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## RESEARCH PAPER

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# Mental stress among female teachers of selected private and public schools in Dhaka City

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## **Abstract**

Mental stress is now a day's common problem among female school teachers. Mental stress is most commonly being seen when demands of a situation exceed the personal resources that the individual can bring to bear on them at that moment. This comparative cross-sectional study was carried out from January to December 2019 to compare the level of mental stress between selected private and public female school teachers in Dhaka city. Sample size of the study was 263. Among them 191 from private schools and 72 from public schools. Majorities (61.3%) of respondents are age 25-36 years in private schools and 48.6% had age 37-48 years in public schools. Average monthly income of female teachers 17933.61 BDT and 36223.61 BDT in private and public schools respectively. Majority (57.6%) had moderate stress and 42.4% had low stress in private schools. 62.5% had moderate stress and 37.5% had low stress in public school female teachers which was significant (p=0.046) in graduate level of education. Severe workload among female teachers, 68.7 % were found moderate stress which was significant (p=0.042) in private school. In public teachers who had severe workload, 74.4% were found to be having moderate stress. Moderate stress was significant with non-flexible working hours in both private (p<0.001) and public (p=0.001) female school teachers. Support of boss was significantly associated (p<0.01) with moderate stress in public school. Moderate stress was significantly associated with satisfaction with current teaching profession in both private (p<0.001) and public (p=0.003) schools teachers. Mean perceived stress score (16.48±4.045 and 19.16±3.630) was significantly (p=0.007) different respectively between sufficient and non-sufficient leisure hours in public school. Mean perceived stress score (19.94±4.195) was significantly different (p=0.012) not satisfied at decision making in Private schools. Mean perceived stress score by selected attributes was significantly different between salary satisfaction in female teachers of private (p=0.001) & public (p=0.022) schools and also significantly different among different educational level of husbands in private (p=0.006) and public (p=0.053) school teachers. Mean perceived stress score was significantly different (p=0.005) among different duration of teaching profession in public school teachers. In developing country like Bangladesh, teaching is considered as one of the stressful professions. Mental stress among female teachers needs to be prevented and reduced which should be focused. Necessary actions need to their pay structure, general status, working conditions, and workload and school environment.

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#### Introduction

Life is full of challenges nowadays. A teacher needs to use a lot of energy in his daily chores in the classroom coupled with his personal and family commitments. Teacher's stress is a specific type of occupational stress affecting the health of the teachers which in turn affects the students and the learning environment. In this respect, female school teachers usually faced lots of occupational stress particularly the married female teachers as they have to play multiple roles both at home and schools (Malvi, 2017). Education undoubtedly represents one of the most critical sectors when speaking of work-related stress (Smith, 1984).

Teaching is the profession, which has lead people on the high way of progress and prosperity. A teacher is the person who shapes the future of everyone by providing best education to his or her students. Teacher plays a great role in the education of every student. A good teacher has many qualities and fully able to make their students successful in life (Alfred, 2017).

"Stress" is a term in psychology and biology, first coined in the 1930s, which has in more recent decades become a common as consequence of the failure of an ororganismhuman animalto respond appropriately to emotional or physical threats, whether actual or imagined(Selye,1956). Neufeld (1990) has pointed out that by product of poor or in adequate coping responses. However, in the recent years, researches have proved that teaching profession is one of the stressful professions (Ravichandran, 2007). At the same time, teachers are needed to acquire many new skills to cope effectively in a very fast changing society and to equip themselves in terms of creativity, innovations and critical thinking. Experiencing high level of stress could lead to various negative consequences such as poor performance, lack of commitment, lack of motivation and poor quality of classroom teaching. Thus, stress seems pervasive among all teachers working at different level in different institutions (Parray, 2016). According to a study by Pettigrew and Wolf, conducted in 1982, there are two types of stress which might ultimately have an impact on teachers: stress based on work related tasks and stress based on the workplace role. Stress based on the workplace role such as *lack of necessary resources for proper teaching*, refers to how the expectations of teachers about their role in the workplace fit with their real responsibilities that are necessary for teachers to fulfill their roles (Pettigrew, 1982). Teachers indicate lack of adequate funding for job implementation as source of their work related stress (Brown *et al.*, 2002).

