

Occupational Stress and Coping Strategies Effect on Teacher Performance: A Comparative Analysis among Women and Men Teachers Affiliated to CBSE Schools in and around Hyderabad

KDV Prasad^{1*}, Rajesh Vaidya² and V Anil Kumar³

¹Faculty of Commerce, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur

²Assistant Professor, Department of Management and Technology, Shree Ramdeobaba College of Engineering and Management, Ramdeo Tekdi, Gittikhadan, Katol Road, Nagpur – 444 013 (Maharashtra State), India

³Visiting Scientist, Bioinformatics and Statistics, ICRISAT, Hyderabad, India

Abstract: A comparative analysis among Women and Men CBSE affiliated school teachers was carried out to assess the occupational stress, coping strategies and its effect on teacher performance. A survey of 300 CBSE affiliated school teachers consisting of 200 Women and 100 Men from in around Hyderabad carried out to assess the nine independent occupational stress causing factors Work Overload, Role Overload, Role Ambiguity, Students Behaviour, Co-workers, School Environment, Social Support and effect of Approach and Avoidance coping strategies on employees' Performance a dependent factor. To measure the reliability of the scale used in this study, and internal consistencies of the survey questionnaire, the reliability statistics Cronbach's alpha (C-Alpha) was measured. The overall C-Alpha value is 0.81 and 0.71 and 0.80 for Women and Men respectively; whereas and the C-Alpha values ranged from 0.70 to 0.82 for Women and from 0.68-0.87 for Men for all the nine independent factors, and one dependent factor. Health-wise, some teachers developed chronic leg pains due to mild varicose vein disorders may be because of continuous standing while teaching, and we observed statistically significant differences with relation to among Women and Men on occupational stress, coping strategies and effect on performance.

Keywords: Teacher occupational stress, Performance, Cronbach's alpha, Regression

I. Introduction

The occupational stress or job stress is common across the globe for working women and men and is unavoidable. In Hyderabad Metro and surroundings around 200 of CBSE affiliated schools function at primary, secondary and high school and the strength of the teachers vary from 15-40, totaling roughly 5000 teachers in which about 70% are Women teachers. The present survey undertaken in the CBSE affiliated private schools in and around Hyderabad. The schools need to generate the revenue for running the school including salaries and operational costs. The schools in Hyderabad face intense competition among them and the onus is on school management to provide best and quality education, security of child and state of the art school infrastructure to attract the student parents to withstand the competition.

Hans Selye an Austrian born Endocrinologist first introduced the concept of stress in to the life sciences in 1936. Stress is man's adaptive reaction to an outward situation which would lead to physical, psychological and behavioral changes. An individual can experience stress from the four basic sources, the environment, social stressors, physiological and thoughts [1]. The modernization, urbanization, globalization and liberalization which resulted in stiff competition lead to the increased stress. Occupational stress is inescapable for the employees as work place is becoming a volatile stress factory for most employees – the as the Age of anxiety. However, not all the stresses are destructive in nature. Reasonable amount of stress can actually trigger one's passion for work, taps the latent abilities and even ignite inspirations. Occupational stress is a dynamic condition at work place where an individual is confronted with an opportunity, demand, or resource related to what the individual desired and for which the outcome is perceived to be both uncertain and important [2]. The General Adaptation Syndrome has been widely held has a comprehensive model to explain the stress phenomenon [3].

Stress in School Teachers

In the recent past, the stress experienced by teachers has become an interesting aspect in India. The school environment, several activities within the school, lack professionalism, work load, lack of benefits, income level time pressures are some of the important factors [4]. Teachers also facing the problem of occupational stress and according to Kristensen [5] up to 40% of the teachers are suffering from under extreme stress or burnout, in European countries. In India, 42% of teachers showed high to very high level of stress among the female teachers. The time invested on students, colleagues, school politics and management create

emotional, psychological and occupational difficulties in the school teaches [6]. The burnout is another common syndrome effects the teachers on their performance and generate lot of occupational stress because of emotional exhaustion, depersonalization and lack of personal accomplishment [7]. Burnout is one of the major reasons that teachers turnout in teaching profession that results in added costs in training and hiring in the field of education.

Ravichandran and Rajendran[8] reported higher level of stress among female teachers on perceived personal stress in Chennai Metro. The Teacher Stress inventory toll which measures eight different factors namely Personal stress, Teaching assignments, Personal expectation, Teaching evaluation, Lack of support from parents and others, Facilities available at school, Organizational Policy and Parental expectations was used in this study. No genders differences were found on any other factor except Teaching Assignment and Teachers' qualification was also found to be significantly associated with the stress. Age differences were found on factors Personal Stress, Teaching Evaluation, Facilities available at school and Organizational Policy Experience only. Differences based upon type of school were found on Facilities Available at School, Facilities Available at School, Organizational Policy Experience and Parental Expectations [8].

II. Review of Literature

Occupational Stress in Teachers

NomitaPunia and Shanti Balda[9] in their reported that majority of the teachers working in Central Board of School Education (CBSE) experience moderate level of stress due to role overload, role ambiguity, role conflict, lack of control, poor peer relations, and strenuous working conditions. A study among working professions concluded that teachers and nurses experience more stress due to work overload heavy demands for other assignments [10]. Bakhshi et al. found that 40% of university teachers had a high occupational stress. In the study, occupational Stress Inventory was used to measure stress. Occupational stress was found to affect household activities [11]. GhodsyAhghar[12] (2008) studied the influence of organizational climate in occupational stress among secondary school teachers in Tehran and reported that among the teachers working in the disengaged and closed climate, the rate of occupational stress significantly higher than the teachers working in the open climate.

