by the invigilator using some unfair means during the examination ?		
(i)	There won't be any effect of this upon me considering it to be a routine matter.	<input type="checkbox"/>	
(ii)	I will leave the examination hall without thinking any consequence.	<input type="checkbox"/>	
(iii)	I will apologize about my misdeed.	<input type="checkbox"/>	<input type="text"/>
(iv)	I would develop a feeling of anxiety whether I would be failed in the examination.	<input type="checkbox"/>	
(v)	I would develop a feeling of guilt accompanied with anxiety as to how I could show my face to others.	<input type="checkbox"/>	
Total Score Page 4			<input type="text"/>

Sr. No.	STATEMENTS	Response	Score
12.	How will you feel at the occasion when the Principal of your school or college inspects your class during the period your class teacher is teaching you ?		
(i)	There won't be any effect of this upon me considering it to be a routine matter.	<input type="checkbox"/>	
(ii)	I will gaze at the teacher and listen carefully to the content being taught as soon as I see the Principal.	<input type="checkbox"/>	
(iii)	I would be careful and cautious in my behaviour and try to present myself as an ideal student.	<input type="checkbox"/>	<input type="text"/>
(iv)	I will feel disturbed and depressed.	<input type="checkbox"/>	
(v)	I will start trembling with fear as soon as the Principal enters my class thinking that, I may not be able to answer his questions if he asks.	<input type="checkbox"/>	
13.	How do you react to the situation in which your fountain pen fails to write during the examination hours ?		
(i)	Without being disturbed, I will borrow pen from another student and continue writing.	<input type="checkbox"/>	
(ii)	I will try to continue writing with the same pen.	<input type="checkbox"/>	
(iii)	I would be a little disturbed so long as I manage to get another one.	<input type="checkbox"/>	
(iv)	I would feel extremely restless during the examination period visualizing my shortcomings in writing the answers to my entire satisfaction because of this mis-happening.	<input type="checkbox"/>	<input type="text"/>
(v)	I will start weeping, and out of excessive fear of failure, I will leave the examination hall.	<input type="checkbox"/>	
14.	How will you feel at the moment when your result in which you have failed is declared ?		
(i)	I would not be sad at all.	<input type="checkbox"/>	
(ii)	I would be disappointed for a moment.	<input type="checkbox"/>	
(iii)	I would be angry with the examiners.	<input type="checkbox"/>	<input type="text"/>
(iv)	I would experience excessive anxiety.	<input type="checkbox"/>	
(v)	I would not be able to go out of my house because of excessive anxiety, depression and shame.	<input type="checkbox"/>	
Total Score Page 5			<input type="text"/>

Sr. No.	STATEMENTS	Response	Score
15.	How would you react if the supplementary answer book on your demand is supplied to you in a delayed way ?		
	(i) I would look to and for meanwhile.	<input type="checkbox"/>	
	(ii) I would wait patiently for the supply of supplementary answer book.	<input type="checkbox"/>	
	(iii) I would stand up and insist upon supplying me supplementary answer book quickly.	<input type="checkbox"/>	
	(iv) I would resent upon their delayed manner of supplying me the supplementary answer book.	<input type="checkbox"/>	<input type="text"/>
	(v) I would develop excessive anxiety accompanied with anger thinking that, I might forget whatever I remember if the supplementary answer book is supplied delayed.	<input type="checkbox"/>	
16.	What will you do if during the examination time you fall ill ?		
	(i) I will be relieved from the burden of studying for the examination.	<input type="checkbox"/>	
	(ii) I will think that I would get another chance to prepare better for the next examination.	<input type="checkbox"/>	
	(iii) I will feel guilty of being fallen ill only during the examination days.	<input type="checkbox"/>	<input type="text"/>
	(iv) I will develop anxiety of being back by one year of my class fellows.	<input type="checkbox"/>	
	(v) I will try my best to appear in the examination even under conditions of my sickness.	<input type="checkbox"/>	
17.	How do you feel when you observe other students going through their notes and books very attentively and consciously even at the time when the first bell goes, and they are expected to be inside the examination hall ?		
	(i) I feel like teasing them.	<input type="checkbox"/>	
	(ii) I feel pity over the anxiety for the examination of such students.	<input type="checkbox"/>	
	(iii) Without paying any attention to them, I enter the examination hall and take my seat.	<input type="checkbox"/>	
	(iv) I try to ask them what important things they are studying, after all at this time.	<input type="checkbox"/>	<input type="text"/>
	(v) I feel forgetting every thing out of fear and anxiety whatever I have learnt when I see them learning so attentively.	<input type="checkbox"/>	
18.	How do you feel when you know that you have passed the examination in which you had appeared ?		
	(i) I feel extremely delighted.	<input type="checkbox"/>	
	(ii) This will not effect me much.	<input type="checkbox"/>	
	(iii) I feel that I have not scored the marks in proportion to my study.	<input type="checkbox"/>	
	(iv) I would think that if my teacher would have taken more care and taught us better, then I could have scored higher marks.	<input type="checkbox"/>	<input type="text"/>
	(v) I would be upset very much with the feeling that I have not scored higher marks than most of my classmates leading to fear of lagging behind in	<input type="checkbox"/>	

