

**EFFECTIVENESS OF COGNITIVE BEHAVIOR THERAPY ON
THE LEVEL OF PROCRASTINATION AMONG
I YEAR B.Sc NURSING STUDENTS AT
SELECTED NURSING COLLEGES,
CHENNAI, 2015**

DISSERTATION SUBMITTED TO
THE TAMIL NADU DR.M.G.R.MEDICAL UNIVERSITY
CHENNAI

In partial fulfillment of requirement for the degree of
MASTER OF SCIENCE IN NURSING
APRIL 2016

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Certified that this is the bonafide work of

Ms. J.JEMITTA.SHAN

Venkateswara Nursing College

Thalambur

Chennai-600 130

COLLEGE SEAL :

SIGNATURE :

Dr. (Mrs).CIBY JOSE

R.N.,R.M.,M.SC (N), PGDCG, PhD.

Principal, Venkateswara Nursing College,

Thalambur, Chennai -600 130.

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Approved by the Dissertation committee on March 2014

NURSING RESEARCH GUIDE

Dr. (Mrs).CIBY JOSE _____

R.N., R.M., M.Sc (N), PGDCG, PhD.,

Principal, Venkateswara Nursing College,

Thalambur, Chennai - 600 130.

CLINICAL SPECIALTY GUIDE

PROF.MRS. VIMALA SAMSON M.Sc.(N) _____

HOD of Mental Health Nursing,

Venkateswara Nursing College, Thalambur,

Chennai - 600 130.

MEDICAL EXPERT

Dr. M. PETER FERNANDEZ, _____

M.D., D.P.M., T.D.D., FIPS.,

Professor Emeritus (Psychiatry),

Mugaliwakam, Chennai.

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LIST OF ABBREVIATIONS

ADHD	-	Attention Deficit Hyperactivity Syndrome
CBT	-	Cognitive Behaviour Therapy
CBC	-	Cognitive Behaviour Coaching
ICBT	-	Internet based cognitive behaviour therapy
IPA	-	Interpretative Phenomenological Analysis
PASS	-	Procrastination Assessment Scale for Students
GPA	-	General Procrastination Assessment Scale
WHO	-	World Health Organization

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**Effectiveness of cognitive behaviour therapy on the level of procrastination among
I yr B.Sc Nursing students at selected nursing colleges, Chennai.**

Aim and objective: To assess the effectiveness of cognitive behaviour therapy on the level of procrastination among selected nursing colleges, Chennai. **Methodology:** A true experimental pre-test and post-test control group design was chosen for the study, conducted at Venkateswara nursing college, Thalambur and Hindu Mission Nursing college, Tambaram. The samples consisted of 80 students selected using convenient sampling technique. Motivational therapy and goal orientation therapy which comes under cognitive behaviour therapy was the intervention of the study. The pre and post-test level of procrastination was assessed using Tuckman's procrastination scale. **Results:** The analysis of the study findings revealed that, with regard to comparison of the post-test level of procrastination between the experimental and control group, the calculated, unpaired 't' value was 8.991 which revealed high statistical significance at $p < 0.001$. With regard to comparison of the post-test level of satisfaction, the calculated unpaired 't' value of 0.149 revealed high statistical significance at $p < 0.001$. **Conclusion:** Hence the cognitive behaviour therapy performed by the investigator is proved to be an effective in reducing the level of procrastination among I year B.Sc Nursing students.

Keywords: *cognitive behaviour therapy, level of procrastination, motivational therapy, goal orientation therapy.*

INTRODUCTION

Procrastination is the thief of time. Procrastination-putting off tasks until later that one doesn't want to do now – is well practiced well in adolescence, but the objectives often seem to shift from stage to stage of growing up.

When procrastination stands in the way of our being effective however, it can cause serious problems at work, in our social lives, and with how confident we feel in our abilities. Following are some steps which when carefully implemented help the things to be get done.

There are many therapies to beat procrastination but cognitive behavior therapy have been proved effective. Cognitive Behavior Therapy is a wide ranged which attempts to modify, change, correct or eliminate maladaptive thoughts and behaviors. This therapy is problem focused and action oriented or directive in its therapeutic approach.

Cognitive behaviour therapy is a cost-effective therapy which helps in reducing procrastination. Procrastination is due to lack of motivation and goal orientation. Goal orientation is given in the form of treasure mapping and motivational therapy in the form of motivational interactive classes. This helps the students in finding out the ways to overcome procrastination.

Objective

To assess the effectiveness of cognitive behaviour therapy on the level of procrastination among I year B.Sc Nursing students.

METHODOLOGY

Research Design

Setting

The study was conducted for I year B.Sc Nursing students in Venkateswara Nursing College and Hindu Mission College of Nursing. Venkateswra Nursing College was taken as the experimental group. Venkateswara Nursing College (group of Vels institution) is affiliated to Tamil Nadu Dr M.G.R Medical University. It was established in the year of 2006. It is recognized by government of Tamil Nadu, Indian Nursing Council, Tamil Nadu Nurses and Midwives Council. It is a private self-financing college situated at Thalambur, Chennai.

Hindu Mission College of nursing is a private college affiliated to Dr. MGR Medical University, Tamilnadu. Hindu Mission is registered under society act and it is functioning since 1982.

The research setting for the experimental group was Venkateswara Nursing College (group of Vels institution). It is affiliated to Tamil Nadu Dr M.G.R Medical University. It was established in the year of 2006. It is a private self-financing college situated at Thalambur, Chennai. The control group was selected in Hindu Mission

College of nursing which is a private college affiliated to Dr. MGR Medical university, Tamilnadu. Hindu Mission is registered under society act and it is functioning since 1982

Samples

The caregivers who satisfied the inclusion criteria were the samples for the study chosen using convenient sampling technique.

Intervention

The intervention given by the investigator was Cognitive behaviour therapy. The therapy includes motivational therapy and goal orientation therapy to be performed everyday for 20 minutes.

Measurements and tool

The level of procrastination was assessed using Tuckman's procrastination scale. Both descriptive and inferential statistics were used for analysis.

RESULTS

The present study aimed to assess the effectiveness of cognitive behaviour therapy on the level of procrastination among I year B.Sc Nursing students.

The finding of the study showed that in the experimental group majority 27(67.5%) had moderate level of procrastination, 9(22.5%) had high and 4(10%) had low level of procrastination whereas in control group majority 25(62.5%) had moderate level of procrastination, 14(35%) had high and 1(2.5%) had low level of procrastination.

In the experimental group, the pretest mean score of procrastination was 43.30 with S.D 7.71 and the post test mean score of procrastination was 30.92 with S.D 5.75.

In the post-test the level of procrastination in the experimental group revealed that majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination. In control group majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

In the experimental group, the pretest mean score of procrastination was 43.30 with S.D 7.71 and the post test mean score of procrastination was 30.92 with S.D 5.75. The calculated paired 't' value of $t = 8.991$ was found to be statistically significant at $p < 0.001$ level. This clearly indicates that cognitive behaviour therapy on procrastination was found to be effective in reducing the procrastination among I Year B.Sc. Nursing students in experimental group.

In the control group, the pretest mean score of procrastination was 45.30 with S.D 5.59 and the post-test mean score of procrastination was 45.12 with S.D 5.81. The calculated paired 't' value of $t = 0.149$ was not found to be statistically significant. This clearly indicates that there was no significant difference between the pretest and post test level of procrastination among I Year B.Sc. Nursing students in control group.

DISCUSSION

There was a significant decrease in level of procrastination among students after performing cognitive behaviour therapy. Thus cognitive behaviour therapy was an effective intervention in reducing the level of procrastination among I year B.Sc Nursing students.

IMPLICATIONS

The nurse educator should be competent enough to train teachers in the use of Cognitive Behaviour Therapy for procrastination among students. The nursing students should be encouraged for effective utilization of evidence based practice.

Nurse administrators can organize formal training programme for teachers to reduce the level of procrastination among students. Nurse Manager can strengthen interdisciplinary and multidisciplinary collaboration with researchers to implement Cognitive Behaviour Therapy.

Nurse researcher should encourage the teachers to implement the research findings in the class rooms and also should promote more research in developing alternative therapies.

INTRODUCTION

“Today stop making excuses for why you can’t get it done and start focusing on all the reasons why you must make it happen”

Earl Wilson

Adolescence!!!!!! A beautiful age group filled with colours. Every person will wish that they could have stayed in the adolescence. Adolescents aged between 10-19 years account for more than one-fifth of the world’s population. It is considered as the transitional stage from childhood to adulthood. However the physical and psychological changes that occur in adolescence can start earlier. Adolescent period can be a time of both disorientation and discovery.

It is a transitional stage of physical and psychological human development. It is a period of multiple transitions involving education, training, employment and unemployment, as well as transitions from one living circumstance to another.

Adolescence is also a period of biological, cognitive, psychological, social and cultural development. The thoughts, ideas and concepts developed during this period of life greatly influence one’s future life, playing a major role in character and personality formation. **(Yussen, 2011)**

This period being the most crucial stage of life and form a separate category by themselves due to the problems they face. They are deeply drowned in the world of technology where they can’t even find time to see their books or even to worry about that. The influence of mobile phones, internet, television etc can be clearly seen in their academics and hence face many problems. The problems faced by them can be divided into many categories of which include tensions of attending classes, examinations, tests, low IQ feeling, fear about failure, fear about low score, fear and concern about future, misconceptions about teachers and most importantly PROCRASTINATION.

According to some researchers, procrastination has more than quadrupled in the last 30 years. In 1978 itself 5% of the population admitted to being chronic procrastinators compared to roughly 26% of the population today (Steele,2007).Surveys of student populations suggest that procrastinate is pervasive. Some surveys suggest that 85&95% of students have problems associated with procrastination and most common is among students in college.

An interesting study was conducted in Wertebroch, where students of three different classes were given the task of completing three essays in three weeks. class A were to handle in all three essays on the final day, class B could pick three different deadlines for each essay but had to stick with those dates, and class C were required to hand in one essay each week. The results showed that class C with three deadlines equal amount of time apart, did the best. Class B, the class which had the freedom to choose their own dates, came second and most tellingly class A, the class given the most amount of time, did the worst.

The experiments shows that although rational thought might tell you to opt for maximum time to submit all three essays, this is not the best choice as there is no bind to ensure students make use of the entire three weeks given. Most students in class B realized the benefits of equally distributing the essays in tune with their own tendencies to procrastinate – but the overall grade was brought down by those students who had chosen also to submit at the last minute. Those were the ones who didn't recognize themselves their propensity to procrastinate and were too confident in their ability to self-regulate.

Procrastination is the thief of time. Procrastination-putting off tasks until later that one doesn't want to do now – is well practiced well in adolescence, but the objectives often seem to shift from stage to stage of growing up. **(Steel)**

PROCRASTINATION FOR REBELLION IN EARLY ADOLESCENCE (Ages 9 – 13): During this more self-determined age, parental demands are emblematic of authority, and delaying cooperation is one form of passive resistance to use for delaying what one has been asked or told to do. Rather than active resistance through argument or outright refusal, however, the young person agrees to comply, but then gets

busy procrastinating, doing other things that feel more rewarding to do. Multiple parental reminders are now often required to get requests fulfilled and chores accomplished. The teenager is pushing to operate more on her own terms, as by saying, “You can tell me what, I’ll decide when, and when I get enough ‘when,’ I’ll do what you want.” Parental supervision, repetition, insistence, or nagging (call it what you will) is often required to bring this use of procrastination to a timely end.

For the early adolescent, passive resistance can enlist procrastination to assert more independence.

PROCRASTINATION FOR LIBERTY IN MID ADOLESCENCE (ages 13 – 15): At this age, time with one’s ‘family of peers’ has a greater value for adolescents than it did for children. In addition, there is a Tyranny of now that makes delay and denial of immediate gratification very hard to bear. Procrastination is one strategy for preserving this freedom of choice. Putting parents off as long as possible keeps social freedom open as long as possible. “I’ll get it done as soon as I finish talking with my friend,” vows the teenager, “the minute I get off!” He uses promises for later to buy freedom now. But when promises have proved to be false currency in the past, parents may become more conditional in what they permit and provide. “When you get your chores done to my satisfaction is when I will drive you over to your friend’s, and not before.” Sometimes adolescents at this urgent age will make desperate promises they later find impossible to keep: “I promise if you let me go this weekend I won’t ask again for a month!” As for those parents who repeatedly make bad bargains with adolescent promises that are repeatedly broken, these trusting adults often end up enabling the procrastination about which they often complain.

For the mid adolescent, procrastination is often used to capture more urgent social freedom now.

PROCRASTINATION FOR ESCAPE IN LATE ADOLESCENCE (AGES 15 - 18): Like boredom, procrastination can stimulate the desire for escape. Where boredom seeks escape from having nothing to do, procrastination seeks escape from what one doesn’t want to do or from facing what is going to happen. In late adolescence, with the scary next step of leaving home for more independence looming ahead, it can be tempting to avoid dealing with this reality as long as possible. Some high school seniors,

for example, can let grades fall to failing senior year and jeopardize graduation or can put off college or job applications, delaying willingness to deal with the next more independent phase of life. Now distraction and diversion offer inviting alternatives, among the most common being electronic ones like cellular communication, cable TV, video gaming, and computer entertainment. Sometimes it seems that parents are highly complicit in the procrastination of their late adolescent by equipping him or her with every means of electronic escape. "Temptation city" was how one parent described his son's room. "How is he supposed to get work done when he's surrounded by so many possibilities for fun?" It can be hard to engage with present demands when recreational escape is so readily available.

For the Late Adolescent, procrastination may be used to avoid encountering the challenges that come with growing older.

PROCRASTINATION FOR MOTIVATION IN TRIAL INDEPENDENCE (ages 18 – 23.) Without the discipline from parents to check and remind and nag her to get things done, the last stage adolescent (often living away from family) can be at the mercy of her own lack of self-discipline. For some young people procrastination at this reluctant age can come to the rescue by making demands urgent enough that she wants to get them met. In some ways it seems like a game. "How long can I put it off before I manage to pull it off," is the challenging question? As deadline stress builds, so does anxiety which drives emergency production. So the college all-nighter results in a paper barely finished on time by a triumphantly exhausted student. "I work best under pressure," then she proudly confesses, by which she really means now she can't complete school work without it.