In a study on occupational stress and coping strategies of Matriculation school teachers working in Thanjavur of Tamil Nadu the authors observed maximum level of stress from that work place perceived by 25 to 35 years aged respondents. The study further reported that female teachers were more prone to occupational stress than male teachers. It was also observed that the married teachers have felt maximum level of occupational stress from their family than unmarried respondents and most of the teachers who have below 3 years of working experience have using the stress relieving techniques at the maximum level [13]. No significant differences were indicated regarding occupational stress among teacher educators in relation to gender, and subject streams while significant results were observed in relation to nature of job [14] [15] (VipinderNagra, 2013. MariyaAftab and TahiraKhatoon (2012) reported the demographic differences and occupational stress of secondary school teachers in a population of 608 teachers from 42 schools of Uttar Pradesh (India). The results of this study reveal, nearly half of the secondary school teachers experience less stress towards their job and males display more occupational stress towards job than the females. Moreover, the trained graduate teachers are found to have higher occupational stress than post-graduate and untrained teachers. Teachers with an experience of 6-10 years face occupational stress the most, and 0-5 years the least; while those falling in the remaining two groups slide in between these two. Further, there no significant differences between monthly salaries, subjects taught, marital status and occupational stress of secondary school teachers.

Ansarun Hasan [16] using a study of occupational stress of primary school teachers observed that the primary school teachers have found to be highly stressed. Moreover, the private primary school teachers have also found to be highly stressed in comparison to their government primary school teacher counterparts. A study reported that teachers exhibit moderate degree of occupational stress. Stress is present among teachers at all levels of experience, though differences exist in stress levels based on length of service or based on gender. Differences in stress levels were identified based on grade level taught, with elementary school teachers exhibiting higher levels of stress than did middle school or high school teachers [17]. Smith Kasee[18] concluded that specific demographic characteristics showed preferences for utilizing specific coping mechanisms. Significant relationships existed between specific coping mechanisms and age, length of teaching career, and type of certification, and hours spent on teaching and teaching-related tasks. Jeyaraj [19]observed that there is a meaningful difference in the stress level points of Government and Aided Higher Secondary Teachers and that teachers who reported greater stress were less satisfied with teaching, reported greater frequency of absences and a greater number of total days absent, were more likely to leave teaching (career intention), and less likely to take up a teaching career again (career commitment). Amit Kauts and Vijay Kumar [20] examined studying the influence of the emotional intelligence, age and qualification on the occupational stress of the teachers working in Jalandhar and Ludhiana districts of Punjab, India. Using a multi-stage random

sampling method, a sample volume of 739 teachers and reported that the emotional intelligence, role ambiguity and role boundary and qualification has significant influence of occupational stress.

Stress in General

The psychological stressors influence the health through emotional, cognitive, behavioural and psychological factors [21]. The role ambiguity, role overload, role conflict, lack of resources and strenuous working conditions have positive relations and are the common causes of the stress [22]. The type of work assigned to an employee is also one of the stress factor and those engaged in work related to them able to cope the stress better than those who are assigned unrelated work [23]. Cooper and Marshall [23] are of the view that by occupational stress is meant environmental factors or stressors such as work overload, role conflict, role ambiguity, and poor working conditions associated with a particular job [24].

Several theories were proposed to stress and its effects. Osipow and Spokane [25] described six work roles that they felt were stressful regardless of an individual's actual vocational choice. Role Overload (RO) —measures the extent to which job demands exceed resources (personal and workplace) and the extent to which the individual is able to accomplish workloads [26]. Role overload can result in an employee experiencing anger and frustration toward persons believed responsible for the overload in work [27]. Cercarelli and Ryan [28] indicated that, fatigue involves a diminished capacity for work and possibly decrements in attention, perceptions, decision making, and skill performance, perhaps must simply put, fatigue may refer to feeling tired, sleepy, or exhausted [29].

Role ambiguity is the degree to which clear information is lacking, the expectation associated with a role and method for fulfilling known role expectations; finally) the consequences of role performance [30], [31]. The occupational stress can be caused by role ambiguity appear to cause lower productivity, tension, dissatisfaction, and psychological withdrawal from the work group [32].

A study on causes of stress among the employees and its effect on the employees' performance at the workplace in an international agricultural research institute at Hyderabad Metro reported moderate impact on employees performance of the institute [33]. A comparative study on the cause of stress among the employees in IT sector with reference to International Agricultural Research Institute, Hyderabad reported that the job related stress in general and the stress factor job security in particular effects the employee performance in IT sector [34].

III. Objectives and Hypothesis

3.1 Background and cause for the study: A wide range of studies on occupational stress and its related effects were carried out in Information Technology, Banking and Industrial sectors. As stress is common for all the employees irrespective of the area work, the authors pursued this study surveying the teachers working in CBSE affiliated private schools in and around Hyderabad Metro.

3.2 Research question:

Is the teacher performance is related to occupational stress and coping?

3.3 Objective:

- To study if there are any significant differences in teachers performance in relation occupational stress and coping working with CBSE affiliated school teachers among Women and Men teachers

Based on the identified problem, research question and the objectives the following hypotheses were formed:

H₀₁: There are no significant differences in the Performance of CBSE affiliated school teachers in relation to occupational stress and coping among Women and Men teachers

H₁₁: There are significant differences in the Performance of CBSE affiliated school teachers in relation to occupational stress and coping among Women and Men teachers

H₀₂: There are no significant differences in Occupational stress of CBSE affiliated schoolteachers with relation to coping among Women and Men teachers.

H₁₂: There are significant differences in Occupational stress of CBSE affiliated schoolteachers with relation to coping among Women and Men teachers

H₀₃: There are no significant differences in Occupational stress of CBSE affiliated school teachers with relation to age, gender, level of education, experience and non-teaching activities among Women and Men teachers.

H₁₃: There are significant differences in Occupational stress of CBSE affiliated school teachers with relation to age, gender, level of education, experience and non-teaching activities among Women and Men teachers.

H₀₄: Occupational stress more in Men CBSE affiliated school teachers

H₁₄: Occupational stress more in Women CBSE affiliated school teachers.

