# Stress Measurement Study on School Teachers in Delhi 

${ }^{1}$ Dr. Smita Mishra, ${ }^{*}{ }^{2}$ Dr. Tanvi Gupta, ${ }^{3}$ Ms. Akshita Jain, ${ }^{4}$ Dr. J.K. Batra<br>${ }^{1}$ Professor, ${ }^{2}$ Assistant professor, ${ }^{3}$ Research scholar, ${ }^{4}$ Director<br>${ }^{2}$ tanvi.gupta@jagannath.org<br>${ }^{1,3}$ Rukmini Devi Institute of Advanced Studies, Delhi, India ${ }^{2,4}$ Jagannath International Management School, New Delhi, India

## Article Info

Volume 83
Page Number: 9894-9904
Publication Issue:
March - April 2020

## Article History

Article Received: 24 July 2019
Revised: 12 September 2019
Accepted: 15 February 2020
Publication: 11 April 2020


#### Abstract

Stress is a state of discomfort experienced by everyone these days. Teaching is not the most convenient option available to females anymore as a way to attain work life balance. It has been observed that teachers nowadays suffer extreme stress due to the excessive increase in the job requirements in comparison to the capabilities or resources available. This study is being conducted to examine the stress levels for the teachers in schools in south Delhi.It is a descriptive research and is based on primary data. The sample consists of 338 female teachers who were selected based on convenience sampling. Data has been collected through a standardized questionnaire on 'Stress Management' that was proposed by the 'International Stress Management Association', UK. It consists of dichotomous statements with yes/no responses and the summated score aim at reflecting the stress levels of the teachers in the selected schools. This study has great relevance as it aims to study the relationship between the demographical variables, namely, age, marital status, qualifications, income and experience with the stress experienced by the teachers. It also aimed at identifying the different categories based on demographics that suffered different levels of stress. The hypothesis testing for this study has been done using contingency tables and chi-square test and level of significance has been taken at $5 \%$. Further, the study identified the segments based on the demographics in terms of low, high and medium level of stress faced. Resource limitation as an unavoidable limitation exists for this research. This study provides recommendations for stress management and adds value to the existing literature in the area of stress studies on teachers.


Keywords: stress level, stress score, demographic variables, schools, stress management

## 1. Introduction

The current research aims at examining stress with respect to school teachers in the selected private schools in Delhi in relation to stipulated demographic variable mentioned throughout the study. The term, 'stress' around which the whole study revolves is actually defined differently by the different researchers belonging to different disciplines (Duggan, E., 1997). Stress can be defined as an event or situation of discomfort for an organism that generates positive as well as negative responses in individuals at physical and mental level (Chen, J.C. and Silverthrone, C.,

2008; Smyth, E., et al., 2015). Work or organizational stress can be referred as the physiological, behavioral as well as psychological responses of individuals due to exposure to continuing stressors in their environment at the workplace (Yan, H. and Xie, S., 2016). Stressors can be regarded as the real or even, perceived challenges to an individual's ability of meeting his perceived or real needs (Greenberg, N., et al., 2002). Stress is majorly identified as the physical and emotional reaction of an individual to the changes experienced in one's life according to the National Centre for Complementary and

Integrative Health, U.S. Department of Health and Human Services, 2019 (National Centre for Complementary and Integrative Health, U.S. Department of Health and Human Services, 2019). Stress can be categorized as acute, episodic and chronic stress dependent upon the severity of the stress experienced by an individual (American Psychological Association, 2018).

Undoubtedly, the environment in the education sector for teachers is very stressful (Kelly, C., 2017). This impacts the health of the teachers and their performance at the workplace as stated by the Pennsylvania State University during their research on teacher stress and health in their public research conducted in 2016. Various kinds of stressors are recognized in schools that impacts the teachers. Some of the major stressors include the extent to which this profession is physically and psychologically demanding (Winwood, P.C. and Lushington, K., 2006). Some of the factors leading to stress in schools include student handling, frequent assessments and inability of proper time management (Feltoe, G., 2015). Resource and time limitation in private schools is one of the primary causes of stress among the school teachers. Personal, interpersonal and organizational stressors have a combined effect on the teachers' health and well-being (Potter, P.T., et al., 2002). The stress created by these stressors is essential to be tracked as it may lead to various problems like depression, insomnia, irritability, loss of focus, heart attack, strokes and various health hazards for the teachers (Wangui, M.F., et al., 2016).

