METHODOLOGY

The present study was designed to examine the relationship between Coping, Occupational Stress, Burnout, and Emotional Intelligence and to know if Emotional Intelligence acts as a moderating factor in Coping with Occupational Stress and Burnout among healthcare professionals. The description of research methodology employed to meet this objective is described under separate headings.

SAMPLE

The objective of the present study necessitated collecting the data from the hospitals. Therefore, the proposed study was conducted on a sample of 600 healthcare professionals. The sample consisted of three occupational groups, that is, Doctors, Nursing Staff, and Support Staff. There were 200 participants (100 male and 100 female) in each group of occupations. There were equal number of males and females in each occupational group. The participation in the study was entirely voluntary. The selected subjects ranged in the age of 24 to 56 years. The only criterion for inclusion was to be in their present employment position for at least 4-5 years. The sample was drawn from eight healthcare units located in New Delhi, NCR through random sampling, namely Max Super Speciality Hospital, Saket; Paras Hospital, Gurgaon; Max Hospital, Gurgaon; Max Hospital, Noida; Artimis Hospital, Gurgaon; Max Super Speciality Hospital, Patparganj; Max Hospital, Pitampura; Fortis Hospital, Shalimar Bagh; Fortis Memorial Research Institute, Gurgaon. The category-wise split of the sample from different healthcare units is presented in Table 1.
### Table 1 - Category-wise Split of the Sample

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Healthcare units</th>
<th>Doctors</th>
<th>Nursing Staff</th>
<th>Support Staff</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>1.</td>
<td>Max Super Speciality Hospital, Saket</td>
<td>24</td>
<td>18</td>
<td>19</td>
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<tr>
<td></td>
<td></td>
<td>29</td>
<td>16</td>
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<tr>
<td>2.</td>
<td>Paras Hospital, Gurgaon</td>
<td>5</td>
<td>8</td>
<td>4</td>
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<td></td>
<td></td>
<td>12</td>
<td>10</td>
<td></td>
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<tr>
<td>3.</td>
<td>Max Hospital, Gurgaon</td>
<td>19</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Max Hospital, Noida</td>
<td>5</td>
<td>9</td>
<td>4</td>
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<td></td>
<td></td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Artimis Hospital, Gurgaon</td>
<td>9</td>
<td>8</td>
<td>8</td>
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<tr>
<td></td>
<td></td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Max Super Speciality Hospital, Patparganj</td>
<td>17</td>
<td>11</td>
<td>10</td>
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<td></td>
<td>15</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Max Hospital, Pitampura</td>
<td>7</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Fortis Hospital, Shalimar Bagh</td>
<td>3</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Fortis Memorial Research Institute, Gurgaon</td>
<td>11</td>
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<td>19</td>
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<td></td>
<td>18</td>
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</tr>
<tr>
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<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### MEASUREMENT INSTRUMENTS

The following measures were used in the present study:

1. **Occupational Stress Index (OSI)**

   Occupational Stress among the healthcare professionals was assessed through the Occupational Stress Index (OSI) developed by Srivastava and Singh (1981). This questionnaire has 46 items with five alternative responses namely strongly agree, agree, uncertain, disagree, and strongly disagree. 18 items are false keyed and 28 items are true keyed out of the total 46 items. For the true-keyed items, scores of 1, 2, 3, 4, and 5 are assigned to strongly agree, disagree, uncertain, agree, and strongly agree.
responses, respectively. However, the respective scores for strongly agree, disagree, uncertain, agree, and strongly agree responses are 5, 4, 3, 2, and 1 for the false-keyed items. For the assessment of overall Occupational Stress total score is calculated. The higher the score on this scale more is the Occupational Stress. The questionnaire provides separate scores for 12 subscales of the Occupational Stress Index, which are Role Overload, Role Ambiguity, Role Conflict, Unreasonable Group and Political Pressures, Responsibility for Persons, Under-Participation, Powerlessness, Poor Peer Relations, Intrinsic Impoverishment, Low Status, Strenuous Working Conditions, and Unprofitability. The Occupational Stress Index was developed to measure the extent of Occupational Stress which results due to the stressors or conditions at work.

The reliability estimate as obtained by the split-half method and the Cronbach’s alpha-coefficient for the full scale were .94 and .90, respectively. Using the split half method, the reliability indices of the 12 subscales were also calculated, which range between .454 and .840. The validity of the OSI was assessed by comparing coefficients of correlation between the scores of OSI and various measures of job attitudes and job behavior. The coefficients of correlation between the scores scores on OSI and the measures of Job Involvement, Work Motivation, Ego-strength, and Job satisfaction were found to be -.56, -.44, -.40, and -.51, respectively. The correlation between the scores on the OSI and the measures of Job Anxiety was found to be .59.