IV. Research Methodology

Conceptual Framework: The proposed framework was adopted based on the past research by Selye[34], and Prasad *et al.* [33]-[34]. The independent stress causing factors Stress Causing factors Workload, Role Overload, Students Behaviour, School Environment, Social Support and Coping Strategies Approach Coping and Avoidance coping and dependent variable Teacher Performance. The following frame work is formulated on the objectives to be achieved shows the linkages of the factors in this study (Figure 1).

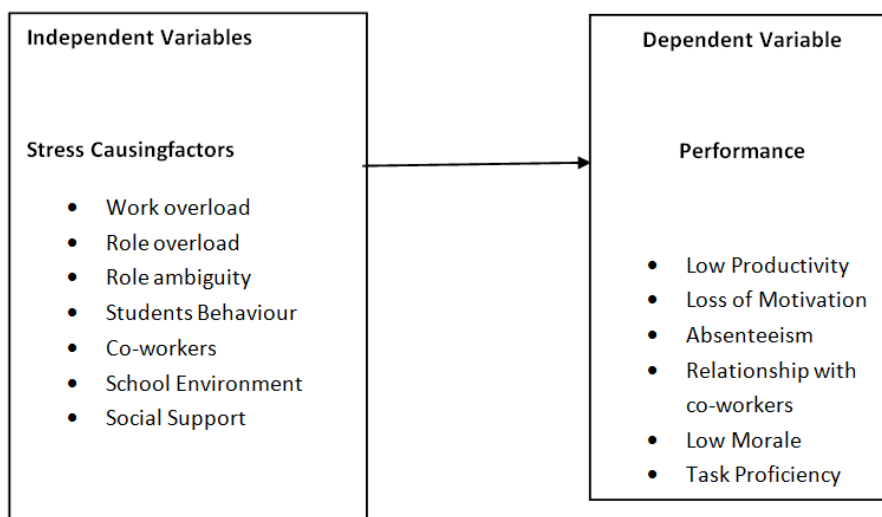


Figure 1: Conceptual Framework

Sample Size: A sample size of 300 was selected using simple random sample sampling where each member of the subset has an equal probability of being chosen and data from 300 respondents was used for the analysis. The demography of sample presented in Tables 1 & 2.

Gender	Frequency	Percent
Women	200	66.67
Men	100	33.33
Total	300	100

Source: Primary data

Age Group	No of respondents
20-29	87
30-34	83
35-39	70
>40	60

Source: Primary data

Research Instrument for data gathering: The research instrument used for the survey is a structured undisguised questionnaire using three scales – a) Occupational stress scale based on occupational stress index (OSI) developed by Srivastava AK and Singh AP [36] which has 49 statements including 10 reversed keyed statements covering 7 factors with five Likert scale ranging from Strongly agree (5) to Strongly disagree (1); Performance scale based on Higher-Order performance Dimensions model proposed by Campbell [37] which has 20 statements covering 7 factors using a 5 point Likert scale with values ranging from 1 to 5. The scores range from 5 (strongly agree to 1 (strongly disagree). The statements consists of 15 true keyed and 5 reverse keyed. The coping strategies scale constructed and standardized by AK Srivastava [38] has 20 statements describing the 7 factors Approach and Avoidance copings using a Likert scale with 5 (Almost Always) and 0 (Never) are main source for the primary data collection. Secondary data was collected from various published books, websites and records pertaining to the topic. The questionnaire was divided into 2 sections – in the Section I, Demographic variables like age, sex, number of years of experience, highest qualifications and other background information/personal details of the respondent were collected. The Section II of questionnaire was used to find out the stress levels of the employees, coping strategies and impact of the stress on performance as described above. To measure each factor, a range of 5-20 statements were given but all these questions were mixed systematically and the factors and their items listed in Table 3.

Table 3 Stress causing factors and performance factors used in the study

Factor	Factor	Items (the number indicates no of statements
1	Work overload	10: Number of hours, class size, result percent, enrollment, post school assignments, number of meetings, lesson planning
2	Role Overload	10: Too many expectations, role conflict with dual roles, conflict at home and work, etc.
3	Role Ambiguity	5: Unclear explanation of role, confusion, too many untrained assignments, etc.
4	Students Behaviour	5: Student knowledge, conflicts, classroom behavior, questions, understanding
5	Co-workers	4: Factors Relationship with co-workers, stalking
6	School Environment	10: Lighting, Ventilation, teaching aids, library, clean toilets, communication, library, computer, transport, security
7	Social Support	5: Support from co-workers, Spouse, Emotional, Instrumental, Informational and Appraisal supports
8	Approaching coping	10: Confront, Plan, Impulsive decision, alternative solutions, console, scheduling action plan, etc.
9	Avoidance Coping	10: Leave, Off to sleep, smoking, alcohol, excessive eating, escaping, withdrawal, resignation, etc.
10	Performance	20: Low productivity, loss of motivation, absenteeism, relationship with co-workers, task proficiency, personal discipline.

Data Analysis: In our empirical investigation we have applied statistical techniques to analyze the data for drawing inductive inferences from our research data. To ensure the data integrity the authors have carried out necessary and appropriate analysis using relevant methods on our findings. The descriptive statistics are used to summarise the data and to investigate the survey questionnaire, formulating the hypotheses the inferential statistics were employed. To measure the central tendency such as means, variance and standard deviation we used the dispersion methods.

Reliability methods: To measure the internal consistency, reliability of our research instrument, the survey questionnaire, and to maintain similar and consistent results for different items with the same research instrument, we used the reliability methods Cronbach's alpha. The Cronbach alpha is an index of reliability that may be thought of as the mean of all possible split-half co-efficient corrected by Spearman-Brown formula [39] and subsequently elaborated by others [40] [41]. The estimated values of the Cronbach's alpha are indicated in Table-4. The Statistical Package for Social Sciences (SPSS ver. 24) was used to measure the central tendency, measures of variability, reliability statistics, and to predict the dependent factor PAS based on independent factors the multinomial logistic regression analysis carried out (IBM SPSS Statistics, 2016).

