

## OCCUPATIONAL STRESS & LIBRARY PROFESSIONAL IN DIGITAL ENVIRONMENT

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### ABSTRACT

*In today's corporate as well as institutional world, the most important concept is Job stress. Occupational stress is also called as burnout. Library Professional in academic libraries now appears to suffer from occupational stress. In present era the library professionals are faces with constant challenges in their working environments. In term of documents, infrastructure facilities, information etc., user's expectations always seems to exceed library's capacity in this digital environment. Stress study amongst library professionals is topical and challenging due to stress prevalence on the larger society affects library professionals. The study will focus on the significance of difference and association between mean Stress scores of library professionals and independent variables in private engineering & management colleges of Haryana State. The T-test and ANOVA test are used for this purpose. A structured questionnaire was constructed in two parts: General Data Sheet and Quality of Work life was used to collect the primary data.*

**Keywords:** Stress, Digital Environment, Occupational Stress, Library Professionals

### I. INTRODUCTION

Stress is a term that has been linked to varied concepts and operations. For some researchers it is stimulus, for others it is an inferred inner state and for still others it is an observable response to stimulus or situation. Thus the use of this term is somewhat hazardous because of the lack of consensus that prevails in stress research (Dohrenwend & Dohrenwend, 1974).<sup>[1]</sup> Some other researchers prefer to use the term stressor to refer to events that can cause stress, the organism's biological and behavioral response to the stressor (Davison & Neale, 1994).<sup>[1]</sup> According to Oxford Advanced Learner's Dictionary stress is "pressure or worry caused by the problems in someone's life." Physical, mental and financial consequences may be occurring due to the stress on the job for employers as well as employees. Stressful working conditions are associated with increased absenteeism, tardiness and turn over, all of which, have a negative effect on a organization's success. The effects of workplace stress costs employers a huge amount in lost productivity, medical costs, absenteeism and accidents. The effects on employees result in a myriad of negative effects such as health hazards and lowered work efficiency. It is important to manage stress without undergoing physical or psychological damage. Generally stress is the changes, which our bodies experience as one, adjust to the continually changing environment. The library environment has changed drastically over the past few decades. With the development & application of information technologies, the library environment has shifted form the traditional library to computerized library, then automated library and more recently digital library. With such changes, the structure and nature of library & information science professionals has also changed in a dynamic way. The library & Information Science professionals experience stress as they readjust their lives with the changing library environment, job rotation, job promotion etc, in the adjusting to such changing library job environment, stress will help or hinder us depending on how we react to it.<sup>[2]</sup> A wide range of physical and psychological health problems can be occurred due to unmanaged stress.

### II. TYPES OF STRESS

There are common perceptions among people that stress is always bad. But there is good stress also. Today's world is very competitive and to survive and progress in this age, a little stress is necessary. Thus, the stress classified into two groups the good stress or 'eustress' or the bad stress or 'distress'. Eustress is the good stress which helps us to improve our performance. Another stress is Distress known as The Bad Stress. The bad stress makes us vulnerable to fatigue and illness. In digital

environment the stresses can be divided into technological Stress, Job Security Stress and Physical Stress, which affects the library professionals.

### III. EFFECTS OF STRESS

Events producing Stress affect a person through FOUR areas of human functioning:

1. **Physical effects of stress:** Mainly through the neuro-endocrino-immunological pathway: Changes in the heart rate, blood pressure, respiration, gastric acidity, muscular tensing, intestinal motility etc.
2. **Emotional effects of stress:** Through hypothalamus and endocrinal release; mainly responsible for the so called psychosomatic disorders.
3. **Mental effects of stress:** The psychological effects of the above.
4. **Behavioural effects of stress:** The behavioural effects of stress coping problems caused by stress.

