ORIGINAL ARTICLE

A Study on Job related Stress among School Teachers in Different Schools of West Bengal, India

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ABSTRACT

Context : School teachers are exposed to high level of stress. Socio-demographic variables, salary, working environment, work pressure play a significant role in causing stress across teachers of different culture. Indian study is lacking in establishing relation between different variables and level of stress. **Aims** : To measure the magnitude of stress among school teachers, relation between different socio demographic variables of teachers and stress and to find out if there is any difference in stress of teachers in urban, suburban and rural schools. **Settings and Design** : Institution based, single-centre, cross-sectional study. **Materials and Method** : 338 school teachers were interviewed across schools from rural, urban and semi urban area of West Bengal. Related data were collected on socio-demographic sheet and stress score was collected on Work Stress Scale (WTS). Data were analyzed by standard statistical methods. **Results** : Female sex, age - 50-60 years, urban, private School, headmaster & assistant headmaster, higher paid teachers were found to suffer from high level of stress. **Conclusions** : Teaching is a stressful job and level of stress varies across different population.

Declaration of interest – None.

Key Words : School teacher, stress, Work Teacher Scale

INTRODUCTION

Stress is defined as "An excess of demand made upon the adaptive capabilities of the mind and body" and is seen in the form of a physical demand, a mental demand or both. Teaching in school is a highly stressful occupation.[1]

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The globalization and privatization of the education system in different countries and in India forced the higher education to be more competent so as to produce the stakeholders with better knowledge, accommodativeness, skills and compe-tencies which are essential for survival in the world market. In tune with this, the Indian education system had undergone rapid changes in terms of expansion, privatization, marketization, curricular reforms and pedagogical innovations. With those rising demands of modern educational system, teachers are being more stressed day by day. Different studies are done all over the world in order to measure the stress in teachers notably in USA 1, Australia 2 and

Turkey 3. There are some studies in India also regarding stress in school teachers – one done in south India for teachers of university 4 and the other among school teachers in Rajasthan 5. But none of them used any recognized scale to measure stress. Our study is a significant addition to the teacher stress and burnout literature, especially in India where few relevant studies exist dealing with these problems. In addition, our study is aimed give an account of how the teachers of different age and sex are coping with the increased stress.

MATERIALS & METHOD

After having clearance from ethical committee, this institution based, single-centre, cross-sectional study was conducted in different high schools, both government and private across rural, suburban and urban areas of West Bengal. All the working teachers those gave valid informed consent for study and meeting inclusion & exclusion criteria were selected for this study. Inclusion criteria, kept for this study, were 1) In service teachers of both sex able to read, write and comprehend in English, 2) Those who have given the informed consent to take part in this study and exclusion criteria were 1) Diagnosed major physical illness, 2) Organic Brain Disease, 3) history of any major psychiatric disorder, 4) Non co-operative teachers. Cluster sampling method was used to select sample population. Taking 36% prevalence of previous study in USA (Health and Safety Executive, 2000), p = 0.36, q = (1-0.36) = 0.64, and taking 95% confidence interval, d=0.05, the calculated sample size of our study was 368. We managed to interview 338 teachers in our study with 110 rural, 121 suburban and 107 urban teachers in our study (n=338). Schools belonging to different localities, both govt. and private were approached in institutional letter head to take part in this study. Data were collected from teachers of schools which were co-operating on weekly basis. Attention was given so that equal participation was there from rural, suburban and urban as well as both govt. and private schools. If a school, being approached, did not allow conducting the study, another school of similar locality and institutional structure (Govt./private) was approached. Data were collected on standard Socio-demographic data-sheet, Occupational data sheet, developed by our psychiatry department, including educational status, designation, experience, remuneration, distance of residence from school and on Work tension scale (WTS) 4, a self-reported questionnaire to assess stress score. Standard statistical methods were used for analysis of data.

RESULTS

SOCIO-DEMOGRAPHIC DATA

There were around 42.31% of male teachers and 57.69% of female teachers among the surveyed population with male to female ratio was 1:1.36. This was in accordance with studies aboard as well as in India. Most of the teachers (58.57%) were middle aged (31- 50 age group). 53.84% of female teachers were 40 years or below whereas only 39.16% male teachers were so. Major percentage of teachers was married among surveyed totals. There was a huge difference between married and unmarried percentage (84.32% and 13.61% respectively). A small percentage of teachers were separated or divorced (2.07%). Percentage of teachers coming from nuclear and joint families were having major share. Nuclear families were 48% and joint families were 41% of the totals. Hindu teachers almost outnumbered Muslim and Christian teachers among surveyed total. The percentage of Hindu teachers was 88.16 %, Muslim was 10.66% and Christian was 1.18%. Out of the 338 teachers who participated in the study, 32.54% were from rural schools, 31.66% were from urban schools and 35.80% were from suburban schools. 65.38% teachers were from either government or government sponsored schools and rest 34.62% were from private schools. Distance of the school from the house has been measured on the basis of travel time. Around 45% of teachers traveled more than one hour to reach school which could be associated with their stress level. Most of the teachers of the study population were assistant

