CHAPTER – IV
DESIGN AND METHODOLOGY

This chapter deals with the method of the study which includes the design, sample, tools, procedure and statistical analysis.

**Methodology:**

Research methodology is a way to solve the research problem systematically. It may be understood as a science to study how research is done scientifically. Knowledge of research methodology is essential for all those who either play an active role in the conduct of research or constitutes knowledge about research problems, collection and analysis of data, about population and selection of sample from population. It also answer the question about tools and techniques used for collection of data. It has following aspects:

**Design:**

Design of the study is an essential part of a research project, because design provides a picture of what is, how to do the work before starting it. It has been determined from time to time that a suitable research design guards against the collection of irrelevant data and gives more economy. So in any research, design provides the researcher a blue-print of research. The present investigation would be conducted in two phases.

In Phase I, the correlational design was adopted for relating the work-family linkage, attributional style, self efficacy, self-esteem and quality of life.

In Phase II, the quality of life of the women who were working for less than 8 hrs and more than 8 hrs. was compared by using two group design.

<table>
<thead>
<tr>
<th>Group I</th>
<th>Group II</th>
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<tbody>
<tr>
<td>Less than 8 hrs</td>
<td>More than 8 hrs</td>
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<tr>
<td>n = 150</td>
<td>n = 150</td>
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N = 300
Further, to have a glance on the predictors of quality of life of the two groups of working women the stepwise multiple regression analysis was employed.

Sample:

Sampling is the process by which a relatively small number of individuals, objects, or events is selected and analyzed in order to find out something about population from which it is selected. By observing the characteristics of the sample, one can make certain inference about the population from which it is drawn.

According to Good (1952): “A sample is a miniature population.” Therefore a sample needs to be drawn from the population as its true representation with all the characteristics of population to be studied. Further, it would be impracticable to study the whole population. Thus, the investigator has to select a group of subjects happens to be true representative of the population.

For this study, a sample of 300 married working women of different profession was taken. The sample was drawn from various cities of Haryana-Rohtak, Gurgaon, Murthal and from Delhi also. The age range of the participants was between 25 to 40 years. One of the inclusive criterion for the sample was having at least one child. The general information about the sample regarding their age, marital status, number of children, income, working hours and other relevant information regarding family was collected. The sample was divided into two groups on the basis of the working hours in various work setups.

Material Used:

The following materials/tools were used in the present study.

1. World Health Questionnaire Quality of Life (WHO QOL) – BREF, 1996).
2. Work Family Linkage Questionnaire (Sumer & Knight, 2001).
3. Attributional Style Questionnaire (Seligmen, 1990)
I. World Health Organisation – Quality of Life (WHO QOL – BREF)

The questionnaire has been developed by world health organization group in 1996 in order to provide a short form quality of life assessment that looks at Domain level profiles. It is abbreviated 26 item assessment and contains two items from the overall QOL and general health. The questionnaire assesses quality of life in four domains, namely physical health, psychological, social relationships and environment.

### WHO QOL- BREF domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Facets incorporated within domains</th>
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| 1. Physical Health  | - Activities of daily living  
                        - Dependence on medicinal substances and medical aid  
                        - Energy and fatigue  
                        - Mobility  
                        - Pain and discomfort  
                        - Sleep and rest  
                        - Work capacity |
| 2. Psychological    | - Bodily image and appearance  
                        - Negative feelings  
                        - Positive feelings  
                        - Self esteem  
                        - Spirituality/religion/personal beliefs  
                        - Thinking, learning, memory and concentration |
| 3. Social Relationships | - Personal relationships  
                        - Social support  
                        - Sexual activity |
| 4. Environment      | - Financial resources  
                        - Freedom, physical safety and security  
                        - Health and social care: accessibility and quality  
                        - Home environment  
                        - Opportunities for acquiring new information and skills  
                        - Participation in and opportunities for recreation/leisure activities  
                        - Physical environment (Pollution/noise, traffic/climate)  
                        - Transport |
Each item is rated on a five-point scale, i.e., 'extremely dissatisfied, more dissatisfied, not dissatisfied, not satisfied, more satisfied and extremely satisfied were given scores from 1 to 5. The extremely satisfied response being given a score of 5 and extremely dissatisfied response give a score of 1. Higher scores in this questionnaire represent the more better quality of life.

The scale has been shown to have discriminant validity, sound content validity and good test-retest reliability. Despite the heterogeneity of facets included within domains, all domains display excellent internal consistency. Cronbach alpha values for each of the four domain scores ranged from 0.66 (for domain 3) to 0.84 (for domain 1). The WHO QOL-BREF has many uses, including use in medical practice, policy making, research, audit and in assessing the effectiveness and relative merits of different treatments. It can also be used to assess variation in quality of life across different cultures, to compare subgroups within the same culture and to measure change across time in response to change in life circumstances.