### IV. LITERATURE REVIEW

**Haridasan and Sultan** (2002), in their survey examines the extend of Occupational Stress felt by the library staff of the Gorakhpur University. The main objectives of the study were to identify the role of different dimensions of stress experienced by the library staff working in different levels in the organization, to study the personal factors causing the burnout among library staff etc. Data were collected by sending questionnaire to library staff of the university. 62 staff were investigated for ascertaining their stress experience. A few of the findings are, the librarians are under stress as they are affected by role overload, role conflict, unreasonable group and political pressure and under participation, the librarian also experience high burn out on the emotional exhaustion dimension. Junior professional assistants also experienced high degree of burnout on the emotional exhaustion etc. **Sornam and Sudha** (2003) attempts to study the level of Occupational Role Stress (ORS) among women library professionals working in Bharathidasan University in Tamil Nadu. Objectives of the study were to identify the influence of age, experience, marital status on ORS and to find out the extend of association between selected socio demographic variables and ORS. The scoring pattern was done in a five point mode ranging from 0-4 and the Median, Chi-Square test, Karl Pearson's Co-efficient of Correlation and Students t-test were used as statistical Tools. The study identified that age, experience and marital status have significant association with ORS. The study undertaken by **Togia** (2005) mainly includes to measure the levels of burnout among Greek Academic librarians and to assess its relation with certain background characteristics. The Maslach Burnout Inventory (MBI) was administered to 136 academic librarians across Greece. The study suggested that respondents experienced low levels of emotional exhaustion and depersonalization and moderate levels of personal accomplishment. Of the background characteristics, age, number of years as a librarian and participation in decision-making were found to be independent of the burnout experienced. **Routray and Satpathy** (2007) described the types of stress in digital library environment and broadly divided them into: Technological, Physical, Mental and Situational. Technological stress was described as the stress due to the development and application of information technologies among the library and information professionals. Due to rapid change in computer hardware and software, obsolescence of existing hardware and software is a common phenomenon in almost all libraries. Thus there is the necessity to keep pace with the changing technologies which due to financial, time or technological constraints, it is difficult to do. **Mahalakshmi K and Sornam S** (2011) studies on the effect of technology on library professionals of engineering colleges of Anna University, Coimbatore, by examining the dimensions of: 1) Demographical details 2) Perceptions of technology, which includes emotional reactions to technology and replacement of people by technology.

### V. RESEARCH METHODOLOGY

This part of the analysis was taken up to compare the mean OS scores of the relevant subsamples categorized on the basis of the following characteristics: Gender, Urban/Rural, Marital status, Educational background, Professional Qualification, Age Group, Designation, Nature of Job, Involvement in IT applications, Salary range, Experience, No of children they have. For this analysis, the total sample (N = 100) was divided into relevant subsamples. The OS scores obtained by the respondents of the different groups in each case were used to construct separate frequency tables. The means and standard deviations of each group were also calculated. The difference in means of each relevant pairs of groups was subjected to statistical test of significance for difference between means for independent samples. To compare the means of two groups, a t-test was employed with 0.05

level of significance. To compare the means of more than two groups, One-way Analysis of Variance (One-way ANOVA) was used. F-probability of appropriate significance level was considered to determine the significance of the test. The obtained data were processed for the computation of Mean, Std. Error of Mean, Median, Mode, Std. Deviation, Variance, Skewness, Std. Error of Skewness, Kurtosis, Std. Error of Kurtosis, Range, Minimum and Maximum. All the Statistical Analysis was performed with the help of SPSS.

## VI. DATA INTERPRETATION & ANALYSIS

In respondents 57% are male and 43% are female, 39% are married and 61% are unmarried. 63% respondents have supervisory designation and 37% have non supervisory designation. 91% library professionals are involved in IT but 9% are not involved. In respondents 71% library professionals belongs to Urban and 29% belong to Rural. As educational qualification 61% respondents are graduates, 21% are post graduate and 6% are M.Phil. As professional qualification 18% library professionals have diploma, 9% have graduation degree in library science, 51% have post graduate degree in library science and 16% are researcher and other 6% have other qualification (certificate). 28% library professionals are below 25 years, 44 % are between 25 to 30 years and 28% are above 30 years. 30% respondents are librarian, 25% respondents are Assistant Librarians, 30% are library assistant and 15% are library attendants. 41% respondents have salary less than 10k, 24% have 10k to 15k, 23% have 15k to 20k and other 12% have above 20k. 58% library professionals have less than 5 year experience and other 42% have more than 5 years. 54% respondents don't have any child, 34% have only single child and other 12 have more than one child.