How to help your adolescent stop procrastinating, if that is something he or she wants to do? The answer is, don't recommend cutting it off abruptly or out entirely. Instead, suggest a gradual approach. Each time the young person is inclined to procrastinate in the face of some unwanted demand, just start it a little earlier than he or she otherwise might. Don't fight the habit. Still procrastinate, but try doing it a little less by slightly moving up the starting time. Bit by bit, as the old habit is worn away, the young person is able to make a more timely response to demands. And as they do, ask them to reflect on all the stress that they are missing.

There are many therapies to beat procrastination but cognitive behavior therapy have been proved effective. The road block of procrastination is a complex one. Scientists call this emotional avoidance. The first sign of emotional avoidance appears when we anticipate that a task will be difficult. This is followed by some form of discomfort, a negative emotion like anxiety or guilt. There is an urge to escape this uncomfortable feeling and we begin to drift toward a more pleasant replacement activity. Positive feelings drive the thought that” later will be a better time” and we postpone. This is done by cognitive behavior therapy.

When procrastination stands in the way of our being effective however, it can cause serious problems at work, in our social lives, and with how confident we feel in our abilities. Following are some steps which when carefully implemented help the things to be get done. These interventions come from the Cognitive Behavioral Therapy protocol for procrastination. A) Identify small goals B) Create a prioritized to do list C) Tell others about your goals D) Make a timetable E) complete the tough tasks first and lots more like this.

Cognitive Behavior Therapy is a wide ranged which attempts to modify, change, correct or eliminate maladaptive thoughts and behaviors. This therapy is problem focused and action oriented or directive in its therapeutic approach. It is different from the more traditional approach where therapist look for the unconscious meaning behind the behaviors and then diagnose the patient. Instead behaviorists believe the disorder have to do with the relationship between a feared stimulus and an avoidance response, resulting in a conditioned fear. Therapist believed that conscious thoughts could influence a person’s behavior all of its own. Ultimately the two theories were combined to create what is known as cognitive behavior therapy.

For most of the people, motivation is elusive. It comes and goes unpredictably and sometimes does not show up at all. Lack of motivation obviously results in procrastination. The problem with motivation is that we feel very inspired when it is present so much so that we feel it is too difficult to put forth effort when motivation is absent. The result is that we wait for motivation to inspire us to work toward our goal, and as a result waste a lot of time waiting for it to happen on its own. The more we wait,

the more time goes by in which we don't feel we are doing what matters, and we can easily become demoralized.

Cognitive behavior therapy offers an effective treatment for low motivation. It involves a combination of changing pattern that results in changing behavioral pattern. These changes results in both increased motivation and increased accomplishment. By changing thinking and behavioral patterns that keep people stuck, cognitive behavioral therapy helps people get on track with their goals, and in a relatively short amount of time.

1.1 BACKGROUND OF THE STUDY:

Mental health is a major part of adolescent's general wellbeing. The adolescents of today are more anxious, depressed and stressed than previous generations, but there is no doubt that mental health disorders in adolescents are surprisingly common. **(Hagell, 2012).**

Stressors affecting students can be categorized as academic, financial, time or health related and self imposed **(Good Man, 1993)**. In addition there were even suicides and nine attempted suicides in and around Delhi during his year till March end 2010. Procrastination on academic tasks is found to be the cause of stress in students **(Ferrari, Johnson & McCrown, 1995)**

In 1540s, from Middle French the word procrastination was coined. Pro- "forward" + crastinus- "belonging to tomorrow. A definition of procrastination is "putting off activities that were planned or scheduled for activities that are of a lesser importance"

Procrastination statistics show that procrastination affects over 20% of the population and that it is on the rise.

Many of us have procrastinated to some degree or another but, according to statistics, procrastination is on the rise. According to some researchers, procrastination has more than quadrupled in the last 30 years. In 1987 5% of the population admitted to being chronic procrastinators compared to roughly 26% of the population today **(Steele**

2007). Some surveys suggest that 85-95% of students have problems associated with procrastination.

Cognitive Behavior Therapy is a wide ranged which attempts to modify, change, correct or eliminate maladaptive thoughts and behaviors. This therapy is problem focused and action oriented or directive in its therapeutic approach. It is different from the more traditional approach, where therapists look for the unconscious meaning behind the behaviors and then diagnose the patient. Instead behaviorists believe the disorder have to do with the relationship between a feared stimulus and an avoidance response, resulting in a conditioned fear. Therapist believed that conscious thoughts could influence a persons behavior all of its own. Ultimately the two theories were combined to create what is known as cognitive behavior therapy.

1.2 NEED FOR THE STUDY

Adolescents aged between 10-19 years account for more than one fifth of the world's population. A disturbing trend in adolescent health is the reported increase in student stress nationwide (**Sax, 1997**). Stressors affecting students can be categorized as academic, financial, time or health related, and self imposed (**Good Man, 1993**). In addition there were even suicides and nine attempted suicides in and around Delhi during his year till March end 2010. Procrastination on academic tasks is found to be the cause of stress in students (**Ferrari, Johnson & McCrown, 1995**)

Procrastination is defined as the voluntary delay of an intended course of action, and has been characterized as a “quintessential self regulatory failure” (**Steel, 2007**). Academic procrastination is a sort of *anti motivation* that is related to low levels of anxiety, stress, and stress related illness (**Howell, Watson, Powell & Buro, 2006; Sirosis, 2004; Tice & Baumeister, 1997**).

Procrastination statistics show that procrastination affects over 20% of the population and that it is on the rise. According to some researchers procrastination has more than quadrupled in the last 30 years.

In a 1984 study of academic procrastination, 46% of subjects reported that they “always” or “nearly always” procrastinate on writing a paper, whilst approximately 30%

procrastinate on studying for exams or on reading for weekly assignments. For a range of tasks, a quarter of subjects reliably reported that procrastination was a problem for them. Approximately 60%, however, indicated that they would like to reduce their procrastination. In a study among the variables that have been investigated in relationship to academic procrastination, anxiety(including test anxiety), self regulation, self efficacy, and self esteem have received much attention(**Steel, 2007; Tuckman, 1991; Wolters, 2003**), with recent studies pointing to the role played by self efficacy for self regulation as a key variable which are inversely related to academic procrastination(**Klassen, Krawchuk, & Rajani, 2008**)

Procrastination research is less well established other than psychological constructs, even though procrastination is common, with incidence in college students estimated as high as 80-95% (**Steel, 2007**). Because the preponderance of research has explored the procrastination of college students and adults, little is known about the development of procrastination in childhood and adolescence. **Owens and Newbegin (2000)** found that adolescents who procrastinate in Math and English show significantly lower self esteem than adolescents who do not report procrastination in these domains. **Milgra and Toubiana (1999)** found that academic and test anxiety led to greater levels of procrastination, and that adolescents attributed procrastination to lack of self regulation behaviors, like problems in time management. Although the research investigating adolescent procrastination is limited, initial results suggest that low self esteem and academic anxiety, coupled with poor self-regulation, contribute to academic procrastination.

Indeed, procrastination statistics suggest that 40% of people have experienced financial loss due to procrastination. (**Gura, 2008**)

Good goal setting behavior has been shown to improve performance in the organizational setting (**Ludwig & Geller, 2000**). This study investigated, qualitatively and quantitatively, the relationship between goal-setting behaviors and procrastination tendencies among college students.

Cognitive Behavior Therapy is considered effective for treatment of procrastination because it is structured, goal oriented and goal focused and teaches proven strategies and skills.

So I have chosen cognitive behavior therapy in reducing the level of procrastination.

1.3 STATEMENT OF THE PROBLEM

A study to assess the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students in selected nursing colleges, Chennai.

1.4 OBJECTIVES

1. To assess the pre-test level of procrastination among I year B.Sc Nursing students before cognitive behavior therapy in experimental group and control group.
2. To assess the post test level of procrastination among 1 year B.Sc Nursing students after cognitive behavior therapy in experimental group and control group.
3. To evaluate the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students.
4. To associate the post test level of procrastination among I year B.Sc Nursing students in the experimental group with their selected demographic variables

1.5 OPERATIONAL DEFINITIONS

1.5.1 Effectiveness

Refers to reduction in the level of procrastination after the implementation of cognitive behavior therapy as evidenced by the decreased scores in the post test procrastination scale.

1.5.2 Cognitive Behavior Therapy

Refers to the technique of treasure mapping daily and motivational therapy weekly twice with the duration of 30 minutes.

1.5.3 Procrastination

Refers to the practice putting off assignments, exams, and other important tasks to a later time, sometimes to the "last minute" before the deadline.

1.5.4 Students

It refers to I year B.Sc nursing students studying in selected private colleges, Chennai.

1.7 ASSUMPTIONS

1. Procrastination is more prevalent among college students.
2. Cognitive behavior therapy reduces procrastination among the college students.

1.6 RESEARCH HYPOTHESIS

H₁: There will be significant difference between the pre test and post test procrastination scores.

H₂: There will be a significant association in the post test level of procrastination score and selected demographic variables.

1.8 DELIMITATIONS

1. The study was limited to a period of 4 weeks
2. The study was limited only to first year B.Sc (nursing) students.

1.9 CONCEPTUAL FRAMEWORK

A conceptual framework is a group of concepts that are broadly defined and systematically organized to provide a focus, a rationale, and a tool for the integration and interpretation of information. It is an organization or matrix of concepts that provides a focus for inquiry. Conceptual framework is also a set of interrelated theories that form that basis for a research study. (**Mosby's Medical Dictionary, 2009**).

The study is particularly intended to assess the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students.

The conceptual framework selected for this study is Imogene King's attainment theory (1997) which is relevant for the present study to evaluate the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students.

THE MAIN CONCEPTS OF IMOGENE KING'S OPEN SYSTEM ARE

- Perception
- Judgement
- Action
- Mutual goal setting
- Intervention
- Pre and post-test

Perception

Perception is the process of organizing, interpreting and transforming information from data and memory that gives meaning to one's experience, represents one's experience represents one's image of reality and influence one's behavior.

The researcher perceived that procrastination can be reduced by Cognitive Behavior Therapy. The samples perceived that they have procrastination.

Action

Each member makes judgment and there by action follows to reach the goal. The researcher performed Cognitive Behavior Therapy and the samples participated in the therapy.

Mutual goal setting

Mutual goal setting is a process that leads to goal attainment. It is a dynamic and systematic process in which the goal directed choice of perceived alternatives has made and can act upon individuals or group to answer a question.

The researcher plans to perform Cognitive Behavior Therapy among the samples to reduce procrastination and the samples shows willingness to participate in the activities.

Intervention

The act of two or more persons in mutual presence and sequence of verbal and non-verbal behaviors that are directed to the goal.

The researcher performed Cognitive Behavior Therapy and the students practiced that technique for 4 weeks daily under the supervision of researcher.

Pre and post-test

Pre-test is carried out by the assessment of the demographic variables and assessment of procrastination with Tuckman's Procrastination Assessment Scale" and in post test again level of procrastination is assessed after administering Cognitive Behavior Therapy. The post-test result is associated with the selected demographic variables.

Feedback

After the post-test assessment if the goal is not attained, reassessment is done by assessment and modification in perception, judgment and action among both researcher and samples.

1.10 OUTLINE OF THE REPORT

Chapter 1: Dealt with background of the study, need for the study, statement of the problem, objectives, operational definition, research hypothesis, assumptions, conceptual framework, and delimitations of the study.

Chapter 2: Deals with review of literature

Chapter 3: Presents the methodology of the study and plan for data analysis.

Chapter 4: Focuses on data analysis and the data interpretation.

Chapter 5: Enumerate the discussion of the study

Chapter 6: Gives the summary, conclusion, implications, limitations and recommendations for the study.

The study report ends with selected bibliography and appendices.

REVIEW OF LITERATURE

Review of literature is an essential component of the research study as it provides a broad understanding of the research problem. A review of related literature involves the systemic identification, location, scrutiny and summary of written materials that contain information about research problems (Polit and Hungler, 1998). A review of literature was collected to generate a picture of what is known about a particular situation.

The logical sequence of the chapter is organized in the following sections.

SECTION 2.1: Studies related to procrastination

SECTION 2.2: Studies related to cognitive behavior therapy

SECTION 2.3: Studies related to effectiveness of cognitive behavior therapy on procrastination

SECTION 2.1: SCIENTIFIC REVIEWS RELATED TO PROCRASTINATION.

Martyn Stewart (2014) conducted a study on the study goals and procrastination tendencies at different stages of the undergraduate degree. The target population was the number of students actively enrolled on the programmes for the Years 1, 2 and 3 cohorts at the specific time the survey was administered, adjusted for student withdrawal. Procrastination tendency was measured using the Tuckman Procrastination Scale (TPS; Tuckman 1991). Comparing the summary statistics of procrastination tendency indicated differences between the year groups. These differences were further examined using oneway ANOVA. Variances between groups were found to be heterogeneous (Levene's test, $F = 3.43$, $p = .034$), so the more robust Welch statistic was used. This showed the differences across the hoc test was used. This confirmed that the difference, seen by comparing the (lower) TPS scores determined for Year 1 ($M = 37.0$, $SD = 6.44$), was statistically significant when comparing to the scores for both Year 2 ($M = 41.0$, $SD = 6.82$, $p = .006$) and Year 3 ($M = 40.3$, $SD = 8.64$, $p = .03$). The size of the effect between Year 1, and Years 2 and 3 is moderate using Cohen's d measure ($d = -.61$, and $d = -.43$ respectively). Year 1 students, therefore, reported a significantly lower tendency towards procrastination, compared to students in Years 2 and 3.

