DESIGN OF THE STUDY

The methodology adopted for the research study titled “Stress Management of White Collar Women in Expanding Families” comprised of the following aspects.

3.1 Phase 1: Survey to Assess the Prevalence of Stress among the Selected Samples

3.2 Phase 2: Assessing the Stress Levels of the Selected Samples

3.3 Phase 3: Case Study of the Selected Samples

Schematic representation of the Design of the Study is presented as Figure – 1

Phase 1

3.1 Survey to Assess the Prevalence of Stress among the Selected Samples

Data is the most basic requirement which paves way for investigation. According to Kothari (2012), a survey is necessary since it enables to gather relevant information from the selected samples on aspects pertaining to the study. In survey, the data are collected from a universe in which, the individual effect of various factors affecting the phenomenon under study cannot be controlled or isolated (Elhance, 2000). Survey research helps to gather data from a relatively large number of cases at a particular time. Kothari (2004) refers survey as the method of securing relevant information concerning a phenomenon under study since it has the advantage of wider scope and accuracy of information. Social survey is intended to be the study of the social aspect of a community’s composition and activities (Sharma, 2003). Hence, Survey method was chosen as the most appropriate method for the collection of primary data pertaining to the study.
Accordingly, a survey was conducted to gather informations required for the research. In order to assess the prevalence of stress among the selected samples the following aspects were considered important.

3.1.1. Selection of Area
3.1.2. Identifying and Selection of Samples
3.1.3. Selection of Method
3.1.4. Framing the Research Tool
3.1.5. Pilot Study
3.1.6. Conduct of the Study and
3.1.7. Analysis and Presentation of the Collected Data

3.1.1 Selection of Area

Chennai, the capital of Tamil Nadu and the Gateway to South India located along the Coromandel Coast, initially grew around the British settlement of Fort St. George and is the India's fourth largest and populous metropolis city (Financial Express, 2014). Chennai is the biggest cultural, economic and educational centre in South India. Chennai has been rated as the most attractive Indian city for off-shore services according to Kearney's Indian City Services Attractiveness Index (2005). National Geographic ranked, Chennai as the world's second best food city and the only Indian city to feature in the list. Chennai was also named as the 9th Best Cosmopolitan city in the world (Planet, 2015). Recently in January 2015 the Chennai Metropolitan Area was ranked the fourth-largest economy in India, and the third-highest GDP (Gross Domestic Product) per capita (https://en.wikipedia.org/wiki/Chennai#cite_note-24).

According to the provisional results of 2011 census, Chennai is a city with 4.68 million residents making it the sixth most populous city in India; Chennai is known as the "Detroit of South Asia" for its automobile industry. The city is a hub of a number of technological park, and promises employment for nearly 3,00,000 people. Chennai has a diversified economic base anchored by the automobile, software services, hardware manufacturing and financial services. The city is now the second largest exporter of IT and Non - IT Services in the country.
The survey was conducted among the general companies and IT sectors located in and around Chennai city. Chennai hosts a number of IT companies making the study realistic and meaningful. The city consists of Hardware, Software and BPO giants. Major software and software service companies like Cognizant Technology solutions, Accenture, Capgemini, TCS, HCL and Wipro, Global BPO and other popular and famous general Insurance Company, Leather company, TVS, Honda, Hyundai, Ashok Leyland, MRF tyres and Perfect Square are well established in Chennai city. Ramapuram and Sholinganallur surrounded by IT based companies such as Siruseri, Perungudi and Taramani is part of Chennai located on the IT corridor south of Chennai in the state of Tamil Nadu, India (https://en.wikipedia.org/wiki/Sholinganallur).

Chicago, the capital of the State of Illinois is the third most populous city and is situated in the Midwestern region of the United States with approximately 2.7 million residents with a population of nearly 3 million people. Chicago is situated in the northeast part in Illinois. Chicago is ranked seventh in the world in the 2014 Global cities Index and is ranked in the largest metropolitan areas in the United States.