The measures of central tendency and dispersion of the Occupational Stress scores were computed. The statistics are given in Table 1

Table 1

Statistical constants for the distribution of OS scores for the total sample

|                        |         |          |
|------------------------|---------|----------|
| N                      | Valid   | 100      |
|                        | Missing | 0        |
| Mean                   |         | 189.6200 |
| Std. Error of Mean     |         | 2.32082  |
| Median                 |         | 189.0000 |
| Mode                   |         | 193.00   |
| Std. Deviation         |         | 23.20823 |
| Variance               |         | 538.622  |
| Skewness               |         | .879     |
| Std. Error of Skewness |         | .241     |
| Kurtosis               |         | .925     |
| Std. Error of Kurtosis |         | .478     |
| Range                  |         | 103.00   |
| Min                    |         | 153.00   |
| Max                    |         | 256.00   |
| Max Possible           |         | 300      |
| Min Possible           |         | 60       |

Details and results of the comparisons of the mean OS scores of relevant subsamples with respect to each characteristic of categorization are presented in the following subsections.

### T-Test for the significance of difference between mean OS scores of male and female Library Professionals

#### Hypotheses:

H<sub>0</sub> There is no significance difference between Male and Female about Occupational Stress factors.

H<sub>1</sub> There is significance difference between Male and Female about Occupational Stress factors.

**Table 2**

| Group Statistics |        |    |          |                |                 |
|------------------|--------|----|----------|----------------|-----------------|
|                  | Sex    | N  | Mean     | Std. Deviation | Std. Error Mean |
| OS               | Male   | 57 | 190.4737 | 24.12919       | 3.19599         |
|                  | Female | 43 | 188.4884 | 22.15892       | 3.37920         |

**Table 3**

| Independent Samples Test |                         |   |      |                              |    |                 |                 |                       |   |          |
|--------------------------|-------------------------|---|------|------------------------------|----|-----------------|-----------------|-----------------------|---|----------|
|                          |                         | Levene's Test for Equality of Variances |      | t-test for Equality of Means |    |                 |                 |                       |   |          |
|                          |                         | F                                       | Sig. | T                            | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |          |
|                          |                         |   |      |                              |    |                 |                 |                       | Lower                                     | Upper    |
| OS                       | Equal variances assumed | .145                                    | .705 | .422                         | 98 | .674            | 1.98531         | 4.70740               | -7.35637                                  | 11.32699 |

**Interpretation** Since the calculated value is less than the critical value (.422 < 1.96). Accept the null hypotheses. There is no significance difference between about Male and Female about Occupational Stress factors.

**One way ANOVA for group difference in OS of library professionals of three different age groups**

**Hypotheses:** H<sub>0</sub>: There is no significance difference between age groups about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3$ )

H<sub>1</sub>: There is significance difference between age group about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_3$ ).

**Table 4**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| Below 25    | 28  | 191.0000 | 24.49339       | 4.62881    | 181.5025                         | 200.4975    | 153.00 | 256.00 |
| 25-30       | 44  | 188.6136 | 21.17943       | 3.19292    | 182.1745                         | 195.0528    | 153.00 | 256.00 |
| 30 to above | 28  | 189.8214 | 25.63137       | 4.84387    | 179.8826                         | 199.7602    | 153.00 | 256.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 5**

| ANOVA          |                |    |             |      |      |
|----------------|----------------|----|-------------|------|------|
|                | Sum of Squares | Df | Mean Square | F    | Sig. |
| Between Groups | 99.021         | 2  | 49.511      | .090 | .914 |
| Within Groups  | 53224.539      | 97 | 548.707     |      |      |
| Total          | 53323.560      | 99 |             |      |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (3-1)=2 Number of degree of freedom of the dominator = (100-3)=97 Critical value of F for the 0.05 significance level is 3.09. Since calculated value (.090 < 3.09). Accept the null hypotheses. There is no significance difference between age group about Occupational Stress factors.