2. **Maslach Burnout Inventory (MBI-HSS)**

Burnout was measured with the help of Maslach Burnout Inventory-Human Service Survey (MBI - HSS, 1996). This inventory has 22 items that measure three the sub-components of Burnout, namely Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Maslach and Jackson (1986) asserted that this version of the Maslach Burnout Inventory was developed to compute levels of Burnout among the healthcare employees. The items were in the form of statements related to an
individual’s feelings and attitudes (e.g., I feel emotionally drained from my work, I worry that this job is hardening me emotionally). The frequency with which a respondent experiences a certain feeling is assessed by linking items to a six point scale ranging from never to everyday. The MBI is a self-administered questionnaire which takes approximately 10-15 minutes to complete. The questionnaire consists of nine items that access the Emotional Exhaustion subscales, five items that measure the Depersonalization and eight items that measure the reduced Personal Accomplishment.

Originally, the MBI was designed to measure Burnout in human service occupations. In recent years, alternate versions have been developed to measure Burnout in other industries, such as teaching and general occupations. These various forms of Maslach Burnout Inventory are referred to as Maslach Burnout Inventory–Human Service Survey (MBI–HSS), Maslach Burnout Inventory–Educators Survey (MBI–ES), Maslach Burnout Inventory-General Survey (MBI–GS). The MBI is predominantly used in the original English version. Higher mean scores on the Emotional Exhaustion and Depersonalization subscales corresponds to higher degrees of experienced Burnout. In contrast, lower mean scores on the Personal Accomplishment subscale corresponds to higher degrees of experienced Burnout. Each of the subscales is scored separately and scores are not combined into a single score. Scores can be related to cut-off points which will indicate a low, medium or high level on each scale, which is useful for feedback purposes. This instrument can be used to access the degree of Burnout in a variety of job settings for clinical, counseling, and research purposes (Maslach & Leiter, 1997).

Validity and reliability are important psychometric properties of a standardized measurement instrument. Maslach and Jackson (1981) first showed convergent validity of MBI by finding substantial evidence of correlation of scores from MBI with three other measurements namely, with
ratings by the individuals of the respondents, with job characteristics contributing Burnout, and with measures of likely outcomes related to Burnout. Maslach and Jackson (1981) reported no relationship between social desirability score and any of the MBI subscales. Reliability coefficients for the subscales were found to be quite satisfactory (Maslach & Jackson, 1986); .90 for Emotional Exhaustion, .79 for Depersonalization, and .71 for Personal Accomplishment. The standard error of measurement for the subscales was 3.80 for Emotional Exhaustion, 3.16 for Depersonalization and 3.73 for Personal Accomplishment. Test-retest reliability estimates were obtained for a sample of graduates in social welfare as well as administrators in a healthy agency. Intervals between test-retest sessions were 2 to 4 weeks. The test-retest coefficients were found to be as .82 for Emotional Exhaustion, .60 for Depersonalization, and .80 for Personal Accomplishment.

3. Ways of Coping Scale-Revised (WOCS-R)

The Ways of Coping-Revised has been used to assess the Coping process in the present study. It is a questionnaire containing 66 items and covers an extensive range of thoughts and actions individuals adopt to handle the external or internal demands evoked by the stressful encounters. The Ways of Coping Scale-Revised (Folkman & Lazarus, 1985) is different from the original Ways of Coping Checklist (Folkman & Lazarus, 1980) in a number of ways. In the original version, response format was Yes/No, whereas it is a 4-point Likert scale in the revised version. Redundant items were deleted, unclear items were reworded, and new items like prayer were added. The Ways of Coping questionnaire can generally be completed in about ten minutes, although the time varies with respondents. The eight sub-scales of Ways of Coping questionnaire are:

Confrontive Coping: describes aggressive efforts to alter the situation and suggests some degree of hostility and risk taking.
Distancing: describes cognitive efforts to detach oneself and to minimize the significance of the situations.

Self-Controlling: describes efforts to regulate one's feelings and actions.

Seeking Social Support: describes efforts to seek informational support, tangible support, and emotional support.

Accepting Responsibility: acknowledges one's own role in the problem with a concomitant theme of trying to put things right.

Escape Avoidance: describes wishful thinking and behavioral efforts to escape or avoid problems. Items on this scale contrast with those on the Distancing scale, which suggest detachment.

Planful Problem Solving: describes deliberate problem-focused efforts to alter the situation, coupled with an analytic approach to solve the problem.