The major companies namely Continental Insurance Company (CNA), Accenture, Walmart, Dunkin Donuts, Best Buy, Target, Jewel, Costco, Walgreen, SAMS have strongly established in the city of Chicago. It was an attempt by the investigator to compare a developing city (Chennai, India) with a developed city (Chicago, USA) which would help to identify and resolve certain facts related to the study. Hence Chennai in India and Chicago in USA were selected for the study. Among the companies in and around Chennai and Chicago the researcher identified leading companies dealing with experts in Non-IT and IT sectors. The location of the study area chosen had shown in Figure 2 and 3 and is given in Appendix 1.
Design of the Study

Stress Management of White Collar Women in Expanding Families

Location of the Study Area

Chennai

Figure – 1

Location of the Study Area – Chennai, India
Design of the Study

Location of Study Area – Chicago, USA

Figure - 2
Table 1 Presents comparative facts of the most important features of the selected two cities namely Chennai in India and Chicago in USA

### Table 1
Comparison between India and USA

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Details of the Selected Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>India Total : 1,210,193,422 (2011) USA Total : 308,745,538 (2010)</td>
</tr>
<tr>
<td></td>
<td>Male : 623,700,000 Male : 151,781,326</td>
</tr>
<tr>
<td></td>
<td>Female : 586,500,000 Female : 156,964,212</td>
</tr>
<tr>
<td></td>
<td>Male : 36,137,975 Male : 6,292,275</td>
</tr>
<tr>
<td></td>
<td>Female : 36,009,055 Female : 6,538,356</td>
</tr>
<tr>
<td></td>
<td>Male : 2,335,844 Male : 1,308,072</td>
</tr>
<tr>
<td></td>
<td>Female : 2,310,888 Female : 1,387,526</td>
</tr>
<tr>
<td>Popularity</td>
<td>Fourth Populous City Third Populous City</td>
</tr>
</tbody>
</table>

Source:
- https://en.wikipedia.org/wiki/Tamil_Nadu
- http://censusviewer.com/city/IL/Chicago
- http://www.infoplease.com/ipa/A0884102.html

The similarity of the cities induced, and motivated the investigator to select Chennai, in India and Chicago in USA. Therefore, Chennai in India and Chicago in US were identified as the targeted areas and selected as the ideal choice to the study area and collect the information for the study.

#### 3.1.2. Identifying and Selection of Samples

Working women especially in the stage of expanding family encounter stress with dual responsibility as a homemaker at home with multiple roles as wife, mother, daughter-in-law and as a career woman at work place. The expanding family stage covers a long period during which a number of changes take place at rapid pace and the parents are forced to face challenges especially the mother who needs to take different responsibilities, (Nickell and Dorsey, 2002).
Design of the Study

Stress Management of White Collar Women in Expanding Families

PHASE I
Survey N = 1000
- Chennai, India
  White Collar Women
  N = 482
- Chicago, USA
  White Collar Women
  N = 479

Highly Stressed
White Collar Women
N = 275 (57 percent)

PHASE II
Intervention Programme
- From 275 samples
  55 samples (20 percent)
  Given Intervention program

Stress Coping
Techniques

Psycho
Physiological
Assessment

PHASE III
Case Study N = 10
- IT
  White Collar Women
  N = 5
- NON - IT
  White Collar Women
  N = 5

Figure - 3
Schematic Representation of the Design of the Study
Women as working mothers bearing the dual responsibilities in the process of fulfilling the role, face severe consequences in the form of health problems resulting in stress. The effect, whether acute or chronic stress, affect one’s health (Blanco and Gisela, 2000). A total of one thousand samples were selected for the study. The samples selected for the study were the women in the expanding families. The study is focused and targeted at women holding responsibilities as white collar job in establishments and at the same time taking care of their families. White collar worker is a person who performs professional, managerial and administrative work (Van et al., 2003). Keeping this in mind, the white collar women were selected as the samples for the research study.