**T-Test for the significance of difference between mean OS scores of marital status library professionals**

**Hypotheses:**

H<sub>0</sub>: There is no significance difference according to marital status about Occupational Stress factors.

H<sub>1</sub>: There is significance difference according to marital status about Occupational Stress factors.

**Table 6**

| Group Statistics |                |    |          |                |                 |
|------------------|----------------|----|----------|----------------|-----------------|
|                  | Marital Status | N  | Mean     | Std. Deviation | Std. Error Mean |
| OS               | Single         | 39 | 189.3590 | 21.68493       | 3.47237         |
|                  | Married        | 61 | 189.7869 | 24.30714       | 3.11221         |

**Table 7**

| Independent Samples Test |                         |   |      |                              |    |                 |                 |                       |   |         |
|--------------------------|-------------------------|---|------|------------------------------|----|-----------------|-----------------|-----------------------|---|---------|
|                          |                         | Levene's Test for Equality of Variances |      | t-test for Equality of Means |    |                 |                 |                       |   |         |
|                          | Equal variances assumed | F                                       | Sig. | T                            | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |         |
|                          |                         |   |      |                              |    |                 |                 |                       | Lower                                     | Upper   |
| OS                       | Equal variances assumed | .889                                    | .348 | <b>.089</b>                  | 98 | .929            | -.42791         | 4.78224               | -9.91811                                  | 9.06229 |

**Interpretation** Since the calculated value is less than the critical value (.089 < 1.96). Accept the null hypotheses. There is no significance difference according to marital status about Occupational Stress factors.

**One way ANOVA for group difference in OS among groups of Library Professionals formed on the basis of their educational qualifications**

**Hypotheses:**

H<sub>0</sub>: There is no significance difference between educational qualification about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$ )

H<sub>1</sub>: There is significance difference between educational qualifications about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_4 \neq \mu_5 \neq \mu_6 \neq \mu_7 \neq \mu_8$ ).

**Table 8**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| BA          | 46  | 189.8043 | 24.44006       | 3.60349    | 182.5465                         | 197.0621    | 153.00 | 256.00 |
| BCOM        | 3   | 177.3333 | 20.55075       | 11.86498   | 126.2824                         | 228.3842    | 156.00 | 197.00 |
| BSC         | 12  | 195.5833 | 22.07202       | 6.37164    | 181.5594                         | 209.6072    | 169.00 | 235.00 |
| MA          | 15  | 187.8667 | 16.26946       | 4.20076    | 178.8569                         | 196.8764    | 155.00 | 233.00 |
| MCOM        | 3   | 188.3333 | 58.62025       | 33.84442   | 42.7126                          | 333.9541    | 153.00 | 256.00 |
| MSC         | 3   | 177.3333 | 20.55075       | 11.86498   | 126.2824                         | 228.3842    | 156.00 | 197.00 |
| MPHIL       | 6   | 201.0000 | 26.84027       | 10.95749   | 172.8329                         | 229.1671    | 169.00 | 235.00 |
| OTHERS      | 12  | 185.9167 | 16.20583       | 4.67822    | 175.6200                         | 196.2134    | 155.00 | 218.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 9**

| ANOVA          |                |    |             |             |      |
|----------------|----------------|----|-------------|-------------|------|
|                | Sum of Squares | Df | Mean Square | F           | Sig. |
| Between Groups | 2326.754       | 7  | 332.393     | <b>.600</b> | .755 |
| Within Groups  | 50996.806      | 92 | 554.313     |             |      |

| ANOVA          |                |    |             |      |      |
|----------------|----------------|----|-------------|------|------|
|                | Sum of Squares | Df | Mean Square | F    | Sig. |
| Between Groups | 2326.754       | 7  | 332.393     | .600 | .755 |
| Within Groups  | 50996.806      | 92 | 554.313     |      |      |
| Total          | 53323.560      | 99 |             |      |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-100) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (8-1)=7