Formula for Cronbach's Alpha (C-alpha can vary between 0.00 and 1.00)

$$r_{\alpha} \left(\frac{N}{N-1} \right) \left(1 - \frac{\sum \sigma_j^2}{\sigma^2} \right)$$

Where r_{α} is coefficient alpha; N is the no of items; σ^2 variance of items

$\sum \sigma_j^2$ is sum of variances of all items and σ_j^2 is the variance of the total test scores

Reliability test of the Questionnaire: The outcome of the survey was measured using a Likert-type scale with items 1-5 for all the questionnaires. In case of performance a 5 point Likert type scale was used. The reliability statistic Cronbach's alpha coefficient value (C-Alpha) was calculated to test the internal consistency of the instrument (appraisal form in this study), by determining how all items in the instrument related to the total instrument [42]. This instrument was tested with the data of 50 employees and using SPSS the Cronbach alpha static was measured at 0.78, suggesting a strong internal consistency. Three months later, keying data for all the 300 teachers the overall C-alpha measured at 0.87 and it ranged from .069 to 0.87 for Men and 0.70 to 0.82 for Women for the all independent and 1 dependent factors (Table 4).

A second reliability measure called Spearman Brown Split-Half Reliability Coefficient and Spearman Brown Prophecy were computed to assure the overall reliability of the scale items. The obtained overall Spearman Brown Split-Half Reliability was 0.86 and Spearman-Brown Prophecy was 0.90 suggesting strong reliability of the instrument. In the Table 4 we have presented the computed C-Alpha Static, for factors in the study [43].

The Statistical Package for Social Sciences Version 24 was used to measure the central tendency, measures of variability, reliability statistics, correlations, parametric tests and to predict the dependent factor training program effectiveness based on independent factors multiple regression analysis carried out (IBM SPSS Statistics, 2016).

Table 4 Cronbach's alpha values for factors used in this study

Sl. No	Factor	Cronbach's alpha	
		Women	Men
	Overall independent Stress Factors (1-9)	0.82	0.76
1	Work overload	0.80	0.72
2	Role overload	0.70	0.84
3	Role Ambiguity	0.72	0.87
4	Students behavior	0.81	0.71
5	Co-workers	0.70	0.73
6	School environment	0.78	0.74
7	Social support	0.70	0.70
8	Approach coping	0.72	0.71
9	Avoidance coping	0.78	0.69
10	Performance	0.76	0.77
Overall: C-alpha: 0.87; Women: 0.81; Men: 0.80 Split-Half (odd-even) Correlation: Women: 0.84and men 0.80; Spearman Brown Prophecy: women 0.90; Men 0.86 Source: Primary Data			

The Mean, Standard Deviation and Standard Error in mean responders on factor scale for all the nine stress causing independent factors and dependent factor Performance were estimated and presented in Table 5. The overall mean and standard deviation was estimated from the responses. The overall mean was 3.00 and standard deviation was 0.6. Based on this Occupational stress score for Low, Medium and High stress determined (Tables 5 & 6).

Table 5 Determination of the level of occupational stress Mean and Standard deviation (Over all)

Mean	Standard Deviation
$\bar{X} = 3.00$	$\sigma = 0.6$

For a nearly symmetric distribution, the expected range will be 6 times of standard deviation (σ) and better approximation makes it a normal distribution. For our research data the observed range is in near normal distribution and is nearly equal to the 6 times of standard distribution [44] [45]. In our study the sources of occupational stress has 69 questions where in 20 questions are reverse keyed and range values for these questions are between 1 and 5, hence, the minimum range 69 (1*69) and the maximum range value is 345(5*69) the range is the difference between minimum and maximum values – 281 for 64 questions. After adjusting the values of reverse keyed questioned of our study the overall range is 3.42 which is near to the 6 time standard deviation (0.6).

From the above Mean, the standard deviation is added and the maximum ceiling for the higher stress is set. The difference between mean and standard deviations calculated to find out the minimum ceiling for low level of occupational stress. The level between minimum and maximum is set as medium occupational stress level.

Table 6 Rating of the Score for occupational stress

Total rating range of the score	Level of influence
$(\bar{X} + \sigma) = 3.00 + 0.6 = 3.6 (> 3.60)$	High Level
$(\bar{X} - \sigma) = 3.00 - 0.6 = 2.40 (< 2.40)$	Low level
2.40 to 3.60	Medium Level

V. Results

To assess the independent stress factors effect on the dependent factor Performance based on nine independent factors – the Work overload, Role Overload, Role Ambiguity, Students Behaviour, Co-workers, School Environment, Social Support, Approaching coping and Avoidance Coping and the dependent factor Performance, the primary data gathered through questionnaire was analyzed. The stress and its effect on performance was determined by the independent factors and the dependent factor performance was measured by low productivity, demotivation, absenteeism, relationship with co-workers, low morale, task proficiency and personal discipline. The calculated Mean, Standard Deviation and Standard Error Values for men and women, for the primary data collected from the respondents (n=200, women and n=100, men) are presented in the Table 7. From the results of Table 7, it was observed that the objective to find out the source and level of stress is fulfilled and the results also indicate that the stress exists among the employees of the both the stressors and effects performance at medium level. The estimate overall SE of 0.07 and 0.05 respectively for men and women are relatively small, indicating that the means are relatively close to the true mean of the overall population.

The overall mean value of stress and mean values for all the nine factors indicates a medium level stress and these values and falls under the range 2.40 to 3.60 effecting the employees performance moderately (Overall stress = 3.0) with the stress factor Role overload scored higher (Table 7).