Bilge Uzun Ozer (2013) conducted a study on the effects of procrastination on college students' life satisfaction. 314 students (214 female, 100 male) were included in the study. The average age of the participants was 20.76 (SD = 1.97) with an age range between 17 and 27. Procrastination was assessed using Tuckman Procrastination Scale. Results of the ANOVA performed to examine the effect of procrastination scale score on students, with life scale scores revealed a significant difference for procrastination level on satisfaction with life score $F(1,317) = 7.786, p < .05$, partial $\eta^2 = .081$. Specifically, procrastinators ($M=19.94$; $SD = 5.95$) reported to have lower life satisfaction score than non-procrastinators ($M = 23.34$; $SD = 5.30$)

Kathrin Krause and Alexandra M. Freund (2013) conducted a study comparing self-report and behavioral measures of procrastination and their impact on affective well-being. Sample consisted of $N=162$ undergraduate university students (75% female; Male 21.43 years) who were recruited as sample in 2 lecture classes. Data was collected in a nine-week longitudinal online study which consisted 16 measurement points. Academic procrastination was measured by 13 item academic procrastination inventory. Results showed that trait and state procrastination were positively correlated with each other and both with behavioral procrastination.

Hooria Motie, Mahmood Heidari and Mansooreh Alsadat Sadghi(2012) conducted a study on predicting academic procrastination during self-regulated learning among Iranian first grade high school students. 250 students (121 females, 129 males) were included in the study. Procrastination assessment scale for students (PASS) was used to measure procrastination. Results indicated that internal valuation toward goal ($p<0.05$), external valuation toward goal ($p<0.05$), meta-cognitive self-regulation ($p<0.05$), time and place management ($p<0.05$) and effort regulation ($p<0.001$) are negative predictor of academic procrastination, organization is meaningfully positive predictor of academic procrastination ($p<0.5$).

Mural Balkis (2012) conducted a study on the analysis of the relation between academic procrastination, academic rational / irrational beliefs, time preferences to study for exams, and academic achievement. The sample consisted of 281 undergraduate students who filled in questionnaires at for a period of 7 week long summer course.

Students responded to questionnaires assessing their levels of (a) academic procrastination, (b) academic rational/irrational beliefs, and (c) time preferences to study for exams and demographic information sheet. In general, the results showed that rational academic beliefs have a direct impact on academic procrastination and time preferences to study for exams. Academic rational beliefs, time preferences to study for exams, and academic procrastination accounted for 24% of the variance in academic achievement. Three academic levels were statistically significant (Welch F (2,130) = 6.62, $p = .002$).

Seung Won (2012) conducted a study on Academic procrastination and their self-regulation. 41 undergraduate students were recruited from 2 sections of an introductory general education course whose ages ranged from 19-21. 6 survey instruments were used to collect quantitative data and a partially-structured interview protocol for additional qualitative data. Procrastination Assessment Scale Student (PASS; Solomon & Ruthblum, 1994) was used to assess procrastination. Results showed that high procrastinators displayed a significantly higher tendency to self handicap ($t = -4.697$, $df = 39$, $p < .001$) and to protect self worth ($t = -2.453$, $df = 39$, $p < .019$) when compared to low procrastinators.

Laurel A Haycock, Patricia McCarthy, Carol L Skay (2011) conducted a study on the role of self-efficacy and anxiety on procrastination among college students. 141 university students were included in the study. Participants were asked to think about a major project and to rate their efficacy regarding the skills needed to accomplish the project. Bivariate correlations showed that efficacy expectations and anxiety had significant, individual relationships with procrastination.

Murat Iskender (2011) conducted a study on the influence of self-compassion on academic procrastination and dysfunctional attitudes. The objectives of the study were (1) determine gender difference in self-compassion, academic procrastination, and dysfunctional attitudes and (2) to examine the relationships between self-compassion, academic procrastination, and dysfunctional attitudes. Participants were 251 university students who completed a questionnaire package that included self-compassion scale, and the dysfunctional attitude scale. The results showed that self-compassion was positively related to academic procrastination ($r = 0.32$). But there was no significant

correlations between self - compassion and dysfunctional attitudes and between academic procrastination and dysfunctional attitudes.

Ozer and Bilge Uzun(2011) conducted a cross sectional study to investigate the levels and the prevalence of academic procrastination on high school, undergraduate and graduate students. Procrastination Assessment Scale-Student (PASS) was administered to a total of 448 students who were 149 (83 female; 66 male) were from high school, 150 (80 female; 70 male) undergraduate and 148 (84 female; 64 male) graduate students. Results showed a significant difference among the academic levels of the students. Specifically, undergraduate students claimed to procrastinate more than the graduate and high school students. High school and undergraduate students claimed to be nearly always or always procrastinate or studying for exams, while graduate students procrastinate more on writing term papers.

Anthony J Onwuegbuzle (2010) examined the prevalence of procrastination among graduate students and to investigate the relationship between academic procrastination and six dimensions of statistics anxiety. Participants were 135 graduate students enrolled in three sections of a required introductory-level educational research course at a university in the southeastern part of the USA. Findings revealed that a high percentage of students reported problems with procrastination on writing term papers, studying for exams, and completing weekly reading assignments. A canonical correlation analysis revealed that academic procrastination resulting from both fear of failure and task aversiveness was significantly related to worth of statistics, interpretation anxiety, test and class anxiety, fear of asking for help, and fear of the statistics instructor.

Irshad Hussain, Sarwat Sultan (2010) conducted a study focusing on analyzing the influencing factors of procrastination and its effect on learning among university students. It was conducted on 500 students and 40 teachers of the Islamic University of Bahawalpur, Pakistan through survey approach. Results showed that the university students delay in preparing and submitting their assignments (87% of the students & 90% of their teachers with mean scores 4.0 and 4.2 respectively), & presentations (68% of the students and 67.5% of their teachers with mean scores 3.5 and 3.5 respectively.); preparing for examination (62% of the students and their teachers with their mean scores

3.4 and 3.5 respectively.) Likewise, the work load of assignments and improper time management by the students causes procrastination

Rebecca Stead, Matthew J. Shanahan and Richard W.J. Neufeld (2010) conducted a study on procrastination, stress and mental health. 135 undergraduate students (65 men; age 17-22 years, $M = 18.42$, $SD = .75$) were included in the study. Procrastination was measured using Lay's procrastination scale. A canonical correlation analysis was used to determine the ways in which the procrastination and stress variables were related to the mental help-seeking behavior variables. Results revealed three significant functions between the set of mental health variables ($R_c = .69$, Wilk's $\lambda = .453$, $p < .001$; $R_c = .30$, Wilk's $\lambda = .856$, $p < .01$; $R_c = .30$, Wilk's $\lambda = .856$, $p < .01$)

W. Kyle Simpson, Timothy A. Pynchyl (2009) conducted a study investigating the relation between procrastination, arousal-based personality traits and beliefs about procrastination motivation. Participants were 311 undergraduate students with a mean age of 20.06. An online questionnaire package included measures of procrastination and 3 arousal-based personality inventories. A factor analysis of the GP and the sensation seeking scale produced six factors with the GP and SSS-V items loading on separate factors, indicating no relation. A regression analysis revealed that SS, E and R together accounted for 5.2 % of the variance in participant's arousal-related beliefs motivating their procrastination. These results indicate that some individuals believe that their procrastination is motivated by a need for heightened arousal.

Allan .K. Blunt and Timothy A. Pynchyl (2008) in a study explored notions of task aversiveness across stages of personal projects. 95 female and 66 male undergraduate students enrolled in an introductory psychology class completed personal project method for analysis. Principal components analysis (PCA) revealed that boredom, frustration, and resentment emerge as PPA dimensions associated with task aversiveness at each stage of project development. As hypothesized, each principal component identified with task aversiveness was found to be positively related with procrastination.

Robert M.Klassen, Lindsey L. Krawchuk, Sukaina Rajani (2008) conducted a study on the role of low self efficacy in predicting higher level of procrastination. 261 undergraduate students were included in the study. The sample was primarily female (81%) with an age range of 18 to 53 years, and a mean of 23.33 years (SD=5.19). Tuckman's 16- item procrastination measure was used. Results showed that students with higher GPA were less likely to report procrastination ($r=-.22$) and that the students with stronger academic self-efficacy and global self-esteem were less likely to procrastinate ($r=-.18$ and $r=-.190$) students who reported higher levels of self-regulation reported lower levels of procrastination ($r=-.40$).

Andrew J Howell and KarnBuro (2007) examined relations between procrastination, achievement goal orientations, and learning strategies. 170 undergraduates were selected as samples and completed measures of procrastination, goal orientation, and learning strategies usage. Bivariate correlations revealed procrastination related negatively to a mastery- approach goal orientation and positively to a mastery- avoidance goal orientation. Procrastination was also related to greater disorganization and less use of cognitive and meta-cognitive strategies. Multiple regression analyses revealed that disorganization and cognitive strategies usage were most predictive of procrastination.

Kathrin Krause (2006) presented a theoretical paper showing a dynamic model that centers on the role of goal focus in influencing procrastination during goal pursuit. Their central hypothesis was that focusing on the means of goal pursuit reduces procrastination particularly when fear of failure is high. Focusing on the goals should decrease the salience of performance outcomes and thereby reduce fear of failure. This in turn should reduce procrastination by directing attention away from the means while highlighting the importance of goal achievement.

McGregor (2006) conducted a meta-analysis synthesized the results from test anxiety reduction programs. Analyses were based on 56 studies ($n=2,482$); the overall mean effect size (ES) for test anxiety reduction programs was 0.65. On measures of anxiety reduction, the average individual completing treatment is seen as better off than 74 percent of those individuals who did not receive treatment. The treatment of test anxiety has been quite successful in reducing the test anxiety level of clients. The most

effective treatments appear to be those that combine skill-focused approaches with behavior or cognitive approaches. Individually conducted programs, along with motivational therapy produced the greatest changes.

Eunju Lee (2005) conducted a study on the relationship of motivation and flow experience to academic procrastination among university students. 262 students (138 men, 124 women) who ranged from 18 to 24 years ($M_{\text{age}} = 20.02$, $SD = 1.20$) were included in the study. Procrastination was measured using Tuckman procrastination scale. The results indicated that procrastination was best predicted by students flow of experiences rather than by motivation

Simon. M. Moon (2005) in a research, examined whether there are inter-individual differences in trajectory, the extent to which these differences can be predicted by other variables, and the relationship between temporal changes in procrastination and academic outcomes. Multi-wave data from 303 students regarding their actual procrastination behavior and test performance during an academic semester, as well as single measurements of their self-reported levels of trait procrastination. Using latent growth curve modelling, we found that high and low procrastinators followed the same trajectory over time, that the self-report measures did not predict temporal changes in procrastination and test performance, and that procrastination behavior was negatively related to test performance throughout the semester.

Barbara A Fritzsche, Beth Rapp Young and Kara C Hickson (2003) examined the relation between academic procrastination tendency and student writing success. Results showed that 38% of participants reported that they 'nearly always' or 'always' procrastinated on writing a term paper. It was also found that the tendency to procrastinate on writing tasks was associated with general anxiety, anxiety about writing the paper, writing the paper later than usual, less satisfaction with writing the paper, and lower grades. Additionally receipt of feedback on writing was associated with better writing outcomes for high procrastinators.

Wendelian Van Eerde (2003) conducted a study which examined the impact of time management training on self-reported procrastination. In an interventional study, 37 employees attended a 1 1/2- day time management training seminar. A control group of

employees (n=14) who were awaiting training also participated in the study to control for expectancy efforts. One month after undergoing time management training, trainees reported a significant decrease in avoidance behavior and worry and an increase in their ability to manage time. The results suggested that time management training is helpful in lessening worry and procrastination at work.

Henri C Schouwenburg, Jan Tjeerd Groenewoud (2001) conducted a study to examine the view that procrastination can be explained as a result of the joint effect of a general discounting mechanism and a personality trait. 302 university students were included in the study. Study motivation was operationalized in three ways: (1) as an estimate of general motivation towards studying, (2) as a measure of resistance to temptation averaged over five social situations, and (3) as a weekly average of hours spent studying each day. Results indicate that discounting of study motivation as a function of time left until the examination closely follows the formula suggested by the self-control literature. Differences in rate of discounting between high, moderate, and low procrastinators were significant for actual study behavior, but not for general motivation or resistance to temptation. This may be similar to the general finding that procrastinators tend to differ from non-procrastinators in behavior rather than in intentions.

Joseph R Ferrari, Dianne M. Tice (2000) conducted a study on procrastination as a self-handicap for men and women; a task-avoidance strategy. 59 undergraduate psychology students (40 women and 19 men) were included in the study. Procrastination was measured using Lay's procrastination scale. When participants reported individually to a laboratory, they were told that their performance on a math task would be measured. However participants were allowed to practice the task or engage in other fun activities for 15 minutes; hence procrastinate at practicing. Results indicated that there was no significant gender difference in general procrastination scores (men, M score = 60.2, SD = 13.2; women M score = 5.3, SD = 13.3) and participants spent an average of 9 min procrastinating; i.e., working on tasks other than the practicing task(men, M=9.1min, SD = 3.1; women, M= 8.9 min, SD = 2.4).

Sheila Brownlow and Renee D. Reasinger (1997) conducted a study on relative impact of intrinsic and extrinsic motivation towards academic work. 96 undergraduate students (48 men, 48 women) were included in the study. The participants completed the scales in the order (1) Burn's Perfectionism Scale (2) Multidimensional-Multiattributonal Casuality Scale (3) Locus of Control (4) Procrastination Assessment Scale –Students (PASS). Results showed that perfectionism ($\beta = .45, \Delta R^2 = .12, F(1,92) = 12.77$), lack of extrinsic motivation ($\beta = -.34, \Delta R^2 = .10, F(2,91) = 13.02$), a tendency to make external attributions ($\beta = -.23, \Delta R^2 = .07, F(3,90) = 12.40$), and being male ($\beta = -.23, \Delta R^2 = .07, F(3,90) = 12.40$), all predicted academic procrastination.

