Chapter-IV
Design and Methodology
DESIGN AND METHODOLOGY

After the selection of the problem, there is a need to prepare a research design for testing the formulated hypotheses. "Research design is a mapping strategy of the total study to be done. It can be defined as a blueprint prepared on the basis of previous knowledge and experience to make enquiries for a definite purpose and in a desired direction. It is a skeleton and a planning stage of research which is usually made logically visualizing its practicability".

Design:

For the objective of establishing the relationship between social roles, social support, role conflict, job involvement with quality of life of male and female health care professionals (doctors) in public and private setup, correlational designs were used.

A $3 \times 2 \times 2$ factorial design was also used to have a closer look into the net effect of social familial roles, gender, type of job on role conflict, social support, job involvement and quality of life of health care professionals. The first independent variable – social familial roles was taken at three levels – level I, unmarried (work role) level
Sample:

For this study, all the doctors in Govt. job (Civil Hospital, PGIMS at Rohtak) and private practitioners alongwith their contact numbers was procured from the respective sources. On the basis of their consent and personal information, a sample of 300 allopathic doctors (150 males and 150 females), age group of 25 – 45 years was selected, by using purposive sampling technique, from public and private hospitals situated at Rohtak. To have a better control over the rival hypotheses affecting the enactment of socio familial roles in married and married with children group, only the couples (in service/private practice) having same socio familial background were considered. After collecting information, on personal data blank sheet, these health care professionals were divided into three levels on the basis of social familial roles – unmarried (level I), married (level II) and married with children (level III).

Material Used:

The following five material/tools were used in the present study.

1. Personal Data Blank Sheet.
1. Personal Data Blank Sheet:

   This consists of information regarding the subjects' name, age, sex, educational qualification, employment status, marital status, type of job, number of children etc.

2. Role conflict scale (Pandey, 1999):

   This is a self-administering inventory. There is no time limit for completing the test. The role conflict scale comprises of 30 statements. There are five category response choices for each statement i.e. strongly agree, agree, undecided, disagree and strongly disagree. The statements are written in both positive and negative directions. The subject's total score is considered as the role conflict score. A high score on the scale indicates a high level of role conflict while a low score shows a low level of role conflict. A low
level of role conflict would be better for good performance and satisfaction.

The primary and the proper usefulness of the scale lies with the work on large groups whether for research, survey purposes or for comparison of population working on organization etc. Low score i.e. below 25th percentile could be regarded as indicative of poor role conflict very high score on it, i.e. above the 75th percentile may be considered as symptomatic of such high state of role conflict which is likely to have a disruptive and interfering influence on the performance. The middle group of scores would represent essentially 'normal' individuals with moderately good derive level to stimulate performance without itself proving as an interference.

The scale is a useful research tool, eminently suitable for individual testing as well as for group administration. The scale has been developed and standardized on an Indian sample. Test-re-test and split half reliabilities have been computed for this scale, both of which were found to be very high i.e. .87 and .79 respectively. Criterion related validity has also been determined by using Role
conflict scale. The correlation co-efficients between criterion scale and this present scale was found to be .81.

3. **Job Involvement Questionnaire (JIQ) (Lodahl and Kejner, 1965):**

   The level of job involvement was assessed with the help of job involvement questionnaire by Lodahl and Kejner (1965). The author defines job involvement in the terms of the extent to which a person's work performance affects his or her self-esteem or satisfaction. The questionnaire has 20 items out of seven are negatively phrased. There is four point response dimension running from strongly agree to strongly disagree scored from 1 to 4 respectively and summed. The total score thus ranges from 20 to 80; a higher the scores indicate, lower the job involvement and vice versa. The job involvement questionnaire is reliable and valid and it has high degree of cross-cultural applicability.

4. **Social Support Questionnaire (SSQ) (Dogra 1990):**

   Hindi adaptation of social support questionnaire (Sarason et. al., 1983) was used to measure the social support available to the persons. It consisted of 27 items and each item had two parts to be
answered by the respondent. Part a SSn dealt with the perceived availability of number of persons for social support i.e. the number of persons to whom an individual could turn to and on whom he or she could rely on, in a given set of circumstances. For it, the respondent can write the names of a maximum of nine persons.