The IT companies have entered the economic arena and their high level of pay has raised the economic status of the young and the educated employees and the professionals. Chennai, being the metropolitan city, truly represents employees belonging to various strata of the society. Five hundred samples were selected from Chennai. The samples selected for the study consisted of women holding white collar job representing General Manager, IT Manager, Project Manager, HR Manager and Team Leader who are working under private organization comprising of general companies and IT industries. The HR department executives and managers of the respective companies were contacted for the formal procedure for the permission to select the samples for the study.
According to Urban Institute and Kaiser Commission on Medicaid and the Uninsured estimates based on the Census Bureau’s March 2011 and 2012 Current Population Survey (CPS: Annual Social and Economic Supplements) 38 percent of the total population of Illinois (Chicago the capital of Illinois) are in the age group between 18 and 64 years are white collar job holders. The researcher made an attempt to visit Chicago for the purpose of identifying the samples. Five hundred samples were selected from Chicago. The samples were identified through HR Department, friends and co-workers. One Thousand samples were selected for the study, 500 from Chennai, India and 500 from Chicago, U.S.A.

3.1.3. Selection of Method

Purposive sampling technique was the method used for the selection of the samples (white collar women). According to Kothari (1990), purposive sampling involves deliberate selection of a particular unit of the universe for constituting the samples which represents the universe. Purposive sampling is common when special skills are required to form a representative subset of the population (Mangat, 1996). Purposive sampling is based on selecting the individuals as samples according to the purpose of the research under control (Calmorin, 2008). Purposive sampling technique is a non-random sample method which is based on factors like convenience in data collection, budget and time constraints. Purposive sampling helps to exercise good judgement and appropriate strategy to handpick the cases to be included in the sample that are
Design of the Study

satisfactory in relation to research needs (Saravanavel, 2012). In qualitative research, issues related to defining the overall population are generally treated as part of the purposive sampling. Purposive sampling is a non-probability sampling method and occurs when “elements selected for the sample are chosen by the judgment of the researcher.

3.1.4. Framing the Research Tool

Questionnaire was the tool used for the collection of data. A questionnaire is a schedule with a series of questions asked to individuals to obtain statistically useful information about a given topic (Graeff, 2005). A questionnaire consists of a number of questions printed in a definite order (Kothari, 2004). The Questionnaire comprises a list of questions selected and arranged in an organized manner pertaining to the investigation (Gupta, 1993).

In order to study the impact of the “Stress Management of White Collar Women in Expanding Families” a simple questionnaire, easy to understand and comprehensive in nature was designed to elicit information pertaining to the objectives of the study. A questionnaire was framed comprising of questions pertaining to the family background, household activities performed, housing details, employment details, health problems faced by the selected respondents, stress experienced, methods adopted to manage the stress and benefits obtained, family support and overall satisfaction. The questionnaire is a popularly known method used for collecting data in research survey (Kothari 2004). The questionnaire thus formulated was mailed to the selected respondents who are expected to read, understand the questions and reply in the space meant for the purpose in questionnaire itself (Appendix 2, 3 and 4).

3.1.5. Pilot Study

Pilot study or pre-test is the essence of a good schedule. Pilot study provides guidelines to acquire knowledge of the population, the approach to be followed in data collection and identify ambiguity in the questions (Saravanavel, 2012). It is a necessity as a small scale replica of the main survey. Pilot testing is necessary and important since it helps to indentify errors in the questionnaire, confusing statements, typographical mistakes and ambiguous instructions. It
allows the author to redesign the problematic parts of the survey before it is actually used. According to Wilkinson and Bandarker (1997) a pre-test helps the investigator to equip and understand with an overall objective to measure each question precisely. At this early stage, it is possible to incorporate the corrections (Litwin, 1995).

The questionnaire was administered to ten women holding white collar job, identified through informal sources such as neighbours, friends, relatives and acquaintances. The questionnaires were mailed to the selected subjects, with a brief introduction about the objectives of the research study. The samples were given a week’s time to fill up the questionnaire and return, providing feedback on the validity of the items in the questionnaire. As the samples were pursuing dual roles and engaged with work during the day and with family after returning, took more time to return the filled up questionnaire. The purpose of the pre-test was to test the efficiency of the questionnaire. The questionnaire was then modified accordingly. Certain questions were deleted and others modified and incorporated. The questionnaire thus modified, is given in Appendix 2.