Flett, Gordon (1992) examined the relations between perfectionism, motivation and procrastinatory behavior among college students. Participants were 96 undergraduate students (48 men, 48 women) who completed the study at their convenience, either alone or in scheduled sessions of mixed-sex groups up to 10 people. Procrastination was assessed using procrastination assessment scale for students. Results showed that perfectionism ($B = .20, R^2 = .12, F(1,92) = 12.77$), lack of motivation ($B = .23, R^2 = .10, F(2,91) = 13.02$), all predicted academic procrastination.

Flett, Gordon L, Blankstein, Kirk R, Hewitt, Paul L and Koledin (1992) conducted a study to examine the relations between individual differences in perfectionism and procrastinatory behavior in college students. A sample of 131 students (56 males, 75 females) completed measures of self-oriented, and socially prescribed perfectionism, as well as measures of academic procrastination and general procrastination. LAY procrastination scale was used to measure procrastination. Results showed that socially prescribed perfectionism was correlated positively with scores on the Lay procrastination scale, $r(129) = .30, p < .01$, as well as with the frequency of academic procrastination, $r(129) = .21, p < .05$, the extent to which he accurate procrastination is a problem, $r(129) = .28, p < .01$, and fear of failure in academic situations, $r(129) = .40, p < .01$.

Solomon, Laura J, Rothblem and Esther D (1984) conducted a study on academic procrastination; frequency and cognitive-behavioral correlates. The objectives of the study were (a) to determine the frequency of academic procrastination among

college students (b) to systematically assess the reasons for procrastination and (c) to compare the self-report of procrastination to behavioral measures of procrastination. 342 students which included 101 males and 222 females were included in the study. Procrastination was measured using Procrastination assessment scale students(PASS) A factor analysis of the response for procrastination listed in a procrastination assessment scale indicated that the fear of failure and averseness of the task accounted for most of the variance. The aversiveness of task factor correlated significantly with depression, irrational cognitions, low self-esteem, and delayed study behavior. Results indicate that procrastination is not solely a deficit in study habits or time management, but involves a complex interaction in behavior, cognitive and affective components.

SECTION 2.2: SCIENTIFIC REVIEWS RELATED TO COGNITIVE BEHAVIOR THERAPY:

Ali K Khanekeshi (2014) conducted a study on effectiveness of cognitive behavior therapy on academic stress among high school students. 130 students were included in the study in which 5 boys and 5 girls each from 10th, 11th, and 12th were assigned to experimental group (15 boys and 15 girls) and control group (15 boys and 15 girls) . A 30 item self-report measure was used to measure academic stress. Results showed that there was a change (reduction) observed between pre-treatment and post-treatment sessions mean score in academic stress.1) For experimental group academic stress pre-treatment score was 21.9 which was reduced to 14.37 in post treatment assessment (MD = 7.53) 2) for control group academic stress pre-treatment score was 21.67 which was reduced to 21.17 in post-treatment assessment (MD = 0.50).

Rezaei Omid, Eftekhari Mohammad, DolatshahiBehrooz and MasafiSaideh (2014) conducted a study on the effectiveness of Cognitive Behavior Therapy on anger management. 20 subjects were included in the study. Anger was measured using Spielberger,s State Trait Anger Expression Inventory. 10 subjects were randomly placed in experimental and remaining in control group. Experimental group members participated in 12(90 minutes) sessions twice a week in anger management group with cognitive-behavioral approach. Data was analysed using descriptive statistical method. Results showed that the difference between posttest results of control and experimental groups was significant in mentioned test ($p < 0.05$) which showed that cognitive behavior therapy was effective in reducing anger.

Karen Heslop, Julia Newton and Anthony De Soyza (2013) conducted a study on effectiveness of cognitive behavior therapy interventions on anxiety among patients with chronic obstructive pulmonary disease (COPD). 112 patients were included in the study. Data was collected 3, 6 and 12 months following randomization. Descriptive statistics was used for analysis. Results proved that CBT delivered was effective in reducing anxiety.

Jessica Bramham, Susan Young and Alison Bickerdike (2009) conducted a study on the effectiveness of Cognitive Behavior Therapy for adults with ADHD. Participants in the study formed a CBT treatment group who attended 6 workshops and a waiting list control group. After the intervention the groups were compared using repeated measures ANOVA test. The results showed that CBT group treatment is an acceptable and cost-effective intervention for adults with ADHD.

SECTION 2.3: SCIENTIFIC REVIEWS RELATED TO COGNITIVE BEHAVIOR THERAPY ON PROCRASTINATION

Alexander Rozental, David Frosstrom, Joseph AlmquistTangen (2015) conducted a qualitative study on the experiences of undergoing internet-based cognitive behavior therapy (ICBT) for procrastination. 150 students were included in the study. Irrational Procrastination scale (Steel, 2012) was used to measure procrastination. Students were distributed open-ended questions related to their experiences of undergoing ICBT for procrastination at the post-treatment assessment. In total 75 participants (50%) responded, and the material was examined using thematic analysis. The results indicate that there exist both positive and negative aspects of the treatment program. Many participants increased their self -efficacy and were able to gain momentum on many tasks and assignments that had been deferred in their everyday life. Meanwhile, several participants lacked motivation to complete the exercise, had too many conflicting commitments, and were unable to keep up with the tight treatment schedule. Hence, the results suggest that internet interventions for procrastination could profit from individual tailoring, shorter and more manageable modules, and that the content need to be adapted to the reading comprehension and motivational level of the patient.

David Forsstrom (2014) conducted a qualitative study on experiences of undergoing internet-based cognitive behavior therapy for procrastination. Total 150 participants were included in the study. Irrational procrastination scale (Steel, 2012) was used. The responses provided by the 75 participants consisted of 18,650 words that were explored by using a qualitative method. Thematic analysis was chosen to examine the effectiveness and proved that many of the participants gained momentum and increased their self- efficacy as a result of the treatment intervention.

Pepita Torbrand (2014) conducted a study on the experience of cognitive behavioral group coaching (CBC) among college students exploring its effectiveness. This pilot study was aimed to investigate whether cognitive behavior coaching can be used with students in order to reduce procrastination. It consisted of 7 students. A qualitative approach was taken using Interpretative Phenomenological Analysis (IPA) was used in order to explore the meaning making and personal experience of CBC. A 12 item Ran-online People Procrastination Questionnaire (Walker Dunnet, 2013) was used to assess the pre -test and post- test level. Results showed that procrastination levels in procrastinators reduced markedly after receiving CBC (from M=29 to M=19.6) compared to the procrastinators not receiving coaching for which procrastination slightly increased (for one student) in the last month before exam (from M=26 to M=27).

Alexander Rozental (2013) conducted a study on the effect of cognitive behavior therapy on the level of procrastination. A randomized controlled trial with a sample size of 150 participants divided into 3 groups was utilized. The treatment group consisted of 50 participants receiving a 10 week CBT intervention with weekly therapist contact. A 2nd treatment group with 50 participants receiving the same treatment without therapist control. A control group consisting of 50 participants on a wait-list control was used. The results indicated that CBT is effective in rendering significant knowledge on the treatment of procrastination.

Bilge Uzun Ozer, AyhanDemir, Joseph R.Ferrari (2013) conducted a pilot study on reducing academic procrastination through a group treatment program. The study assessed a short-term group treatment program using cognitive interventions focused on students procrastination. A structured 90 minute session program was used with 10 students (5 female, 5 male, SD=3.2) across 5 weeks. In the first and last session

of the program participants completed a 2 reliable and valid procrastination scales, and then 8 weeks later in the follow up sessions filled out the same questionnaire. Results of a non-parametric Friedman Test revealed a significant decrease in participants academic procrastination score and general procrastination scores from the pre test to follow up test($\chi^2(2, N=10)=10.74, P<0.01$) suggesting that the program was deemed to be successful.

Neil Farber (2012) in a study created vision board for students. Three groups of students: group 1 were asked to spend a few moments each day visualizing with a clear image how great it would feel to make a high grade on an important midterm exam that would take place in a few days' time. Group 2 students were asked to spend a few minutes each day visualizing when, where and how they intended to study. Group 3 control group of students were not asked to visualize this. Results showed that group 1 studied less and made lower grades on exam. Group 2 students prepared better, studied more, scored higher grades and were less stressed.

Alexander Roxental, (2010) conducted a study on internet based cognitive behavior therapy for procrastination. A randomized controlled trial with a sample size of 150 participants divided into 3 groups were utilized. The treatment outcomes were examined using mixed-effect model. The results showed that cognitive behavior therapy has a positive effect on procrastination.

Dorata Karas (2010) conducted a case series on brief cognitive behavioral coaching for procrastination. The aim of this study was to describe specific coaching skills for procrastination, integrate them into a brief specific coaching programme for procrastination, and determine the programme's effectiveness. 7 participants were included in the study and the mean Decisional Procrastination Scale and General Procrastination scale were used. Both visual inspection of individual data and t- tests were used for the purpose of the study. Results showed that there was a mean decrease in decisional and general procrastination scores at post-coaching (T6) was 6.3 and 32.6 respectively which proved that CBT is effective.

Hugh Kearns (2010) conducted a study to assess the effectiveness of a cognitive behavioral coaching intervention for the treatment of procrastination. 28 research higher degree students participated in this intensive workshop series held over 6 weeks. Participants were administered questionnaires containing basic demographic questions, and scales measuring procrastination. Subjects ANOVA produced a main effect of time, $F(2,46) = 7.924$, $P < .001$, $\eta^2 = .256$. Results showed that participants' levels of procrastination, as measured by lay's procrastination scale reduced following the CBC intervention.

Adelaide (2007) conducted a study on the efficacy of a modified form of cognitive behavior therapy, known as cognitive behavioral coaching, in reducing levels of procrastination and self-handicapping. 28 research higher degree students participated in an intensive workshop series held over a period of 6 weeks. Procrastination and self-handicapping was measured at the commencement and conclusion of the workshop series and this reduction was sustained at follow-up. Levels of self-handicapping did not fall during the workshop series but had fallen significantly by follow-up participants' level of satisfaction with their progress also improved. This study demonstrated how the principles of CBT can be successfully modified and used with a non-clinical population.

Duchame (2004) evaluated the appropriateness of the cognitive behavioral approach for use in executive coaching engagements. The basic levels of cognitive behavior therapy, as well as its conceptual underpinnings are reviewed. Following this a discussion of how well the goals of executive coaching are met by a cognitive behavioral approach is presented. The author recommends that for stress management and skill, cognitive behavior therapy is appropriate and likely to be highly effective.

Jane M Gill (1994) conducted a study on the efficacy of cognitive-behavioral treatment of procrastination. A single-system design was used to analyze change due to the intervention. These instruments, 2 standardized and 1 self-anchored, were used to collect data across the phases of the ABA design. The study was replicated with 9 clients. Analysis of data indicated that the clients experienced a considerable reduction in their levels of procrastination as a result of the cognitive behavioral intervention. The results also indicated that several issues were associated with procrastination, including

issues such as self-criticism, difficulty in dealing with feedback and unrealistic goal setting. Consideration was given to the limitations of the study as well as its applications to social work practice and research.

Durlak, Joseph A, Fhrman, Teresa, Lampman and Claudia (1991) identified variables that moderate the outcomes of cognitive-behavior therapy for dysfunctional children. Theoretical considerations led to the hypothesis that children's cognitive developmental level would moderate the treatment effectiveness and analysis confirmed this hypothesis. The effect size (0.92) for children presumably functioning of the formal operational level (ages 11-23) was almost twice that was children at less advanced cognitive processes and behaviors were not significantly related, indicating the need for further work delineating the specific mechanisms of therapeutic change. Finally an analysis of the practical significance of outcomes indicated that treatment had produced a meaningful impact on adjustment, although further behavioral improvement was still possible and desirable.

RESEARCH METHODOLOGY

Methodology of research organizes all the components of study in a way that most likely will lead to valid answers for the problems that have been posted (**Burns and Groove, 2008**). This chapter deals with the methodology adopted for the study. It includes the research approach, research design, variables, setting, population, sample, and criteria for selection of the sample, sample size, sampling technique, development and description of the tool, content validity, pilot study, and reliability of the tool, data collection procedure and plan for data analysis.

3.1 RESEARCH APPROACH

A quantitative research approach has been used for this study.

3.2 RESEARCH DESIGN

The research design used for this study is true-experimental study. Based on Polit and Beck (2011) this study design is termed as true-experimental, as the investigator has incorporated an intervention and a control group and randomization in sample selection. The schematic representation of the true-experimental study (pre-test- post-test only design) is shown below.

SCHEMATIC REPRESENTATION

	GROUP	PRE-TEST (O₁)	INTERVENTION (×)	POST-TEST (O₂)
RANDOMIZATION	Experimental group	Assessment of pre-test level of procrastination among 1 st year B.Sc Nursing students	Cognitive therapy in the form of motivational therapy and goal orientation in the form of treasure mapping	Assessment of post-test level of procrastination following use of cognitive behaviour therapy among 1 st year B.Sc Nursing students
	Control group	Assessment of pre-test level of procrastination among 1 st year B.Sc Nursing students	-----	Assessment of post -test level of procrastination among 1 st year B.Sc Nursing students

3.3 VARIABLES

3.3.1 Independent Variables

The independent variable in this study is cognitive behaviour therapy.

3.3.2 Dependent Variables

The dependent variable in this study is the level of procrastination among 1st year BS.c Nursing students.

3.3.3 Extraneous Variables

Student related variables - Age in years, gender, habitat, medium of instruction, occupation of parents, education of parents and family income.

3.4 SETTING OF THE STUDY

The study was conducted for I year B.Sc Nursing students in Venkateswara Nursing College and Hindu Mission College of Nursing. Venkateswra Nursing College was taken as the experimental group. Venkateswara Nursing College (group of Vels institution) is affiliated to Tamil Nadu Dr M.G.R Medical University. It was established in the year of 2006. It is recognized by government of Tamil Nadu, Indian Nursing Council, Tamil Nadu Nurses and Midwives Council. It is a private self-financing college situated at Thalambur, Chennai.