II. Work-Family Linkage Questionnaire

The scale contains 27 items. This measure was developed with the purpose of measuring relative amounts of spillover, compensation and segmentation. The majority of the spillover items were adapted from existing scales in the literature, especially those of Kirchmeyer (1992) and Kopelman, Greenhaus and Connolly (1983). The present version of the WFLQ contains 27 items, which consists of seven subscales: four spillover (Negative Spillover from work, Negative Spillover from Family, Positive Spillover from Work and Positive Spillover from Family), two compensation (compensation of what is missing at work and compensation of what is missing at home) and one segmentation (segmentation).

In the WFLQ, respondents are asked to indicate the extent to which they agree with each statement on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). For each participant four spillover scores, two compensation scores and one segmentation score are obtained by averaging the respective items. A high score on a given subscale is interpreted as a tendency to experience that type of relationship between work and family domains. A confirmatory factor analysis using
LISREL 8 was conducted on the relevant items of the WFLQ to seek evidence for construct validity.

III. Attributional Style Questionnaire (ASQ):

For measuring the attributional style of the subjects Seligmen M.E.P’s ASQ was taken. The ASQ yields scores for explanatory style for bad events and for good events using three causal dimensions: internal versus external, stable versus unstable and global versus specific causes. The ASQ presents 12 hypothetical events, half good and half bad, and the test-taker is asked to write down the one major cause of each event and then rate the cause along a 6-point continuum for each of the three causal dimensions. The events were described in Hindi. There is evidence that the ASQ is a predictor of depression. Physical health and achievement in various domains (academies, work & sports). The ASQ takes an average of about 20 minutes to complete, but there is no time limit.

There were 12 protocols: Six describing events of success and the other six describing failure. Each protocol had to be rated on 6 point scale. The sum of rating on internality, stability and globality can be taken as composite scores. Thus, the scores ranged from 6 to 36 each for events for success and failure.

IV. The General Self-Efficacy Scale (GSE)

The scale in German language was developed in 1979 by Jerusalem and Schwarzer and later revised and adapted to 26 other languages including English and Persian by various co-authors. The scale was developed to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events. The scale is designed for the general adult population, including adolescents. Person below the age of 12 should not be tested. The scale is usually self-administered, as part of a more comprehensive questionnaire. The scale has 10 items with 4 point scale, ranging from 1 to 4 (1 = not at all true), (2 = hardly true) (3 = moderately true), (4 = exactly true). Responses to all the 10 items have to be seemed up to yield the final composite score with a range from 10 to 40. In samples from 23 nations, Cronbach’s alphas ranged from 0.76 to 0.90, with the majority in the higher range of 0.80. The scale is
undimensional. Criterion – related validity is documented in numerous correlational studies where positive coefficients were found with favourable emotions, dispositional optimism, and work satisfaction. Negative coefficient was found with depression, anxiety, stress, burnout and health complaints.

V. The Coopersmith Self-Esteem Inventory (CSI)

The Coopersmith Self-Esteem Inventory (CSI Coopersmith, 1989) was designed to measure the respondent’s attitudes towards self in personal, social, family and academic areas of experience. The original CSI, called the School form, was constructed to measure self-esteem in children. Most of the 50 self-esteem items in the school form were adapted from scale items used by Rogers and Dymond (1954) in their classic study of non-directive psychotherapy.

The self-esteem Inventory (SEI) Adult form has been adapted from the short form for use with persons over fifteen years of age. Adult form consists of 25 items, most of these based on items selected from the School Short form. This form includes two types of positive and negative responses. In all questions, the subject will find a list of statement about feelings, it is expected that he selects “like me”. If statement does not describe how he usually feels, it is expected that he chooses “Unlike me”. Therefore, the subject’s response to each question is specified using a two-point scale such as “Like Me” and “Unlike Me”. The SEI (Adult Form) yields a total score with 25 items, scores range from 0-25 and obtained score is multiplied by 4. The maximum possible total score is 100. Low score indicates low self-esteem and high score shows high self-esteem. The Adult Form is usually self-administered. Administration time rarely exceeds ten minutes. The test retest reliability for the SEI was originally reported by Coopersmith (1967) to be 0.88 for a sample of 50 children in grade V (five week interval) and 0.70 for a sample of 56 children 12 years old (three year interval).

Self-Esteem Inventory may be used for individual assessment, instructional planning, programme evaluation or for clinical and research studies. By administering the SEI to an individual or to a group, a general assessment of high, medium or low
self-esteem can be obtained. It can be used on a pre/post basis to judge the effectiveness of self-esteem programmes.