The subject of stress encountered by female teacher stress is of extreme importance due to the still existing gender bias in the Indian society. Past research proves that women teachers still have to experience greater stress in terms of opportunities that are available and the challenges involved (Gaur, S.P. and Dhawan, N., 2000). It is quite important to study female teacher stress and their
impact on themselves and students. According to a research on teacher stress and health, $46 \%$ of the surveyed teachers reported high daily stress that concerned teacher health, sleep pattern, life quality and their teaching performance. It was observed that when the teachers were found to be highly stressed, the students been taught by them showed lower levels of social adjustment as well as academic performance (Greenberg, M.T., et al., 2016). Therefore, this study is relevant as education sector has teachers as its backbone and the future of the nation depends on its youth success for which organized education system is integral to be present.

## 2. Literature Review

The literature on stress and its management dates back to history when the 'Father of Stress', Hans Selye regarded stress as being omnipresent in human life and performed extended research studies on stress (Selye, H., 1956). With time the definitions of stress had evolved and with the changing trends in the way humans conducted their lives, stress management became imperative to lead a successful and happy life (Swanson, S., 1999). Thus, over years, a number of studies have been conducted in different parts of the world with multiple objectives and having reviewed the available and accessible literature, the current study has been conducted to achieve the stipulated research objectives and fill the research gaps.
Research studies revealed that higher job autonomy led to lower stress among teachers than lower job autonomy (Rastogi, R. and Kashyap, K., 2003) yet, this research didn't highlight how gender differences could also play a role in defining stress. Many research studies have been conducted without a representative sample (Subhashini, M. and Sukumar, B.V., 2019). Also, a lot of studies have been conducted outside India, thus the results cannot be replicated or applied in the Indian context (Aquezuilo, J.A. and Azuji, I.M., 2019). Very few studies were conducted to examine the teacher stress in private set up yet
several studies exist for public schools. Also, more studies exist to study stress level among the academic staff at university level (Akinmayowa, J.T. and Kadiri, P.A., 2014). Lesser number of studies exist that are focused on studying only the stress among the female school teachers (Converso, D., et al., 2018). Not all the studies are based on empirical research. Many of the existing studies on this topic were based on purely secondary data or as a theoretical review or even as case studies (Meng,Q. and Wang, G., 2018). Also, it was observed that though, several studies existed on examining the relationship between the demographic variables and stress among the teachers, yet, hardly any aimed at revealing and segmenting the teachers into different categories based on their stress level (Rajan, D.A. and Meenkashi, R., 2017). This is important to be done in order to identify the intensity of stress being faced by teachers with some common demographical features and thus, measures could be taken in order to combat the different levels of stress being faced.

Thus, it can be inferred that there have been several research gaps that emerged through the review of literature leading to the justification of the current study. This study not only took a focused approach by considering the role biases based on gender but also performed this study on primary data with a representative sample. Also, since lesser literature was encountered in Indian context, thus this study even met that requirement by conducting this study on school teachers in selected schools in Delhi. The resource limitation has affected the sampling design. Further, this study extended its approach by identifying the teachers belonging to different stress categories. The high -level stress category could be an alarming reminder and may even result in acute stress. Thus, the current study holds relevant and useful in the light of past research performed from time to time.

## 3. Research methodology

It is a descriptive research conducted with the objective of examining the relationship between the identified demographic variables (age, marital status, education, monthly income, tenure) and the stress level of the respondents. The respondents for this research are the school teachers teaching in the primary, secondary and senior secondary wings of the selected schools in Delhi. Convenience sampling has been used for choosing the sample. 20 schools situated in Delhi were randomly chosen and visited for data collection. The sample size was 338 which constituted a representative sample. A self-administered standardized questionnaire for measuring stress known as the Stress Management Questionnaire by International Stress Management Association, UK (https://isma.org.uk/wp-content/uploads/2013/08/Stress-Questionnaire.pdf) was used for the purpose of data collection and measuring the stress level among the teachers. The questionnaire considered the demographic details of the respondents along with their responses for 25 statements showing their stress levels. Each statement had a dichotomous response option; yes or no. For every response as 'yes', a score of ' 1 ' is assigned and for every response as 'no', a score of ' 0 ' was assigned. Hence, the scores were summated for all the statements to reflect the stress experienced by the respondents. Following that hypothesis testing was done through chi-square test along with contingency tables. For this, there was equidistribution of the total stress score obtained and was divided into 3 equal parts using percentiles and the three categories of stress scores for $0-25$ were identified as $0-13$ being low stress, 14-18 being medium stress and 19-25 being high stress. For these categories created, frequencies were assigned for each of the demographic variables that is presented in a contingency-tables along with chi-square test for each variable as component. The objectives and formulated hypothesis for the study have been given below:

Objective 1: To examine the relationship between the demographic variables (age, marital status, education, income and tenure) and the stress among the female schools teachers in Delhi.
Objective 2: To generate homogeneous segments of female teachers based on their stress levels.
Objective 3: To provide viable recommendations to the school teachers for efficient stress management.
$\mathrm{H}_{\mathrm{O}}$ : There is no significant relationship between age and stress among female school teachers.
$\mathrm{H}_{\mathrm{o}} 2$ : There is no significant relationship between marital status and stress among female school teachers.
$\mathrm{H}_{\mathrm{o}} 3$ : There is no significant relationship between education and stress among female school teachers.
$\mathrm{H}_{\mathrm{O}} 4$ : There is no significant relationship between income and stress among female school teachers.
$\mathrm{H}_{0} 5$ : There is no significant relationship between tenure and stress among female school teachers.