3.1.6. Conduct of the Study

The purpose of the study was indicated in a paragraph along with the mailed questionnaire to the selected samples (1000 samples) to provide relevant information pertaining to the research study. Efforts were taken to see that the questionnaire reach the selected samples. Questionnaires were mailed to the selected respective samples and also contacted in person in cases where it was possible. Wherever explanations were required, the researcher explained the terms and made it easy for the respondents to answer. A major constraint faced during the process of data collection was the time constraint. In certain situations, the researcher personally met the samples and collected the filled up questionnaire. The respondents were provided a comfortable atmosphere with privacy as they could respond without hesitation. They felt filling the questionnaire was a stressful job during working hours. Hence, the researcher gave one week’s time to fill the questionnaire. More time was spent to build rapport with the selected samples and to convince them to respond appropriately without much distraction.
The returned questionnaire was checked to assess the completion of the questionnaire with the required information. One thousand questionnaires were mailed to the selected samples [white collar women] through HR departments and company managers. Some were personally handed over to the selected samples. Information can be collected from a large number of people in a short period of time and in a relatively cost effective way through mailed questionnaire. However, their response rate was not very satisfactory because of their busy life style.

3.1.7. Analysis and Presentation of the Collected Data

According to Kothari (2004), the data collected has to be processed and analysed in accordance with the outline laid down for the purpose at the time of developing the research plan. This is essential for a scientific study and for ensuring that all the relevant data for making contemplated comparisons and analysis is received. The data collected from the respondents were edited, classified, coded, tabulated, analysed, presented and interpreted in the chapter Results and Discussion. Graphs and figures were used for the presentation of the data.

Phase 2

3.2 Determining the Stress Levels of the Selected Samples

Assessing the stress levels of the selected samples required the following steps:

3.2.1. Selection of Samples

3.2.2. Determining the Health Status of the Selected Samples.

3.2.3. Organising Intervention Program.

3.1.2 Selection of Samples

Response received from Chennai and Chicago were 482 and 479. Based on the response received, from Phase I, 57 percent (275) of the samples in Chennai and 34 percent (163) in Chicago were highly stressed. The comparison of the highly stressed samples of Chicago and Chennai indicated that more number of samples with high levels of stress were from Chennai, India (57
The investigator personally felt that her visit to Chicago will enable to identify the samples who can be included in her study under Phase 2. It was surprising to note that the samples in USA felt life circumstances are in control and perceive that they have the resources to make choices and influence events around them. The "stress-hardy" individuals have a lower frequency of illness and work absenteeism respectively. They also have a sense of commitment to their home, family, and work that makes it easier to be involved with other people and in other activities both at home and work environment. The results of the ISMA questionnaire (Appendix 3) and the stress inventory (Appendix 4) helped the investigator to identify the stress levels of the selected samples. Problems faced in performing household activities along with health problems also formed the base to identify the samples for the intervention programme. This base helped the investigator to organize an intervention programme especially for the samples selected from Chennai for those who were highly stressed.

The Phase I survey results revealed that the samples from Chennai are more stressed compared to the samples in Chicago. A prolonged stress response can worsen health condition such as arthritis, chronic pain and diabetes (Davis and Parker, 1990). Among the highly stressed 57 percent of the samples in Chennai in India 20 percent (55 samples) were identified by purposive sampling technique and selected for attending the intervention programme.