Sr. No.	STATEMENTS	Response	Score
19.	How will you feel at the time when you see an examinee sitting by your side is developing his answers by using unfair means during the examination hours ?		
	(i) I feel of getting the cheating material for myself.	<input type="checkbox"/>	
	(ii) I would ignore his ways of writing the answer, and attend to my own work.	<input type="checkbox"/>	
	(iii) I would be ashamed of the cheating behaviour of that student.	<input type="checkbox"/>	
	(iv) My heart would start beating faster out of fear of being checked by the invigilator.	<input type="checkbox"/>	<input type="text"/>
	(v) I will report the invigilator about the unfair means being used by that candidate out of fear so that I may' not be suspected in case he is caught.	<input type="checkbox"/>	
20.	How will you feel if you come to know that the examination result is going to be announced the next day ?		
	(i) I will be extremely glad.	<input type="checkbox"/>	
	(ii) I will not give any heed to his news.	<input type="checkbox"/>	
	(iii) My heart will start beating faster.	<input type="checkbox"/>	<input type="text"/>
	(iv) I will think only of the examination result.	<input type="checkbox"/>	
	(v) I will be very much confused to do any work out of fear and anxiety of the examination result.	<input type="checkbox"/>	
21.	How do you feel if the invigilator deliberately delays in distributing question paper even after the bell indicating the start of examination, has gone ?		
	(i) I will spend time in talking with my friends sitting by my sides.	<input type="checkbox"/>	
	(ii) I will curiously wait and watch for the question paper.	<input type="checkbox"/>	
	(iii) I will request him with due sincerity to distribute the question paper without any lapse of time.	<input type="checkbox"/>	<input type="text"/>
	(iv) I will feel extremely annoyed with the invigilator for his delaying attitude.	<input type="checkbox"/>	
	(v) I will be extremely perplexed and disappointed out of fear or losing marks in case all the questions are not adequately solved.	<input type="checkbox"/>	
22.	How do you feel if you commit certain fault ?		
	(i) I laugh heartily at my fault.	<input type="checkbox"/>	
	(ii) I do not feel disturbed by such faults.	<input type="checkbox"/>	
	(iii) I feel guilty of my fault and make every attempt so that it may not reoccur.	<input type="checkbox"/>	
	(iv) I develop anxiety having the feeling that other pupils may laugh at my fault.	<input type="checkbox"/>	<input type="text"/>
	(v) I feel extremely guilty with a feeling of repentance whenever I think of the	<input type="checkbox"/>	

STUDENT'S STRESS SCALE

Consumable Booklet (16-2677-CB)

Dr. Manju Agrawal (Lucknow)

INSTRUCTIONS

The next few pages describe some events and situations which occur frequently in students life. For example 'breaking of friendships', 'passing an exam' etc. Read each statement carefully. You have to tell the degree of stress you experienced during that event. Respond only to the events which occurred during previous one year. Indicate this by putting a tick (✓) in the column next to the statement. Against each statement, rate the degree of stress by putting a tick mark (✓) . There is no time limit to complete the scale but do not waste your time. Your responses will be kept strictly confidential . Now, turn the page and start attempting.