## 4. Data analysis and interpretation

Table 1.1 given below documents the descriptive analysis for the demographic variables; age, marital status, educational qualifications, monthly income and years of experience as tenure of the school teachers as the respondents. It is revealed that the maximum number of respondents belonged to the age group 40-50 years and most of the respondents in the sample were married. Most of the teachers had qualified graduates with B.Ed degrees and had cleared the TET (Teaching Entrance Test) examination. The maximum proportion of the sample reflected a monthly earning of Rs (60000-70000) and maximum number of teachers in the schools in this study had more than 15 years of working experience or tenure in teaching.

Table 1.1: Frequency analysis of independent variables

| Categ | $18-30$ <br> years | $30-40$ years | $40-$ <br> 50 | Abov <br> e 50 |
| :--- | :--- | :--- | :--- | :--- |


| bries <br> Varia <br> bles |  |  |  | years | years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 40 (11.8\%) |  | 110 (32.5\%) | $\begin{aligned} & 136 \\ & (40.3 \\ & \%) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 52 \\ (15.4 \\ \%) \\ \hline \end{array}$ |
|  | Married |  | Unmarried | Wid ow | Divo rced |
| Marit <br> al <br> status | $\begin{aligned} & 209 \\ & (61.8 \%) \end{aligned}$ |  | 66 (19.6\%) | $\begin{aligned} & 16 \\ & (4.7 \\ & \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 47 \\ & (13.9 \\ & \%) \\ & \hline \end{aligned}$ |
|  | Graduation +B.Ed |  | Graduation+ <br> B.Ed+TET | $\begin{aligned} & \hline \text { PG+ } \\ & \text { B.Ed } \end{aligned}$ | $\begin{aligned} & \text { PG+ } \\ & \text { M.Ed } \end{aligned}$ |
| Educ ation | 31 (9.2\%) |  | 155 (45.8\%) | $\begin{array}{\|l\|} \hline 150 \\ (44.4 \\ \%) \\ \hline \end{array}$ | 2 <br> (0.6 <br> \%) |
|  | $\begin{aligned} & \text { Upto Rs } \\ & 40000 \end{aligned}$ |  | $\begin{aligned} & \text { Rs (40000- } \\ & 50000) \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Rs } \\ (500 \\ 00- \\ 6000 \\ 0) \\ \hline \end{array}$ | $\begin{array}{\|l} \hline \text { Rs } \\ (600 \\ 00- \\ 7000 \\ 0) \\ \hline \end{array}$ |
| Inco <br> me | 18 (5.3\%) |  | 49 (14.5\%) | $\begin{aligned} & 118 \\ & (34.9 \\ & \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 153 \\ (45.3 \\ \%) \\ \hline \end{array}$ |
|  | $\begin{array}{\|l\|} \hline \text { Upt } \\ \text { o } 2 \\ \text { year } \\ \text { s } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 2-5 \\ \text { year } \\ \mathrm{s} \end{array}$ | 5-10 years | $\begin{aligned} & 10- \\ & 15 \\ & \text { years } \end{aligned}$ | Abov e 15 years |
| Tenur e | 40 <br> $(11$. <br> $8 \%)$ | $\begin{array}{\|l\|} \hline 37 \\ (10 . \\ 9 \%) \\ \hline \end{array}$ | 85 (25.3\%) | $\begin{array}{\|l\|} \hline 70 \\ (20.7 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 106 \\ (31.3 \\ \%) \\ \hline \end{array}$ |

Table 1.2 given below documents the details of the stress score obtained for the respondents. It is observed that the mean stress score was 16.02 (S.D. $=4.2$ ) with the maximum stress score being 25 and the minimum stress score being 9 . The stress score was calculated on a standard scale based on 25 statements from 0 to 25 . With the minimum score being 9 , it can be said that all the respondents were facing an identifiable degree of stress as the minimum score stretched 9 points from zero and nobody was found to be scoring
zero or even one-third of the total score which was 8.33. It is to be noted that the summated stress scores reflected the stress faced by the respondents.

