Chapter-3

Methodology
The present study was conducted to see whether meditation and cognitive intervention is helpful in reducing neuroticism scores of individuals high on this dimensions and alleviating problems perceived by them. Since individuals who are high on neuroticism are usually unable to manage their stress satisfactorily and effectively, so a large number of life situations are perceived by them as problems. The researcher was interested to see the effect of meditation and cognitive intervention and also the benefits of combination of both interventions that is, cognitive intervention and mediation on their neuroticism and problems perceived. In order to rule out the possibility that pre and post intervention differences could be explained by changes attributable to passage of time, a control group in which no intervention was given but neuroticism scores and perceived problems were assessed at two points of time (time duration being same as time given to interventions, that is three months) was also formed.

Sample:

The sample comprised of 51 individuals high on neuroticism. Originally, a much larger sample of subjects was selected, but drop out rate was high because a 3 month period of intervention was not adhered to by a large number of subjects. The subjects high on
neuroticism were identified with the help of Maudsley Personality Inventory (MPI). The scale was administered on 800 male and female students of Aligarh Muslim University, Aligarh. Among which 250 individuals were identified high on neuroticism but only 72 individuals volunteered to participate in the study, out which in the end only 51 remained. The number of male subjects who left without completing the schedule was very large. The subjects were divided into four groups which were as follows.

<table>
<thead>
<tr>
<th>Group</th>
<th>Treatment conditions</th>
<th>No. of Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Cognitive intervention</td>
<td>10 (9 female and 1 male)</td>
</tr>
<tr>
<td>II</td>
<td>Meditation</td>
<td>12 (6 female and 6 male)</td>
</tr>
<tr>
<td>III</td>
<td>Cognitive intervention plus meditation</td>
<td>9 (7 female and 2 male)</td>
</tr>
<tr>
<td>IV</td>
<td>No treatment (Control Group)</td>
<td>20 (10 female and 10 males)</td>
</tr>
</tbody>
</table>

**TOOLS OF STUDY:**

**I. Maudsley Personality Inventory:[Hindi version]**

The Maudsley Personality Inventory (MPI) developed by Eysenck (1959) and adapted in Hindi by Jalota (1965) was used for identifying the subjects for the study. The inventory comprises of
48 items out of which 24 items were of neuroticism. Each item in the scale has three response alternatives, scored as 0, 1, 2 from lower to higher levels of neuroticism. The maximum score one could get is 48. In accordance with norms given by Jalota (1964) the raw score of 23 is interpreted as standard score of 50. This score is equal to the average or normal score. A difference of +10 on this score is considered as high on neuroticism thus a standard score above 60 would indicate high neuroticism. A raw score of 33 was found to be a standard score 60, therefore, a raw score of 34 was taken as point for selecting subject high on neuroticism. It may further be noted that a score above 43 would indicate a standard score of 70, beyond which score would indicate not high but severe neuroticism. Therefore the range of raw score on neuroticism scale to identify high neuroticism were 34 -42 and only subjects whose scores were within this range were considered. The reliability coefficient obtained by the Indian authors comparing the scores of the first half with that of the second half of the scale on a group of 150 college students with both sexes equally represented, was +0.71 (corrected) for neuroticism scale. The scale compared well with the original English version, and is being widely used in India. The sex difference on the scale was found to be negligible. The data
suggests that this Indian version of the MPI gives results not essentially different from those obtained with original version.

II. Daily Record Sheet:

Daily Record Sheet was derived from Thought Diary of Beck et al (1979). The sheet is comprised of five columns but for the purpose of study it is divided in two phases. In the first phase, there is a 3 columns sheet (situation, emotion and automatic thought columns) (Appendix II-A). This sheet is introduced to the subject. When the subject learns how to write these columns, then in the second phase subject is introduced to full sheet (second Daily Record sheet) in which, besides the above three there are two additional columns, that is 'alternatives thought' and 'outcome' (Appendix II-B). Details of each columns are as follows;

(i) Situations column: Unpleasant things that subject has experienced are written here. The event is narrated in this column. Filling this column helps the subject to view the event objectively and understand what kind of emotions such events create.

(ii) Emotions column: A number of subject come into therapy not really sure what they might be feeling. Some may be aware of feeling bad, but can not say more about the fine details. Filling this
column encourages subjects to label feelings. Feelings can most often be described in one word such as upset, scared, terrified, worried, hopeless, sad, panicky, furious and so on but subjects were free to use more than one word if they so desired.