Number of degree of freedom of the dominator = (100-8)=92 Critical value of F for the 0.05 significance level is 2.11. Since calculated value (.600<2.11). Accept the null hypotheses. There is no significance difference between educational qualifications about Occupational Stress factors.

**One way ANOVA for group difference in OS among groups of Library Professionals formed on the basis of their professional qualifications**

**Hypotheses:**

H<sub>0</sub>: There is no significance difference between professional qualification about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$ )

H<sub>1</sub>: There is significance difference between professional qualifications about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_4 \neq \mu_5 \neq \mu_6$ ).

**Table 10**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| Diploma     | 18  | 187.1111 | 24.86644       | 5.86108    | 174.7453                         | 199.4769    | 153.00 | 256.00 |
| BLIB        | 9   | 195.7778 | 23.66315       | 7.88772    | 177.5887                         | 213.9669    | 169.00 | 235.00 |
| MLIB        | 51  | 190.3333 | 23.66066       | 3.31315    | 183.6787                         | 196.9880    | 153.00 | 256.00 |
| MPHIL       | 15  | 187.8000 | 22.92597       | 5.91946    | 175.1040                         | 200.4960    | 156.00 | 235.00 |
| PHD         | 1   | 218.0000 | .              | .          | .                                | .           | 218.00 | 218.00 |
| OTHER       | 6   | 181.6667 | 15.92064       | 6.49957    | 164.9590                         | 198.3744    | 155.00 | 197.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 11**

| ANOVA          |                |    |             |      |      |
|----------------|----------------|----|-------------|------|------|
|                | Sum of Squares | Df | Mean Square | F    | Sig. |
| Between Groups | 1715.160       | 5  | 343.032     | .625 | .681 |
| Within Groups  | 51608.400      | 94 | 549.026     |      |      |
| Total          | 53323.560      | 99 |             |      |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (6-1)=5 Number of degree of freedom of the dominator = (100-6)=94 Critical value of F for the 0.05 significance level is 2.31. Since calculated value (.625<2.31). Accept the null hypotheses. There is no significance difference between professional qualifications about Occupational Stress factors.

**T-Test for the significance of difference between mean OS scores of Nature of Job (Supervisory and Non-supervisory) of library professionals**

**Hypotheses:**

H<sub>0</sub>: There is no significance difference according to Nature of Job (Supervisor/Non Supervisor) about Occupational Stress factors.

H<sub>1</sub>: There is significance difference according to Nature of Job (Supervisor/Non Supervisor) about Occupational Stress factors.

**Table 12**

| Group Statistics |                              |    |          |                |                 |
|------------------|------------------------------|----|----------|----------------|-----------------|
|                  | Supervisory /Non Supervisory | N  | Mean     | Std. Deviation | Std. Error Mean |
| OS               | Supervisory                  | 63 | 190.4762 | 23.41206       | 2.94964         |
|                  | Non supervisory              | 37 | 188.1622 | 23.10305       | 3.79812         |

**Table 13**

| Independent Samples Test |   |      |                              |    |                 |                 |                       |   |          |
|--------------------------|---|------|------------------------------|----|-----------------|-----------------|-----------------------|---|----------|
|                          | Levene's Test for Equality of Variances |      | t-test for Equality of Means |    |                 |                 |                       |   |          |
|                          | F                                       | Sig. | T                            | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |          |
|                          |   |      |                              |    |                 |                 |                       | Lower                                     | Upper    |
| Equal variances assumed  | .002                                    | .962 | .480                         | 98 | .633            | 2.31403         | 4.82577               | -7.26255                                  | 11.89061 |

**Interpretation** Since the calculated value is less than the critical value (.480 < 1.96). Accept the null hypotheses. There is no significance difference according to Nature of Job (Supervisor/Non Supervisor) about Occupational Stress factors.