teachers (76.92%). Para teachers formed a significant part of the study population (16.28%). Teachers in administration (Principal/Headmaster/Assistant Headmaster/Teacher in charge) formed the rest 6.80%. Most of the teachers were post graduate and female post graduate teachers (79%) were higher than male post graduate teachers (70%). Our study found that young age group teachers were having more educational qualification than aged teachers. Around 72% of surveyed teachers had more than 5 years of teaching experiences. Result could be related with the age pattern of surveyed teachers where middle age group (41-50 years) teachers were high in number. The work pressure could also be measured by the number of subject a teacher has to teach in school. This study found that around 44% surveyed teachers had to teach two subjects and around 33% had to teach more than 3 subjects. Again the stress level might also be associated the subject taught. Teachers had been asked whether they taught their own subject of graduation or post graduation level or any other. The results showed that around 85% of surveyed teachers taught their own subject. Teachers of Govt. schools had a mean income of Rs 3.82 lacks/annum where as teachers of private schools had a mean income of Rs 1.96 lacks/annum. There was no significant difference between income of male and female teachers.

STRESS ANALYSIS

LEVEL OF STRESS

The mean job-related stress score of the teachers was 3.12 with a standard deviation of 0.81 (The maximum and minimum value were 5 and 1 respectively). 12.42% teachers (n=42) were severely stressed with a stress score of 4 or more. 37.57% teachers were mildly stressed (n=127) with a stress score between 2 and 3 and 26.33% (n=89) teachers were moderately stressed with a stress score between 3 and 4. (Table-1)

Table-1 : Showing Level of stress in our study

Level of stress	Number	Percentage
No	80	23.77
Mild	127	37.57
Moderate	89	26.33
Severe	42	12.42

Association between Stress Level and Age – Sex Structure of Surveyed Teachers

Teaching has been identified as most stressful job throughout the world. Table 2 showed stress level in various sex populations.

Table-2 : Showing Association between Stress Level and Sex Structure of surveyed Teachers

Stress level	Female (%)	Male (%)
No	21	29
Mild	32	39
Moderate	31	23
Severe	16	9

A proportion test was conducted to check the statistical significance with our result. In our study, $z = 3.66$ for $\alpha = 0.05$ and taking it as a two tailed test the critical value for z to be statistically significance was 1.96. Our value (3.66) was therefore statistically significant. So it justified the stress with female sex. It was very clear from our study that aged teachers were the most stressful among all. Age group between 56-60 years had stress value 4.5 or more and age group 51-55 had stress value more than 4. (Table-3)

Influence of Distance and Location of the School on Stress Level

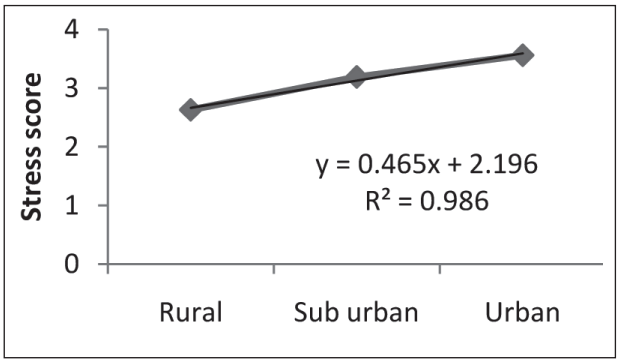
46% of the teachers who traveled more than one hour to reach their school were stressed in comparison to 31% of the teachers who traveled less than one hour. A proportion test was conducted to check the statistical significance with our result. $z = 2.84$ for $\alpha = 0.05$ and taking it as a two tailed test the critical

value for z to be statistically significance was 1.96. Our value (2.84) was therefore statistically significant. (Picture-1)

Table-3 : Showing Association between Stress Level and Age Structure of surveyed Teachers

Age Group (years)	Stress Level
25-30	2.78
31-35	2.9
36-40	3
41-45	3.1
46-50	4
51-55	4.2
56-60	4.5

Picture-1 : **Showing Influence of distance and location of the school on stress level**



Stress level among Government and private schools

48.72% of the teachers who taught in private school were stressed in comparison to 33.48% of the teachers who taught in government school. A proportion test was conducted to check the statistical significance with our result. z = 2.67 for = 0.05 and taking it as a two tailed test the critical value for z to be statistically significance was 1.96. Our value (2.67) was therefore statistically significant. So it justified the stress with types of schools.