Hindu Mission College of nursing is a private college affiliated to Dr. MGR Medical University, Tamil Nadu. Hindu Mission is registered under society act and it is functioning since 1982.

3.5 POPULATION

3.5.1 Target Population

The target population of the study is all I year B.Sc Nursing students.

3.5.2 Accessible Population

All I year B.Sc Nursing students studying in Venkateswara Nursing College, Thalambur, Chennai and Hindu Mission College Of Nursing, Tambaram, Chennai.

3.6 SAMPLE

The I year B.Sc Nursing students, who satisfied the inclusion criteria and were available in the selected settings at the time of data collection, were the samples of the study.

3.7 SAMPLE SIZE

The samples consisted of 80 I year B.Sc Nursing students who fulfilled the inclusive criteria, with 40 each in the experimental and control group, from Venkateswara Nursing College, Thalambur, Chennai and Hindu Mission College Of Nursing, Tambaram, Chennai respectively.

3.8 CRITERIA FOR SAMPLE SELECTION

3.8.1 Inclusion Criteria

1. Students who are studying I year B.Sc Nursing in Venkateswara Nursing College and Hindu Mission College of Nursing
2. Both male and female students doing I year B.Sc Nursing
3. Students who can read and write English.
4. Students who are available at the time of data collection
5. Students who are willing to participate in the study

3.8.2 Exclusion Criteria

1. Students being currently under psychological treatment.
2. Students who have already underwent therapy for procrastination

3.9 SAMPLING TECHNIQUE

Two stage cluster sampling technique was used to select 80 I year B.Sc Nursing students as samples, with 40 samples each in the experimental and control group, from Venkateswara Nursing College, Thalambur, Chennai and Hindu Mission College of Nursing, Tambaram, Chennai respectively.

3.10 DEVELOPMENT AND DESCRIPTION OF THE TOOL

The tool used to measure procrastination in this study is Tuckman's Procrastination Scale which is a standardized tool. The tool for the study has two parts:

Part 3.10.1: Assessment of demographic variables**Part 3.10.2: Tuckman's procrastination scale.****Assessment of demographic variables**

Personal data sheet on the demographic characteristics of students which includes age in years, gender, habitat, medium of instruction in higher secondary, education of mother, education of father, occupation of mother and family income.

Tuckman's Procrastination Scale

It consists of self-reporting rating scale which has 16 questions to which the subjects should report on a 4 point scale rating from 1 to 4. The overall score is 64 with a minimum score of 16 and maximum 64.

The overall score is 64 with a minimum score of 0, and maximum 16.

Interpretation:

Score	Level of Procrastination
$\leq 50\%$	Low Level of Procrastination
51 – 75%	Moderate Level of Procrastination
$> 75\%$	High Level of Procrastination

3.11 CONTENT VALIDITY

The content validity of the data collection tool and intervention tool was ascertained with the expert's opinion in the following field of expertise,

- Psychiatrist-1
- Mental Health Nursing experts-5
- Statistician-1

Modifications suggested by the experts were incorporated and tool was modified accordingly. These changes were incorporated in the tool. All the experts gave their consents and then the tool was finalized.

3.12 ETHICAL CONSIDERATIONS

1) Beneficence

The research study was approved by the ethical committee held on December 2015 by Venkateswara Nursing College, Thalambur, Chennai.

a) The right to freedom from harm and discomfort

The study was beneficial for the participants, as the use of Cognitive Behaviour Therapy decreased their level of procrastination. No harm or discomfort was caused to any of the students.

b) The right to protection from exploitation

The investigator explained the procedure and nature of the study to the participants and ensured that none of the participants in both experimental and control group would be exploited or denied fair treatment.

2) Respect for Human Dignity

The investigator followed the second ethical principle of respect for human dignity. It includes the right to self-determination and the right to self-disclosure.

a) The right to self-determination

The investigator gave full freedom to the participants to decide voluntarily whether to participate in the study or to withdraw from the study and the right to ask questions.

b) The right to full disclosure

The researcher has fully described the nature of the study, the person's right to refuse participation and the researcher's responsibilities.

3) Justice

The researcher adhered to the third ethical principle of justice; it includes participant's right to fair treatment and right to privacy.

a) Right to fair treatment

The researcher selected the study participants based on the research requirements. The investigator administered the intervention to the students in the control group after the completion of post-test. All the samples were treated fairly and no discrimination of any form was imposed on them.

b) Right to privacy

The researcher maintained the participant's privacy throughout the study.

4) Confidentiality

The researcher maintained confidentiality of the data disclosed by the study participants.

3.13 RELIABILITY

The reliability of the scale to assess the level of procrastination was assessed using split half method. The reliability score obtained was $r=0.86$ for the rating scale. This showed that the tool was highly reliable and feasible for utilization in the main study.

3.14 PILOT STUDY PROCEDURE

The pilot study was conducted at Wayanad Institute of Medical Science, Wayanad, Kerala after obtaining ethical clearance from the Ethical Committee. A formal written permission was sought from the Principal of Venkateswara Nursing College, and Principal of WIMS, Wayanad. . The data collection was done in the month of May from 22/5/15 to 27/5/15.

A total of 10 students who fulfilled the inclusive criteria for sample selection were selected using convenient sampling technique.

A brief explanation about the study was given to the students and data collection was commenced. Initially demographic details were obtained using a structured self-administrated profile and assessment of the pretest level of procrastination was done using Tuckman's Procrastination Assessment Scale.

After the pretest assessment, on the same day, the investigator performed motivational therapy and goal orientation therapy to the students. The data collection and the intervention took around 30 minutes. The investigator ensured that the treasure mapping for goal orientation was used by the students daily, and at the end of 5 days, the post-test assessment was done.

The analysis of the pilot study data revealed that the $X = 4.4$ which is more than the table value 3.84. The results of the pilot study gave the evidence that the Tuckman's Procrastination Assessment Scale was reliable, feasible and practicable to implement in the main study.

3.15 PROCEDURE FOR DATA COLLECTION

The main study was conducted after obtaining formal permission from the Principal of Venkateswara Nursing College, ethical clearance from the ethical committee and permission from the Principal of Hindu Mission College of Nursing. The data was collected for a period of 4 weeks from 01/06/2015 to 30/6/2015.

A total of 80 samples who fulfilled the inclusive criteria for sample selection were selected using convenient sampling technique. The investigator selected 40 in the control group from Hindu Mission College Of Nurisng, Tambaram and 40 students in the experimental group from Venkateswara Nursing College, Thalambur.

A brief self-introduction along with an explanation of the purpose of the study was given to the students. Data collection commenced with the control group followed by the experimental group.

The students in the control group at Hindu Mission College of Nursing were seated comfortably in a well-ventilated room with adequate privacy. At first, demographic details were obtained through a structured profile followed by pre-test assessment of the level of procrastination using Tuckman's Procrastination Scale. The post-test for the same was repeated after a week.

The same procedure was repeated for the experimental group at Venkateswara Nursing College. Following the pretest, the investigator performed motivational therapy and goal orientation therapy in the form of treasure mapping lasting for about 20 minutes. Intervention was carried out for 4 weeks after which post-test assessment was done. All ethical principles were adhered to throughout the course of the study.

3.16 PLAN FOR DATA ANALYSIS

The data analysis was done using descriptive and inferential statistics.

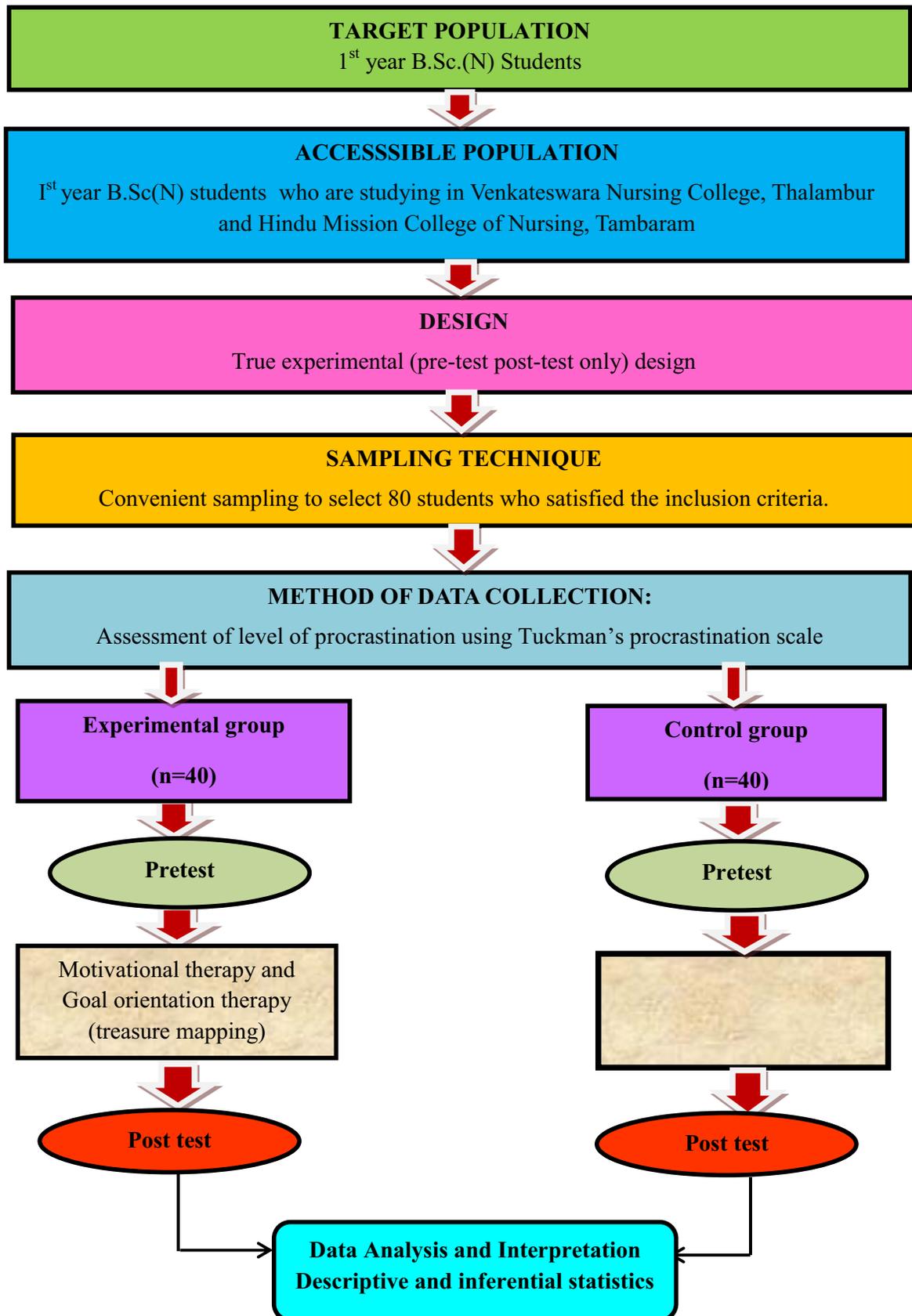
Descriptive Statistics

1. Frequency and percentage distribution was used to analyse the demographic variables of caregivers.
2. Mean and standard deviation to assess the level of procrastination.

Inferential Statistics

1. Paired and unpaired 't' test to compare the pre-test and post-test level of procrastination among and between the groups, respectively.

SCHEMATIC REPRESENTATION OF RESEARCH METHODOLOGY



CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of the data collected from 80(40 Experimental, 40 Control) I Year B.Sc. Nursing Students in selected Nursing Colleges, Chennai. The data collected was organized, tabulated and analyzed according to the objectives. The findings based on the descriptive and inferential statistical analysis are presented under the following sections.

ORGANISATION OF THE DATA

- Section 4.1:** Description of demographic variables of I Year B.Sc Nursing Students.
- Section 4.2:** Assessment of pretest and posttest level of procrastination among I year B.Sc. Nursing Students in experimental and control group.
- Section 4.3:** Effectiveness of Cognitive Behaviour Therapy on the level of procrastination among I year B.Sc. Nursing Students in experimental and control group.
- Section 4.4:** Association of post test level of procrastination among I year B.Sc. Nursing Students with their selected demographic variables in experimental and control group.

SECTION 4.1: DESCRIPTION OF DEMOGRAPHIC VARIABLES OF I YEAR B.SC NURSING STUDENTS.

Table 4.1.1: Frequency and percentage distribution of demographic variables of I Year B.Sc. Nursing Students in experimental and control group.

N = 80(40+40)

Demographic Variables	Experimental Group		Control Group	
	No.	%	No.	%
Age				
16-17	10	25.00	7	17.50
18-19	29	72.50	33	82.50
20-21	1	2.50	0	0.00
Gender				
Male	5	12.50	2	5.00
Female	35	87.50	38	95.00
Medium of Instruction				
English	15	37.50	10	25.00
Tamil	25	62.50	30	75.00
Others	0	0.00	0	0.00
Residence				
Rural	18	45.00	14	35.00
Urban	18	45.00	13	32.50
Semi Urban	4	10.00	13	32.50
Education of Mother				
Profession/Honours	1	2.50	0	0.00
Graduate/Post Graduate	2	5.00	1	2.50
Intermediate/Post High School Diploma	0	0.00	1	2.50
High School Certificate	7	17.50	8	20.00
Middle School, Certificate	10	25.00	15	37.50
Primary School Certificate	11	27.50	7	17.50
Illiterate	9	22.50	8	20.00
Education of Father				
Profession/Honours	1	2.50	0	0.00
Graduate/Post Graduate	6	15.00	4	10.00

Demographic Variables	Experimental Group		Control Group	
	No.	%	No.	%
Intermediate/Post High School Diploma	2	5.00	0	0.00
High School Certificate	12	30.00	11	27.50
Middle School, Certificate	9	22.50	17	42.50
Primary School Certificate	2	5.00	4	10.00
Illiterate	8	20.00	4	10.00
Occupation of Father				
Profession	10	25.00	8	20.00
Semi Profession	3	7.50	2	5.00
Clerical/Shop Owner/Farmer	13	32.50	13	32.50
Skilled Worker	6	15.00	6	15.00
Semi Skilled Worker	3	7.50	5	12.50
Unskilled Worker	4	10.00	1	2.50
Unemployed	1	2.50	5	12.50
Occupation of mother				
Profession	4	10.00	1	2.50
Semi Profession	2	5.00	1	2.50
Clerical/Shop Owner/Farmer	3	7.50	6	15.00
Skilled Worker	1	2.50	3	7.50
Semi Skilled Worker	0	0.00	0	0.00
Unskilled Worker	29	72.50	1	2.50
Unemployed	1	2.50	28	70.00
Family Monthly Income in Rupees				
More than 36017	3	7.50	0	0.00
18000-36016	3	7.50	3	7.50
13495-17999	4	10.00	2	5.00
8989-13494	8	20.00	10	25.00
5387-8988	8	20.00	13	32.50
1803-5386	5	12.50	10	25.00
Less than 1802	9	22.50	2	5.00

The table 4.1.1 shows that in the experimental group, majority 29(72.50%) were in the age group of 18 – 19 years, 35(87.50%) were female, 25(62.50%) had Tamil as medium of instruction, 18(45%) were from rural and urban area respectively. Regarding the education of mother, majority 11(27.50%) were educated upto primary school, 12(30%) of fathers were educated upto high school, 13(32.50%) of father's occupation was clerical/shop owner/farmer, 29(72.50%) of mothers were unskilled workers and 9(22.50%) had family monthly income less than Rs.1802.