Table 1.2: Descriptive analysis of stress

| Variabl <br> e | Mea <br> n <br> score | Minimu <br> m | Maximu <br> m | Standar <br> d <br> deviatio <br> n |
| :---: | :---: | :---: | :---: | :---: |
| Stress | $\begin{aligned} & 16.0 \\ & 2 \end{aligned}$ | 9 | 25 | 4.2 |

Table 1.3 given below documents the contingency table for the demographic variables across the stress scores and chi-square test for each component. The summated stress scores for all the respondents were summated and were then equally distributed. Further, on being divided in three equal parts using percentiles, the score from $0-13$ was identified as being 'Low' stress, 14-18 as 'Medium' stress and 19-25 as the 'High' stress. The demographic variables were distributed in terms of frequencies for the identified categories of stress. It has been documented that the maximum number of respondents facing low stress belonged to the age group 30-50 years and maximum proportion of sample facing medium level of stress belonged to the female teachers who were $40-50$ years old. For high stress, the maximum proportion of respondents consisted of females in the age group of $30-40$ years. The chisquare test reflects Pearson's chi square value as 142.77, $\mathrm{p}<0.05$, thus, there exists a significant relationship between age and stress in the given study. Thus, $\mathrm{H}_{0} 1$ was not accepted. For considering the frequencies for stress on the basis of marital status, maximum frequencies within each category of stress was shown by the married female teachers. This could be attributed to the fact that more than $50 \%$ of the sample consisted of married female respondents. From the table, it is also observed that within the married category, maximum respondents faced low stress and within
unmarried category, maximum respondents experienced high stress. Pearson's chi square value was 63.36 with $p>.05$, thus there did not exist a significant relationship between marital status and stress at $5 \%$ level of significance. Thus, $\mathrm{H}_{0} 2$ was not rejected. Similarly, for educational qualifications, the maximum frequency was documented by the graduates with B.Ed and TET qualifications for low as well as medium stress and the maximum proportion was observed for high stress for the post-graduates with B.Ed. The chi-square value obtained was 75.78 with $\mathrm{p}<.05$. Hence, there was a significant relationship between education and stress at $5 \%$ level of significance. Thus, $\mathrm{H}_{0} 3$ was not accepted. For the income groups, it was observed that maximum proportion of respondents experiencing low stress earned a monthly income of Rs (50000-70000). The maximum number of female respondents facing medium stress earned Rs (50000-60000) per month and the maximum proportion facing high stress were earning Rs (60000-70000) per month. Pearson's chi-square value $=76.36, \mathrm{p}<.05$, thus, it shows a significant relationship between income and stress. $\mathrm{H}_{0} 4$ is not accepted. Considering the tenure of teaching or the number of work experience in teaching, it was documented that the maximum number of respondents facing low stress had a tenure of 5-10 years. The maximum proportion with medium stress showed a tenure of 10-15 years and high level of stress was reflected maximum by the respondents with the work tenure of more than 15 years. Pearson's chi-square value $=162.20$ with $\mathrm{p}<.05$, thus tenure and stress document a significant relationship at 5\% level of significance. Hence, $\mathrm{H}_{0} 5$ is not accepted.

Table 1.3: Contingency table for IV's and stress

| Dependent | Low <br> stres | Medi | High | Chi- |
| :--- | :--- | :--- | :--- | :--- |
| um | stres | square |  |  |
| variable | s | stress | s | $\left(\chi^{2}\right)$ |
| Independent | $(0-$ | $(14-$ | $(19-$ | p |
| Variables | $13)$ | $18)$ | $25)$ | $($ signific |


