CHAPTER III

METHOD

The study on “Management of Anxiety, Depression and Enhancement of General Well-Being in Engineering Students through Positive Therapy” involves the following steps:

- Objectives
- Hypotheses
- Area
- Sample
- Tools
- Procedure
- Intervention
- Reassessment
- Analysis of Data

OBJECTIVES

- To find out the relation between Anxiety, Depression and General Well-being
- To identify the level of Anxiety in Engineering Students
- To identify the level of Depression in the Engineering Students
- To assess the level of General Well-being in the Engineering Students
- Positive Therapy helps the Engineering Students to manage Anxiety, Depression and enhance their General Well-being

HYPOTHESES

The hypotheses are stated as alternate hypotheses, so that they can be either accepted or rejected based on the results.

1. There will be a relationship between Anxiety and Depression of the Engineering Students
2. There will be a negative relationship between Anxiety and General Well-being of the Engineering Students

3. There will be a negative relationship between Depression and General Well-being of the Engineering Students

4. The Negative emotions of the Engineering Students will be reduced after the Positive Therapy.

5. The Negative symptoms of the Engineering Students will be reduced after the Positive Therapy.

6. The Anxiety level among the Engineering Students will be reduced after the Positive Therapy.

7. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the ECE Students.

8. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the EEE Students.

9. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the Female ECE Students.

10. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the Male ECE Students.

11. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the Female EEE Students.

12. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Anxiety experienced by the Male EEE Students.

13. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level among the ECE students after the Positive therapy.

14. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level among the EEE students after the Positive therapy.
15. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level during Before, After and Follow-up of Positive therapy among the Female ECE Students

16. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level during Before, After and Follow-up of Positive therapy among the Male ECE Students

17. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level during Before, After and Follow-up of Positive therapy among the Female EEE Students

18. There will be significant reduction in the Physiological, Emotional, Cognitive and Behavioural Symptoms of the Anxiety level during Before, After and Follow-up of Positive therapy among the Male EEE Students

19. The Depression level among the engineering students will be reduced significantly after the Positive Therapy.

20. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the ECE students.

21. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the EEE students.

22. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the Female ECE Students

23. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the Male ECE Students

24. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the Female EEE Students

25. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of Depression experienced by the Male EEE Students

26. The General Well-being level among the engineering students will be increased significantly after the Positive therapy
27. There will be significant difference in the General Well-being between before, after and follow-up periods of Positive Therapy among the ECE students.

28. There will be significant difference in the General Well-being between before, after and follow-up periods of Positive Therapy among the EEE students.

29. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of General Well-being experienced by the Female ECE Students.

30. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of General Well-being experienced by the Male ECE Students.

31. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of General Well-being experienced by the Female EEE Students.

32. There will be significant difference between before, after and follow-up periods of Positive Therapy in the level of General Well-being experienced by the Male EEE Students.
Phase-I
ADMINISTERING QUESTIONNAIRE

Phase-II
EXPERIMENTAL PHASE

POSITIVE THERAPY

RELAXATION THERAPY

COUNSELLING

EXERCISES

BEHAVIOURAL ASSIGNMENTS

DEEP BREATHING PRACTICE

RATIONAL EMOTIVE THERAPY

TENSION RELEASING EXERCISE

SMILE THERAPY

LAUGH THERAPY

THOUGHT STOPPING

COGNITIVE RESTRUCTURING

Phase-III
POST EXPERIMENTAL PHASE

Phase-IV
FOLLOW-UP
AREA

The area selected to conduct the study was K.S.R. College of Technology, Tiruchengode, Namakkal District, Tamil Nadu.

The reasons for selecting the area are as follows:

- Availability of the required number of samples for the study
- Permission and facilities provided by the authorities to carry out the action research
- Willingness and co-operation of the students to serve as subjects in the action research

SAMPLE

Two hundred engineering students (100 Electronics and Electrical Engineering & 100 Electronics and Communication Engineering) were screened using tools and selected for the study. The sample was selected from K.S.R. College, Tiruchengode, Tamil Nadu. Among them, 120 boys and 80 girls were taken as subjects for this study. The criteria for selection of the subjects were with High and Very High Anxiety / High Depression / Low General Well-being.

TOOLS

Selection of tests and tools is a very important aspect of any research, since it is the key to gaining information. The following tests and tools were used to get the needed information about the subjects.