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5 no.	Statement	Tick (✓) if experienced within one year	No stress at all	Very little stress	Some what stress	Average stress	Much stress	Too much stress	Unbearable stress
23.	Passed exam with poor marks		1	2	3	4	5	6	7
24.	Failed in examination		1	2	3	4	5	6	7
25.	Disciplinary action was taken action against me		1	2	3	4	5	6	7
26.	A Family member was jailed		1	2	3	4	5	6	7
27.	Apprehended for a simple breach of law		1	2	3	4	5	6	7
28.	A close friend died		1	2	3	4	5	6	7
29.	A close family member died		1	2	3	4	5	6	7
30.	A pet died		1	2	3	4	5	6	7
31.	A relative died		1	2	3	4	5	6	7
32.	A family member was missing		1	2	3	4	5	6	7
33.	Separated from some one near and dear		1	2	3	4	5	6	7
34.	Engagement was broken		1	2	3	4	5	6	7
35.	Could not marry the person I loved		1	2	3	4	5	6	7
36.	Family members frequently got ill		1	2	3	4	5	6	7
37.	A family member was admitted in the hospital		1	2	3	4	5	6	7
38.	A family member developed a mental illness		1	2	3	4	5	6	7
39.	A close friend/ relative developed a serious disease		1	2	3	4	5	6	7
40.	Major deterioration in health of a family member (but was not admitted in the hospital)		1	2	3	4	5	6	7
41.	Started living at a friends/ relatives place		1	2	3	4	5	6	7
42.	Started living in a hired room		1	2	3	4	5	6	7
43.	Major decrease in outings and social activities (meeting people)		1	2	3	4	5	6	7

STUDENT'S STRESS SCALE

4x50

Consumable Booklet (16-2677-CB)

Dr. Manju Agrawal (Lucknow)

DETAILS OF THE RESPONDENT

Name (optional) :	Monthly income of the whole family: ₹ <input type="text"/>
Gender :	No. of members dependent upon this income: <input type="text"/>
Class :	Division and percentage obtained in:-
Age (in years) :	Intermediate <input type="text"/> Graduation <input type="text"/>
Date :	Residential Background: Rural <input type="checkbox"/> Urban <input type="checkbox"/>
Occupation of father/guardian :	Medium of Education: Hindi <input type="checkbox"/> English <input type="checkbox"/>

INSTRUCTIONS

The next few pages describe some events and situations which occur frequently in students life. For example 'breaking of friendships', 'passing an exam' etc. Read each statement carefully. You have to tell the degree of stress you experienced during that event. Respond only to the events which occurred during previous one year. Indicate this by putting a tick (✓) in the column next to the statement. Against each statement, rate the degree of stress by putting a tick mark (✓) . There is no time limit to complete the scale but do not waste your time. Your responses will be kept strictly confidential . Now, turn the page and start attempting.

S no.	Statement	Tick (✓) if experienced within one year	No stress at all	Very little stress	Some what stress	Average stress	Much stress	Too much stress	Unbearable stress
1.	Theft of wealth and property		1	2	3	4	5	6	7
2.	Theft or loss of a personally valuable possession		1	2	3	4	5	6	7
3.	Major financial trouble arose		1	2	3	4	5	6	7
4.	Family income decreased heavily		1	2	3	4	5	6	7
5.	Relations with some family member got strained		1	2	3	4	5	6	7
6.	Family member interfered in personal matters		1	2	3	4	5	6	7
7.	Family environment got tense		1	2	3	4	5	6	7
8.	Parents favored siblings		1	2	3	4	5	6	7
9.	Serious differences arose with a friend or neighbour		1	2	3	4	5	6	7
10.	Relations with an authority (hostel warden, teacher etc) deteriorated		1	2	3	4	5	6	7
11.	Relations with girl/boy friend got strained		1	2	3	4	5	6	7
12.	Parents did not trust me on certain occasions		1	2	3	4	5	6	7
13.	People behaved indifferently towards me		1	2	3	4	5	6	7
14.	People misunderstood me		1	2	3	4	5	6	7
15.	Compared to others, I found myself inferior		1	2	3	4	5	6	7
16.	Physical beauty diminished		1	2	3	4	5	6	7
17.	Aspirations of my life remained unfulfilled		1	2	3	4	5	6	7
18.	I was not honoured for the commendable work I did		1	2	3	4	5	6	7
19.	I was blamed for no fault of mine		1	2	3	4	5	6	7
20.	Parents scolded or beat		1	2	3	4	5	6	7
21.	Teacher scolded		1	2	3	4	5	6	7
22.	My family was dishonoured		1	2	3	4	5	6	7