|  | $(\%)^{\mathrm{V}}$ | (\%) | $\begin{aligned} & \text { v } \\ & (\%) \end{aligned}$ | ance) |
| :---: | :---: | :---: | :---: | :---: |
| Age groups |  |  |  | $\begin{aligned} & 142.77 \\ & (0.001) \end{aligned}$ |
| 18-30 years | 8 <br> (2.3 <br> \%) | 15 <br> (4.3 <br> \%) | 21 <br> (6.1 <br> \%) |  |
| 30-40 years | $\begin{array}{\|l\|} \hline 51 \\ (15.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 21 \\ (6.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 38 \\ (11.1 \\ \%) \\ \hline \end{array}$ |  |
| 40-50 years | $\begin{array}{\|l\|} \hline 55 \\ (16.2 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 65 \\ (19.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 16 \\ (4.6 \\ \%) \\ \hline \end{array}$ |  |
| Above 50 years | 12 <br> (3.4 <br> \%) | $\begin{array}{\|l\|} \hline 11 \\ (3.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 29 \\ (8.6 \\ \%) \\ \hline \end{array}$ |  |
| Marital status |  |  |  | $\begin{aligned} & 63.36 \\ & (0.068) \end{aligned}$ |
| Married | $\begin{array}{\|l\|} \hline 91 \\ (26.8 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 52 \\ (15.3 \\ \%) \\ \hline \end{array}$ | $\begin{aligned} & \hline 66 \\ & (19.5 \\ & \%) \\ & \hline \end{aligned}$ |  |
| Unmarried | $\begin{array}{\|l\|} \hline 21 \\ (6.3 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 22 \\ (6.4 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 23 \\ (6.8 \\ \%) \\ \hline \end{array}$ |  |
| Widow | $\begin{array}{\|l\|} \hline 0 \\ (0 \%) \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (2.9 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 6 \\ (1.8 \\ \%) \\ \hline \end{array}$ |  |
| Divorced | 14 <br> (4.2 <br> \%) | $\begin{array}{\|l\|} \hline 24 \\ (7.3 \\ \%) \end{array}$ | $\begin{array}{\|l} \hline 9 \\ (2.7 \\ \%) \end{array}$ |  |
| Qualifications |  |  |  | $\begin{array}{\|l\|} \hline 75.78 \\ (0.006) \end{array}$ |
| $\begin{aligned} & \text { Graduation+B. } \\ & \text { Ed } \end{aligned}$ | $\begin{aligned} & \hline 5 \\ & (1.4 \\ & \%) \end{aligned}$ | $\begin{array}{\|l\|} \hline 10 \\ (2.9 \\ \%) \\ \hline \end{array}$ | $\begin{aligned} & 16 \\ & (4.7 \\ & \%) \\ & \hline \end{aligned}$ |  |
| $\begin{aligned} & \text { Graduation+B. } \\ & \text { Ed+TET } \end{aligned}$ | $\begin{array}{\|l\|} \hline 68 \\ (20.2 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 53 \\ (15.8 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 34 \\ (10.1 \\ \%) \\ \hline \end{array}$ |  |
| PG+B.Ed | 51 <br> (15.2 <br> \%) | $\begin{array}{\|l\|} \hline 45 \\ (13.3 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 54 \\ (15.9 \\ \%) \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { PG+B.Ed+M.E } \\ & \text { d } \end{aligned}$ | $\begin{aligned} & \hline 2 \\ & (0.5 \end{aligned}$ | $\begin{array}{\|l} \hline 0 \\ (0 \%) \end{array}$ | $\begin{array}{\|l} \hline 0 \\ (0 \%) \end{array}$ |  |


|  | \%) |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Monthly income |  |  |  | $\begin{aligned} & 76.36 \\ & (0.006) \end{aligned}$ |
| Till Rs 40,000 | $\begin{array}{\|l} \hline 2 \\ (0.7 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 4 \\ (1.2 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 12 \\ (3.6 \\ \%) \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { Rs (40,000- } \\ & 50,000) \end{aligned}$ | $\begin{array}{\|l\|} \hline 20 \\ (5.9 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 17 \\ (5.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (2.9 \\ \%) \\ \hline \end{array}$ |  |
| $\begin{aligned} & \hline \text { Rs }(50,000- \\ & 60,000) \end{aligned}$ | $\begin{array}{\|l\|} \hline 40 \\ (11.9 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 48 \\ (14.3 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 30 \\ (8.9 \\ \%) \\ \hline \end{array}$ |  |
| $\begin{aligned} & \text { Rs (60,000- } \\ & 70,000) \end{aligned}$ | $\begin{array}{\|l\|} \hline 62 \\ (18.4 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 39 \\ (11.6 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 52 \\ (15.5 \\ \%) \\ \hline \end{array}$ |  |
| Tenure |  |  |  | $\begin{aligned} & 162.29 \\ & (0.001) \end{aligned}$ |
| Less than 2 years | $\begin{array}{\|l\|} \hline 8 \\ (2.3 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 11 \\ (3.2 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 21 \\ (6.2 \\ \%) \\ \hline \end{array}$ |  |
| 2-5 years | $\begin{array}{\|l\|} \hline 20 \\ (5.9 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 14 \\ (4.1 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 3 \\ (0.8 \\ \%) \\ \hline \end{array}$ |  |
| 5-10 years | $\begin{array}{\|l\|} \hline 50 \\ (14.7 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (2.9 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 25 \\ (7.3 \\ \%) \\ \hline \end{array}$ |  |
| 10-15 years | $\begin{array}{\|l\|} \hline 19 \\ (5.7 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 41 \\ (12.2 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 10 \\ (2.9 \\ \%) \\ \hline \end{array}$ |  |
| Above 15 years | $\begin{array}{\|l\|} \hline 29 \\ (8.6 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 32 \\ (9.6 \\ \%) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 45 \\ (13.4 \\ \%) \\ \hline \end{array}$ |  |

Table 1.4 documents the interpretation of the various segments formed based upon the different demographic factors and the level of stress experienced by the female teacher respondents considered for the current study.