CASE STUDY SCHEDULE (Hemalatha, 2008)

Case Study Schedule was used to get the needed information about the Engineering Students. Data was collected regarding the age, income, area (rural or urban) and number of children. It also assesses the negative emotions and negative symptoms of the engineering students. A copy of the Case Study Schedule (Hemalatha, 2008) is given in Annexure I.
MANIFEST ANXIETY INVENTORY (M.A.I.) (Hemalatha and Nandini Revised, 2005)

Manifest Anxiety Inventory consists of forty items under four parts namely Physiological, Emotional, Cognitive and Behavioural. There are two possible responses to each item namely ‘Yes’ or ‘No’. The Subjects were asked to tick (✓) any one, which applies to them most. There was no time limit. But the subjects were asked to respond as quickly as possible. Scoring Key and Norms were provided by the authors. The validity of M.A.I. is 0.89 and the reliability by test-retest method is 0.93. A copy of the Manifest Anxiety Inventory (Hemalatha and Nandini – Revised, 2005) is given in Annexure II.

BECK’S DEPRESSION INVENTORY (Beck, 1971)

Beck’s Depression Inventory consists of 21 items and there are four possible responses to each item namely ‘Always’, ‘Often’, ‘Sometimes’ and ‘Never’. The Subjects were asked to tick (✓) any one, which applies to them most. There was no time limit. But the subjects were asked to respond as quickly as possible. In Beck’s Depression Inventory (Beck, 1971), the validity of the inventory is 0.62 to 0.66 and the internal consistency ranges from 0.73 to 0.92 with the mean of 0.86. A copy of the Beck’s Depression Inventory (Beck, 1971) is given in Annexure III.

WHO GENERAL WELL-BEING INDEX (1998)

It consists of five statements, the subjects were asked to read each of those statements carefully and how one has felt over the last two weeks. The subjects were asked to indicate their answer by putting tick (✓) to any one namely ‘All of the time’, ‘Most of the time’, ‘More than half of the time’, ‘Less than half of the time’, ‘Some of the time’ and ‘At no time’, which applies to them most. There was no time limit. But the subjects were asked to respond as quickly as possible. The scoring is done as per the manual. A copy of the WHO General Well-being Index (1998) is given in Annexure IV.

POSITIVE THERAPY HANDBOOK – for healthy, happy and successful living (Hemalatha, 2004) was used to provide intervention to the subjects. It is a package, which combines the Eastern Techniques of Yoga and the Western Techniques of Cognitive Behaviour Therapy has four strategies namely, Relaxation Therapy, Counselling, Exercises and Behavioural Assignments. In this action research, all the techniques were used.
CD ON RELAXATION THERAPY (Hemalatha, 2000) was used to provide Relaxation Therapy. In which the procedure to practice Relaxation Therapy namely, Deep Breathing, Relaxation Training and Autosuggestions were included.

PROCEDURE

Two hundred students were screened using Manifest Anxiety Inventory, Beck’s Depression Inventory and WHO General Well-being Index.

The Case Study Schedule was used to obtain information from the subjects individually. The information gathered includes the demographic details, symptoms and negative emotions. Manifest Anxiety Inventory, Beck’s Depression Inventory and WHO General Well-being Index, was administrated to the subjects to assess their level of Anxiety, Depression and General Well-Being. The subjects were provided Positive Therapy for 8 sessions, each session lasting for about one hour, over a period of 4 weeks on alternate days. Subjects were given counselling to change their recurring negative thoughts and their life style positively, educate them in coping skills and to face the problems boldly and successfully without any negative thoughts. The subjects were assessed with the same tools after therapy and follow-up was done after seven months.

INTERVENTION

Positive Therapy is a psychological intervention evolved by Hemalatha (2004), which combines the Eastern Techniques of Yoga and Western Techniques of Cognitive Behaviour Therapy. Positive Therapy aims at modifying negative thoughts, beliefs, emotions and behaviour by using a number of techniques. It is assumed that when negative thoughts are replaced by positive thoughts, the individual becomes more realistic and reasonable in his/her perception.

STRATEGIES

Positive Therapy has four major strategies:

- Relaxation Therapy
- Counselling
- Exercises
- Behavioural Assignments

In this action research, all the above techniques were used.
I. RELAXATION THERAPY

Relaxation Therapy helped the students to have a relaxed state, which promoted a positive attitude towards life. As the focus is on breathing, unwanted thoughts are eliminated, helping them to relax. Hence, Relaxation Therapy is given as the first step in Positive Therapy.

Relaxation Therapy involves 3 steps:

- Deep Breathing Practice
- Relaxation Training
- Autosuggestion

DEEP BREATHING PRACTICE

An anxious person often has shallow breaths but when he/she focuses on deep breathing, this cycle is interrupted and both the body and mind begin to relax. So, Deep Breathing Practice was given to the engineering students.