(iii) **Automatic Thoughts Column:** Filling this column helps the subject to identify thoughts, particularly those associated with particular emotions. Subjects often mix up thoughts and feelings, and find it difficult to put their thoughts into words. It is seen that the question “how did you feel about that?” may elicit thought and similarly asking for thoughts may lead to an expression of emotions. It is more helpful to ask what went through your mind just then? Once the subject is able to begin to distinguish and identify thoughts and feelings, the full sheet is introduced to the subject. It has two additional columns, that is:

(iv) **Alternative Thoughts Column:** In this column, subject questions his automatic thoughts and writes his responses. It enables the subject to think about the alternative reasons and explanations, which leads to an improvement in emotions. In this way rather than just asking questions in sessions, the researcher trains the subject as to what kinds of the questions to ask in order look for alternatives.
(v) **Outcome Column**: Here the subject looks for some possibilities to improve her/his conditions. It could be some coping statements or some resolutions of which the subject reminds himself/herself every time a similar situation occurs. It could also be some idea which can be put into action.

**III. Weekly Activity Schedule:**

Weekly Activity Schedule (Beck et al-1979) was also an important tool used during cognitive intervention. Weekly activity schedule comprises of 7 columns and 10 rows where columns are marked with names of the days (MONDAY TO SUNDAY) rows are marked with time interval (From 6:00 AM to 10:00 PM). Time intervals are made according to subject’s requirements (shown in Appendix III). The weekly activity schedule is frequently used in cognitive therapy for depression, helping the subjects to become more active and increase the level of enjoyable activities in life. Subject plans the next day’s activities and when subject accomplishes that activity, it gives a sense of achievement to the subject. Planning activities in advance is a powerful means of overcoming lack of motivation and taking the mind off problems or symptoms, and focusing attention to something else. It also keeps the free mind busy in some activity in place of daydreaming.
Keeping record of Weekly Activity Schedule is also helpful in showing clearly the improvement in subject's level of activeness.

IV. Technique Used for Concentrative Meditation:

Concentration meditation is the foundation for all other kinds of meditation because whatever technique of meditation one is practising, it is necessary to have the ability to place one's attention on the object of meditation and hold it there without distraction. There are thousands of meditation techniques but this basic principle, however, always applies to all.

Researcher selected the breath as a focus for concentration. Breath is considered the most effective method for helping people with busy minds to quiet their internal dialogue. It does not create any association and distraction.

Along with the breath the use of "YA Allah" adds a special symbolic significance that serve well in the development of pointedness in concentration. Further details are contained in the section on procedure.

Procedure:

There are four groups in this study. One group of subjects was administered cognitive intervention only. Second group of
subjects was administered meditation only. Third of group of subjects was administered both cognitive intervention and meditation. Fourth group of subjects was not given any type of intervention. All subjects were high on neuroticism and their pre-intervention neuroticism scores were recorded. Procedures of each intervention are detailed one by one.

Procedure of Meditation

The subjects were brought to the research room which fulfills the pre-requisite conditions of a place of meditation which are.

a) Clean and clear space
b) Properly ventilated and lighted
c) Free from noise
d) Comfortable seats.

After rapport-forming conversation which also involved motivating the subjects by telling them the benefits of meditation, subjects were told that the purpose of meditation is to help them to relax. (They were also asked to bring out problems which bothered them. In the early sessions they enumerated their problems and the researcher kept note of these problems). Subjects were instructed to conduct meditation in the following manner.
1) Subject has to sit in comfortable position on the chair.

2) Subject has to keep his/her feet flat on floor, back straight and eyes closed.

3) Subject has to concentrate on the flow of breath.

4) When the subject inhales he/she should say “Ya”, when the subject exhales he/she should say “Allah”. This rhythm should be maintained while breathing.

5) Subject has to keep his/her mind free from any thought. If any thought comes to his/her mind than he/she should try to leave or stop that thought there and return back to the rhythm of “Ya Allah”.

6) Subject should not make too much effort to concentrate. He/she should concentrate calmly on the object (i.e. flow of breath). The mind will sway between holding its object too tightly or too loosely. If the subject grasps too tightly at the object, then mind will become agitated and body tense. If the subject relaxes too much then his attention will wander and fade away. It is important to find the balance between these two states.

7) While meditating, subject may experience jerking or quivering of the body, as falling asleep, gurgling of the stomach, tingling feeling or numbness, memories, mental images, inner sounds or other perceptual changes. The best way to deal with these
experiences is to simply allow them to arise, unfold and dissolve without distracting the attention.

8) Initially while practising meditation, subjects find it difficult to close their eyes for 20 minutes at stretch. They may feel uneasiness. They were instructed to open their eyes calmly, take few deep breaths than close their eyes again and concentrate on breath. With practice he/she will be able to close his/her eyes for complete 20 minutes.