PROCEDURE:

The subjects were contacted personally and investigator introduced herself as a researcher and told the academic purpose of the visit. The applicability of the study was also explained to them. Their consent was sought for the participation as a respondent in the present research. The questionnaires were explained to each respondent in English or Hindi depending upon the qualification of respondents. The respondents were ensured of the confidentiality of the name and other informations provided by them. This created a situation where respondents became more confident in responding the various measures.

Work-Family Linkage Questionnaire, Attributional Style Questionnaire, General Self-Efficacy Scale, and The Self-Esteem Inventory and WHO QOL - BREF were given to them. All the questionnaires were self administrated and the essential instructions were presented in the questionnaire itself regarding their administration. However, some respondents reported as they were not clear in their minds regarding certain statements. So, the researcher helped them in this regard, correct information be extracted. For that general verbal instructions for various measures were given to them as follows.

In case of Quality of Life Questionnaire, following instruction were given to the subject, “This is an WHO-QOL scale, which measures your quality of life. It consists of 26 items. Each item has five alternative answers of multiple choice. There is no time limit of the scale. Read each question carefully, also read the accompanying answers attentively. Make your choice for the best answer out of the given alternative answers and put a circle on the best answer. Your answers will be kept confidential.”

Work Family Linkage Questionnaire was explained in the following way, “The statements concern what type of tendency of relationships you experience between work and family domains. Respond to each statement to indicate the extent to which you agree or disagree with the statement on seven point scale in which 1 score is for strongly disagree and 7 for strongly agree.”
Regarding the **Attributional Style Questionnaire**, following instructions were given to the subject, “There are twelve protocols in this questionnaire. Each protocol contains four different questions. First question is of subjecting type. Different types of events described in this questionnaire. These events can be happened in anyone’s life. Suppose that if any event happens to you, there could be many causes for that event, but you have to write a cause that you think is the most appropriate for that event. Next three questions are of multiple-choice type with 6-point scale. Respond to these following questions by putting a mark by keeping in mind the abuse given by you above.”

The following instructions were given for **Self-Efficacy Scale**, “There were only ten statements. The statements concern how you feel you are capable/efficient to do any work. Each statement has 4-point scale ranging from “Not at all true” to “very true.” Put a circle on the option, you think most suited to you.”

In case of **Self Esteem Inventory**, following instructions were given to the subject, “There is a list of statements about feelings. The statements describe how you usually feel, put an ‘X’ in the column “Like me”. If a statement does not describe how you usually feel, put an ‘X’ in the column “Unlike me”. There are no right or wrong answers. Begin at the top of the page and mark all 25 statements.”

The subjects were requested to fill the questionnaire honestly and seriously. The respondents were given a period of one week to fill up all the questionnaires. After collecting the data, item-wise scoring was done for each subject with the help of scoring key or procedure laid down in the respective manuals.

For the scoring of WHO QOL-BREF, there were 2 general questions-question 1 related to overall perception of QOL and question 2 related to overall perception of health, were examined separately. Moreover, 4 domains scores were calculated. Domain scores were scaled in positive direction (i.e. higher scores denoted higher quality of life). The scoring was reversed in the case of negatively phrased items. Mean scores of items within each domain was used to calculate the domain score. Mean scores was then multiplied by 4 in order to make domain scores comparable.
within the scores used in WHO-QOL-100 and subsequently transformed to 0-100 scale using the following formula:

\[
\text{Transformed Score} = (\text{Score} \times 4) \times \left(\frac{100}{16}\right)
\]

For the scoring of work-family linkage questionnaire there were 27 statements. The statements concerns what type of tendency of relationship you experience between work and family domains. Respond to each statement to indicate the extent to which you agree or disagree with the statements on seven-point scale in which 1 score is for strongly disagree and 7 for strongly agree.

The attributional style questionnaire is a self-report instrument that yields scores for explanatory style for bad events and for good events. The subjects were asked to read each statement and attribute causes for the events and rate them on 6-point scale (more the score more internal, stable and global, less the score indicates external, unstable and specific attribution).

The subjects were supposed to first write a cause of the given event and then rate that cause on 6-point scale. The sum of rating on internality, stability and globality were taken as composite score. Thus, the score ranged from 6 to 36 each for events for success or failure.

For the scoring of self-efficacy the subjects rated on 4-point scale, the scores were taken as sum total of all ten statements. So, scores ranged from 10 to 40.

For the scoring of self-esteem Inventory scoring-key was used. The numbers of items answered correctly were summed in order to arrive at the total raw scores. It was then multiplied by 5, which resulted in a maximum possible total self score of 100. The high scores corresponded to high self-esteem.

After scoring the obtained data were subjected to statistical analysis by using Pearson's Co-Efficient of Correlation, t-test and step-wise Multiple Regression analysis.

The results have been interpreted and discussed thoroughly in the next chapter – Results and Discussion.