In Deep Breathing Practice, the engineering students were asked to sit erect, breathe in slowly for 4 counts (4 seconds) and breathe out gradually for 6 counts (6 seconds). This was repeated 5 times with their eyes open and 5 times with their eyes closed.
DEEP BREATHING EXERCISE
DEEP BREATHING EXERCISE
RELAXATION TRAINING
After Deep Breathing Practice, the engineering students were asked to lie down flat on a mat (without pillow) with the head straight, lips slightly apart, hands comfortably placed on the sides, palms facing upwards and legs stretched, with feet, one foot apart. The subjects were asked to close the eyes with a folded handkerchief placed on the eyes to ensure complete darkness (The nose should not be covered). Then, the following instructions (*) were given “Breathe in slowly…Breathe out gradually…”

(This was repeated 3 times)

“Now concentrate on the top of the head”. “Breathe in slowly…” Breathe out gradually… Top of the head…Relax…”

This was repeated 3 times, followed by the suggestions:

“Now, the top of the head is light and relaxed; no thoughts, no fears, no worries, no tension, no stress and no pain. Top of the head is light and relaxed. Top of the head is completely relaxed (two times). Breathe in slowly …Breathe out gradually…”

(*) Similar instructions were given to other parts of the body, in the order given below:

- Back of the head
- Forehead
- Eyes
- Mouth
- Neck and shoulders
- Back
- Chest
- Stomach
- Legs
RELAXATION TRAINING
Then the following directions were given to the students who were in a relaxed state:

- Inhale GOOD HEALTH. Breathe out all the aches, pains and sicknesses from the body
- Inhale HAPPINESS. Breathe out all the worries from the body
- Inhale POSITIVE THOUGHTS. Breathe out all the negative, useless thoughts from the body
- Inhale STRENGTH. Breathe out all the weaknesses from the body
- Inhale COURAGE AND CONFIDENCE. Breathe out all the fears from the body
- Inhale SUCCESS. Breathe out failures and fears of failures from the body
- Inhale LOVE. Breathe out anger, hatred and jealousy from the body

**AUTOSUGGESTION**

The students were asked to continue, to have deep breathing, enjoying the relaxed state when the following autosuggestions were given (3 times each):

- I am healthy
- I am happy
- I love everyone; everyone loves me
- I am bold and confident
- I can achieve what I want
- I am a successful person
- I can face my problems boldly and solve them successfully
- I am not afraid of anyone; God is with me
- Today is an excellent day; I will enjoy every minute of this day
- Thank you God for giving me all that I need – long life, good health, wealth, love, happiness and success

Thus, Relaxation Therapy was given to all students for about half an hour per session.
II. COUNSELLING

The engineering students’ personal, social and emotional problems were resolved through counselling.

In Positive Therapy, Counselling involves the following techniques:

- Rational Emotive Therapy
- Thought Stopping
- Symptom Stopping
- Cognitive Restructuring
- Assertiveness Training

In the present research, Individual Counselling was given using all the techniques except Assertiveness Training and Symptom Stopping.

RATIONAL EMOTIVE THERAPY

This therapy was developed by Albert Ellis in the year 1955. It is based on the idea that behaviour is more a function of belief system than of actual conditions. This therapy has two goals, to get people to question these fundamental but mistaken beliefs and then to exchange them for more constructive ones (Ellis and Dryden, 1997). It directs the patient’s attention to incorrect and self-debating thinking. Such thinking is based on arbitrary, inaccurate assumptions about oneself and others (Sarason and Sarason, 2005).

Most of the engineering students had irrational thoughts and beliefs such as,

‘Why me’

Their irrational thoughts were refuted by appealing to reason. The students were made to understand that they have to build up confidence in all aspects after the therapy they were capable of managing and controlling their adjustment problems in an appropriate way, and helping them to focus on present as well as about the future. This in turn, helped them to be positive and realistic and face life optimistically so that they could enjoy every moment in future.
THOUGHT STOPPING

Aaron Beck was the one who developed cognitive therapy. It includes many techniques such as Cognitive Restructuring, Cognitive Rehearsal and Thought Stopping is one among them. It works on the assumption that a sudden distracting stimulus such as unpleasant noise will terminate the obsessional thoughts. The client is asked to get the thoughts firmly in mind then the therapist loudly says ‘stop’. This is repeated several times with the client. Finally simply mentally says ‘stop’. It provides the client with specific self control technique for removing an obsessional thought when it occurs (Sarason and Sarason, 2005).

The students were asked to sit in a relaxed state, close the eyes, breathe in slowly and get the negative disturbing thought (one at a time) and breathe out saying ‘Stop’ and push the thought away. This practice was given 3 times. Then he/she was asked to follow the same procedure but say ‘Stop’ mentally and throw out the thought. This practice was also given 3 times. The same procedure was followed for the other negative thoughts. In due course, the students learnt to throw out disturbing, negative thoughts automatically.