Purposive sampling method proves to be effective when only limited number of people can serve as primary data sources due to the nature of the research design, aims and objectives. A recent survey conducted by Global Research from Nielson between February and April, 2011 covering 6,500 women from 21 developed and developing countries including U.S and India, mentioned that Indian women across the world are the most stressed. The biggest stress felt among the women were between 25 – 55 years, married, in the expanding stage. After careful scrutiny among the samples surveyed in Chennai (482), 20 percent (55 samples) were selected.
The analysis of phase I revealed that samples with high levels of stress were willing to participate and have also personally requested to be selected as samples for the intervention programme. However, the researcher had used her judgement to select the samples. The criteria for the selection of the samples for the intervention program include samples with high stress levels, willingness to co-operate, and possibility to monitor the samples after the intervention program. The age factor also was considered (35-44 yrs). These were the main criteria for the selection of the samples. Interest of the samples, to undergo the intervention program was with an anticipation that the intervention programme would help them to have relief from stress.

Hence it was decided to select 55 samples only from Chennai who were stressed for the Phase 2 to assess the stress levels of the samples and organise an intervention programme, assuming it could help them to reduce stress to live a comfortable and normal life.

3.1.3 Determining the Health Status of the Selected Samples.

In order to determine the health status of the selected samples the following factors were required.

i. Identifying the stress levels of the selected samples

ii. Methods adopted to cope up with stress

i) Identifying the stress levels of the selected samples

The various components that help to identify the stress levels of the samples are given below:

a) Stress level of the selected samples

b) Health problem

c) Household activities

a) Stress level of the selected samples

The tools used for assessing the stress levels are as follows:

- ISMA stress questionnaire
- Stress inventory
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- **ISMA Stress Questionnaire**

  The NSAD stress questionnaire developed by the International Stress Management Association (ISMA, 2012) was used to assess the stress levels of the samples (Appendix 3). This tool used to assess the stress level of an individual has been designed by an expert researchers and psychologist at the International Stress Management Association and is available online at www.Isma.org. The questionnaire consists of 28 self-reported dichotomous items. The NSAD Stress Questionnaire administered to assess the levels of stress includes 28 questions, with Yes/No answer. Respondents have to answer ‘yes’ or ‘no’ at the end of every statement about their personal lives and daily activities. This Questionnaire requires 10 to 15 minutes to answer, after which the stress level of the respondent is analyzed. Results were interpreted and presented under Results and Discussion.

- **Stress Inventory**

  The stress inventory, a tool developed and standardized by Sue Firth, 2010 (Appendix 4) was adopted to measure the frequency of stress experienced by the selected samples. A summative scale is one where the resulting scale score for an individual is the sum of the individual item scores. The selected samples were asked to rate the frequency of stress they experienced as, ‘often’, ‘sometimes’ and ‘rarely’. Scores were allotted as 3,2,1 respectively to each item and the total scores indicated the frequency of stress level, whether ‘mild’ ‘moderate’ and ‘high’. The stress inventory administered for the study is given in Appendix 4 and the results given in Chapter IV.

b) **Health Problems**

  Stress can be the primary cause for many physical illness and sickness. Nozoe, (1997) reported that long term exposure to stress can cause high blood pressure, and chronic digestion problem. To determine the level of stress caused by health problem by the selected samples which was already used in Appendix-I. The selected samples were asked to rate the frequency of the various health problems they experienced in terms of occurrence as, ‘often’, ‘sometimes’ and ‘rarely’. Scores were allotted as 3,2,1 respectively to each item
and the total scores indicated the stress level, which reflected as ‘mild’ ‘moderate’ and ‘high’. The outcome of the stress levels in relation to the health problems in terms of scores and its intensity is presented under Results and Discussion. Samples with score 14 and above were selected for the intervention program.

c) **Household activities**

Household activities play a major role for being responsible for stress. Hence, household activities that are responsible for stress need to be assessed. Stress level assessment was done for the household activities from the Appendix-I already mentioned for the household activities such as cleaning of utensils, cooking, washing, ironing clothes, child care and self care. For the frequency of performance of the household activities on the basis of ‘daily’ ‘weekly’ ‘monthly’ and rarely the scores were allotted as 4, 3, 2, 1. Greater the values obtained for tasks, higher the stress level was assumed. Higher the energy spent for the respective physical activity, more the money was spent for completing the tasks.

ii) **Methods adopted to cope up with stress**

Information pertaining to the frequency of the methods adopted to cope up with stress by the selected samples was identified as daily, weekly, monthly and rarely basis and scores allotted as 4, 3, 2, and 1. Higher the values obtained for tasks, greater the stress experienced among working women. The outcome of the stress levels and the methods and techniques adopted to cope with stress are presented under Results and Discussion.