**T-Test for the significance of difference between mean OS scores of Involvement in IT or Not library professionals**

**Hypotheses:**

H<sub>0</sub>: There is no significance difference according to Involvement in IT about Occupational Stress factors.

H<sub>1</sub>: There is significance difference according to Involvement in IT about Occupational Stress factors.

**Table 14**

| Group Statistics |                                |    |          |                |                 |
|------------------|--------------------------------|----|----------|----------------|-----------------|
|                  | Involvement in IT/Not Involved | N  | Mean     | Std. Deviation | Std. Error Mean |
| OS               | Involved                       | 91 | 190.1319 | 23.65925       | 2.48016         |
|                  | Non Involved                   | 9  | 184.4444 | 18.30376       | 6.10125         |

**Table 15**

| Independent Samples Test |   |      |                              |    |                 |                 |                       |   |          |
|--------------------------|---|------|------------------------------|----|-----------------|-----------------|-----------------------|---|----------|
|                          | Levene's Test for Equality of Variances |      | t-test for Equality of Means |    |                 |                 |                       |   |          |
|                          | F                                       | Sig. | T                            | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |          |
|                          |   |      |                              |    |                 |                 |                       | Lower                                     | Upper    |
| Equal variances assumed  | .249                                    | .619 | .700                         | 98 | .486            | 5.68742         | 8.13061               | -10.44750                                 | 21.82235 |

**Interpretation** Since the calculated value is less than the critical value (.700 < 1.96). Accept the null hypotheses. There is no significance difference according to involvement in IT about Occupational Stress factors.

**T-Test for the significance of difference between mean OS scores of library professional (urban/rural) library professionals**  
**Hypotheses:**

H<sub>0</sub>: There is no significance difference according to library professional (urban/rural) about Occupational Stress factors.  
 H<sub>1</sub>: There is significance difference according to library professional (urban/rural) about Occupational Stress factors.

**Table 16**

| Group Statistics |             |    |          |                |                 |
|------------------|-------------|----|----------|----------------|-----------------|
|                  | URBAN/RURAL | N  | Mean     | Std. Deviation | Std. Error Mean |
| OS               | URBAN       | 71 | 189.4930 | 22.54258       | 2.67531         |
|                  | RURAL       | 29 | 189.9310 | 25.17642       | 4.67514         |

**Table 17**

| Independent Samples Test |   |      |                              |    |                 |                 |                       |           |   |  |
|--------------------------|---|------|------------------------------|----|-----------------|-----------------|-----------------------|-----------|---|--|
|                          | Levene's Test for Equality of Variances |      | t-test for Equality of Means |    |                 |                 |                       |           | 95% Confidence Interval of the Difference |  |
|                          | F                                       | Sig. | T                            | Df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower     | Upper                                     |  |
|                          |   |      |                              |    |                 |                 |                       |           |   |  |
| Equal variances assumed  | .668                                    | .416 | <b>.085</b>                  | 98 | .932            | -.43808         | 5.14046               | -10.63916 | 9.76301                                   |  |

**Interpretation** Since the calculated value is less than the critical value (.085 < 1.96). Accept the null hypotheses. There is no significance difference according to library professional (urban/rural) about Occupational Stress factors.

**One way ANOVA for group difference in OS among groups of Library Professionals formed on the basis of their designation**  
**Hypotheses:**

H<sub>0</sub>: There is no significance difference between designation about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3 = \mu_4$ )  
 H<sub>1</sub>: There is significance difference between designations about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ ).