The mentally healthy person is the person who is free from internal conflict, who is not at 'war' with his/herself. Mental health has positive aspects like originality, satisfaction, hope, creativity, happiness, self-actualization etc. and also has negative aspects like frustration, disability, emotional instability or neuroticism, psychoticism, anxiety depression, hopelessness, paranoid tendency, jealousy and fear etc. (Nathawat,1997). Mental health is now very important issue in public health context worldwide as mental health problems are the most important contributor to burden of diseases and disability (WHO2000). Mental health was the theme of the world health Day 2011.

Sex segregation of work roles creates further stressors unique to women. For example, secretaries, waitresses, and nurses experience high demands, but receive limited autonomy and low pay. In addition women in jobs that remain male dominated often experience social isolation, a situation that limits women's opportunities for social support. Another important stressor for employed women is the lack of career progress. While this is a potential stressor for all employees, it is particularly problematic for women because they are clustered in the lower level of heierarchy. For example, women hold only 2% of senior management positions and only 5% of corporate board positions. An explanation for this finding is that stereotype and biases of male decision makers prevent women's career advancement.

The barrier formed by these biases has been referred to as "glass ceiling" (Friedman,1988). The female teachers are given preference in primary and secondary education to encourage girls to continue their education. But if the teachers are in mental stress with their teaching profession they cannot increase their performances and thus to contribute to female education in Bangladesh.

Education is a continuous process. Teachers are the basic tool of providing the education through with which knowledge is transferred from one generation to another generation. Stress is sure to overpower and affect mental health of woman teachers. In the light of the multifaceted role that woman play, the wellbeing of woman should not only be viewed as an issue in social development but should be seen as an essential component for awareness. She should not only be visualized as 'child -bearer' and a 'home maker' but as an enterprising personality. Therefore direct need was felt to undertake a study for investigating and exploring mental stress that adversely affect female teachers working in schools so that there is an increased awareness about these problems and also for seeking promising solutions to wipe them off to make the 'struggling lady' (Tasnim, 2006).

In Bangladesh, researches on mental stress among female school teachers are limited. Researches concerning public health aspect in this regards were considered less important by researchers. Therefore, the study was designed to assess the mental stress among female school teachers. The findings of this study will help those female teachers to cope with mental stress as well as improving and good quality of their teaching professional life in Bangladesh. The importance of the female teachers has been recognized in the development of primary and secondary education but their level of job satisfactions not given attention. This study may help to divert the attention to the direction. This study also help to assess mental stress, influencing factors of mental stress among female school teachers and necessary actions to prevent and reduce mental stress in teaching profession among female teachers. This study tended more to focus on women issue in a new arena. Thus, the study was designed to compare mental stress between selected private and public female schoolteachers in in Dhaka city.

#### Materials and methodology

This study was done as per the following methodology to compare the level of mental stress among female teachers between the selected private and public schools in Dhaka city. This chapter describes the research design, description of the study, research instrument and different steps of collecting and organizing data.

#### Study design

This was a comparative cross-sectional study designed among the female school teachers with the aim to explore to compare the level of the mental stress in selected private and public schools in Dhaka city.

#### Period of study

The total period of the study was conducted during the period of one year (January to December 2019. Initial phase, the study started with the protocol development and completed by submission of final report. Extensive literature was reviewed from the beginning of the study till report writing. Thereafter thesis protocol was approved by institutional ethical committee of Sir Salimullah Medical College and Mitford Hospital in the month of May 2019. Planning and designing of the study was done in the month of June, 2019. Last phase, Data collection instruments were developed, pretested and finalized during the period of July 2019. Data were collected during the period of September to October 2019. Data processing and analysis were done in November 2019. Finally report writing, printing and submission were done in December 2019. The details of the work schedule are attached as annexure.

#### Place of study

This study was carried out in selected private and public schools located in (Elephant road, Nilkhet, Azimpur, Lalbagh, University area, Dhanmondi,

Mirpur and Mohakhali).

#### Study population

Study was conducted among all the female teachers in selected private and public schools in Dhaka city.

#### Selection criteria

#### Inclusion criteria

Female school teachers both private and public schools, Teaching experience (minimum 6 months), those who have given consent.

#### Exclusion criteria

Newly joined female school teachers both private and public schools, severely ill teachers.