The questionnaire used for the intervention programme, is given in Appendix 5. The findings are statistically analysed, summarized and presented in Results and Discussion.

3.1.4 **Organising Intervention Programme**

The word intervention refers to a specific type of meeting or interventions, which helps to change ways for healthier life (www.vocabulary.com). An Intervention programme is an art intended to help to make things better. An intervention is a combination of programme of elements or strategies, designed
Design of the Study

Stress Management of White Collar Women in Expanding Families

to produce, behaviour changes to improve health status among individuals or a population. The survey revealed that white collar women in the age group between 35 and 44 years, in the expanding stage of the family life cycle and with high level of stress and having young children below 6 years were found to have heavy workload irrespective of the employment status. In order to enable these women to reduce stress an intervention programme was found necessary to educate the selected samples on stress management to reduce the stress to face challenges. The programme was planned with clear objectives of imparting knowledge on stress management and correct methods of balancing work and life of white collar women.

The following were the important steps followed to organise the Intervention Programme.

**Steps followed to Organize Intervention Programme**

**Figure - 4**

i. Detecting signs of work-related stress and taking preparatory actions

ii. Analysing risk factors and risk groups

iii. Designing and implementing the action plan

iv. Evaluating the intervention

**i. Detecting signs of stress**

As per the results of Phase 1 of the NSAD questionnaire the samples having scores 14 and above identified as samples having high levels of stress were selected. Similarly the stress inventory representing the stress due to health problems, and household activities indicated the stress levels of the samples. The analysis revealed that the samples with high levels of stress and
Design of the Study

willing to participate in the intervention programme alone were selected for the intervention programme. The stress levels of the identified selected samples were also counter verified by the resource person invited for conducting the intervention programme.

A questionnaire was formulated to be administered to the selected samples before and after the Intervention programme. The questionnaire is the most important tool generally used in social research. Interview schedule contains standard observation to be asked to the interviewee for getting relevant information (Gupta, 2005). Kothari (2004) stated that a schedule helps collecting data, in which the enumerator along with the schedule go to the respondents, put forth questions from the proforma in the order the questions are listed. The responses are recorded in the space meant for the same in the proforma.

ii) Analyzing the risk factors

Stress response called the “fight or flight” response explains our bodily reaction to stress, reacting to a stressful event by producing endocrine hormones to heighten our response towards threat or challenge. The body’s stress response increases the heart rate, blood pressure, skeletal muscle tension and alertness (Gazzaniga et al., 2010). Stress is a reaction which brings change to the body and mind. It is a person’s physical and mental response to feelings, situations, other people or places.

Stressful working conditions are related to psychosocial hazards, such as too high or too low job demands, time pressure, lack of control, over work load, work processes, lack of social support from colleagues and supervisors, discrimination, isolation, psychological harassment, lack of participation in decision making, poor communication or information flow, job insecurity, lack of opportunity for growth, lack of advancement or promotion, irregular working hours and being exposed to unpleasant or dangerous physical conditions which are responsible for stress. The things that cause stress are called stressors, (Gregson, 2001).
iii) Designing and implementing the action plan

Dr. Rishi Tewari, an expert in the field of creative visualization and Trance therapy was invited. Dr. Rishi Tewari M.B.B.S, D.P.H, M.Sc., (Occupational Health and Industrial Medicine) FICA (USA), MRSH (LONDON), Former Director of Health Services, Tanzania, (Plate 1) is an expert who conducts the Stress Management Programs regularly for stress relief in India and abroad. He offers services to various countries through Global Stress Management and Research Centre that is presently based at Chennai.

Plate 1: Program Instructor addressing the participants
The one day Intervention Programme was organized on Stress Management topic on September 7th 2013 for the selected 55 samples who were highly stressed and willing to undergo the Intervention Programme. The invitation and the programme schedule is given in Plate 2 and 3 along with the plan to be executed.