**Table 18**

| Descriptive    |     |          |                |            |                                  |             |        |        |
|----------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|                | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|                |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| Librarian      | 30  | 191.2667 | 23.66131       | 4.31994    | 182.4314                         | 200.1019    | 153.00 | 256.00 |
| Asst Librarian | 25  | 189.2400 | 26.01006       | 5.20201    | 178.5036                         | 199.9764    | 153.00 | 256.00 |
| Library Asst   | 30  | 188.6000 | 23.13469       | 4.22380    | 179.9614                         | 197.2386    | 153.00 | 256.00 |
| Library Attnd  | 15  | 189.0000 | 19.28730       | 4.97996    | 178.3190                         | 199.6810    | 155.00 | 227.00 |
| Total          | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 19**

| ANOVA          |                |    |             |             |      |
|----------------|----------------|----|-------------|-------------|------|
|                | Sum of Squares | Df | Mean Square | F           | Sig. |
| Between Groups | 121.933        | 3  | 40.644      | <b>.073</b> | .974 |
| Within Groups  | 53201.627      | 96 | 554.184     |             |      |
| Total          | 53323.560      | 99 |             |             |      |



**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples  
 i.e. Number of degree of freedom in the nominator = (4-1)=3  
 Number of degree of freedom of the dominator = (100-4)=96 Critical value of F for the 0.05 significance level is 2.70. Since calculated value (.073<2.70). Accept the null hypotheses. There is no significance difference between designations about Occupational Stress factors.

**One way ANOVA for group difference in OS among groups of Library Professionals formed on the basis of their salary Hypotheses:**

H<sub>0</sub>: There is no significance difference between salary about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3 = \mu_4$ )  
 H<sub>1</sub>: There is significance difference between salary about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$ ).

**Table 20**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| Below 10k   | 41  | 190.1463 | 22.29188       | 3.48141    | 183.1102                         | 197.1825    | 153.00 | 256.00 |
| 10-15 k     | 24  | 189.6667 | 25.83504       | 5.27356    | 178.7575                         | 200.5758    | 153.00 | 256.00 |
| 15-20 k     | 23  | 190.5652 | 26.12005       | 5.44641    | 179.2701                         | 201.8604    | 153.00 | 256.00 |
| Above 20 k  | 12  | 185.9167 | 16.20583       | 4.67822    | 175.6200                         | 196.2134    | 155.00 | 218.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 21**

| ANOVA          |                |    |             |             |      |
|----------------|----------------|----|-------------|-------------|------|
|                | Sum of Squares | Df | Mean Square | F           | Sig. |
| Between Groups | 196.536        | 3  | 65.512      | <b>.118</b> | .949 |
| Within Groups  | 53127.024      | 96 | 553.407     |             |      |
| Total          | 53323.560      | 99 |             |             |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (4-1)=3  
 Number of degree of freedom of the dominator = (100-4)=96 Critical value of F for the 0.05 significance level is 2.70. Since calculated value (.118<2.70). Accept the null hypotheses. There is no significance difference between salary about Occupational Stress factors.

**One way ANOVA for group difference in OS among groups of Library Professionals formed on the basis of their experience Hypotheses:**

H<sub>0</sub>: There is no significance difference between experience about Occupational Stress factors ( $\mu_1 = \mu_2$ )  
 H<sub>1</sub>: There is significance difference between experience about Occupational Stress factors ( $\mu_1 \neq \mu_2$ ).

**Table 22**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| Below 5 yr  | 58  | 190.3448 | 23.93672       | 3.14305    | 184.0510                         | 196.6387    | 153.00 | 256.00 |
| Above 5 yr  | 42  | 188.6190 | 22.41075       | 3.45805    | 181.6354                         | 195.6027    | 153.00 | 256.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 23**

| ANOVA          |                |    |             |             |      |
|----------------|----------------|----|-------------|-------------|------|
|                | Sum of Squares | Df | Mean Square | F           | Sig. |
| Between Groups | 72.552         | 1  | 72.552      | <b>.134</b> | .716 |
| Within Groups  | 53251.008      | 98 | 543.378     |             |      |
| Total          | 53323.560      | 99 |             |             |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (2-1)=1 Number of degree of freedom of the dominator = (100-2)=98 Critical value of F for the 0.05 significance level is 3.94. Since calculated value (**.134<3.94**). Accept the null hypotheses. There is no significance difference between experience about Occupational Stress factors.