The subject practised this techniques for 20 minutes daily for 3 months. For fifteen days, subject performed meditation in the presence of researcher after which their daily meditation was done on their own. The researcher remained in continuous contact to ascertain the situation.

Researcher took weekly feedback from the subjects in order to know the progress in their concentration level and problems. Initially concentration is momentary, then gradually it becomes sustained. As concentration grows, even when subject's attention wanders, distraction is immediately recognized and he/she returns his/her mind to the object of concentration. As the subject develops the capacity to sustain focus of attention without lapsing into
distraction or dullness. Concentration ripens and matures into a state of relaxation.

During weekly feedback, subject also reported status of problem perceived. Researcher kept note of all things such as their reports that anger and uneasiness had disappeared etc. Each individual subject's report is presented in Table 14.

After the subjects completed their three months of meditation, researcher took their post-intervention score on MP1 scale. Researcher thanked all the subjects for their co-operation.

PROCEDURE OF COGNITIVE INTERVENTION:

The first step in cognitive intervention is to explain the rationale of cognitive restructuring to the subject. In explaining the rationale, emotion and thinking and behaving is the central concern. Identifying and labeling negative thoughts and seeing how emotions and thoughts interact is the first step towards enabling the subject to understand her/his emotion. If the changes are made in the thinking process, changes in emotions and behaviour will follow. Cognitive restructuring is based on the idea that we often respond to daily stressful events with negative, distorted mental monologue. This monologue creates emotions, moods and feelings.
When the negative monologue occurs too frequently or intensely in response to stress, unhealthy negative emotions like anxiety, anger etc can occur. We often can not change the situation that causes stress but we can change our emotional responses to stress using cognitive restructuring [CR]. This technique involves learning to recognize, challenge, and change negative automatic thoughts so that we can be more realistic and accurate in thinking about stressful situations.

Initial sessions are spent in giving rationale and creating rapport with subject. Therefore in the beginning daily interaction was held for the following reasons.

a) Information is collected about the family.

b) Subject's relationship with family members are detailed.

c) Subject's position in the eyes of family members is also learned.

d) Subject was introduced to first daily record sheet in order to identify her thoughts and emotions.

In first “Daily Record Sheet” (DR Sheet) there are three columns. First column is of situation, second column is of emotions and third column is of automatic thoughts. When something unpleasant happens the subject was asked to write it down on DR
sheet. In 'situation' column he/she has to write what actually happened. In 'emotions' column he/she has to write how did he/she feel. In Automatic Thought column he/she has to write the thoughts that come to his/her mind. The purpose of DR sheet is to help subject to notice what and how she actually thinks. When the subject starts writing the sheet, it provides impetus for further discussion. The researcher put up questions to explore the subjects problematic thinking. The next few sessions are spent in preparing proper problem list.

The most useful conceptualization can be made by asking the client for specific, concrete, recent and severe examples of the problems bothering him/her rather than asking "how do you generally feel...? Asking questions like “Can you describe in detail a recent example of...?” is more helpful. This way, the conceptualization can be specific, concrete and relevant to the subject’s concerns. A problem list is developed which is a simple list of areas that the subjects feels are problematic in their lives and want some solutions to manage them. The list in written form was kept by both subject and the researcher. It can therefore be used to review the progress during course of intervention. After problem list is completed, daily sessions are dispensed with and researcher
meets the subject twice a week. Subject is introduced to second DR sheet, it has two additional columns, namely alternative thought column and outcome column. Next step is to take one problem from the list and view it operationally.

a) **Identifying and clarifying the problems**: Subject and researcher work together to identity exactly what the problem is and other questions such as: who is affected? What are the component parts of the problem, duration and consequences are discussed.

b) **Setting a clear goal**: The subject identifies what exactly he/she wants to achieve, and by when.

c) **Generating a range of solutions**: Subject and researcher brainstorm what solutions might be possible.

d) **Evaluating the solutions**: The subject looks at the list of possible solutions and identifies which one might be helpful and which can be rejected.

e) **Selecting the preferred solutions**: The subject arranges the solutions in order of feasibility and selects one or few to try out.

f) **Trying it out and evaluating progress**: The subject tries out the selected solution and then thinks about how successful it was.
From now onward, proper structured sessions are followed. The cognitive intervention was conducted in sessions of 30 minutes duration. Each session comprised of the following components.

1. **Review of the subject's mood:** Usually questions regarding subject's mood are related to DR sheet. Asking about the mood, they repeat the same thing as they have put in DR sheet but researcher puts up questions to view the same situation again.