Plate 2: Invitation for the Research Intervention Program
**Plate 3: Programme Schedule of the Intervention Program**

The Stress Management Program of Dr. Rishi Tewari’s Trance Therapy tailored to meet the needs of the selected samples involved the Psycho Physiological assessment of the samples which include the following. This was required to be assessed as per the instruction of the expert, Dr. Rishi Tewari.

a) Psycho Physiological assessment of the samples  
b) Selection methods  
c) Implementing and monitoring the program

**a) Psycho Physiological assessment of the samples**

The psycho physiological assessment suggested by Dr. Rishi Tewari for the intervention programme included monitoring and recording of pulse rate,
blood pressure and attention level before and after the intervention programme. The Psycho physiological parameters namely pulse rate, blood pressure and attention level state were assessed, monitored and recorded. Blood pressure and heart rate increase during stress, reflecting a predominance of sympathetic nervous system activity (Ritvanen et al., 2005). During stressful time, a person’s attention shifts and mental state is affected, which hinders the ability to focus while processing an image or act (Henckens et al., 2009).

- **Pulse rate**: Heart rate is one of the indices of assessing the physical fitness of an individual. Hormones prepare the body for the "fight or flight response" by making the heart to beat faster and constricting blood vessels to get more blood to the core of the body instead of the extremities. The pulse rate and blood pressure were monitored and recorded for the selected samples with the help of Omron instrument. The instrument was used to monitor the heart beat. The normal pulse rate of an adult is 72 bpm (beats per minute). The recorded Pulse rate of the selected samples is given under results and discussion.

- **Blood pressure**: The blood pressure was monitored and recorded using the same instrument. This instrument is used for recording the pulse rate and blood pressure simultaneously. It is rolled on the wrist with the right hand placed across the chest for the pulse rate and blood pressure units to be displayed in the monitor.
Blood pressure rises with each heartbeat and falls when the heart relaxes between beats. BP changes from minute to minute with changes in posture, exercise, stress or sleep. The normal BP is 120/80 mm Hg (less than 120 systolic and less than 80 diastolic) for a normal adult. The recorded details of the samples are presented and discussed in Chapter 4.

- **Attention level:**

  The Attention level was monitored by the instrument, Encephalography (EEG) detection tool. It measures and records the electrical activity of the brain by using sensors attached to the forehead. It is a wireless instrument which has to be connected to a computer. The computer records the person’s brain electrical activity on the screen as wavy lines. It is an instrument used to measure the attention level of an individual. With the development of EEG (electro encephalography) detection tools, brainwave sensors have become mature and affordable equipment (Ning, 2013).

  Therefore, in this study, whether white collar women are attentive or inattentive during work is determined by observing their EEG signals recorded in the computer with the help of Electro Encephalo Graphy (EEG) detection tool. The investigator monitored and recorded the attention levels of the selected samples before and after the program for analyzing the effectiveness of the program. Informed written consent was received from all the participants before undergoing psycho physiological assessment. The instrument, electro encephalograph monitors the intensity of the “attention level” of an individual.
b) Selection method

Intervention programme includes educational programs, new and stronger policies, improvements in the environment, and health promotion campaign. The content of the programme was based on the existing problems, and current issues related to stress and health, awareness on the stressors, ways to manage stress, stress coping technique to be followed to reduce stress and face challenges at work spot and at home. Viable teaching methods and audio visual aids were used. Communication technology adopted for the awareness programme to convey messages were through power point presentation, along with interaction, discussion on current day to day hassles and lecture cum demonstration for better understanding of the concept of the programme. Interventions that include multiple strategies are typically the most effective in producing desired and lasting change (Bartholomew et al., 2006). Stress management program was developed to help individuals cope more effectively with stress and to remediate problems associated with stressful situations.