**One way ANOVA for group difference in OS of library professionals categorized on the basis of the number of children they have**

H<sub>0</sub>: There is no significance difference between children they have about Occupational Stress factors ( $\mu_1 = \mu_2 = \mu_3$ )

H<sub>1</sub>: There is significance difference between children they have about Occupational Stress factors ( $\mu_1 \neq \mu_2 \neq \mu_3$ ).

**Table 24**

| Descriptive |     |          |                |            |                                  |             |        |        |
|-------------|-----|----------|----------------|------------|----------------------------------|-------------|--------|--------|
|             | N   | Mean     | Std. Deviation | Std. Error | 95% Confidence Interval for Mean |             | Min    | Max    |
|             |     |          |                |            | Lower Bound                      | Upper Bound |        |        |
| No Child    | 54  | 190.0185 | 24.65267       | 3.35480    | 183.2896                         | 196.7474    | 153.00 | 256.00 |
| 1 child     | 34  | 190.2941 | 23.37770       | 4.00924    | 182.1373                         | 198.4510    | 153.00 | 256.00 |
| more than 1 | 12  | 185.9167 | 16.20583       | 4.67822    | 175.6200                         | 196.2134    | 155.00 | 218.00 |
| Total       | 100 | 189.6200 | 23.20823       | 2.32082    | 185.0150                         | 194.2250    | 153.00 | 256.00 |

**Table 25**

| ANOVA          |                |    |             |             |      |
|----------------|----------------|----|-------------|-------------|------|
|                | Sum of Squares | Df | Mean Square | F           | Sig. |
| Between Groups | 188.603        | 2  | 94.302      | <b>.172</b> | .842 |
| Within Groups  | 53134.957      | 97 | 547.783     |             |      |
| Total          | 53323.560      | 99 |             |             |      |

**Interpretation:** Calculated value (F)= degree of freedom in the nominator (no of samles-1) and degree of freedom dominator ( $n_t - k$ ) where  $n_t = \sum n_j$  =total sample size, k= No of samples i.e. Number of degree of freedom in the nominator = (3-1)=2 Number of degree of freedom of the dominator = (100-3)=97 Critical value of F for the 0.05 significance level is 3.09. Since calculated value (**.172<3.09**). Accept the null hypotheses. There is no significance difference between children they have about Occupational Stress factors.

**VI. CONCLUSION**

There is no significance difference according to Gender; marital status; supervisory status; involvement in IT; and library professional (urban/rural), age group; educational qualifications; professional qualifications; designations; salary; experiences; and children they have about Occupational Stress factors means that all factor of stress management are equally impact on gender, marital status and others demographic profile of library professionals. The percentage of librarians having high level of 'Occupational Stress' is zero. The magnitude of the mean score of OS is 189.62 in the sample with a standard deviation of 23.20. Therefore it is observed that the library professionals working in academic libraries of Private Engineering & Management Colleges in Haryana do not experience any Stress in their occupation. Every stress management factors are

important and they equally impact on library professionals, so whatever factors we chose in our study we can't ignore any factor if we want to reduce the stress among library professionals. In our study we found out that the good stress management system can get satisfaction of employee among library professionals and says that every organization need to have good stress management system. The library professionals have to manage control the events that impact their work and produce stress or to allow stress to manage them, in this present era. The library professionals have to do more effective work what they did in the past in their personal or professional lives. It is simply not possible to remove all sources of stress in the digital library workplace but, the library managers can manage stress among their teams which will help to reduce some of its consequences, such as: poor morale, reduced performance and team conflict. The best ways to manage stress in digital library environment are: create a supportive culture; appreciate people's differences; recognize the signs of stress; resolve issues as they arise; consider teambuilding; enable autonomy; and have a contingency plan.

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