COGNITIVE RESTRUCTURING

In this procedure the students were helped to replace the negative thoughts with positive thoughts. The students were asked to breathe in slowly and breathe out, saying each of the positive statements such as:

‘I will overcome fear, anxiety, stress and depression’

‘I will build up confidence within me’

(3 times each)

The students were asked to strongly believe that they had acquired the positive qualities and start behaving accordingly. Thus, they were helped to get rid of their negative, self-defeating thoughts and develop positive, self-enhancing thoughts.

III. EXERCISES

Positive Therapy involves three exercises to help people get rid of their tension and develop a cheerful state. They are:
- Tension Releasing Exercise
- Smile Therapy
- Laugh Therapy

**TENSION RELEASENING EXERCISE**

Anxiety causes fear, stress, anger and/or worry, leading to tension. Tension Releasing Exercise helps to throw out all these. In this exercise, the engineering students were asked to stand with their feet one foot apart, close the palms and bring them towards the chest, breathe in slowly; then breathe out forcefully through the mouth simultaneously throwing down the hands sidewise and opening the palms. As they breathed out, they were asked to think each of the following instructions and this practice was given five times each:

- “Tension goes out”
- “Fear goes out”
- “Anger goes out”
- “Anxiety goes out”
- “Worry goes out”

Then they were asked to do the same exercise, making a loud sound (Ha), while breathing out this practice was given five times.

**SMILE THERAPY**

In the modern world, life has become highly mechanical and many people have even forgotten to smile. Smile, not only changes the facial expression, but also changes the mood of a person to a cheerful one. Hence, by developing the habit of smiling, one can replace the negative emotions. In other words, one cannot have negative emotions such as fear, anxiety, worry or anger, while smiling.

In Smile Therapy, the engineering students were asked to say (Eee), with a broad smile, breathe in slowly through the mouth, with a hissing sound (without involving the vocal cords), close the mouth smilingly and breathe out gradually through the nose,
without any sound. They were asked to enjoy the cool breeze entering through the mouth and feel the coolness spreading through the chest to the abdomen. This practice was given 10 times.

SMILE THERAPY
LAUGH THERAPY

In this, the engineering students were asked to stand in a circle, bend down the back and the head slightly, breathe in slowly lifting up the head and the back and start laughing loudly without any inhibition. They were encouraged to look at each other, make gestures, clap hands, etc. while laughing. They were asked to laugh louder and louder for a longer duration. This practice was given 5 times. The engineering students enjoyed practicing Laugh Therapy.
IV. BEHAVIOURAL ASSIGNMENTS

The students were asked to follow the assignments to ensure optimum health:

• Always have positive thoughts. Modify negative thoughts with positive thoughts
• Have positive attitude towards self, life and others
• Live in the present, concentrate on what you do and enjoy what you do
• Enjoy work. Strongly believe that you can complete your work on time
• Accept responsibilities with a smile
• Face problems boldly and solve them successfully
• Enjoy the company of family members and friends
• Have some physical exercise such as walking, jogging, swimming, yoga etc.
• Have some recreation such as, playing games, reading books, listening to music etc
• Develop a sense of humor, enjoy jokes, laugh heartily
• Practice Deep Breathing for 5 minutes in the morning, facing east and for 5 minutes in the evening, facing west
• Have Deep Breathing, as and when possible, throughout the day
• Practice Relaxation Training for 20 minutes in the morning, preferably, after the exercise and at night, before going to sleep
• Practice Tension Releasing Exercise, 10 times a day
• Practice Smile Therapy and Laugh Therapy, at least once a day, preferably with friends/family members, 10 times a day
• Avoid poor health habits such as smoking, drinking, drugs and premarital or extramarital relationships
• Pray to God
REASSESSMENT

All the subjects were reassessed second time soon after Positive Therapy using the Case Study Reassessment Schedule, Manifest Anxiety Inventory, Beck’s Depression Inventory and WHO General Well-Being Index. To assess the effect of Positive Therapy after 7 months reassessment was made. Follow-up was done using the Case Study Reassessment Schedule, Manifest Anxiety Inventory, Beck’s Depression Inventory and WHO General Well-being Index.

ANALYSIS OF DATA

The data was analyzed statistically by using SPSS Package 16, the Mean, Standard Deviation, Kolmogrov-Smirnov Z Test, Correlation, Analysis of Variance and Post-hoc analysis were computed.

- Kolmogrov-Smirnov Z Test was calculated for various demographic variables among the engineering college students
- Correlations were computed between Anxiety, Depression and General Well-Being
- Analysis of Variance was calculated to study the effectiveness of Positive Therapy on the level of Anxiety before, after and follow-up
- Analysis of Variance was calculated to study the effectiveness of Positive Therapy on the level of Depression before, after and follow-up
- Analysis of Variance was calculated to study the effectiveness of Positive Therapy in the enhancement of General Well-being before, after and follow-up
- Duncan’s Post-hoc analysis was done to find out the difference among the before and follow-up for the Anxiety, Depression and General Well-being