CHAPTER-III
METHODOLOGY AND DESIGN

The present chapter describes the problems, hypotheses, variables, design and procedure used to study the effect of stress, profession and gender on job satisfaction.

Problems

Statement of problems is an important step of any research work. The present research has three independent variables i.e. stress, profession and gender and one dependent variable i.e. job satisfaction. Following problems were formulated.

Problems related to main effect

1. First and foremost problem of present research was to find out the effect of level of stress i.e. low, moderate and high stress on job satisfaction.

2. Second problem was to find out the effect of three professions i.e., doctor, teacher and advocate on job satisfaction.

3. Third problem was to find out the effect of gender i.e., male and female on job satisfaction.
Problems related to Interaction effect

1. Fourth problem was to find out the interaction effect between level of stress and profession on job satisfaction.

2. Fifth problem was to find out the interaction effect between level of stress and gender on job satisfaction.

3. Sixth problem was to find out the interaction effect between profession and gender on job satisfaction.

4. Last but not the least problem was to find out the three way interaction effect among degree of stress, profession and gender on job satisfaction.

Hypothesis

Hypothesis provides a direction to a research. Accordingly, after formulation of problems hypotheses were also formulated in the present research. Following seven hypotheses were formulated.

Hypotheses related with main effects:

1. Three different level of stress, i.e., low, moderate and high will have significantly different effect on job satisfaction.

2. Subjects of three different professional groups, i.e., doctors, teachers and advocates will differ significantly in their level of
job satisfaction.

3. Gender i.e., male and female subjects will differ significantly in job satisfaction.

**Hypotheses related with interaction effects**

4. There will be significant interaction effect between three level of stress and three professional groups on job satisfaction.

5. There will be significant interaction effect between level of stress and gender on job satisfaction.

6. There will be significant interaction effect between three professions and gender in relation to job satisfaction.

7. There will be significant interaction effect among level of stress, three professional groups and two gender in relation to job satisfaction.

**Description of Variables**

**Independent Variable**

In the present research we have selected to study the effect of three independent variables on job satisfaction.

1. Degree of stress has been manipulated at three levels, i.e., low, moderate and high stress.
2. Three types of profession i.e., doctor, teacher and advocate were selected.

3. Gender have two category, i.e., male and female.

**Dependent Variable**

In the present research, we have studied the effect of above three independent variable on one dependent variable, i.e., job satisfaction.

**Job satisfaction**

Job satisfaction may be defined as an attitude which results from a balancing and summation of many specific likes and dislikes experienced in connection with the job. These evaluations may rest largely upon one’s own success or failure in the achievement of personal objectives and upon perceived contribution of the job and company towards these ends.

**Research Design**

In the present study 3x3x2 between group fractional design, with 18 cells was used to examine the effect of three independent variable on job satisfaction. The three independent variables were, stress (A) profession (B) and gender (C)

The first independent variable, degree of stress was varied at
three levels i.e., low stress ($A_1$), moderate stress ($A_2$) and high stress ($A_3$). Second variable profession has three categories, doctors ($B_1$), teachers ($B_2$) and advocate ($B_3$). Third variable gender has two categories, i.e., male ($C_1$) and female ($C_2$). A schematic presentation of design is shown in Fig. 3.1.

**Fig 3.1 Showing Design of the Study**

![Schematic Design of the Study](image)

**Sampling Procedure**

Before coming to a final sample, we collected the information about the number and name of doctors, teachers and advocates working in the Meerut City. For the list of doctors we approached the office bearer of Indian Medical Association at Meerut and obtained the list of all medical practitioners. Similarly, for the list of
teachers we contacted all the principals of degree colleges, and procured the list of teachers in various colleges. For advocates, we contacted president/secretary of District Bar Council of Meerut and obtained the list of all practicing advocates in the district court. Stress inventory of 12 items based on 8SQ were administered on all available members of doctors, teachers and advocates.