Positive Reappraisal: describes efforts to create positive meaning by focusing on personal growth. It also has a religious dimension.

The reliability of WOCS-R was assessed in the form of Cronbach's alpha. The internal consistency coefficients of Coping measures are found to be toward lower side of acceptable range. The alpha coefficients for the eight scales are reported to be .70 for Confrontive Coping, .61 for Distancing, .70 for Self-Controlling, .76 for Seeking Social Support, .66 for Accepting Responsibility, .72 for Escape Avoidance, .68 for Planful Problem Solving, and .79 for Positive Reappraisal. The Ways of Coping questionnaire items have face validity as the strategies described are the ones individuals use to cope with the demands of stressful situations. Evidence of construct validity is found in the fact that the results of the studies are consistent with the theoretical predictions that Coping consists of both problem-focused and emotion-focused strategies. That is how people cope varies in relation to the demands and constraints of the context and also in relation to changes in those demands and constraints as an encounter unfolds.
4. Multidimensional Measure of Emotional Intelligence (MMEI)

The Multidimensional Measure of Emotional Intelligence (Darolia, 2003) was constructed to provide reliable and valid measurement of Emotional Intelligence in accordance with Goleman's (1995) model of Emotional Intelligence. It was designed to cover the widest possible range of the construct of Emotional Intelligence. The MMEI is comprised of 80 multiple-choice items distributed in five dimensions, each consisting 16 items. A key feature of the MMEI, which distinguishes it from other measures of Emotional Intelligence, is that the five dimensions of EI covered by MMEI are thoroughly investigated (Salovey & Mayer, 1990; Schutte, Malouff et al., 1998) and supported by structural analysis of the present data. These dimensions of EI were found independent to personality and temperament. MMEI is simple in administration, scoring, and interpretation. The five dimensions as tapped by the MMEI are:

**Self-Awareness:** Observing yourself and recognizing a feeling as it happens.

**Managing Emotions:** Handling feelings so that they are appropriate; realizing what is behind a feeling; and finding ways to handle fears, anxieties, anger, and sadness.

**Motivating Oneself:** Channeling emotions in the service of a goal; emotional self-control; and delaying gratification and stifling impulses.

**Empathy:** Sensitivity to others' feelings, concerns, and taking their perspective; and appreciating the differences in how people feel about things.

**Handling Relationships:** Managing emotions in others; social competence and social skills.

Each item is answered on a five-point scale, viz. very true, mostly true, somewhat true, mostly false, and very false. The MMEI is administered without any time limit, however, it takes about 25 to 35 minutes to administer the scale. The test has been designed so as to control for response
sets through the balancing of affirmative and negative statements. This has been done for each of the dimensions separately. But at the same time, it must be admitted that like other inventories MMEI is susceptible to faking.

Reliability estimates of MMEI scales are fairly high. The coefficient alpha (Cronbach, 1951), which is more meaningful for tests like MMEI, ranged between .76 and .81 (N = 415). The test-retest reliability coefficients were obtained by re-administering the test on a sample of 126 adults after an interval of 40 days. The test-retest coefficients ranged between .79 and .84. The MMEI scales were validated in terms of construct validity. Principal components analysis revealed that construct validities (relevance) of the scales are substantial, .77 for SA, .83 for ME, .81 for MO, .76 for E, and .78 for HR dimensions. Apart from factorial validity, overall MMEI score was correlated with Schutte, Malouff et al. (1998) measure of Emotional Intelligence, the correlation between the two was found to be .78.

ADMINISTRATION OF TESTS

In order to collect data for the present study, the subjects were contacted after seeking permission from their department heads or team leaders. The purpose of the study was told and their willingness to participate in the study was sought. The testing sessions of the study were held during the months of October 2011 to January 2012. The subjects were tested during their free time. All the four tests were administered on three groups of healthcare professionals, that is, Doctors, Nursing Staff, and Support Staff in selected hospitals.

The general testing conditions were satisfactory and the atmosphere was uniform throughout. Efforts were made to get maximum cooperation of the subjects, they were encouraged to respond the way they behave in real life-setting. Good rapport was established with the subjects in order to get their maximum co-operation. They were told, at the very outset, that it is a part of scientific study and the collected data will not be used for any professional’s or healthcare evaluation. The confidentiality of the results and
information provided by them was assured. It was also told that they would be informed about their position on different behavioural measures, if they desire so. Though there was no time limit to finish any of the tests, the subjects were asked to complete the test as early as possible. The instructions and administrative procedures were same for all the subjects and well in accordance with that described by the test authors.