c) Selection of stress relieving techniques used

There are different ways to overcome the stress and the best method of stress management for the modern age was used for the samples. The ways in which people cope with stress can be categorized according to the distinctions. Problem focused coping technique is believed to lower the impact of stress on health. Emotional focused coping technique reduces the emotional distress. This technique is mostly utilized when the individual perceives the situation as unavoidable and uncontrolled, (Carver et al., 1999). The intervention programme was carefully designed tailored to meet the requirement of the selected samples to reduce stress. In order to achieve the goal an intervention programme was organized for teaching reliable and valid methods of relaxation.
Design of the Study

After examining the problems experienced in the workplace and at home reported by the selected samples, it was decided to educate the samples (white collar women) on stress management practices. New concept of Trance Therapy for treatment of many incurable problems which is gaining popularity was used. This Therapy has reduced stress and people have learned how to manage stress.

d) Implementing and monitoring the Programme.

The programme was planned to create awareness on the need to participate in the intervention program and also to expose the samples to the aspects that are included in the intervention programme. The selected samples were oriented towards stress relief techniques and were instructed to follow the instruction regularly in order to overcome stress and to face the challenges and issues of daily activities both at home and work place. The significance of household work and office work was explained to the participants to sharpen their focus. Stress reduction techniques were taught to the subjects. The selected white collar women were motivated to adopt these techniques to increase their work efficiency in their life. The one day intervention program was planned for the selected 20 percent (55 samples) who were highly stressed samples. The investigator along with the professionally qualified trainer executed the planned intervention program for the selected samples. The intervention program included activities on yoga, relaxation, progressive muscle relaxation, stretching exercise, deep breathing exercises, meditation and mental imagery and transitional therapy.

Monitoring is very important when dealing with physical and mind activity and is necessary to be carried out in any programme. The Doctor’s team monitored and guided during the whole session wherever necessary. Tips for
stress management were given. During the program each individual was assisted to make some changes in internal reactions and behaviors toward particularly stressful situations. They were guided in all aspects related to physical exercise, diet pattern, stress coping techniques and deep relaxation and to inculcate the positive thoughts in subconscious mind. The health status of samples was assessed after a period of three months and the result presented Results and Discussion.

iv) Evaluation of the Intervention Programme

Evaluation is an essential step in the intervention process. Evaluation is essential to determine whether the intervention programme has produced the desired effect and has resulted in changes in the direction required. Samples perception is the most sensitive measure of stressful working condition and provides the first indication of the intervention effectiveness. The feedback received from the samples is presented under Results and Discussion.

Phase 3

3.3 Case Study

According to Patricia (2008) case study is a qualitative research and subjective in nature. It is a tool for investigating trends and specific situations, in addition to get information and in-depth perceptions of the participants. Qualitative research has been described as “an effort to understand situations in their uniqueness as part of a particular context and the interactions” (Creswell, 2003). To strengthen the study design triangulation or the combination of methodologies is an important way using both quantitative and qualitative approaches. The term case study is a term used to describe a detailed descriptive account of an individual, or a group (David et al 2015). “Case study is an approach where a particular instance or a carefully selected few cases are studied intensively” (Gilbert, 2008). Case study method is an important tool of social investigation and a popular method used for collecting information about an individual or group person (Saravanavel, 2012).
The researcher attempted to collect qualitative data using case study. As it has a growing trend and tradition in social sciences research in the last twenty years. This method of research has become widely accepted around the world because of its nature (Sonia, 2010).

Among the samples selected for the Intervention programme, ten samples (white collar women) were identified as ‘typical cases’, from the information gathered through the questionnaires and psychophysical assessment. Five each from IT and Non-IT represented the samples for the case study. Willingness and co-operation were the main criteria for the selection of the samples. After seeking their consent, in-depth interview was conducted with these selected samples by the investigator to gain an insight into their issues and concerns pertaining to work and family domains. The interaction was carried out during the time scheduled as per the convenience of the selected samples. After the training program the selected ten samples were motivated and encouraged to practice the stress coping techniques regularly. The impact of the intervention program was recorded after a period of one month for duration of three months. The outcome recorded in the case study is presented in chapter IV Results and Discussion.