Table 7 Mean, Standard Deviation and Standard Error in mean responders on factor scale

Dimensions	Mean	SD	SE	Level of stress as per the rate of scoring
Work overload				
Women	3.19	0.64	0.08	Medium
Men	3.16	0.58	0.06	Medium
Role overload				
Women	2.97	0.68	0.09	Medium
Men	3.10	0.64	0.08	Medium
Role Ambiguity				
Women	3.10	0.50	0.07	Medium
Men	2.94	0.48	0.06	Medium
Students behavior				
Women	3.08	0.62	0.08	Medium
Men	2.94	0.57	0.06	Medium
Co-workers				
Women	3.25	0.52	0.08	Medium
Men	3.09	0.46	0.06	Medium
School environment				
Women	3.18	0.59	0.07	Medium
Men	3.19	0.46	0.04	Medium
Social support				
Women	3.11	0.69	0.03	Medium
Men	2.92	0.72	0.04	Medium
Approach coping				
Women	3.02	0.75	0.09	Medium
Men	3.14	0.64	0.08	Medium
Avoidance coping				
Women	3.01	0.40	0.06	Medium
Men	3.02	0.30	0.03	Medium
Performance				
Women	2.14	0.43	0.05	Medium
Men	2.01	0.44	0.06	Medium
Overall Stress				
Women	3.12	0.62	0.07	Medium
Men	3.04	0.44	0.05	Medium

Source: Primary data

Correlation Studies: The results of the correlation studies indicated that performance is negatively correlated with the occupational stress among both Women and Men and there is a positive correlation between coping strategies with occupational stress and coping strategies negligible influence on performance (Table 8). As the correlations reveal only the relationships among the variables and with the available data one cannot conclude that the statistically significant different exist among the variables. To know the type of relations among the variable the Multiple Regression Analysis was carried out.

Table 8. Bivariate product movement correlation between occupational stress, approach coping, avoidance coping and performance (women and men)

	Performance	Occupational Stress	Approach Coping	Avoidance coping
Women				
Performance	1			
Occupational Stress	-0.07	1		
Approach Coping	0.003	.566**	1	
Avoidance Coping	0.013	.480**	0.049	1
Men				
Performance	1			
Occupational Stress	-0.083	1		
Approach Coping	0.001	.549**	1	
Avoidance Coping	-0.03	.518**	0.073	1

** . Correlation is significant at the 0.01 level (2-tailed).

From the model summary it can be observed that R value indicate that the 22% variance in the performance of the teachers for Women and the variance is nearly 9% for Men (Table 9).

Table 9. Model Summary – Stress causing factors vs performance (women teachers)

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Women	.508 ^a	.258	.223	.4014
Men	.403 ^a	.162	.089	.4349

a. **Predictors:** (Constant), Role overload, Work overload, Role Ambiguity, Co-workers, Student Behaviour, Social support, School Environment, Avoidance Coping, Approach coping

The Analysis of Variance (ANOVA) results are presented in Table 10.

Table 10. ANOVA summary of Summary – Stress causing factors vs performance – Women and Men teachers ANOVA^a

Model (Women)		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.674	9	1.186	7.359	.000 ^b
	Residual	30.620	190	.161		
	Total	41.294	199			
Model (Men)		Sum of Squares	Df	Mean Square	F	Sig.
2	Regression	3.334	8	.417	2.204	.034 ^b
	Residual	17.210	91	.189		
	Total	20.544	99			

a. Dependent Variable: PERFORM

b. Predictors: (Constant), Role overload, Work overload, Role Ambiguity, Co-workers, Student Behaviour, Social support, School Environment, Avoidance Coping, Approach coping

From the results of ANOVA the test statistic is the F value of 7.359 and 2.204 for men. Using an α of 0.05, we have $F_{0.05; 9, 190} = 1.929$. Since the test statistic is much larger than the critical value, conclude that there is a (statistically) significant difference among the Women and Men population means the p-value for 9.59 is 0.00325, so the test statistic is significant at that level.

Multiple Regression Analysis

The multiple regression analysis to predict the value of a dependent variable outcome, Performance based on the value of 9 said independent variables, and to measure the cause and effect relationship between the independent and dependent variables (Table 11). The model indicate that except Role Ambiguity and avoidance coping strategies has significant influence on the dependent variable Performance for Women. In case of Men only the independent factors role overload and role ambiguity has significant influence on the performance. If we consider variable Work overload one unit increase in work overload, we expect 0.290 units decrease in performance for Women and 0.163 units in case of men assuming all other variables are held constant. To compare the strength among the coefficients the standardized beta coefficient values computed. For women the approach coping strategies has highest beta value (0.167) whereas Role overload the lowest (-0.262). For Men Approaching strategies has highest beta value (0.197) and work overload the lowest (-0.394). Considering the beta value of Role Overload for Women and Men one standard deviation increase in Role overload decreases the 0.262 standard deviation performance in case of Women, and 0.394 standard deviation in case of men with other variables held constant, and so on.

Performance:

$$\text{Women} = 3.591 - 0.290_{\text{Wokoverload}} - 0.170_{\text{Roleoverload}} - 0.30_{\text{Roleambiguity}} - 0.181_{\text{Studentbehaviour}} - 0.158_{\text{Co-workers}} + 0.153_{\text{SchoolEnvironment}} + 0.144_{\text{SocialSupport}} + 0.168_{\text{ApproachCoping}} - 0.095_{\text{AvoidanceCoping}}$$

$$\text{Men} = 3.194 - 0.163_{\text{Wokoverload}} - 0.096_{\text{Roleoverload}} - 0.275_{\text{Roleambiguity}} - 0.080_{\text{Studentbehaviour}} - 0.103_{\text{Co-workers}} + 0.114_{\text{SchoolEnvironment}} + 0.151_{\text{SocialSupport}} - 0.80_{\text{ApproachCoping}} + 0.164_{\text{AvoidanceCoping}}$$