The tests were administered in the following sequence to all the respondents: Occupational Stress Index, Maslach Burnout Inventory (MBI-HSS), Ways of Coping Scale-Revised, and Multidimensional Measure of Emotional Intelligence. Occupational Stress Index contained 12 dimensions, that is, Role Over-Load, Role Ambiguity, Role Conflict, Group and Political Pressures, Responsibility for Persons, Under-Participation, Poor Peer Relations, Intrinsic Impoverishment, Low Status, Strenuous Working Conditions, and Unprofitability. They were mixed together to form single 46 item series. Each item was presented with a five point response scale (strongly agree, agree, uncertain, disagree, and strongly disagree). Subjects were asked to indicate the degree of their agreement or disagreement with each statement with respect to their own feelings.

Thereafter, the Maslach Burnout Inventory (MBI-HSS) was administered. The MBI-HSS questionnaire consists of nine items that access the Emotional Exhaustion subscales, five items that measure the Depersonalization and eight items that measure the reduced Personal Accomplishment. The respondents were asked to read each statement carefully and check any of the seven options (0 to 6) for every statement which they feel suits best for them. The seven options were ‘never’, ‘a few times a year or less’, ‘once a month or less’, ‘a few times a month’, ‘once a week’, ‘a few times a week’, and ‘everyday’.

For Ways of Coping contained eight dimensions, that is, Confrontive Coping, Distancing, Self-Controlling, Seeking Social Support, Accepting Responsibility, Escape Avoidance, Planful Problem Solving, and Positive
Reappraisal. They were mixed together to form a single 66 item series. The subjects were asked to read each statement carefully and choose any one option which was most appropriate according to them from the four options given after each statement. The four options were: ‘not used’, ‘used somewhat’, ‘used quite a bit’, and ‘used a great deal’.

Similarly, for Multidimensional Measure of Emotional Intelligence, subjects were asked to read the statements carefully and check any of the five options for every statement which they feel suits best for them. The five options were ‘very true’, ‘mostly true’, ‘somewhat true’, ‘mostly false’, and ‘very false’. MMEI is comprised of 80 items distributed in five dimensions, each consisting of 16 items.

**SCORING**

All the four tests were scored by using their respective keys or scoring guides. Occupational Stress Index was scored on 12 dimensions, but their values were added and taken as a whole depicting the overall Occupational Stress. Since the questionnaire contained both true-keyed and false-keyed items, two different patterns of scoring were adopted for two types of items. This questionnaire has 46 items with five alternative responses. 18 items are false keyed and 28 items are true keyed out of the total 46 items. For the true-keyed items, scores of 1, 2, 3, 4, and 5 were assigned to strongly agree, disagree, uncertain, agree, and strongly agree responses, respectively. The scores for false-keyed statements were reverse to it. Thus, the respective scores for strongly agree, disagree, uncertain, agree, and strongly agree responses were 5, 4, 3, 2, and 1 for the false-keyed items. For the assessment of overall Occupational Stress total score is calculated. The higher the score on this scale more is the Occupational Stress.

The MBI-HSS was scored on a 7-point scale. A score of 0 for the response ‘never’, 1 for ‘a few times a year or less’, 2 for ‘once a month or
less’, 3 for ‘a few times a month’, 4 for ‘once a week’, 5 for ‘a few times a week’, and 6 for ‘everyday’. The test was scored separately for the three dimensions, that is, Emotional Exhaustion, Depersonalization, and Personal Accomplishment by adding individual item scores on the item of each area.

For Ways of Coping, the items were scored on a 4-point scale. A score of 0 for the response ‘not used’, 1 for ‘used somewhat’, 2 for ‘used quite a bit’, and 3 for ‘used a great deal’ was assigned. The separate scores for all the eight Ways of Coping were obtained by adding individual item scores on the item of each dimension.

The MMEI was scored for five dimensions, that is, Self-Awareness, Managing Emotions, Motivating Oneself, Empathy, and Handling Relations. The scoring of MMEI is done by placing the key on the response column by matching the circle marked on the key with the star on the inventory. Separate keys are used for page 1, 2, and 3. Separate scores were obtained for all the five dimensions by adding the individual item scores on the item of each area.

STATISTICAL ANALYSES

The obtained data were subjected to a number of statistical analyses pertinent to research objectives of the study. In order to test the significance of mean difference across different professional groups and gender, 2 × 3 ANOVA was applied. The correlations among variables were obtained by applying Pearson’s Product Moment method. Regressions of Burnout on Occupational Stress, Coping, and Emotional Intelligence were computed by employing standard multiple regression analyses. Further, hierarchical regression was employed to observe the moderating effect of Emotional Intelligence in Coping with Occupational Stress and Coping with Burnout.