Part b SSs deals with the degree of satisfaction from the available support i.e. how much satisfied they were with this available social support. It is a 6 point likert-type scale. Sarason et. al (1983) have reported that SSQ has a high test reliability when compared with extensive structured interview. The scale has test – retest reliability of 0.90 and 0.83 for both ‘n’ and ‘s’ scales. The Hindi version also has high .84 test retest reliability (Dogra, 1990).

5. World Health Organization Quality of life (WHO QOL) – BREF (WHO 1996):

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 an abbreviated 26 item assessment and contains 2 items from the overall QOL and general health, and one item from each of the 24
facets included in WHO QOL – 100 for providing broad and comprehensive assessment. Each item is rated on a five points scale.

The questionnaire assesses quality of life in 4 domains, namely, physical health, psychological, social relationships and environmental quality of life.

WHO QOL - BREF domains

<table>
<thead>
<tr>
<th>Domains</th>
<th>Facets incorporated within domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Physical Health</td>
<td>Activities of Daily living</td>
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<tr>
<td></td>
<td>- Dependence on medicinal substances</td>
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<tr>
<td></td>
<td>- Energy and fatigue</td>
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<td></td>
<td>- Mobility</td>
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<td></td>
<td>- Pain and discomfort</td>
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<td></td>
<td>- Sleep and rest</td>
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<td></td>
<td>- Work capacity</td>
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<tr>
<td>2. Psychological</td>
<td>Bodily image and appearance</td>
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<tr>
<td></td>
<td>- Negative feelings</td>
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<td></td>
<td>- Positive feelings</td>
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<td></td>
<td>- Self esteem</td>
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<tr>
<td></td>
<td>- Spirituality/religion/personal beliefs</td>
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<tr>
<td></td>
<td>- Thinking, learning, memory and concentration</td>
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<tr>
<td>3. Social Relationships-Personal relationship</td>
<td>Social support</td>
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<td></td>
<td>- Sexual activity</td>
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<tr>
<td>4. Environmental</td>
<td>Financial resources</td>
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<tr>
<td></td>
<td>- Freedom, physical safety and security</td>
</tr>
</tbody>
</table>
- 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.

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The WHO-QOL-BREF is a self administered questionnaire. The questionnaire (field trial version) produces a quality of life profile. It is possible to derive four domain’s scores which denote an individual’s perception of quality of life in each particular domain. There are also two items which are examined separately: Question 1 asks about an individual’s overall perception of quality of life and Question 2 asks about individual’s overall perception of their health.

Where more than 20% data are missing from an assessment, the assessment is discarded. Where upto items are missing from the domain, the mean of other items in the domain is substituted. Where more than two items are missing from the domain, the domain score is not calculated (with the exception of domain 3, where data is calculated only if ≤ 1 item is missing).
The scale has been shown to have good 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 .66 (for domain 3) to .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 the 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.

Procedure:

First of all, the telephone numbers of selected health care professionals (doctors) were taken through directory and they were contacted telephonically for personal appointment. After that, they were approached personally at their place of work. On this personal visit investigator introduced herself as a research scholar and the academic purpose of the visit. The applicability of the study was also explained to them. Their consent was sought for the participation in
the research. After assuring them regarding the anonymity of the results, set of different questionnaires (Role conflict scale, social support scale, job involvement questionnaire and WHO QOL-BREF) were given to them separately. Besides this, socio-demographic data was also obtained for each subject. Though, all the questionnaires were self administered, but for the sake of clarity with regard to the administration, the general instructions were read to them. The subjects were requested to fill the questionnaire on the same day but if due to some earlier commitment, they showed their inability for doing so, an average time of one week was allotted to them for the same. After collecting the questionnaires back on the due dates, then questionnaires were scored according to the scoring key or the procedure given in the manual.