Table 11. Results from the multiple regression analysis
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
Women	(Constant)	3.591	.331		10.841	.000	2.938	4.245
	WOL	-.290	.052	-.394	-5.532	.000	-.393	-.187
	ROL	-.170	.043	-.281	-3.930	.000	-.255	-.085
	RAMB	-.030	.070	-.031	-.426	.670	-.167	.108
	STDBEH	-.181	.053	-.295	-3.439	.001	-.285	-.077
	COW	-.158	.064	-.176	-2.470	.014	-.284	-.032
	SCHENV	.153	.051	.240	2.996	.003	.052	.253
	SOCSUP	.144	.056	.204	2.577	.011	.034	.254
	APPR	.168	.066	.197	2.539	.012	.037	.298
Men	(Constant)	3.194	.497		6.421	.000	2.206	4.183
	WOL	-.163	.066	-.262	-2.449	.016	-.294	-.031
	ROL	-.096	.106	-.099	-.907	.367	-.305	.114
	RAMB	-.275	.078	-.426	-3.545	.001	-.429	-.121
	STDBEH	-.080	.093	-.094	-.861	.391	-.265	.105
	COW	.103	.074	.158	1.387	.169	-.044	.250
	SCHENV	.114	.088	.153	1.296	.198	-.061	.288
	SOCSUP	.151	.106	.167	1.418	.160	-.060	.362
	APPR	-.080	.087	-.097	-.915	.362	-.252	.093
	AVOID	.164	.060	.137	2.139	.011	.037	.218

a. Dependent Variable: PERFORM
b. Predictors: WOL: Work overload; ROL: Role overload, RAMB: Role Ambiguity; COW: Co-workers, STDBEH: Student Behaviour, SOCSUP: Social support; SCHENV: School Environment; AVOID: Avoidance Coping, APPR: Approach coping

The multiple regression analysis carried out on overall stress, approach and avoiding strategies versus performance. The results indicate the overall occupational stress has significant influence on performance for both the women and men, for women there is no statistically significant influence of coping strategies on performance, however Avoidance coping strategies has some influence on performance among men (Table 12)

TABLE 12. Results from Multiple Regression Analysis: Occupational Stress, Approach Coping and Avoidance Coping versus Performance
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Women	(Constant)	2.403	.361		6.662	.000
	Occupational Stress	-.251	.157	-.164	-1.594	.002
	Approach Coping	.078	.077	.091	1.011	.313
	Avoidance Coping	.072	.070	.088	1.030	.304
Men	constant	2.511	.540		4.651	.000
	Occupational Stress	-.232	.234	-.147	-.992	.024
	Approach Coping	.071	.115	.079	.621	.536
	Avoidance Coping	.033	.102	.041	.326	.745

a. Dependent Variable: PERFORM

Therefore, we reject the null hypotheses

H₀₁: There are no significant differences in the Performance of CBSE affiliated school teachers in relation to occupational stress and coping among women and men teachers;

H₀₂: There are no significant differences in Occupational stress of CBSE affiliated schoolteachers with relation to coping among women and men teachers.

H₀₃: There are no significant differences in Occupational stress of CBSE affiliated school teachers with relation to age, gender, level of education, experience and non-teaching activities among women and men teachers and accept the alternate hypotheses

H₁₁: There are significant differences in the Performance of CBSE affiliated school teachers in relation to occupational stress and coping among women and men teachers;

H₁₂: There are significant differences in Occupational stress of CBSE affiliated schoolteachers with relation to coping among women and men teachers; and

H₁₃: There are significant differences in Occupational stress of CBSE affiliated school teachers with relation to age, gender, level of education, experience and non-teaching activities among women and men teachers.

We applied Chi-square test for independence is applied as the data has two categorical variables from a single

population to determine where there is significant association between two variables Women and Men experiencing occupational stress. The Chi square test was also used to compare the occupational stress and among Women and Men CBSE affiliated school teachers. The rest revealed statistically significant differences between Women and Men teachers in respect of level of occupational stress as the calculated value of X^2 27.4874 of at 2,(5.9915) at 0.05% level is greater than the table value and $p < 0.0001$ is less than the significant level (0.005), therefore we reject the null hypothesis

H₀₄: Occupational stress more in Men CBSE affiliated school teachers and accepted the alternate hypothesis

H₁₄: Occupational stress more in Women CBSE affiliated school teachers (Table 13).

Table 13. Frequencies of occupational stress with the demands of work (Significant at 0.05)

Gender	Frequency	Low	Medium	High	Total	X^2	P Value
MALE	F	5381	7037	2782	15200	27.4874	0.00001
	%	35.4	46.3	18.3	100		
Female	F	2955	3367	1278	7600		
	%	38.9	44.3	16.8	100		
Total	F	8336	10404	4060	22800		
	%	36.56	45.64	17.8	100		

VI. Discussion

The primary data gathered to structured undisguised questionnaire with 89 questions which were sub-divided into 16 factors (7 stress causing factors, 2 coping factors and 7 performance factors) based on their characteristic grouped as stress causing factors, coping factors and performance factors. These findings include the two extremes of the Likert scale given in the analysis i.e. strongly disagree and strongly agree. The results when compared with gender indicated that there were statistically significant differences among the women and men. This is line with the similar study conducted by Yahaya *et al.* and Sumathi and Nandagopal[44]-[45].

The research did find significant differences between the more experienced and less experienced respondents, and the teachers who possess required qualification and who do not possess required professional qualifications. The more experienced teacher with desired qualifications will experience less occupational stress and when compared to less experienced and who do not possess the required qualifications.. The medium level stress exists at workplace and this need to be addressed to further improve performance. However given the nature and scope of the study, there are some limitations to this study.

Survey research will have some problems associated with its use as these are self-reported instruments may not be complete and reliable. However it can be reported that a strong internal consistency of the instrument was confirmed by both Cronbach's alpha and Spearman-Brown split-half reliable static at overall and at independent level using ordinal data. A major limitation to the interpretation of the results is with the instrument i.e. survey questionnaire. The questionnaire was distributed circulating hard copies to the teachers of the CBSE affiliated schools, and we expect some biasedness because of the school environment. The researcher has no idea whether who has filled the form for same cases. The author can be only make guess based on their age. The authors observed the similar answers from the hard copies received from the pilot study and final survey with insignificant differences. .