S no.	Statement	Tick (✓) if experienced within one year	No stress at all	Very little stress	Some what stress	Average stress	Much stress	Too much stress	Unbearable stress
23.	Passed exam with poor marks		1	2	3	4	5	6	7
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43.	Major decrease in outings and social activities (meeting people)		1	2	3	4	5	6	7

S no.	Statement	Tick (✓) if experienced within one year	No stress at all	Very little stress	Some what stress	Average stress	Much stress	Too much stress	Unbearable stress
44.	Appeared in exam despite ill health		1	2	3	4	5	6	7
45.	Could not appear in exam due to illness or some other reason		1	2	3	4	5	6	7
46.	I had to choose subject I was not interested in		1	2	3	4	5	6	7
47.	Course was not completed in the class		1	2	3	4	5	6	7
48.	Could not secure admission in an important class or course		1	2	3	4	5	6	7
49.	Indiscipline increased in the university		1	2	3	4	5	6	7
50.	Teacher acted partially		1	2	3	4	5	6	7
51.	I had inconvenience in finding means of conveyance to the university		1	2	3	4	5	6	7
52.	Important books are not available in the library		1	2	3	4	5	6	7
53.	Adequate facilities are not available in the laboratory		1	2	3	4	5	6	7
54.	Neighbour-hood environment interferes in studies		1	2	3	4	5	6	7
55.	Family environment interferes in studies		1	2	3	4	5	6	7
56.	Lectures are in comprehensible		1	2	3	4	5	6	7
57.	I do not get adequate time for studies		1	2	3	4	5	6	7
58.	Exams are held late		1	2	3	4	5	6	7
59.	My father/ mother got involved in an extra marital relationship		1	2	3	4	5	6	7
60.	I could not buy the expensive bike/car my friend has bought		1	2	3	4	5	6	7
61.	My friend has become more popular than me amongst the opposite sex		1	2	3	4	5	6	7
62.	I have been sexually abused		1	2	3	4	5	6	7
63.	My parents are separated		1	2	3	4	5	6	7
64.	I have to accept a step parent at this stage		1	2	3	4	5	6	7

8x50



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Late V. P. Bhargava (Agra)

Consumable Booklet

of

A M T-BV

(English Version)

INSTRUCTIONS

On the following pages, there are given some incomplete sentences which can be completed meaningfully by linking up any of the three alternatives given against them. Each of the alternative is equally good to make the sentence complete. It is not a test of your intelligence or of your proficiency in the use of English. There is no question of a right or wrong answer. Only you have to select that alternative which shows your first preference of linking it with the incomplete sentence under consideration. An example is given below :

- I like to (A) do things for my friends.
- (B) undertake tasks requiring skills.
- (C) keep things neat and orderly.

You may give top priority to A, to B or to C as you think according to your preferential order. Accordingly, you may check on letters A, B and C by putting mark (✓) on the cells given in the right hand corner against the alternatives.

You have only to do the same as has been described above. You are to check all the 50 incomplete sentences. Do not leave any of them. Finish the work as early as possible.

Please note that your answers should be in terms of what you *actually* like or feel at the present moment and not in terms of what you should feel or you would feel in the future.

After you have done this, please hand over the booklet to the Test Administrator. Thanks.

Estd. 1971

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1. What I want most in my life is.....

- (A) to get an ideal home life.
- (B) to be a popular man in the society.
- (C) to do something requiring efforts.

2. I would like to solve.....

- (A) those problems which will give new experiences.
- (B) the socio-economic problems of my country.
- (C) very difficult puzzles and quizzes.

3. I am happiest when.....

- (A) making others happy.
- (B) I become the centre of other's attention.
- (C) successful in my work.

4. I often strongly think of.....

- (A) being one respected political leader.
- (B) being a famous social leader.
- (C) accomplishing something great.

5. My aim of life is.....

- (A) to make a long record of successful achievements.
- (B) to attain high status in society.
- (C) to serve the nation.

6. I like to praise those who

- (A) have earned a name of repute in their own field.
- (B) have some principles in life.
- (C) have devoted themselves in the service of mankind.

7. I want to know.....

- (A) how I can be successful to whatever I undertake.
- (B) the honest means of accumulating wealth.
- (C) the easiest way of achieving the World Peace.