Response sheets obtained from the three category of respondents, i.e., doctors, teachers and advocates were scored. The range of stress scores varied from 0 to 36. High score on scale indicates high stress and low score indicates low stress. Classification of low stress (0-12), moderate stress (13-24) and high stress (25-36) category was used. On the basis of this classification of stress, doctors, teachers and advocates were categorized in three stress categories, i.e., Low, Moderate and High. After this classification for each professional group list of male and female were also prepared. Thus, 18 list, one list for each treatment group were prepared. From these total 18 list, 15 respondents from each subgroup were randomly selected. In this way we selected 270 respondents in our study.

Sample

In the present study, 270 subjects were used as sample of
the research. Out of these 270, 90 subjects were of low stress, 90 moderate stress and 90 of high stress. Each group of 90 individuals consisted of 30 doctors, 30 teachers and 30 advocates. In each sub group of 30 subjects, 15 were male and 15 female. Distribution of sample is given in Table 3.2.

Structure of the Sample

![Sample Structure Diagram]

Tools

1. Stress Inventory

Stress is a threat to the quality of life, and to physical and psychological well being. Medical and psychological sciences have long been interested in a wide range of phenomenon given the common label of stress. There is no single agreed definition in existence. Eight state questionnaire (8SQ) measures 8 states - anxiety, stress, depression, regression, fatigue, guilt, extraversion
and arousal. In this questionnaire there are 12 questions to measure the stress of the individual. In stress there is feeling of a lots of pressure, unable to take time off and relax, constantly on the go, feeling hectic, experiencing great strain, unhappy with own performance and experiencing lots of demands. On behavioural correlates - low motor perceptual rigidity, better at memorizing meaningless material, high ratio of threatening objects seen in unstructured drawing. The 12 items (questions) related to stress and its measurement are given below.

**STRESS INVENTORY**
*(Based on 8SQ)*

Name:..................................  Age:..................................................
Gender:..................................  Profession: Advocate/Teacher/Doctor

............................................................................................................................

**ITEMS**

1. At the moment I'm under a great strain.
   (i) Very True  (ii) Fairly True  (iii) Fairly False  (iv) Very False

2. I have plenty of time to relax today.
   (i) Very True  (ii) Fairly True  (iii) Fairly False  (iv) Very False

3. I feel that if someone else asks me to do one more thing, I'm going to collapse.
   (i) Very True  (ii) Fairly True  (iii) Fairly False  (iv) Very False

4. I've felt like quarrelling and arguing all day.
   (i) Very True  (ii) Fairly True  (iii) Fairly False  (iv) Very False
5. I can think of a hundred things I'd like to do right now.
   (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

6. At the moment I think I could get.
   (i) a great deal done    (ii) a fair amount done
   (iii) only a little done    (iv) almost nothing done

7. I have been putting out a good deal of effort today.
   (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

8. At the moment I have.........time for just doing nothing.
   (i) lots of    (ii) some    (iii) a little    (iii) no

9. I feel right now as if I need about 10 extra hours in the day in order to do all that's demanded of me.
   (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

10. This is a day when I feel just worn out and drained
    (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

11. I think highly of my own ability at the moment.
    (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

12. I could get interested in almost anything right now.
    (i) Very True    (ii) Fairly True    (iii) Fairly False    (iv) Very False

**Administration of Test:** This test can be administered to an individual or a group. Answer is marked on the answer given below each question in form of very true, fairly true, fairly false and very false. There is no time limit, but approximately it takes 20 minute time to answer all 12 questions.

**Scoring:** Each item (question) is scored 3, 2, 1 or 0. Item
number 1, 3, 4, 6, 9, 10 are scored in order of 3, 2, 1 and 0. Remaining six items -2, 5, 7, 8, 11, 12 are scored 0, 1, 2 and 3. Thus stress score ranged from 0 to 36 indicating high score to high stress. In this way stress score for each individual were calculated.
2. Job Satisfaction Scale:

This test was developed by Prof. S.K. Srivastava of Gurukul Kangri University, Haridwar. Detailed description of test is given below.
Job satisfaction is the result of various attitudes the employees holds toward his job, toward related factors and toward life in general.