VII. Conclusion

In the age of dynamic and competitive world, the mankind is exposed all kind of stresses as the stress is found in all the sectors. This research study was aimed at to study the impact of occupational stress on the employee performance at the workplace. All most all the factors mean value is within the range of 2.40-3.60 which shows medium level stress exists in the workplace of school teachers. The result further indicates that coping strategies is one of the method to fight the stress. These issues need to be addressed by the management of the s by Ergonomics to understand the interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance. To avoid role conflict proper strategies need to be developed considering working on flexible hours, interpersonal relationship and supervision and participation of the employees in the stress management may be helpful to cope the stressors.

VIII. Recommendations

Stress issue has become contemporary, being an occupational hazard and needs to be addressed without delay. There is no "one size fits all" solution to managing stress, because it is the individual who has the still have control over lifestyle, thoughts, emotions, and the way one deal with the problems.

Individual management: Some of the unhealthy methods and which reduce stress temporarily are: smoking, drinking, using pills for relax, drinking too much, sleeping too much and out bursts.

Give up complaining and blaming: Accept constructive criticism which will be helpful to improve your performance. Spend time with those who talk about ideas Find out the happiest and most intelligent people at your workplace and try meeting them on a regular basis. Give up the distractions: Learn to conserve your emotional energy. Walking will increase the heart rate and relive you from the stress. Activities that are continuous and rhythmic—and require moving both your arms and your legs—are especially effective at relieving stress (Walking, running, swimming, and aerobic classes are good choices. One should try to make a conscious effort to focus on body and the physical (and sometimes emotional) sensations experienced while moving. In addition to regular exercise, there are other healthy lifestyle choices that can increase your resistance to stress. Having a healthy diet, reducing caffeine and sugar, avoid alcohol, cigarettes and drugs may relieve the stress.

Organizational level: The management of the organization should also take the responsibility of employees' stress conducting stress management and coping programs for the teachers. The organization should start employee motivation programmers, yoga and meditation. If employees are given control the job they perform, there will be job satisfaction and high quality of work, as the employee himself takes the decisions and organizes his work at optimal level. Flexible working hours, work redesign, appropriate training on the new technologies, decentralized decision making, regular health checkups will definitely help to overcome the problem of the stress. The job related issues – job insecurity need to be addressed amicably. The commonsense remedies like more sleep and eating better, find more suitable job are some suggestions. As the stress is individual oriented one himself/herself should develop the coping strategies adjust his/her life-style and food habits.

Acknowledgment

The Corresponding is grateful to all the CBSE affiliated school teachers in and around Hyderabad for filling up the questionnaire voluntarily and thanks are due to the schools management.

References

- [1]. Matthews, G. (2001). Levels of transaction: A cognitive science framework for operator stress, In PA Hancock & PA Demond (Eds.), *Stress, Workload and Fagigue*, Mahwah: NJ Erlbaum. Pp 5-33.
- [2]. Schuler, R.S. (1980). Definition and conceptualization of stress in organizations. *Organizational Behaviour and Human Performance*, pp. 189.
- [3]. Seyle, H. (1956). "The Stress of Life", New York: McGraw-Hill
- [4]. Mearns, J., & Cain, J.E. (2003). Relationships between teachers' occupational stress and their burnout and distress: Roles of coping and negative mood regulation expectancies. *Anxiety, Stress and coping*, 16, 71-82.
- [5]. Kristensen, T.S., Borritz, M., Villadsen, E., and Christensen, K.B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. *Work and Stress* 19, 192-207.
- [6]. Van Horn, J. E., Schaufeli, W. B., & Taris, T. W. (2001). Lack of reciprocity among Dutch teachers: Validation of reciprocity indices and their relation to stress and well-being. *Work and Stress*, 15, 191- 213. doi:10.1080/02678370110066571
- [7]. Montgomery, C., & Rupp, A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education*, 28, 461-488. doi:10.2307/4126479.
- [8]. Ravichandran R, Rajendran R. (2007). Perceived Sources of Stress among the Teachers. *Journal of the Indian Academy of Applied Psychology* 33, 133-36.
- [9]. NomitaPunia and Shanti Balda. (2016). Occupational stress among teachers in different cultural zones of
- [10]. Chan, D. W. (1998). Stress, Coping strategies, and psychological distress among secondary school teachers in Hong Kong. *American Educational Research Journal*, 35, 145-163.
- [11]. Bakhshi R, Sudha N, Sandhu P. Impact of Occupational Stress on Home Environment: An Analytical Study of Working Women of Ludhiana City. *J. Hum. Ecol.* 2008; 23: 231-5.
- [12]. GhodsyAhghar. (2009). The role school organizational climate in occupational stress among secondary school teachers in Tehran. *International Journal of Occupational Medicine and Environmental Health* 21(4), 319-329.
- [13]. Karthikeyan, P and Babu S. (2016). Occupational stress and coping strategies of Matriculation school teachers working in Thanjavur of Tamil Nadu. *International Journal of Applied Research* 2016; 2(3): 614-617.
- [14]. VipenderNagra. (2013). Occupational stress among teacher educators. *Global Online Electronic International Interdisciplinary Research Journal*, Volume-II, Issue-II , 12-23.
- [15]. MariyaAftab and TahiraKhatoon. (2012). Demographic differences and occupational stress of secondary school teachers. *European Scientific Journal* 8(5), 159-175.
- [16]. Hasan. (2014). A study of occupational stress of primary school teachers. *EducationiaConfab* 3(4), 11-19.
- [17]. Johannsen, Sue Ellen 2011. "An Analysis of the Occupational Stress Factors Identified by Certified Teachers" (2011), Electronic Theses & Dissertations. Paper 377. Georgia Southern University Digital Commons@Georgia Southern Electronic Theses & Dissertations Jack N. Averitt College of Graduate Studies (COGS).
- [18]. Smith, Kasee L., "Coping Mechanisms and Level of Occupational Stress Among Agriculture Teachers and Other Teaching Populations" (2012). All Graduate Theses and Dissertations. Paper 1391.
- [19]. Jeyaraj, S.S. (2013). Occupational Stress among the Teachers of the Higher Secondary Schools in Madurai District, Tamil Nadu. *IOSR Journal of Business and Management (IOSR-JBM)* Volume 7, Issue 5, 63-76 www.iosrjournals.org.
- [20]. AmutKauts and Vijay Kumar. (2013). Occupational Stress in Relation to Emotional Intelligence, Age and Qualification among Secondary School Teachers. *International Journal of Education and Psychological Research*, Volume 2, Issue 4, pp: 60-74, November 2013.
- [21]. Levi, L. (1998). Preface: Stress in organizations theoretical and empirical approaches, in Cooper C L. (Eds), *Theories of Organizational Stress*, Oxford University Press, New York, NY.
- [22]. Chand, P. and Sethi, P.S. (1997). Organizational factors in the development of work stress. *Indian Journal of Industrial Relations*,