- 8. **Before starting a difficult task.....**
 - (A) I would plan to work out its details.
 - (B) I would think about the difficulties that may come in the way.
 - (C) I would invite suggestions from others.

- 9. **It is my nature to.....**
 - (A) do things for my friends.
 - (B) undertake tasks which require great skills.
 - (C) keep things neat and clean.

- 10. **I wish I could always be.....**
 - (A) eager in successfully doing difficult jobs.
 - (B) eager to be sympathetic to sick and poor people.
 - (C) eager to visit new places, see new persons and get new things.

- 11. **I feel upset when.....**
 - (A) I am blamed by my own people.
 - (B) I am neglected.
 - (C) I fail to reach my desired goal.

- 12. **I want to accomplish the task.....**
 - (A) in a neat and clean fashion.
 - (B) to do it more better than others.
 - (C) to finish it before the time fixed.

- 13. **I like to.....**
 - (A) read fictions and do courageous works.
 - (B) think of my future.
 - (C) visit different places of the world.

- 14. **I usually think.....**
 - (A) that I should get honour and respect like a leader.
 - (B) that I should perform something great and unique.
 - (C) that I should help and look after the sick and injured.

- 15. I like to be.....**
- (A) very systematic and orderly in the work I undertake.
 - (B) very faithful and sincere to my friends and colleagues.
 - (C) best in my performances and assignments.
- 16. I like that.....**
- (A) I may earn money.
 - (B) I may do most important work.
 - (C) I may become the master of myself.
- 17. I am always.....**
- (A) ready to fight for the noble and reasonable cause.
 - (B) ready to enhance and develop my ability.
 - (C) prepared to remove casteism and other social evils.
- 18. I am sure that during next five years.....**
- (A) I will be earning lot of monies.
 - (B) I will be an expert in my field.
 - (C) I will be independent.
- 19. I want that.....**
- (A) my institution may be more democratic.
 - (B) the environment of my town be more peaceful and healthy.
 - (C) the environment of my house may allow me to study more and more.
- 20. I like things which.....**
- (A) may make me rich and more possessing.
 - (B) may make me to get respect that of a leader.
 - (C) may be achieved by others with great difficulty.
- 21. I get satisfaction most in.....**
- (A) remaining in the company of famous and popular persons.
 - (B) doing the most difficult tasks.
 - (C) testing others and to give guidance to them.

- 43. I always.....**
- (A) do the activities in my own systematic way.
 - (B) try to please everybody with my behaviour.
 - (C) try to do my work in the best possible way.
- 44. I evaluate my ability by saying.....**
- (A) my teachers are partial and side others.
 - (B) whatever the grade has been given to me is related with labour I have put in.
 - (C) the grade given to me is less than the labour I have put in.
- 45. I am.....**
- (A) morally a correct person.
 - (B) determined to get my high goal in life.
 - (C) tolerable to those persons who try to hit me.
- 46. I am full of anxiety for.....**
- (A) knowing my deficiencies so that I may remove them.
 - (B) doing more important work.
 - (C) becoming the centre of attraction in the group.
- 47. I bear out the pain because.....**
- (A) nobody should feel painful feelings given by me.
 - (B) I may escape from other's allegations.
 - (C) I may remove difficulties and get first class success.
- 48. I am.....**
- (A) courageous, but would avoid unnecessary dangers and risks.
 - (B) quite punctual and never late for work, school & appointments.
 - (C) quite neat and organized in what I do.
- 49. I am of the opinion that for pleasure and happiness one must.....**
- (A) get the basic amenities of life.
 - (B) enrich the records one's achievements.
 - (C) support charities.
- 50. In whatever work I undertake.....**
- (A) I like to do very best.
 - (B) I like to assume full responsibility for it.
 - (C) I like to make advance plans.

36. My real wish.....

- (A) is to get the highly paid work.
- (B) is to enjoy the bliss of happy married life.
- (C) is to attain reputable attainments.

37. I want that I should become so able that.....

- (A) I may use such words the meaning of which nobody should be able to understand.
- (B) I may be able to do better work than others.
- (C) I may forgive him who wants to harm me.

38. I.....

- (A) may try my level best to become a big person in my field.
- (B) may try to remain firm in following the truth.
- (C) may try to help the helpless people to the best of my capacity.