(Job satisfaction is the result of)

Level of job satisfaction
About the Scale

Dezjkh ftu l bruk@fr'Buka (Institutions/organizations) ea
dkjr g$ ogaij nh dks vius dkZs fdruk l alk@vl alk (Job
satisfaction/dissatisfaction) g$; ght kuk bl ekuhdekb; nmn; gA
vr%fDr@dezjkhdsdkZ alk@vl alk@j dlbl ekuhdsek; el s
tkkt kl drg@bl ekuhlsdkjr dezj; labsjij OfDrxr vrlok
l kegd nlel;i lael zk frd; kt kl drkg@bl ekuhefn, x, l Hh
37 izuk@dRudksyhxk 30 feuV eai@kfd; kt kl drk@bl si izu
dslp fodYl lael sinh% ger] l ger] vfu@pr] vl ger v|j| sinh%
v| ger fd| h, d dsulpascusdkd eal gh(\(d@k@plj culdj viuk
ni'Vdk@ki r dqjg@dkZ akkek@uhl sl EfuR funzjkjhki@urdk
eai'B 1 62 ij fn; ks; kgA

Bl ekuh ead;} 38 izuk@dRul fn, gg gSt lsfd fd| h Hh
l bruk@fr'Bku dsdkZ svRokdkZ Zdjudsorkj.kl sl EfuR gA; g
ekuhdkZ akk (Job satisfaction) l sl EfuR 1 vk@lea(dimensions) dls
ekR gSt lsfd bl i@d} gA Salary, Nature of work, job security,
Advancement, Working conditions, Communication, Unions,
Senior/Junior relationship, and Prestige of the organization. ijkjk
Table-1 : Dimensions of job Satisfaction in Item Wise.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Dimensions of Job Satisfaction</th>
<th>Items No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Salary/Pay</td>
<td>2, 14, 2, 30</td>
</tr>
<tr>
<td>2.</td>
<td>Nature of work</td>
<td>3, 6, 12, 25, 35</td>
</tr>
<tr>
<td>3.</td>
<td>Job Security</td>
<td>16, 38</td>
</tr>
<tr>
<td>4.</td>
<td>Advancement</td>
<td>5, 15, 22, 29, 37</td>
</tr>
<tr>
<td>5.</td>
<td>Working Conditions</td>
<td>4, 11, 19, 20, 26</td>
</tr>
<tr>
<td>6.</td>
<td>Communication</td>
<td>1, 7, 24, 36</td>
</tr>
<tr>
<td>7.</td>
<td>Unions</td>
<td>9, 18, 27, 33</td>
</tr>
<tr>
<td>8.</td>
<td>Senior/Junior Relationship</td>
<td>10, 13, 17, 28, 32, 34</td>
</tr>
<tr>
<td>9.</td>
<td>Prestige if the Organization</td>
<td>8, 23, 31</td>
</tr>
</tbody>
</table>

Administration

(Instructions) : 38 ižu gã bu ižukdk nük vi dksíōp fodY hæaí si viž% ger]1 ger] vfuf pr] vl ger vl[5
Scoring and Interpretation


/luRed iZuled h x. luk (Scoring) bl izuk gksxh i viz%l ger &5] l ger &4] vfuf p r &3] vl ger &2 vljs i viz%sl ger &1 vl viz%v izku fd; k t k x kA