2. **Setting an agenda:** Above discussion provides the agenda or sometimes it is the last session issues that require further discussion and are set as a agenda. Agenda setting also aids the client's memory of the session. An agenda should help the session to begin collaboratively and maintain collaboration throughout the session.

3. **Review of previous homework and devising new homework:** One regular homework is to fill Second Daily Record Sheet. Second Daily Record sheet has two additional columns, first columns is of "Alternative thought" in which subject questions his/her Automatic thoughts. Some useful questions are as follows:

- What is the evidence that "x" is true?
· What is the evidence against "x" being true?
· And if that happened, what then?
· What leads you to think that might happen?
· How does thinking that make you feel?
· Is there any other way of seeing the situation? etc.

Second columns is of "outcome" in which subject questions herself/himself to think of ways that he/she could change to make things better for himself/herself. Some other homework is devised according to the need of particular subject. It could be some coping statements that subject repeats to herself/himself several times a day or some solution that subject may try out.

4. Session targets: This constitutes the main part of the session and will generally take up the majority of the time. The items which are worked on will be those already identified during the agenda-setting stage or issues which have arisen during the actual course of session. It is not unusual for homework to become a central focus of the session. Working on the session target is where main skills and technique of cognitive therapy will be brought to bear on the identified issues.

5. Session feedback: Continuous feedback and researcher's attempt to explain what she is doing, giving rationale for each
move means that the intervention process will be renegotiated regularly on an ongoing basis.

It requires starting work at the symptom level and only going on to work at the underlying level when it became necessary from the way discussion and subject's responses unfold. The emphasis is on working on problems rather than on correcting defects or changing personality.

The overall message in challenging the subject's way of thinking is to enable the subject to "take her thoughts to court", enabling information and evidence to be collected for the defense and the prosecution, rather than automatically jumping to conclusion as the basis of seeing things.

By following this process sincerely subject realizes that he/she is able to solve his/her problem. Researcher discusses with the subject that uptill now situation was a problem because subject had not tried to solve it. By accepting it the subject becomes optimistic to solve the next problem, and follow the same procedure. The written material of DR sheet also reveals the thinking pattern of the subject. If any cognitive distortion is identified than it is openly discussed with the subject. The subject
is asked to notice this maladaptive cognitive process and challenge or modify it. With the solution of each problem, the subject becomes more responsible and understands the procedure of solving or dealing with her/his problems.

Researcher increases the time between the sessions. Spacing sessions in this way enables the subject to have more time between sessions to practise and consolidate gains made during counseling. The intervention ended after three months. By this time the subject feels that she/he solved his/her listed problems and has learned the way how to deal with his/her cognitive distortions. Now he/she knows that it is not realistic to expect never to feel anxious, low, upset or angry. But the important point is to be able to normalize this distress.

**Things that the researcher tells the subjects:**

1) Subjects are told that goal of cognitive intervention is for them to learn to become their own therapist.

2) Intervention will be time limited but it is expected that they will be better problem-solvers in future also.

3) They should be told that it requires practice for the new kind of thinking to feel true, just as it requires practice for the
new skill (such as diving a car) to feel comfortable and natural with time. It begins to seem natural to think about one’s life situation in a fair and realistic manner.

4) Researcher tells the subject that her primary function is to help subject to find her own answers, because every individual is brought up in a unique environment and solutions are also personal.

5) Instead of talking self negatively whenever problematic situations arose, the subject after intervention, will be able to acknowledge that he/she has choices. By making coping self statements that assist him/her to stay calm and cool, establish goals, coach him/her in what to do and affirm the strength, skills and support factors possessed will help her to handle problems.

**Procedure for Combined Intervention Group**

The subjects in the group where both cognitive intervention and meditation were given were administered each procedure in the manner mentioned earlier in this chapter. Researcher first conducted cognitive intervention session with subject than ask them to meditate for 20 minutes.
After the subjects complete 3 months, with this combined intervention researcher took their post-intervention score on MPI scale and also evaluated the status of problems perceived by them. Researcher thanked all the subjects for their co-operation.

**Procedure for Control Group:**

The subjects in this group were not administered any intervention. After taking their neuroticism score and problems perceived by them researcher remained in touch with these subjects to discuss about their problematic areas. Researcher kept note of these problems revealed during these discussions for each individual subject.

After an interval of three months researcher again took their neuroticism score on MPI scale and inquired about their problems status. Each individual subject’s report is presented in Table 16. The researcher thanked all the subjects for their co-operation.