39. Generally, I wish that.....

- (A) I may be a worshipper of God.
- (B) I may serve the poor without caring for any return.
- (C) I may get additional success in some work.

40. I avoid.....

- (A) such persons who are pleasure-seekers only and are without responsibility.
- (B) those situations which are not competitive.
- (C) those persons who are mentally illusioned and unsystematic.

41. I want that others may think about me as.....

- (A) laborious person.
- (B) very good natured person.
- (C) very intelligent and capable person.

42. I feel very good when.....

- (A) I relate my personal experiences to others.
- (B) I am told to make others to understand something.
- (C) I have to do any difficult work.

29. While working in a group I wish that.....
- (A) I may perform the best work than others.
 - (B) I may be the leader of the group.
 - (C) I may do the work in the most systematic way.

30. I consider myself better than others who.....
- (A) are unsocial by nature.
 - (B) do not feel the responsibility.
 - (C) do not fix any aim of life and do not work to get it.

31. I get pleasure in.....
- (A) the company of children.
 - (B) solving difficult problems.
 - (C) living with jovial people.

32. I believe.....
- (A) love is more better than justice.
 - (B) my future depends on some special achievements.
 - (C) it is better to be sincere and faithful than to be popular.

33. Generally, I.....
- (A) critically analyse other's decisions.
 - (B) am polite in behaviour.
 - (C) do the work till it is completed successfully.

34. In most of the social situations, I.....
- (A) try to be traditional.
 - (B) try to become a bit able to do work in accordance with the social traditions.
 - (C) try to attract and get other's attention by my work.

35. I like to.....
- (A) become a big authority in some business or work.
 - (B) do my activities in a systematic way.
 - (C) make friendly sympathetic behaviour with sad people.

40

41.

42. I
(A)
(B)
(C)

- 22. I give preference to.....**
- (A) difficult tasks over simple and easy tasks.
 - (B) remain in the company of elderly and experienced persons.
 - (C) get encouragement from my friends and others.
- 23. I genuinely believe that for me.....**
- (A) it is possible to attain high social status.
 - (B) it is possible to get enough power.
 - (C) it is possible to get desired maximum achievements.
- 24. I wish that I may be.....**
- (A) liberal and kind to my friends at all times.
 - (B) sympathetic to sick and poor people.
 - (C) successful in doing difficult works.
- 25. I am most happy when I.....**
- (A) get a chance to enjoy with others by wits and humour.
 - (B) get honour & respect after performing difficult tasks successfully.
 - (C) get the chance to get a high position.
- 26. I feel.....**
- (A) upset when I am not getting success in the examinations despite of hard work.
 - (B) sad at the death of somebody near and dear to me.
 - (C) enraged when some of my friends do not get justice.
- 27. In general I may be described as a.....**
- (A) tolerable person.
 - (B) humble and polite person.
 - (C) optimistic person.
- 28. I sincerely wish.....**
- (A) to be a most wealthy person.
 - (B) to be a happy and most fortunate person.
 - (C) that I may attain the high achievements in a surprising manner.

**Management of Test Anxiety and Stress among Nursing Students
through Cognitive Behaviour Therapy**

Thesis Submitted in Partial Fulfillment for the Degree of
Doctor of Philosophy in Counselling Psychology

By

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80_ Recommendations

- The nursing colleges should hold training programmes and deliver lectures for the nursing students on coping with psychological problems.
- Provide Counselling services for the students with the trained counsellors.
- Organize workshops to help students improve study habits and time management techniques.
- Maintaining a list of External mental health professionals that students can access if they need any psychological support.

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Name of the Researcher : Lethika K

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Designation of Supervisor : Assistant Professor (SS)

Centre/department/school in which research was conducted : Department of Psychology

University's Name & Address : Avinashilingam Institute for Home Science & Higher
Education for Women is a women's Deemed
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Abstract within 300 words:

Stress is a prevalent and serious problem among nursing students, affecting their mental and physical health, academic achievement, and future jobs. Nursing education is noted for its severe standards, which include substantial curriculum burdens, rotations in the clinic, and the need to reconcile academic knowledge with practical abilities. Excessive stress can significantly impact nursing students test anxiety and achievement motivation, hindering their ability to concentrate on test questions and remember previously acquired knowledge. Although mild stress can provide a motivational boost, it is essential to prevent burnout and a loss of drive caused by excessive stress. As a nursing student, it's imperative to understand how test anxiety and stress can impede academic achievement. This study extensively analyzed the efficacy of cognitive behaviour therapy (CBT) in managing test anxiety and stress and in enhancing achievement motivation. The study's sample size comprised one hundred and fifty (150) students. One hundred and fifty firstyear nursing students were selected using the purposive sample method for a study on Test anxiety, Stress, and Achievement motivation. To gather data, the students completed the exam anxiety measure developed by Sharma in 2000, the students stress scale created by Agrawal M in 2012, and the achievement motivation scale created by Bhargava in 2009. After careful analysis, 52 students met the requirements and agreed to participate in the study, which underwent Cognitive Behaviour Therapy (CBT) for one month on alternate days for two hours each session. The students underwent reassessment using the same set of questionnaires, with a one-month time interval, and were reassessed again for the follow-up phase. The CBT program targeted maladaptive behavior, frequent minor exam practices, mindful reading, cognitive rehearsal, thought stopping, breathing exercises, balloon blowing. emotion regulation, auto-suggestions, self-monitoring, role-play/ modeling, Guided Imagery, videos on motivational talks, SWOT Analysis, cognitive rehearsal, Journaling/Daily log. The study observed three phases: before, after, and follow-up. The calculations were done using Mean, Standard Deviation, Repeated Measures ANOVA, and the Bonferroni Post Hoc Test. The results indicate that there were significant reduction in test anxiety, stress, and significant improvement in achievement motivation after the intervention. Cognitive Behaviour Therapy was found to be effective on managing test anxiety and stress and in enhancing achievement motivation.

i) Major objectives :

1. To assess Stress, Test Anxiety and Achievement Motivation among Nursing Students
2. To find out the efficacy of Cognitive Behaviour Therapy in reducing test anxiety, stress and also enhancing achievement motivation among nursing students.

ii) Hypothesis:

1. There will be a significant reduction in test anxiety among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
2. There will be a significant reduction in stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.1. There will be a significant reduction in financial stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.2. There will be a significant reduction in family stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.3. There will be a significant reduction in social stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.4. There will be a significant reduction in education stress among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.5. There will be a significant reduction in ego threat among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.6. There will be a significant reduction in bereavement among nursing students Before, After and Follow-up without control group through cognitive behaviour therapy
 - 2.7. There will be a significant reduction in separation stress among nursing students in Before, After and Follow-up without control group through cognitive behavior therapy
 - 2.8. There will be a significant reduction in personal setback among nursing students in Before, After and Follow-up without control group through cognitive behavior therapy
 - 2.9. There will be a significant reduction in health of others among nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy

3. There will be a significant improvement in Achievement Motivation among Nursing students in Before, After and Follow-up without control group through cognitive behaviour therapy
4. Cognitive Behaviour Therapy will reduce test anxiety, stress and enhance achievement motivation among Nursing Students.

iii) Methodology :

The present study adopted the research design as Before, After and Follow-up without control group research design (Kothari, 2020). The nursing students were assessed before the program by using respective tools and those scored high in test anxiety and stress, and those score low in achievement motivation were screened. Cognitive Behaviour Therapy was administered for the selected nursing students. Fifteen sessions were taken whereas effectiveness of Cognitive Behaviour Therapy was assessed on three intervals i.e., before, after and follow-up. Informed consent from developed by the researcher, providing a brief description of the purpose and procedure of the research, obtaining their consent to take part in the research and also explaining their rights to withdraw from the research if they are willing to. The scale was developed by Sharma (2000). It includes 25 statements each having 5 response opinions ranging from minimum to maximum test anxiety. The Student Stress Scale has developed by Manju Agarwal (2012). It includes 64 questions to be answered to only if the participant has experienced stressful situations in the past year.

Achievement motivation scale was constructed by Bhargava (2009). The test comprises of 50 unfinished sentences or items that must be completed by the students by checking one of the three options provided next to each item.

iv) Findings:

The results of the study showed that the intervention to the nursing students was found effective. Cognitive behaviour therapy (CBT) can help the students to manage their test anxiety, stress and would enhance their achievement motivation by changing the thought processes and behaviour

Examiners

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