and 38 ¾ 10 items

and 38 ¾ 10 items

and 38 ¾ 10 items

bl dk Z alkek u (Job Satisfaction Scale) eulwe vel 38 rAk

vf/lkre vel 990 gsl drsg bl ekukdhl gkrk ls jk eulwe vel

(minimum score) dk Zdsj f vl alAk (Job dissatisfaction) rAk vf/lkre vel

(maximum score) dk Zdsj f l alAk (Job satisfaction) dls'kzsg


Percentile Norms

ijh{k.k@ekiuh dh ey iatkld (Raw Score) dks'kla9 ik iatkld

(Percentile Score) eaijofz djds dk Z lalk@vl alAk (Job

satisfaction/dissatisfaction) dsl Euk ekt ko ktkl dkr garkyldj2 eak

fut hrAk l kozfud ifr Euelaadk Zdudsks dek; lasq'kla9

ekud (Percentile Norms) fn, x, ga

fod uhrkvlj5 gorck

Reliability and Validity

fod lhhijhk@ekukdho'd uhrkvlj5 gorck kmh dho'd kckdls

n'kzhga bl ekukdho'd uhrkk djusdsfj, vliedx dek; la
dksu h, od kozfud ifr 'Bkuls fji; kx; kgarkyldj333efo'd uhrk

vel fn, x, ga
Table-2 : Percentile Norms for Job Satisfaction Scale (JSS) for Industrial Employees.

<table>
<thead>
<tr>
<th>Score on Job Satisfaction Scale</th>
<th>Private Sector Employees</th>
<th>Public Sector Employees</th>
<th>Interpretation of Satisfaction Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>170.72</td>
<td>172.66</td>
<td>Highly</td>
</tr>
<tr>
<td>90</td>
<td>161.65</td>
<td>163.65</td>
<td>Satisfied</td>
</tr>
<tr>
<td>80</td>
<td>142.52</td>
<td>144.27</td>
<td>Satisfied</td>
</tr>
<tr>
<td>75 (Q)</td>
<td>134.37</td>
<td>136.91</td>
<td>Satisfied</td>
</tr>
<tr>
<td>70</td>
<td>128.12</td>
<td>132.92</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>122.57</td>
<td>124.89</td>
<td>Average</td>
</tr>
<tr>
<td>50 (Md)</td>
<td>113.91</td>
<td>115.13</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>104.08</td>
<td>106.08</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>96.02</td>
<td>98.49</td>
<td></td>
</tr>
<tr>
<td>25 (Q)</td>
<td>93.59</td>
<td>94.69</td>
<td>Dissatisfied</td>
</tr>
<tr>
<td>20</td>
<td>87.36</td>
<td>89.59</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>76.30</td>
<td>78.85</td>
<td>Highly</td>
</tr>
<tr>
<td>5</td>
<td>64.68</td>
<td>65.73</td>
<td>Dissatisfied</td>
</tr>
</tbody>
</table>

Mean = 111.23
S.D = 26.34
N = 425

Mean = 114.11
S.D. = 24.17
N = 400

Table-3 : Reliability Scores.

<table>
<thead>
<tr>
<th>Method of Reliability</th>
<th>Number of Employees</th>
<th>Reliability Coefficient</th>
<th>Index of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private Sector</td>
<td>Public Sector</td>
<td></td>
</tr>
<tr>
<td>Test-Retest</td>
<td>65</td>
<td>85</td>
<td>0.78</td>
</tr>
<tr>
<td>Split-Half</td>
<td>100</td>
<td>115</td>
<td>0.86</td>
</tr>
</tbody>
</table>
Administration of Job Satisfaction Scale

Job satisfaction scale was administered individually on 270 individuals (90 doctors, 90 teachers and 90 advocates) selected in sample. Each individual was contacted personally and purpose of the study was explained and then requested to help in this study. We requested each individual subject to spare 1 hour time preferably at home either in the morning or evening depending on his/her availability. Investigator reached at prefixed time to assess the person concerned. Test booklet of job satisfaction was given to him/her. We read the instruction slowly so that things become clear to the respondent. When the subjected completed the scale and answered all questions, investigator collected the booklet and thanked the person for his/her cooperation. In this way job satisfaction scale was administered on all 270 individuals selected in the sample.

Scoring: With the help of scoring key job satisfaction score for each individual was obtained. Twenty eight positively framed questions were scored from 5 to 1 and 10 negatively framed items were scored from 1 to 5. In this way the range of job satisfaction score varied from 38 to 190. In this way job satisfaction score for