Table 1.4: Segments based on stress and demographic variables

|  | Variables | Details |
| :--- | :--- | :--- |
| Segment1 |  |  |
| Stress | Stress level | This segment consists |


| Denier |  |  |
| :---: | :---: | :---: |


|  |  | which they can strike a good work-life balance. |
| :---: | :---: | :---: |
|  | Demographics | 30-50 years, married, Graduation/PG with B.Ed and TET, Rs 50000-70000 per month, 5-10 years teaching experience |
| Segment 2 |  |  |
| Stress <br> Jugglers | Stress level | This segment consisted of females in the stage of their early mid -life and were mostly married. They were also graduates with B.Ed and teaching entrance examination cleared. It even comprised the female teachers who were pos-graduates with M.Ed degree and earning a decent monthly salary of Rs (50000-60000) and have a longer teaching experience. Being in the same profession organization for more than a decade tends to bring monotony in work and the individual tends to witness the various changes in the work environment. Also, considering the changes in school education that has taken place over the past 0-15 years requires the existing |


|  |  | teachers to adopt new technology faster and better. Hence, it puts pressure on the teachers who had been using conventional pedagogical techniques. Thus, this segment keeps on juggling in the process of change management and hence, suffer troughs and cliffs of stress. |
| :---: | :---: | :---: |
|  | Demographics | 40-50 years, married, <br> graduation with <br> B.Ed+TET/post-  <br> graduation with <br> B.Ed+M.Ed, Rs <br> $50000-60000$ per <br> month, $10-15$ years <br> teaching experience  |

Segment 3

| Stress | Stress level | This segment consists <br> of comparatively |
| :--- | :--- | :--- |
| Laden |  | younger as well as |
| Brigade |  |  | middle-aged married and even unmarried female teachers who were post-graduates with B.Ed degree and a high salary of Rs 60000-70000 per month and a good number of years of experience in the same profession or organization. These teachers being postgraduates mostly teach in secondary and senior secondary wing of the schools


|  |  | due to which their salary structure is also higher. It implies greater deal of efforts, working with more level of subject knowledge, handling teenage students and more responsibilities. All this eventually leads to higher level of stress as the teachers are always working under immense pressure and greater responsibilities and increased work load. |
| :---: | :---: | :---: |
|  | Demographics |  $30-40$ years, <br> married/unmarried,   <br> post-graduation with  <br> B.Ed, Rs $60000-$ <br> 70000 per month, <br> above 15 years <br> teaching experience  |

## 5. Results

It was revealed from the current study that age, education, income and years of experience have a statistically significant relationship with the stress being experienced by the female teachers in private schools in Delhi. Yet, marital status wasn't found to be a factor with a significant association with the stress being faced by the respondents. Due to these findings, $\mathrm{H}_{0} 1, \mathrm{H}_{0} 3, \mathrm{H}_{0} 4$ and $\mathrm{H}_{0} 5$ were not accepted and $\mathrm{H}_{0} 2$ was not rejected at $5 \%$ level of significance. Further, considering the maximum frequencies for the various demographic variables for the different levels of stress, the generated segments revealed the exhibition of different levels of stress. The three segments were identified as stress deniers, stress jugglers and stress laden brigade facing low, medium and high stress respectively. The segment
of female teachers who were experiencing low level of stress were middle-aged, married, graduates with B.Ed degree and teaching entrance test qualification with monthly income of Rs (50000-70000) and 5-10 years of teaching experience. This segment is called 'Stress Deniers'. The segment with females experiencing medium stress consisted of married females who were 40-50 years with graduation with B.Ed / M.Ed degrees with Rs 50000-60000 per month earning and tenure of $10-15$ years. It was identified as 'Stress Jugglers'. The segment representing high stress were married as well unmarried females with post-graduation degrees and B.Ed with monthly earnings of Rs (6000070000) and have spent more than 15 years in teaching at school(s). This segment was called as 'Stress Laden Brigade'.