Whereas in the control group, majority 33(82.50%) were in the age group of 18– 19 years, 38(95%) were female, 30(75%) had Tamil as medium of instruction, 14(35%) were from rural area, 15(37.50%) of mothers were educated upto middle school, 17(42.50%) of fathers were educated upto high school, 13(32.50%) of father's occupation was clerical/shop owner/farmer, 28(70%) of mothers were unemployed and 13(32.50%) had family monthly income of Rs.5387 – 8988..

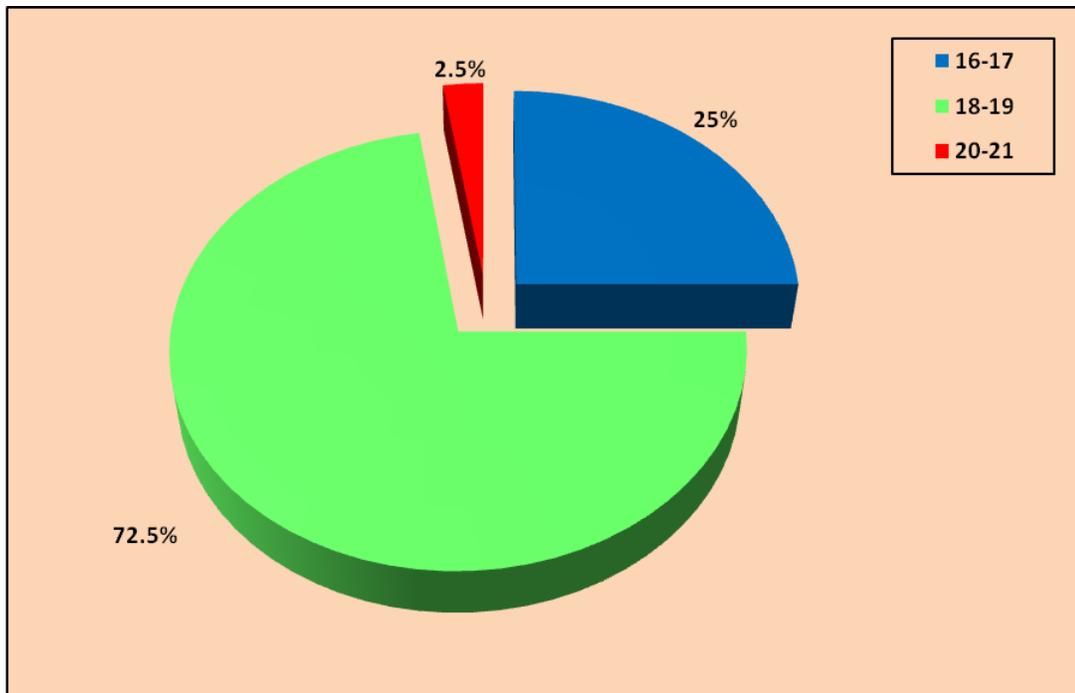


Fig.4.1.1: Percentage distribution of age of the I Year B.Sc. Nursing Students in the experimental group

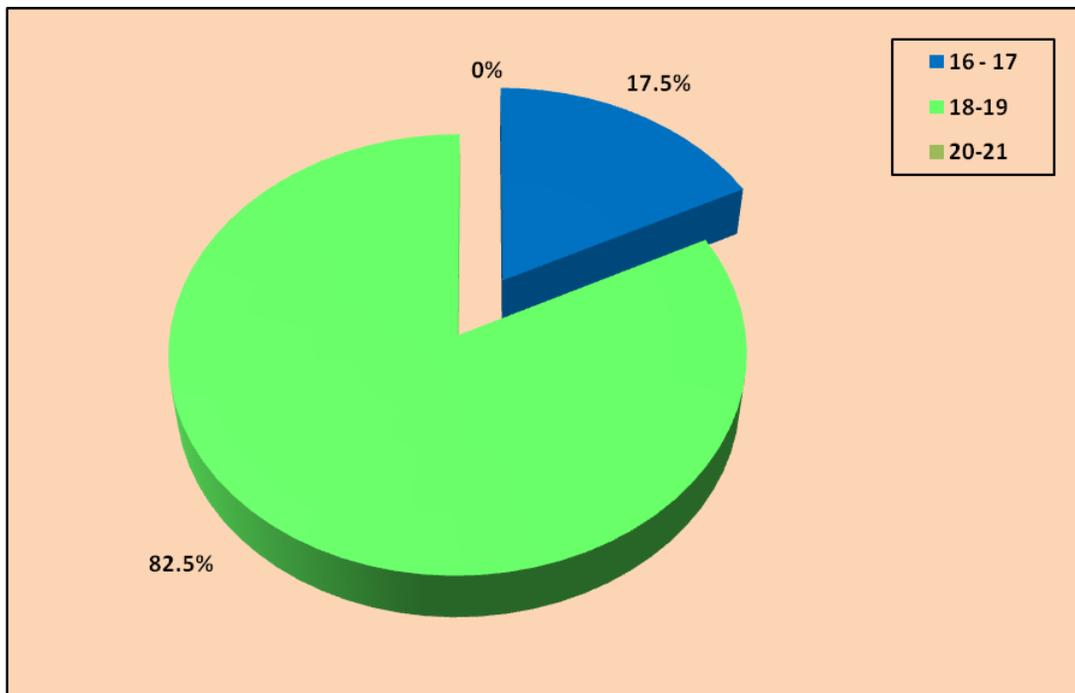


Fig.4.1.2: Percentage distribution of age of the I Year B.Sc. Nursing Students in the control group

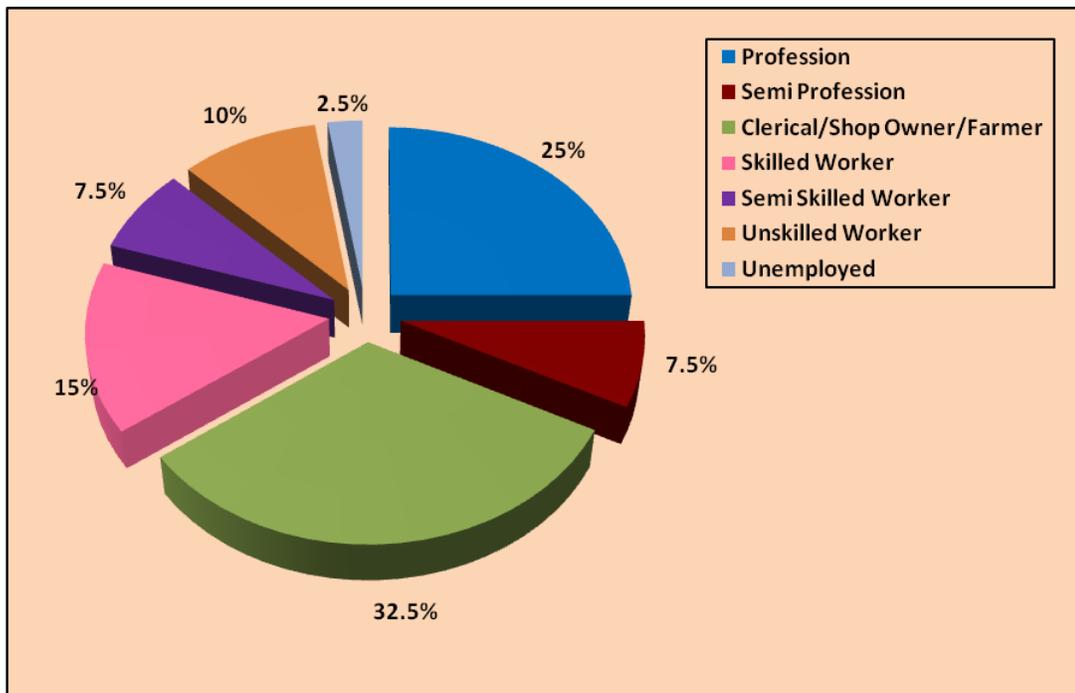


Fig.4.1.3: Percentage distribution of occupation of father of the I Year B.Sc. Nursing Students in the experimental group

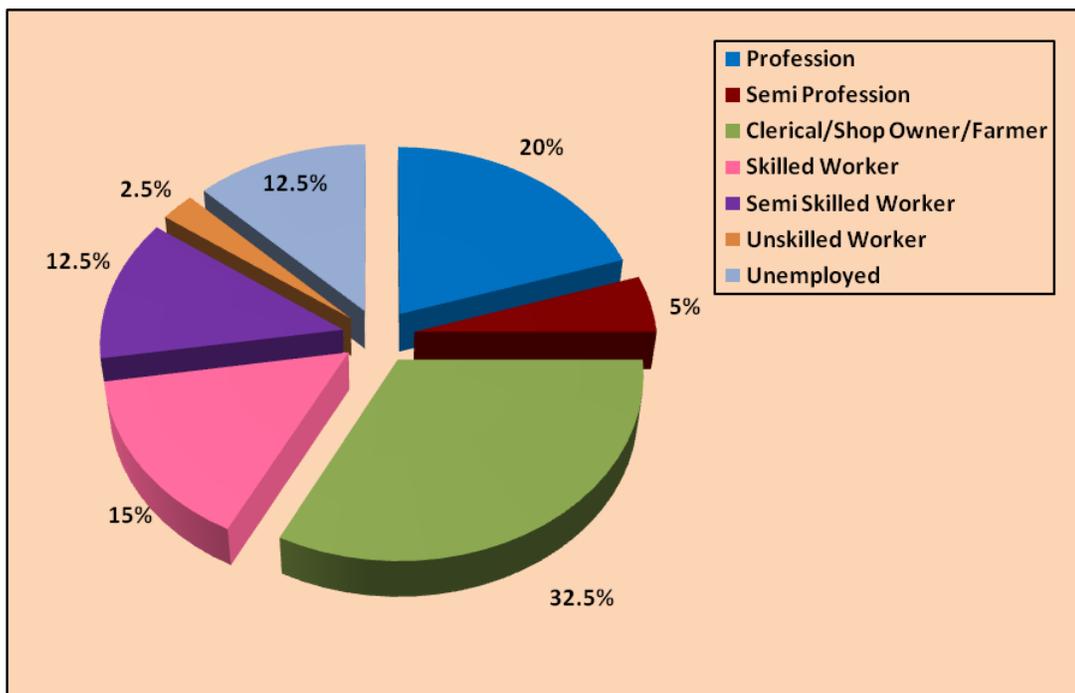


Fig.4.1.4: Percentage distribution of occupation of father of the I Year B.Sc.**Nursing Students in the control group****SECTION 4.2: ASSESSMENT OF PRETEST AND POST TEST LEVEL OF PROCRASTINATION AMONG I YEAR B.SC. NURSING STUDENTS IN EXPERIMENTAL AND CONTROL GROUP.****Table 4.2.1: Frequency and percentage distribution of pretest and post test level of procrastination among I Year B.Sc. Nursing Students in experimental group.****N = 40**

Procrastination	Low (≤50%)		Moderate (51 – 75%)		High (>75%)	
	No.	%	No.	%	No.	%
Pretest	4	10.0	27	67.5	9	22.5
Post Test	25	62.5	15	37.5	0	0

The table 2 shows that in the experimental group, majority 27(67.5%) had moderate level of procrastination, 9(22.5%) had high and 4(10%) had low level of procrastination and whereas in the post test after the cognitive behaviour therapy on procrastination majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination.