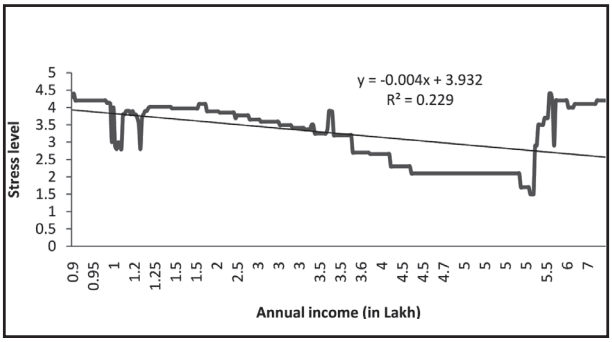
Relation between designation of teachers and stress

Our study found that around 69.57% of Head Master or Assistant Headmasters were stressed. Around 58.18% of Para teachers were stressed in comparison to only 31.92% Assistant teachers. A proportion test was conducted to check the statistical significance. z = 3.62 for = 0.05 and taking it as a two tailed test the critical value for z to be statistically significance was 1.96. Our value (2.67) was therefore statistically significant. So it justified the stress of Para teachers. The result of significance test was calculated 9.05 and critical value of t for the 120 or more sample taking = 0.01 was 2.576. So teachers in administrative position were more stressed at the confidence interval of 99% or more.

Relation between income and stress

Our study found that stress level was high with the highest paid teachers. (Picture-2)

Picture-2 : Showing Relation between income and stress.



Other controlling factors of socio - demography in this study like religion, educational level, teaching experience are having no significant influence on the stress level.

DISCUSSION

Teaching has been identified as one of the most stressful professions today. The reasons for that are quite similar to other stressful occupations in

the world. In a survey assessing the stress levels of various jobs by the Health and Safety Executive, teaching came out top. The report, The Scale of Occupational Stress: further analysis of the impact of demographic factors and type of job, published in 2000, found that 41.5% of teachers reported themselves 'highly stressed', while 58.5% came into a 'low stress' category, while 36% of teachers felt the effects of stress all or most of the time. In our study around 39% of surveyed teachers were moderate to severe stressful which was similar to the result of the study by Health and Safety Executive, USA (41.5%) and with previous study.[6]

Cooper and Kelly[7] found as they moved from the further/higher education level to secondary to primary sectors, the levels of job dissatisfaction and mental ill health rose. In addition, it was found that, with the exception of primary schools, female head teachers in secondary and FHE seem to be suffering significantly greater job dissatisfaction than their male counterparts, although this does not translate itself into mental ill health. Male head teachers, on the other hand, seem to suffer more mental ill health than their female counterparts. And finally, the two main sources of occupational stress that appear in many of the multivariate analyses as predictors of job dissatisfaction and mental ill health are 'work overload' and 'handling relationships with staff. In line with other studies 7 our study also found that both male and female teachers are having stressed. Our study found that female teachers were more stressful than male teachers which were similar to findings of Klassen. 8 Our study also proved that teachers with higher workload (Headmaster & Assistant Headmaster) were more stressed.

Millicent H. Abel & Joanne Sewell[9] examined Sources of stress and symptoms of burnout in 51 rural and 46 urban secondary school teachers from 11 school systems in Georgia and North Carolina. Urban school teachers experienced significantly more stress from poor working conditions and poor staff relations than did rural school teachers. Stress from pupil misbehavior and time pressures was significantly greater than stress from poor working conditions and poor staff relations for both rural and urban school teachers. Poor working conditions and time pressures predicted burnout for rural school teachers; pupil misbehavior and poor working conditions predicted burnout for urban school teachers.

Our study found a direct correlation between stress and location of the schools with an 'r' value 0.98. The teachers of urban schools were more stressed than rural and sub urban schools. So it justified the stress with long distance. Income is a major determining factor behind the stress level of a teacher. A negative correlation is found as with the increase in income, stress level is decreasing. But our study found that stress level was high with the highest paid teachers. It can be explained by the fact that teachers in administrative position like Head Master/ Assistant Head Master got high salary but their stress level was also very high. So we can differentiate those teachers who were more stressed by their socio-demographic characters in our study. (Table-4)

Table-4 : showing socio-demographic characters of teachers for statistically significant stress.

Female sex
Age - 50-60 years
Urban Teachers
Private School
Headmaster & Assistant Headmaster
Higher paid teachers

CONCLUSION

Teaching is quite stressful occupation. Increased age and female sex are non modifiable stress factors where as increased remuneration and decreased time to commute to schools can cause decreased stress which is potentially modifiable. A regular increment in remuneration and relocation according to place of residence can decrease the

stress level. For female teachers, helping hand from their spouses in household chores may just be a big difference. Sharing responsibility of administrative duties between teachers can decrease the stress level of administrators.

LIMITATION OF THE STUDY

1. The study was a one-time cross-sectional study; presence of any immediate stressor may just alter the study result.
2. Student behavior pattern, work atmosphere, relationship with colleagues and subject of teaching which are considered as important controlling factor in various studies have not included here due to limited time frame of the study.

FUTURE SCOPE

1. As this study based on the some recognized work scale, it is expected to get a better scenario of stress. It is expected to be a significant addition to stress related literature of teachers.
2. This study used some socio- demographic variable which might be studied in details in the future.
3. Some statistical significance tests are not showing any result due to data redundancy, which may modify with further extensive study with large sample size.

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