The examination of relationship between demographic variables and stress have also been done in the past but considering the changing roles of teachers in academia in India and insufficient emphasis given to the study of female teachers' stress, the findings of this study hold important. Age might not show differences in emotional response to past stressors in comparison to recent stressors (Scott, B. S., et al., 2013). At the same time, research conducted for teachers in China indicated age having significant association with physical and mental components related to stress (Yang, X., et al., 2009). Thus, past research has displayed inconsistent relation between age and stress. Studies have indicated female teachers who were young and had spent lesser number of years in teaching or were in the initial years of their junior wing school teaching were more stressed than those who were more experienced (Demjaha, T.A., et al., 2015). Some studies have also documented that workplace stress in schools is significant and high with age and education and greater in females than their male counterparts (Demjaha, T.A., et al., 2015). Organizational stress experienced by teachers varied significantly
with the change in their marital status as per some studies (Nagra, V. and Arora, S., 2013). Hence, the results of the current study are majorly supported by previous research and even witness deflections. Yet, this study holds relevance in the current scenario as it takes into consideration the prevailing academic environment in the private schools in Delhi along with filling the research gaps of earlier research studies conducted in the area of studying stress and stress management.

## 6. Conclusion

It is quite evident from the findings of this study that school teachers in the private schools in Delhi for all grades are experiencing some level of stress from low to high degree. Also, it has been concluded that the demographic variables including age, education, income and years of experience determine the stress experienced by the female teachers. Yet, this study didn't reflect marital status as a defining variable for stress among the respondents. Also, females based on these demographic features and level of stress (score) were segmented into three different categories with homogeneity within each segment. These segments reflected how the independent variables defined the response / stress management ability of the respondents.

Considering the inferences of this study, certain viable solutions would be recommended to the female teachers in the schools in Delhi in order to reduce their existing level of stress. First of all, it should be understood that mindset is everything and an individual's control system has to be guarded from within. Thus, the teachers need to strengthen themselves from within at an individual level and develop optimistic personality traits. This can be done through practicing yoga, learning mental healing exercise from experts or online media, undergoing meditation sessions and reading motivational books. In fact, teachers can form their own motivational clubs wherein they can discuss their workplace problems and serve as
each other's support system. They should get involved in learning new technology and should not consider it as an additional burden. Learning new pedagogical tools indeed turn out to be helpful in the long run in their career growth. Work-life balance attainment is a goal that is easier mentioned than achieved. Yet, female teachers should set feasible targets at both home and workplace. At family level, they should communicate with their partners and other members for role sharing. This eventually brings personal harmony and everyone feels responsible and the burden gets shared. Also, apart from the routine mechanical life, some leisure time is no crime. Thus, the female teachers should take breaks or get engaged in some relaxing activities periodically in order to feel rejuvenated and charged up with energy to perform efficiently at their workplace. Yet, in case of chronic stress, they should visit the medical practitioners and follow their advice/ treatment. Hence, stress can be managed through a commitment to self and positive attitude.

## References

1. Duggan, E. (1997). Teacher stress research: A review of the literature. Journal of Psychologists and Counsellors in Schools, 7, 125-136. Doi:10.1017/S103729110000131X
2. Chen, J.C. and Silverthrone, C. (2008). The Impact of Locus of Control on Job Stress, Job Performance and Job Satisfaction in Taiwan. Leadership and Organisation Development Journal, 29(7), 572-582.
3. Smyth, E., Healy, O. and Lydon, S. (2015). An Analysis of Stress, Burnout and Work Commitment among Disability Support Staff in the UK. Research In Development Disabilities, 47, 297-305.
4. Yan, H. and Xie, S. (2016). How does Auditors' Work Stress affect Audit Quality? Empirical Evidence from the Chinese Stock Market. China Journal of Accounting Research, 9(4), 305-319.
5. Greenberg, N., Carr, J.A. and Summers, C. H. (2002). Causes and Consequences of Stress. Integrative and Comparative Biology, 42(3),

508-516.
Doi:
https://doi.org/10.1093/icb/42.3.508
6. National Centre for Complementary and Integrative Health, U.S. Department of Health and Human Services (2019). Stress. Retrieved on 20 February, 2020 from https://nccih.nih.gov/health/stress
7. American Psychological Association (8 October, 2018). Types of Stress. Psychcentral. Retrieved on 12 January, 2020 from https://psychcentral.com/lib/types-of-stress/
8. Kelly, C. (2017). Stress in the Higher Education Sector: Causes and Yoga Mindfulness Interventions. Journal of Yoga and Physiotherapy, 3(3), 75-83. Doi: https://juniperpublishers.com/jyp/pdf/JYP.MS. ID.555613.pdf
9. Winwood P.C. and Lushington K. (2006). Disentangling the effects of psychological and physical work demands on sleep, recovery and maladaptive chronic stress outcomes within a large sample of Australian nurses. Journal of Advanced Nursing, 56, 679-689. Doi: 10.1111/j.1365-2648.2006.04055.x.
10. Feltoe, G. (22 September 2015). Sources of Teacher Stress. Teacher Magazine. Retrieved on 15 February, 2020 from https://www.teachermagazine.com.au/articles /sources-of-teacher-stress
11. Potter, P.T., Smith, B.W., Strobel, K.R. and Zutra, A.J. (2002). Interpersonal Workplace Stressors and Well- Being: A Multiwave Study of Employees With and Without arthritis. Journal of Applied Psychology, 87(4), 789-796.
12. Wangui, M.F., Ombui, K. and Iravo, M. (2016). Effect of Work-Related Stress on Teachers Performance in Public Secondary Schools in Kikuyu Sub Country, Kenya. International Journal of Science and Research, 5(5), 1645-1652.
13. Gaur,S.P. and Dhawan, N. (2000). Work Related Stress and Adaptation Pattern Among Women Professionals. Journal of Communication Guidance Research, 45 (1 and 2), 58-64.
14. Greenberg, M.T., Brown, J.L. and Abenavoli, R.M. ( 1 September, 2016). Teacher Stress and Health. The Pennsylvania State University Publisher : U.S. Retrieved on 10 February,

