CHAPTER 4
METHODS

“THE TARGET SET DURING SMET PROGRAM IS THE RELEASE OF STRESS AND TENSION”

-NAGENDRA AND NAGARATHNA
“A survey of managers in a leading UK supermarket chain revealed that those high on emotional intelligence experienced less stress, enjoyed better health, demonstrated higher levels of morale and performance, and reported a better quality of life.”

- Margaret Chapman

### 4.1 Subjects

The subjects for the study were 72 managers (63 males and 9 females). They were selected from the groups of managers of Oil and Natural Gas Corporation (ONGC) Limited based on the following inclusion and exclusion criteria.

#### 4.1.1 Inclusion Criteria

1. Middle level executives,
2. Age range 45 and 60 years and
3. Both male and females

#### 4.1.2 Exclusion Criteria

1. Women during pregnancy, menstrual periods or experiencing menopausal problems,
2. Persons with serious medical conditions,
3. Participants taking medication
4. Using any other wellness strategy,
5. Persons using psychiatric drugs, alcohol, or tobacco in any form.
4.1.3 Source

Subjects for the present study were selected from ONGC Limited, India.

4.1.4 Informed Consent

An informed consent was obtained from all the participants. [See Appendix 1]

The Institutional Review Board (IRB) Approval: The study was approved by the IRB.

Health check up by physicians: SMET participants were examined for their complete health check up to satisfy the inclusion criteria.

4.2 Design

A single group pre-post design

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Number of Subjects</th>
<th>Age-range</th>
<th>Age in Mean± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONGC managers</td>
<td>72 (63 males and 9 females)</td>
<td>45 – 60 years</td>
<td>48.75±3.86</td>
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</tbody>
</table>
4.3 Intervention

All the subjects of this study participated in the SMET module, a stress management program based on the yogic wisdom (lecture sessions and practice sessions of CM).[5], [60] CM, a combination of stimulating and calming practices, based on the yogic scripture was the principle behind the practices of the SMET program. The program was conducted in the serene and peaceful atmosphere of the Praśānti Kuṭīram in a residential set up with a schedule starting from 5 AM to 10 PM as shown in Table 1. Tables 2 and 3 show the topics of lecture and practice sessions. [Plates 1 and 2]

Sattvic diet (high-fiber low-fat vegetarian and balanced diet), devotional sessions, cultural programs and discourses from experts were the key essence of this program. The program was based on Integrated Approach of Yoga leading to the holistic development of the personality.

4.3.1 SMET

SMET program consists of both theory and practice. The set of practices known as CM is an integral component of SMET program. CM combines ‘stimulating’ and ‘calming’ practices. [35] It is based on an ancient yogic text, Māṇḍūkya Upaniṣads Kārikā, which suggests that this combination is the essence of all Yoga practices, and would be helpful to release stress, achieve mental equilibrium and emotional balance. [5] [Appendix 6]
4.3.2 Theoretical aspects of SMET program

The theory sessions consisted of the following 7 aspects of SMET

1. Introduction to SMET- This lecture deals with the basis of SMET practice Māṇḍūkya Upaniṣads Kārikā, with the description of the steps included in the practice, and the research findings of decreased metabolic rate about 3 times more rest in 30 -35 minutes of SMET than 6 hours of good sleep.

2. Concept of stress according to Modern Medical Science and Yoga - It deals with the physiological aspects of stress and shows how it affects our health and efficiency, the root causes of stress and also it explains the method of stimulation and relaxation to overcome stress.

3. Recognition is half solution and stress release- This lecture deals with the recognition of stress and how to release and overcome the stress.

4. Executive growth-This lecture deals with two dimensions of increasing sensitivity (depth of perception) and (expansion of awareness) as the two principle components of growth and the SMET practice to accomplish the same.

5. Group dynamics- This lecture deals with benefits of working together in a group and how a group effort can bring efficiency at all levels and how SMET brings out the group effect.

6. Stress research: The research work done by VYASA over the last 20 years will be reviewed and the usefulness of SMET integrated approach of Yoga for Asthma, Diabetes, Hypertension, Cardiac problems, back pain, cancer, etc well brought out.
7. VYASA Movement - This session brings out the activities of VYASA in general with particular emphasis of research for the managerial world covering the developments done over the last 3 decades.

Each theory session is associated with the corresponding practice sessions to get more benefit from practice session. At the end of each theory session the hints for doing the practices going into the subtleties of practices were given.