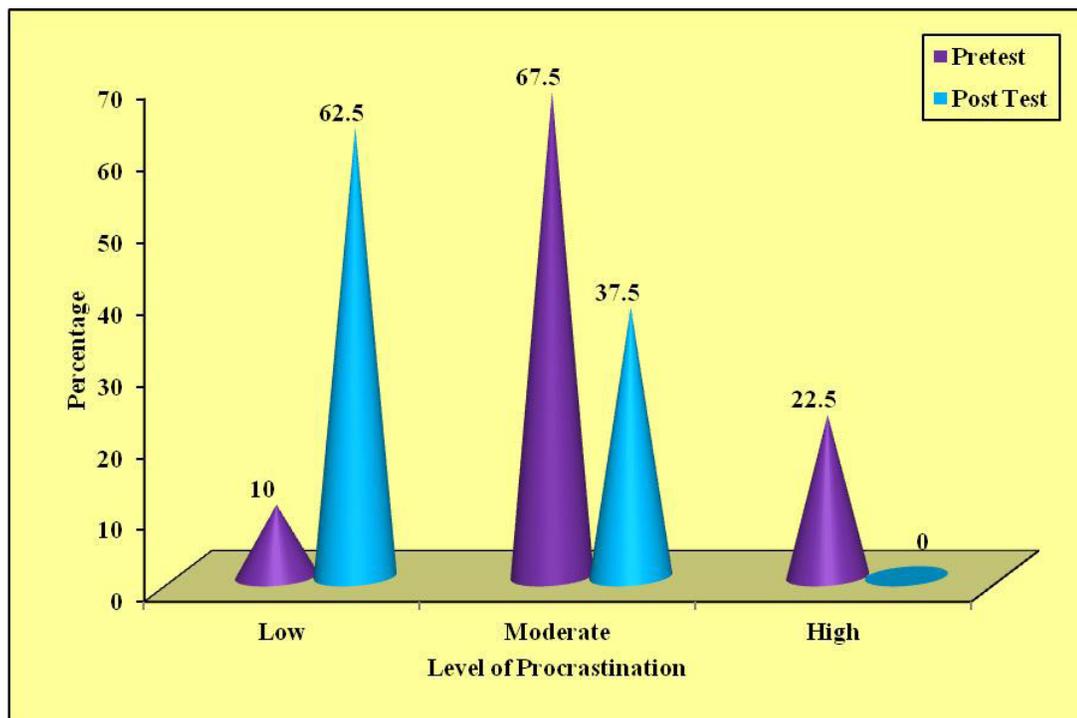


Fig.4.2.1: Percentage distribution of pretest and post test level of procrastination among I year B.Sc. Nursing Students in the experimental group

Table 4.2.2: Frequency and percentage distribution of pretest and post test level of procrastination among I Year B.Sc. Nursing Students in control group.

N = 40

Procrastination	Low ($\leq 50\%$)		Moderate (51 – 75%)		High ($>75\%$)	
	No.	%	No.	%	No.	%
Pretest	1	2.5	25	62.5	14	35.0
Post Test	1	2.5	28	70.0	11	27.5

The table 3 shows that in the control group, majority 25(62.5%) had moderate level of procrastination, 14(35%) had high and 1(2.5%) had low level of procrastination and whereas in the post test majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

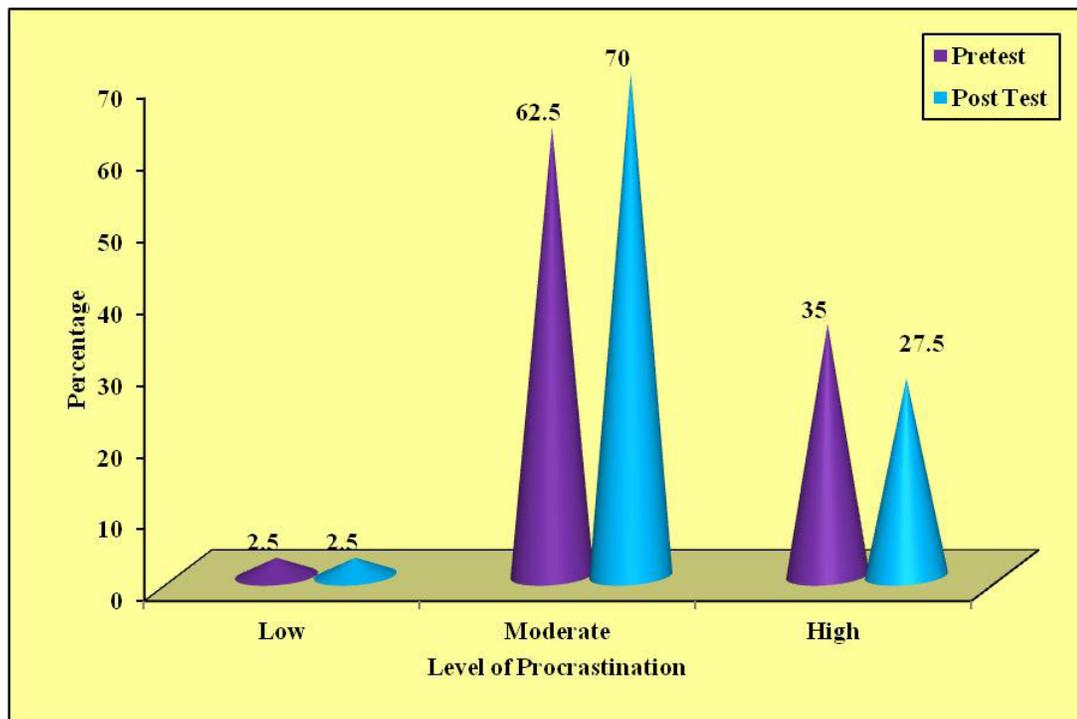


Fig.4.2.2: Percentage distribution of pretest and post test level of procrastination among I year B.Sc. Nursing Students in the control group

SECTION 4.3: EFFECTIVENESS OF COGNITIVE BEHAVIOUR THERAPY ON THE LEVEL OF PROCRASTINATION AMONG I YEAR B.SC. NURSING STUDENTS IN EXPERIMENTAL AND CONTROL GROUP.

Table 4.3.1: Comparison of pretest and post test procrastination score among I Year B.Sc. Nursing Students in experimental group.

N = 40

Procrastination	Mean	S.D	Paired 't' Value
Pretest	43.30	7.71	t = 8.991
Post Test	30.92	5.75	p = 0.000, S***

***p<0.001, S – Significant

The table 4 shows that the pretest mean score of procrastination among I Year B.Sc. Nursing students in experimental group was 43.30 with S.D 7.71 and the post test mean score of procrastination was 30.92 with S.D 5.75. The calculated paired 't' value of t = 8.991 was found to be statistically significant at p<0.001 level. This clearly indicates that after the cognitive behaviour therapy administered to I Year B.Sc. Nursing students in experimental group, the post test level of procrastination was considerably reduced and this clearly indicates that cognitive behaviour therapy on procrastination was found to be effective in reducing the procrastination among I Year B.Sc. Nursing students in experimental group.

Table 4.3.2: Comparison of pretest and post test procrastination score among I Year B.Sc. Nursing Students in control group.

N = 40

Procrastination	Mean	S.D	Paired 't' Value
Pretest	45.30	5.59	t = 0.149
Post Test	45.12	5.81	p = 0.883, N.S

N.S – Not Significant

The table 5 shows that the pretest mean score of procrastination among I Year B.Sc. Nursing students in control group was 45.30 with S.D 5.59 and the post test mean score of procrastination was 45.12 with S.D 5.81. The calculated paired 't' value of $t = 0.149$ was not found to be statistically significant. This clearly indicates that there was no significant difference between the pretest and post test level of procrastination among I Year B.Sc. Nursing students in control group.

Table 4.4.1: Comparison of pretest procrastination score among I Year B.Sc. Nursing Students between the experimental and control group.

N = 80(40+40)

Pretest Procrastination	Mean	S.D	Unpaired 't' Value
Experimental Group	43.30	7.71	t = 1.327
Control Group	45.30	5.59	p = 0.189, N.S

N.S –Not Significant

The table 6 shows that the pretest mean score of procrastination among I Year B.Sc. Nursing students in experimental group was 43.30 with S.D 7.71 and the pretest mean score of procrastination among I Year B.Sc. Nursing students in control group was 45.30 with S.D 5.59. The calculated unpaired 't' value of $t = 1.327$ was not found to be statistically significant. This clearly indicates that there was no significant difference between the pretest level of procrastination among I Year B.Sc. Nursing students between the experimental and control group.

Table 4.4.2: Comparison of post test procrastination score among I Year B.Sc. Nursing Students between the experimental and control group.

N = 80(40+40)

Post test Procrastination	Mean	S.D	Unpaired 't' Value
Experimental Group	30.92	5.75	t = 10.980
Control Group	45.12	5.81	p = 0.000, S***

***p<0.001, S – Significant

The table 7 shows that the post test mean score of procrastination among I Year B.Sc. Nursing students in experimental group was 30.92 with S.D 5.75 and the post test mean score of procrastination among I Year B.Sc. Nursing students in control group was 45.12 with S.D 5.81. The calculated unpaired 't' value of $t = 10.980$ was found to be statistically highly significant at $p < 0.001$ level. This clearly indicates that after the cognitive behaviour therapy administered to I Year B.Sc. Nursing students in experimental group the post test level of procrastination was considerably reduced whereas in the control group there was no significant reduction in the post test level of procrastination.

SECTION 4.5: ASSOCIATION OF POST TEST LEVEL OF PROCRASTINATION AMONG I YEAR B.SC. NURSING STUDENTS WITH THEIR SELECTED DEMOGRAPHIC VARIABLES IN EXPERIMENTAL AND CONTROL GROUP.

Table 4.5.1: Association of post test level of procrastination among I Year B.Sc. Nursing Students with their selected demographic variables in the experimental group.

N = 40

Demographic Variables	Low ($\leq 50\%$)		Moderate (51 – 75%)		Chi-Square Value
	No.	%	No.	%	
Age					$\chi^2=1.909$ d.f = 2 p = 0.385 N.S
16-17	7	17.5	3	7.5	
18-19	18	45.0	11	27.5	
20-21	0	0	1	2.5	
Gender					$\chi^2=4.404$ d.f = 1 p = 0.036 S*
Male	1	2.5	4	10.0	
Female	24	60.0	11	27.5	
Medium of Instruction					$\chi^2=2.567$ d.f = 1 p = 0.109 N.S
English	7	17.5	8	20.0	
Tamil	18	45.0	7	17.5	
Others	-	-	-	-	
Residence					$\chi^2=2.667$ d.f = 2 p = 0.264 N.S
Rural	12	30.0	6	15.0	
Urban	12	30.0	6	15.0	
Semi Urban	1	2.5	3	7.5	
Education of Mother					$\chi^2=10.365$ d.f = 5 p = 0.066 N.S
Profession/Honours	1	2.5	0	0	
Graduate/Post Graduate	0	0	2	5.0	
Intermediate/Post High School Diploma	-	-	-	-	
High School Certificate	3	7.5	4	10.0	
Middle School, Certificate	7	17.5	3	7.5	
Primary School Certificate	10	25.0	1	2.5	
Illiterate	4	10.0	5	12.5	
Education of Father					$\chi^2=8.474$ d.f = 6 p = 0.205 N.S
Profession/Honours	0	0	1	2.5	
Graduate/Post Graduate	2	5.0	4	10.0	
Intermediate/Post High School Diploma	2	5.0	0	0	
High School Certificate	6	15.0	6	15.0	
Middle School, Certificate	7	17.5	2	5.0	
Primary School Certificate	2	5.0	0	0	
Illiterate	6	15.0	2	5.0	

Demographic Variables	Low (≤50%)		Moderate (51 – 75%)		Chi-Square Value
	No.	%	No.	%	
Occupation of Father					$\chi^2=21.117$ d.f = 6 p = 0.002 S***
Profession	1	2.5	9	22.5	
Semi Profession	3	7.5	0	0	
Clerical/Shop Owner/Farmer	11	27.5	2	5.0	
Skilled Worker	5	12.5	1	2.5	
Semi Skilled Worker	3	7.5	0	0	
Unskilled Worker	2	5.0	2	5.0	
Unemployed	0	0	1	2.5	
Occupation of mother					$\chi^2=5.536$ d.f = 5 p = 0.354 N.S
Profession	1	2.5	3	7.5	
Semi Profession	1	2.5	1	2.5	
Clerical/Shop Owner/Farmer	3	7.5	0	0	
Skilled Worker	1	2.5	0	0	
Semi Skilled Worker	-	-	-	-	
Unskilled Worker	18	45.0	11	27.5	
Unemployed	1	2.5	0	0	
Family Monthly Income in Rupees					$\chi^2=3.887$ d.f = 6 p = 0.692 N.S
More than 36017	3	7.5	0	0	
18000-36016	1	2.5	2	5.0	
13495-17999	2	5.0	2	5.0	
8989-13494	6	15.0	2	5.0	
5387-8988	5	12.5	3	7.5	
1803-5386	3	7.5	2	5.0	
Less than 1802	5	12.5	4	10.0	

*p<0.05, ***p<0.001, S – Significant, N.S – Not Significant

The table 8 shows that the demographic variable gender and occupation of father had shown statistically significant association with post test level of procrastination among I Year B.Sc Nursing Students in experimental group at p<0.05 and p<0.001 level respectively and the other demographic variables had not shown statistically significant association with the post test level of procrastination among I Year B.Sc. Nursing Students.

Table 4.5.2: Association of post test level of procrastination among I Year B.Sc. Nursing Students with their selected demographic variables in the control group.