- 32(4), 457-460.
- [23]. Treadgold, R. (1999). Transcendent occasions, their relationship to stress, depression and clarity of self concept. *Journal of Humanistic Psychology*, 39(1), 81-105.
- [24]. Cooper, C.L. and Marshal, J. (1976). Occupational sources of stress: A review of the literature Relating to coronary heart disease and mental ill health. *Journal of Occupational Psychology*, 49, 11-28.
- [25]. Osipow, S.H., and Spokane, A.R. (1987). Occupational stress inventory manual (research vision)", Odessa, FL: Psychological Assessment Resources.
- [26]. Osipow, S.H. (1998), Occupational Stress Inventory Manual (Professional version), Odessa, FL: Psychological Assessment Resources.
- [27]. Marini, I., Todd, and Slate, J.R. (1995). Occupational stress among mental health employees, *Journal of Rehabilitation Administration*, 19(2): 123-130.
- [28]. Cercarelli, L.R. and Ryan, G.A. (1996). Long distance driving behaviour of Western Australian drivers". Proceedings of the Second International Conference on Fatigue and Transportation: Engineering, enforcement and education solutions (L.R. Hartley (Ed.). Canning Bridge, Australia: Promaco, 35-45.
- [29]. Graen, G. (1976). Role-making processes within complex organizations. In M. D. Dunnette (Ed.), *Handbook of industrial organizational psychology*. Chicago, IL: Rand and McNally.
- [30]. NASA. (1996). Fatigue resource directory. In L.R. Hartley (Ed.), Proceedings of the second international conference on Fatigue and Transportation: Engineering, enforcement and education solutions. Canning Bridge, Australia: Promaco, pp. 67-135.
- [31]. Kahn, R. L., Wolfe, D. M., Quinn, R. P., Snoek, J. D., & Rosenthal, R. A. (1964). *Organizational stress: Studies in role conflict and ambiguity*. New York: John Wiley.
- [32]. [32]. Van Sell, M., Brief, A. P., & Schuler, R. S. (1981). Role conflict and role ambiguity: Integration of the literature and directions for future research. *Human Relations*, 34, 43-71. <http://dx.doi.org/10.1177/001872678103400104>.
- [33]. Prasad, K.D.V., Vaidya, R., and Kumar V. (2016). , Study on The Causes of Stress Among The Employees In It Sector and Its Effect on The Employee Performance at The Workplace With Special Reference To International Agricultural Research Institute, Hyderabad: A Comparative Analysis. *International Journal of Management*, 7(4), 2016, pp.76-98.
- [34]. Prasad, K.D.V., Vaidya, R. and Anil Kumar, V. (2015). A study on causes of stress among the employees and its effect on the employee performance at the workplace in an International Agricultural Research Institute, Hyderabad, Telangana, India. *International Journal of Management Research and Business Strategy*, 4(4), 68-82.
- [35]. Seyle, H. (1993). History of the stress concept. in L. Goldberger and S Breznitz, eds. *The hand of book of stress* (2nd edition), The Free Press, New York.
- [36]. Srivastava, A.K. (2001). Coping Strategy Scale. Rupa Psychological Centre, Varanasi.
- [37]. Campbell, C. H., Ford, P., Rumsey, M. G. and Pulakos, E. D. (1990) 'Development of multiple job performance measures in a representative sample of jobs', *Personnel Psychology*, 43: 277-300.
- [38]. Srivastava, A.K. and Singh, A.P. (1984). The occupational stress index. ManavaigyanicParikshanSansthan, Varanasi.
- [39]. Cronbach, L. (1951). Coefficient Alpha and Internal Structure of Tests. *Psychometrika* 16, 297-334.
- [40]. Novick, M.r., and Lewis, C. (1975). Coefficient Alpha and the Reliability of Composite Measurements. *Psychometrika*, 32:1-13.
- [41]. IBM Corp. Released 2016. (2016). IBM SPSS Statistics for Windows, Version 24.0. Armonk, NY: IBM Corp.
- [42]. Kaiser, H.F., & Michael, W.B. (1974). Domain validity and Generalisability. *Educational and Psychological Measurement* 35, 1-13.
- [43]. [42]. Gay, L.R., Mills, G.E., and Airasin, P. (2009). *Educational Research: Competencies for Analysis and Applications*. Merrill Greenwood, Columbus.
- [44]. William Trochim, K.M. (2006). Types of reliability. Research Methods Knowledge Base. Web Center for Social Research Methods. <http://www.socialresearchmethods.net/kb/relytypes.php>.
- [45]. Andre Francis. (2008). *Business Mathematics and Statistics*. 6th Edition. South Western Cengage Learning EMEA, High Holborn House. 50-51 Bedford Row, London WC1R 4LR. ISBN 978-1-84480-128-2.
- [46]. Yahaya, Z., Yahaya, N., Amat, F., Bon, A.T., and Zaklaiya. (2010). The effect of various modes of occupational stress, job satisfaction, intention to leave and absenteeism companies commission of Malaysia. *Australian Journal of Basic and Applied Sciences*, 1-9
- [47]. Sumathi AnnamaliandNandagopal, R. (2015). Occupational Stress: A study of Employee Stress in Indian ITES Industry. Pp 165. Allied Publishers Pvt. Ltd. India.Haryana. Remarkings, Vol. II, Issue XI, 56-59.