Regarding the **Role conflict Scale**, following instructions were given to the subject, “I am going to give you a test which measures role conflict. This test has 30 items and for each item there are five alternative answers. Read each question carefully. Make your choice for the best answer out of these five answers and put a line under the suitable answer. There is no time limit. Be sure that the information
given by you would be strictly confidential to the investigator only”.
After giving the instructions, making it sure that subject has understood the same, Role conflict scale was given to the subject. In this way, 300 subjects i.e. 150 males and 150 females were administered on this scale. Scoring was done. In Role conflict scale, the statements were written in both positive and negative directions. Therefore, a subject’s strongly agreeing responses to the statements describing very high level of role conflict were scored 5 and strongly disagreeing to the same as 1. Conversely, strongly disagreeing responses to some statements (i.e. statement no. 1, 5, 7, 8, 14, 18, 22 and 24) reflecting very high level of role conflict were assigned on weight of 5 whereas strongly agreeing to the same as 1. In this way, subject’s responses were scored 5, 4, 3, 2 and 1 for strongly agree, agree, undecided, disagree and strongly disagree respectively for all items except for no. 1, 5, 7, 8, 14, 18, 22 and 24.

In case of Social Support Scale, following instructions were given to the subject, “I am going to give you a test which measures social support you have. It consists of 27 questions. Every question contains two parts. In first part, SSn, you have to write the names of
those persons who are helpful to you. You can write the name of
your relation with the person. In the second part, SSs, the question is
“How much you are satisfied with the available social support?”
There are 6 alternative answers. You have to encircle the best
answer. Your answers will be kept confidential. So please give your
responses with honesty, you are free to give your answers in your
own way”. After giving the instructions regarding social support
scale making it sure that subject has understood the same, social
support scale was given to the subject. The test administration
procedure was kept on strictly uniform, for all the subjects.
Questionnaires were scored according to scoring procedures laid
down in their respective manual. Mean scores were obtained by
adding the number of persons mentioned in each item and then
dividing the sum by 2. For SSs the responses were rated on 6 point
likert scale i.e. from extremely satisfied to extremely dissatisfied
score on each item ranged from 1 to 6. These scores on each item
were added and then divided by 27 to get the means scores.
SSs = Degree of satisfaction available from social support.

SSn = Perceived availability of number of persons for social support.
In case of **Job Involvement Questionnaire**, following instructions were given to the subject, “Please respond to each item by circling one of the four numbers – strongly agree, agree, disagree, strongly disagree. For e.g. if you strongly agree then would encircle number 1, if you strongly disagree with the statement you would encircle number 4”.

After filling the questionnaire, scoring was done with the help of manual. In job involvement questionnaire, against each statement five response categories were provided viz., strongly agree, undecided, disagree and strongly disagree with scores of 4, 3, 2, 1 respectively. The scoring was reversed for the seven negatively worded items. Job involvement of the respondent was categorized as low or high based on the mean score. The total score for each respondent was computed by summing the scores on each item. The minimum and maximum scores obtained by each individual were 20 and 80 respectively.

**Quality of Life Questionnaire** was explained in the following way “This is an WHO–QOL scale, which measures your Quality of life. It consists of 26 items. Each item has five alternative answers (multiple choice). There is no time limit for the scale. Read each question carefully, also read the accompanying answers attentively.
Make your choice for the best answer out of the several alternative answers and put a circle on the best answer. Your answers will be kept confidential”.

For the scoring of WHO QOL–BREF, two items i.e. question 1 related to an individual’s overall perception of Quality of life and Question 2 which asked about individual’s overall perception of their health, were examined separately. Moreover, four domain scores were calculated. Domain scores were scaled in positive direction (i.e. higher scores denoted higher quality of life). The scoring was reversed in case of negatively phrased items. Mean scores of items within each domain was used to calculate the domain score. Mean score was then multiplied by 4 in order to make domain scores comparable with this scores used in WHO QOL – 100.

After scoring, the data were statistically analyzed. The results of these statistical analyses have been tabulated, interpreted and discussed in the next chapter. We may now pass on to the next chapter dealing with the results and discussion.