N = 40

Demographic Variables	Low ($\leq 50\%$)		Moderate (51 – 75%)		High ($>75\%$)		Chi-Square Value
	No.	%	No.	%	No.	%	
Age							$\chi^2=5.163$
16-17	1	2.6	5	12.8	1	2.6	d.f = 2
18-19	0	0	22	56.4	10	25.0	p = 0.076
20-21	-	-	-	-	-	-	N.S
Gender							$\chi^2=0.522$
Male	0	0	1	2.6	1	2.6	d.f = 2
Female	1	2.6	26	66.7	10	25.6	p = 0.770 N.S
Medium of Instruction							$\chi^2=6.825$
English	0	0	4	10.3	6	15.4	d.f = 2
Tamil	1	2.6	23	59.0	5	12.8	p = 0.033
Others	-	-	-	-	-	-	S*
Residence							$\chi^2=9.000$
Rural	0	0	11	27.5	3	7.5	d.f = 4
Urban	0	0	6	15.0	7	17.5	p = 0.061
Semi Urban	1	2.6	11	27.5	1	2.5	N.S
Education of Mother							
Profession/Honours	-	-	-	-	-	-	
Graduate/Post Graduate	0	0	0	0	1	2.6	$\chi^2=1.190$
Intermediate/Post High School Diploma	0	0	0	0	1	2.6	d.f = 10
High School Certificate	0	0	5	12.8	3	7.7	p = 0.343
Middle School, Certificate	0	0	13	33.3	2	5.1	N.S
Primary School Certificate	0	0	4	10.3	2	5.1	
Illiterate	1	2.6	5	12.8	2	5.1	
Education of Father							
Profession/Honours	-	-	-	-	-	-	
Graduate/Post Graduate	0	0	2	5.1	2	5.1	$\chi^2=6.460$
Intermediate/Post High School Diploma	-	-	-	-	-	-	d.f = 8
High School Certificate	1	2.6	8	20.5	2	5.1	p = 0.596
Middle School, Certificate	0	0	13	33.3	3	7.7	N.S
Primary School Certificate	0	0	2	5.1	2	5.1	
Illiterate	0	0	2	5.1	2	5.1	

Demographic Variables	Low ($\leq 50\%$)		Moderate (51 – 75%)		High ($>75\%$)		Chi-Square Value
	No.	%	No.	%	No.	%	
Occupation of Father							
Profession	0	0	3	7.7	4	10.3	$\chi^2=14.247$ d.f = 12 p = 0.285 N.S
Semi Profession	0	0	2	5.1	0	0	
Clerical/Shop Owner/Farmer	0	0	10	25.6	3	7.7	
Skilled Worker	1	2.6	5	12.8	0	0	
Semi Skilled Worker	0	0	2	5.1	3	7.7	
Unskilled Worker	0	0	1	2.6	0	0	
Unemployed	0	0	4	10.3	1	2.6	
Occupation of mother							
Profession	0	0	1	2.6	0	0	$\chi^2=3.424$ d.f = 10 p = 0.970 N.S
Semi Profession	0	0	1	2.6	0	0	
Clerical/Shop Owner/Farmer	0	0	4	10.3	2	5.1	
Skilled Worker	0	0	3	7.7	0	0	
Semi Skilled Worker	-	-	-	-	-	-	
Unskilled Worker	0	0	1	2.6	0	0	
Unemployed	1	2.6	17	43.6	9	23.1	
Family Monthly Income in Rupees							
More than 36017	-	-	-	-	-	-	$\chi^2=25.707$ d.f = 10 p = 0.004 S***
18000-36016	0	0	1	2.6	3	5.1	
13495-17999	1	2.6	0	0	1	2.6	
8989-13494	0	0	6	15.4	4	10.3	
5387-8988	0	0	9	23.1	3	7.7	
1803-5386	0	0	9	23.1	1	2.6	
Less than 1802	0	0	2	5.1	0	0	

*p<0.05, ***p<0.01, S – Significant, N.S – Not Significant

The table 9 shows that the demographic variable medium of instruction and family monthly income had shown statistically significant association with post test level of procrastination among I Year B.Sc Nursing Students in control group at p<0.05 and p<0.001 level respectively and the other demographic variables had not shown statistically significant association with the post test level of procrastination among I Year B.Sc. Nursing Students.

DISCUSSION

This chapter discusses the findings of the study, based on the objectives. The present study was undertaken to assess the effectiveness of Cognitive Behavior Therapy on the level of procrastination among I year B.Sc nursing students in selected nursing colleges, Chennai.

5.1 The findings of the demographic variables of the caregivers:

The demographic variables of the caregivers considered in this study was age in years, gender, habitat, medium of instruction in higher secondary, education of mother, education of father, occupation of mother and family income.

Analysis of these variables revealed that, in the experimental group, majority 29(72.50%) were in the age group of 18 – 19 years, 35(87.50%) were female, 25(62.50%) had Tamil as medium of instruction, 18(45%) were from rural and urban area respectively. Regarding the education of mother, majority 11(27.50%) were educated upto primary school, 12(30%) of fathers were educated upto high school, 13(32.50%) of father's occupation was clerical/shop owner/farmer, 29(72.50%) of mothers were unskilled workers and 9(22.50%) had family monthly income less than Rs.1802

In the control group, majority 33(82.50%) were in the age group of 18–19 years, 38(95%) were female, 30(75%) had Tamil as medium of instruction, 14(35%) were from rural area, 15(37.50%) of mothers were educated upto middle school, 17(42.50%) of fathers were educated upto high school, 13(32.50%) of father's occupation was clerical/shop owner/farmer, 28(70%) of mothers were unemployed and 13(32.50%) had family monthly income in the range of Rs.5387 – 8988 respectively.

5.2 The first objective of the study was to assess the pretest level of procrastination among I year B.Sc Nursing students in experimental and control group.

The analysis of pretest level of procrastination in the experimental group showed that majority 27(67.5%) had moderate level of procrastination, 9(22.5%) had high and 4(10%) had low level of procrastination whereas in control group majority 25(62.5%) had moderate level of procrastination, 14(35%) had high and 1(2.5%) had low level of procrastination.

The analysis of post-test level of procrastination in the experimental group revealed that majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination. In control group majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

5.3 The second objective of the study was to assess the level of procrastination among I year B.Sc Nursing students after Cognitive Behavior Therapy in experimental and control group.

The analysis of post-test level of procrastination in the experimental group revealed that majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination. In control group majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

5.4 The third objective of the study was to evaluate the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students.

In the experimental group, the pretest mean score of procrastination was 43.30 with S.D 7.71 and the post test mean score of procrastination was 30.92 with S.D 5.75. The calculated paired 't' value of $t = 8.991$ was found to be statistically significant at $p < 0.001$ level. This clearly indicates that after the cognitive behaviour therapy administered to I Year B.Sc. Nursing students in experimental group, the post test level of procrastination was considerably reduced and this clearly indicates that cognitive behaviour therapy on procrastination was found to be effective in reducing the procrastination among I Year B.Sc. Nursing students in experimental group.

In the control group, the pretest mean score of procrastination was 45.30 with S.D 5.59 and the post-test mean score of procrastination was 45.12 with S.D 5.81. The calculated paired 't' value of $t = 0.149$ was not found to be statistically significant. This clearly indicates that there was no significant difference between the pretest and post test level of procrastination among I Year B.Sc. Nursing students in control group.

5.5 The fourth objective of the study was to associate the post-test level of procrastination in experimental group among I year B.Sc Nursing students with their selected demographic variables.

The analysis to associate selected demographic variables such as , age, sex, class, medium of instruction in higher secondary, education of parents, occupation of parents and income of parents were done.

The demographic variable gender and occupation of father had shown statistically significant association with post-test level of procrastination among I Year B.Sc Nursing Students in experimental group at $p < 0.05$ and $p < 0.001$ level respectively and the other demographic variables had not shown statistically significant association with the post test level of procrastination among I Year B.Sc. Nursing Students.

SUMMARY, CONCLUSION, IMPLICATIONS RECOMMENDATIONS AND LIMITATIONS

This chapter presents the summary, conclusion, implications, recommendations and limitations of the study.

6.1 SUMMARY

Procrastination is the practice of carrying out less urgent tasks in preference to more urgent ones, or doing more pleasurable things in place of less pleasurable ones, and thus putting off impending tasks to a later time, sometimes to the "last minute" before the deadline. Procrastination may result in stress, anxiety, a sense of guilt and crisis, health problems, and severe loss of personal productivity, as well as social disapproval for not meeting responsibilities or commitments.

Cognitive Behavior Therapy is considered effective for treatment of procrastination because it is structured, goal oriented and goal focused and teaches proven strategies and skills.

6.1.1 Statement of the problem

Effectiveness of Cognitive Behaviour Therapy on the level of procrastination among I year B.Sc Nursing students among selected nursing colleges, Chennai.

6.1.2 The objectives of the study were

1. To assess the pre-test level of procrastination among I year B.Sc Nursing students before cognitive behavior therapy.
2. To assess the post-test level of procrastination among 1 year B.Sc Nursing students after cognitive behavior therapy
3. To assess the effectiveness of cognitive behavior therapy on the level of procrastination among I year B.Sc Nursing students.
4. To associate the post- test level of procrastination among I year B.Sc Nursing students with their selected demographic variables

6.1.3 The study was based on the assumptions that

1. Procrastination is more prevalent among college students
2. Cognitive behavior therapy may reduce procrastination among the college students.

6.1.4 The null hypotheses formulated were

NH₁: There is no significant difference in the pre-test and post- test level of procrastination regarding cognitive behaviour therapy between the experimental and control group at $p < 0.05$.

NH₂: There is no significant association of the selected demographic variables and procrastination regarding Cognitive Behaviour Therapy in the experimental and control group at $p < 0.05$.

The review of literature, professional experience and expert's guidance from the field of Mental Health Nursing provided a strong foundation for the study. It also strengthened the ideas for conceptual framework, aided to design the methodology and develop the tool for the data collection.

In view of explaining and relating various aspects of the study, the investigator had adopted King's Goal Attainment Theory.

The researcher adopted a true-experimental study non-equivalent pre-test post-test only design to assess the effectiveness of Cognitive Behaviour Therapy on the level of procrastination among I year B.Sc Nursing students in selected nursing colleges, Chennai. 80 students were selected using convenient sampling technique.

The tool for the study has two parts:

Part A: Demographic variables

Part B: Procrastination scale

The content validity of the data collection tool were obtained from 1 medical expert, 5 Mental Health Nursing experts and 1 statistician, and the reliability of the tool was established by split half method for Tuckman Procrastination Scale. The feasibility

and practicability of the study was analysed by conducting a pilot study at Wayanad Institute Of Medical Science, Wayanad, Kerala and it was found that the tool was practicable to implement in the main study.

The data collection for the main study was done at Venkateswara Nursing College, Thalambur, Chennai and Hindu Mission College of Nursing, Tambaram, Chennai. Convenient sampling technique was used and the sample size was 80 I year B.Sc Nursing students who fulfilled the sample selection criteria and ethical consideration were adhered to, throughout the study.

The data collected was analysed and interpreted based on the objectives and null hypotheses using descriptive and inferential statistics. The findings revealed that there was a significant decrease in the level of procrastination after providing Cognitive Behaviour Therapy.

6.1.5 The major findings of the study revealed that

In the pretest level of procrastination in the experimental group majority 27(67.5%) had moderate level of procrastination, 9(22.5%) had high and 4(10%) had low level of procrastination whereas in control group majority 25(62.5%) had moderate level of procrastination, 14(35%) had high and 1(2.5%) had low level of procrastination.

The post-test level of procrastination in the experimental group majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination. In control group majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

The post-test level of procrastination in the experimental group majority 25(62.5%) had low and 15(37.5%) had moderate level of procrastination. In control group majority 28(70%) had moderate, 11(27.5%) had high and 1(2.5%) had low level of procrastination.

In the experimental group, the pretest mean score of procrastination was 43.30 with S.D 7.71 and the post test mean score of procrastination was 30.92 with S.D 5.75. The calculated paired 't' value of $t = 8.991$ was found to be statistically significant at

$p < 0.001$ level. This clearly indicates that after the cognitive behaviour therapy administered to I Year B.Sc. Nursing students in experimental group, the post test level of procrastination was considerably reduced and this clearly indicates that cognitive behaviour therapy on procrastination was found to be effective in reducing the procrastination among I Year B.Sc. Nursing students in experimental group.

In the control group, the pretest mean score of procrastination was 45.30 with S.D 5.59 and the post-test mean score of procrastination was 45.12 with S.D 5.81. The calculated paired 't' value of $t = 0.149$ was not found to be statistically significant. This clearly indicates that there is no significant difference between the pretest and post test level of procrastination among I Year B.Sc. Nursing students in control group.

The demographic variable gender and occupation of father had shown statistically significant association with post-test level of procrastination among I Year B.Sc Nursing Students in experimental group at $p < 0.05$ and $p < 0.001$ level respectively and the other demographic variables had not shown statistically significant association with the post test level of procrastination among I Year B.Sc. Nursing Students.

6.2 CONCLUSION

The present study assessed the effectiveness of Cognitive Behaviour Therapy on the level of procrastination among I year B.Sc Nursing students in selected nursing colleges, Chennai. The study findings revealed that there was a significant difference in the pre-test and post-test level of procrastination among I year B.Sc Nursing students.

6.3 IMPLICATIONS

The investigator has drawn the following implications from the study, which is of vital concern in the field of nursing practice, nursing education, nursing administration and nursing research.

6.3.1 Nursing Education

- The nurse educator should be competent enough to train teachers in the use of Cognitive Behaviour Therapy for procrastination among students.

- Participants in seminars, workshops and conferences for students and faculty regarding the recent advancement in cognitive behaviour therapy should be encouraged in order to provide up to date information.
- Encourage the nursing students for effective utilization of evidence based practice.

6.3.2 Nursing Administration

- Nurse administrators can organize formal training programme for teachers to reduce the level of procrastination among students.
- Nursing administrator should plan and implement the protocol for teachers to perform motivational and goal orientation therapy for students with procrastination.
- Nurse Manager can strengthen interdisciplinary and multidisciplinary collaboration with researchers to implement Cognitive Behaviour Therapy.

6.3.3 Nursing Research

- Disseminate the findings of the study through conferences, seminars and by publishing in journals and websites.
- Promote more research in developing alternative therapies.
- Expand the research to study a larger population of individuals with procrastination.
- Nurse researcher should encourage the teachers to implement the research findings in the class rooms.

6.4 RECOMMENDATIONS

1. The nurse investigator encourages the use of cognitive behaviour therapy on the level of procrastination for all the students.
2. Similar study can be done as comparative study to assess the effectiveness of Cognitive Behaviour Therapy on the level of procrastination among Nursing students and various other departments.
3. Similar study can be replicated on a larger sample to increase validity and generalizability of findings
4. Similar studies can be done in larger level in India.

4.5 LIMITATIONS

1. The investigator found difficulty in getting permission for study setting.
2. Collecting review of literature was very difficult as there were only few studies related to procrastination and that too were foreign studies.

6.6 PLAN FOR RESEARCH DISSEMINATION

The research findings will be disseminated through presentations in both National and International conference.

6.7 PLAN FOR RESEARCH UTILIZATION

The treasure map will be used in Venkateswara Nursing College, Thalambur and Hindu Mission College of Nursing, Tambaram as a part of curriculum to reduce the level of procrastination.

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