4.3.3 Practical aspects of SMET program

Each practical session lasted for 35 minutes. It is a combination of stimulation and relaxation practices. This practice part is having three-relaxation technique and some postures, which forms a cycle of stimulation and relaxation in a sequence.

4.4 Assessments

4.4.1 Brain Wave Coherence (BWC)

The brain wave is a bioelectric potential that is recorded from the surface of the skull, using appropriate electrodes and instrumentation. Coherence is the condition of synchrony between the waves generated in between the 2 hemispheres of the brain. For example: if the left and right occipital lobes are generating Alpha waves of similar frequencies, there is some coherence between them. Brain wave coherence is the recording of electrical activity along the scalp produced by the firing of neurons within the brain. In this study we have used Brain Master 2 Channel EEG version 2.0 from Bio-Medical Instruments, Inc., Warren, Michigan for BWC recording\textsuperscript{[61],[62]} which records the brain waves and through an inbuilt software gives the coherence values of Delta (δ), Theta (θ), Alpha (α), Beta (β) and Gamma (γ) waves. [See Table 4]
4.4.2 Emotional Quotient (EQ)

In this study we have used the EQ test developed by Prof N. K. Chadha. The test has 15 real life situations based on 5 point scale rating and then finally obtained scores that was converted into percentile score. The classification of EQ values are shown in the Table 5. This test is useful to measure emotional dimensions as emotional competency, emotional maturity and emotional sensitivity. This test has been standardized for Indian population (professional managers, businessmen, bureaucrats, artists and graduate students) and used widely in research and elsewhere. It has a reliability of 0.94 and validity of 0.92. [63]

4.4.3 General Health Questionnaire (GHQ)

This 28 item test using a binary method of scoring (0, 0, 1, 1) yields an assessment on four robust subscales: Somatic Symptoms (SS), Anxiety and Insomnia (AI), Social Dysfunction (SF) and Severe Depression (SP). A sum of the scores for these four subscales gives the score for total health. Lower scores in the GHQ indicate better state of the health. The cut-off score was 9. [64] It provides information about the recent mental status, thus identifying the presence of possible psychiatric disturbance. This questionnaire has acceptable psychometric properties and has good internal consistency and reliability with Cronbach’s alpha of 0.85 and validity of 0.76. The questionnaire is validated for the Indian population and test-retest effects get eliminated in 24 hours. [65] [Table 6]
4.4.4 Personality Inventory (PI)

There are different theories of personality. These were the psychoanalytic, trait, social-cognitive, humanistic and the Indian approach to personality, based on Gunas. If we wish to determine aspects of a person’s personality based on a particular theory, there are specific techniques for assessing those. For example, if we wish to know about the dominant traits in a person, e.g., whether he/she is an extrovert or introvert, there are specific ways developed by psychologists, to get this information. Similarly, if we wish to know about the unconscious aspects of a person’s personality, we will have to use psychoanalytic ways of assessing the same. The Indian approach to personality emphasizes the three Gunas: Sattva, Rajas and Tamas. In order to assess a person’s nature based on this conception, we need to have an understanding of which Guna is predominant in a person’s life, in thought, speech and action, and then which is less dominant, and finally which is the least. For example, a person who is extremely truthful, detached, and helpful is likely to be high on Sattva. There are two ways of assessing personality traits. One method consists of asking a set of questions which a person has to answer about his/her opinions, feelings and actions. For this purpose, a PI is used. In the second approach, some other person makes assessments about a person’s traits, based on prior knowledge about that person, or by direct observation of the person. This is called the rating-scale approach. [Tables 7.1, 7.2 and 7.3]

In this study, we have used PI developed by Pathak, Bhatt and Sharma. It has 24 items for Sattva Guṇa (balanced, gentle and controlled personality trait), 34 items for Rajas Guṇa (violent and uncontrolled personality trait) and 30 items for Tamas Guṇa (dull and
uncontrolled personality trait). It has good internal consistency and reliability and in terms of validity, all the three traits showed low correlation with each other indicating that these three traits are independent.

PI is based on Samkhya Philosophy’s concept of Guna. In an ideal situation of perfect health, an individual has the complete freedom to use any of these three Guṇa with dominance of Sattva Guṇa in his personality. Ill health or limited health occurs if Rajas or Tamas Guṇa becomes dominant, as one loses freedom and gets habituated to either of these Guṇa. Hence, the degree of positive health can be measured by a tool that can grade these three personality traits or Guṇa.