2020
from
https://www.rwjf.org/en/library/research/2016/ 07/teacher-stress-and-health.html
15. Selye, H. (1956). The Stress of Life. McGrawHill Book Company : New York.
16. Swanson, S. (1999). An examination of a higher order theory for sandwich beams. Composite Structures, 44(2), 169-177.
17. Rastogi, R. and Kashyap, K. (2003). Study of Occupational Stress and Work Adjustment Among Working Women. Journal of Communication Guidance Research, 20(3), 245-251.
18. Subhashini, M. and Sukumar, B.V. (2019). An Empirical Study On Stress Management Strategies Practiced By The Selected Teachers Within Their Daily Living. International Journal Of Research And Analytical Review, 6(1), 357-361. Doi: file:///C:/Users/Tanvi/Desktop/Tanuja_jnu/cha pter2/ijrar_issue_20542790.pdf
19. Aquezuilo, J.A. and Azuji, I.M. (2019). Extent of school-related stress occurrence among secondary school teachers in Anambra state: Implication for Health Counelling. International Journal of Research and Scientific Innovation, 6(5), 90-95.
20. Akinmayowa, J.T. and Kadiri, P.A (2014). Stress Among Academic Staff in a Nigerian University. Convenant Journal of Business and Social Sciences, 65(1), 73-91.
21. Converso, D., Loera, B., Molinengo, G., Viotti, S. and Guidetti, G. (2018). Not All Academics Are Alike: First Validation Of The Academics' Quality Of Life At Workscale (AQoLW). Frontiers in Psychology. Doi: https://doi.org/10.3389/fpsyg.2018.02408
22. Meng,Q. and Wang, G. (2018). Psychology Research and Behaviour Management, 597605.
23. Rajan, D.A. and Meenkashi, R. (2017). A Study on Role of Stress on Performance Among Teaching Faculty in Bengaluru City. Shaniax International Journal of Commerce, 5(1), 78-87.
24. https://isma.org.uk/wp-content/uploads/2013/08/StressQuestionnaire.pdf
25. Scott, B. S., Sliwinski, M.J. and Fields, F.B. (2013). Age differences in emotional responses to daily stress: The role of timing, severity, and global perceived stress. Psychological Aging, 28(4), 1-37. Doi: https://www.ncbi.nlm.nih.gov/pmc/articles/P MC3874135/
26. Yang, X., Ge, C., Hu, B., Chi, T. and Wang, L. (2009). Relationship between quality of life and occupational stress among teachers Public Health, 123(11), 750-755. Doi: https://www.sciencedirect.com/science/article/ abs/pii/S0033350609002753?via\%3Dihub
27. Demjaha, T.A., Minov, J., Stoleski, S. and Zafirova, B. (2015). Stress Causing Factors Among Teachers in Elementary Schools and Their Relationship with Demographic and Job Characteristics. Open Access Macedonian Journal of Medical Sciences, 3(3), 493-499. Doi:
https://www.ncbi.nlm.nih.gov/pmc/articles/P MC4877846/\# ffn_sectitle
28. Demjaha, T.A., Bislimovska, J.K. and Mijakoski, D. (2015). Level of Work Related Stress among Teachers in Elementary Schools. Open Access Macedonian Journal of Medical Sciences, 3(3), 484-488. Doi: https://www.ncbi.nlm.nih.gov/pmc/articles/P MC4877844/
29. Nagra, V. and Arora, S. (2013). Occupational Stress and Health Among Teacher Educators. International Journal of Advanced Research in Management and Social Sciences, 2(8), 1-13. Doi:
http://www.garph.co.uk/IJARMSS/Aug2013/1 .pdf