#### Sample size

It was calculated by following formula

$$n = (Z_{\alpha} + Z_{\beta})^{2} x \frac{P_{1}Q_{1} + P_{2}Q_{2}}{(P_{2} - P_{1})^{2}}$$

Where,

n =sample size

P<sub>1</sub>= 83.8%= 0.838 (prevalence of moderate stress among public school teachers) (Hitti *et al.*, 2016)

 $P_2$ =77.6%= 0.776(prevalence of moderate stress among private school teachers) (Hitti *et al.*, 2016)

 $Z_{\alpha}$ = Z value at a define level of significance (1.96 at 5% level of significance)

 $Z_{\beta}$ =Z value at a define power of test (0.85 at 80% power of test)

$$Q_1$$
= 1- $P_1$ = 0.838 = 0.162

$$Q_2$$
= 1- $P_2$ =0.776 = 0.224

$$n = (1.96 + 0.85)2x \frac{0..838x0.162 + 0.776x0.224}{(0.776 - 0.838)^2}$$

= 634.

Considering the resource constraints, availability of female school teachers during study period and limitations, this study included 263respondents. So, the sample size of the study was 263.

## Sampling technique

For the collected of relevant data from the individual sample unit comprised of total sample size. Nonprobability convenient sampling techniquewas used to collect data about mental stress related information incorporated with the use of a structured and open ended prepared questionnaires among the female school teachers.

#### Data collection instruments

A questionnaire and Perceived stress scale for assessing the mental stress of the respondents.

#### Questionnaire

Semi structured questionnaire was prepared on the basis of selected variables and laid down specific objectives of this study. Structured and open ended questionnaire was used to collect information from each sample (respondents) unit regarding socioeconomic characteristics and mental stress related factors. Perceived stress scale composed of 10 questions with score for assessing the mental stress of the respondents.

#### Data collection technique

Initially informed written consent was obtained from each respondent following introducing and informing about purpose, objectives and procedure of the study. Data were collected by face to face interview ensuring privacy and confidentiality of data.

## Pretesting

Prior to data collection, the data collection instruments waspre-tested among female school teachers from Shahid Buddhijibi Dr.Amin Uddin Govt. Primary School and Brighter International School in Dhaka city. Following the findings of pretesting, data collection instruments were modified and finalized.

#### Data processing

Collected data in questionnaire were checked for omission. It was verified, edited, coded and processed and finalized with omission and addition if any inconsistency. Then finalized data were entered into computer for analysis as per selected key variables of the study to justify the objectives of the study.

#### Data analysis

Finally, collected data were analyzed accordingly in

respect of specific objectives. Analysis was performed by using the latest available version of SPSS software (Statistical Package for Social Sciences). Descriptive statistics included frequency, percentage, mean and standard deviation were used as per need. For inferential statistics, chi-square test, fisher's exact test and t test also were done to find the association between mental stress and other variables of the respondents in selected private and public schools in Dhaka city.

#### Ethical consideration

At the beginning the research protocol was be approved by the Institutional Ethical Committee of Sir Salimullah Medical College. Before collection of data, the permission was taken from the legal authority of school in Dhaka city. Before interview,

informed written consent was obtained from the female school teachers after informing the purpose of the study, its expected duration, nature, anticipated physical and psychological risk. The female teachers were assured that they can withdraw their participation from this study whenever they went to. A complete assurance was given that all information provided by the respondents will be kept confidential. Justice must be followed on priority basis. Collected data were utilized only for the research purpose.

#### Results

This comparative cross sectional study was carried out in 263 female school teachers. Data were analyzed using appropriate statistical procedures and presented in this chapter through graph and tables.

**Table 1.** Distribution of the female teachers by selective socio-demographic attributes (age, education, marital status and religion).

Socio-Demographic	Attributes	Private scho	ools (n=191)	Public schoo	ls (n=72)	
		Frequency	Percent	Frequency	Percent	
Age	25-36	117	61.3	20	27.8	
	37-48	56	29.3	35	48.6	
	49-59	18	9.4	17	23.6	
		Mean±SD=35.52±8.51		Mean±SD=41.97±8.13		
		Min=25,Max=59 Min		Min= 29,N	29,Max=59	
Education	Graduate	29	15.2	14	19.4	
	Post graduate	162	84.8	58	80.6	
Marital status	Widow	4	2.1	4	5.6	
	Married	187	97.9	68	94.4	
Religion	Islam	151	79.1	64	88.9	
	Hindu	26	13.6	8	11.1	
	Christian	14	7.3			

Information related to socio-demographic characteristics of teachers

Selective socio-demographic attributes of the female teachers

Table-1states that majority (61.3%) of them were age 25-36 years in private schools and 48.6% had age 37-48 years of age in public school's female teachers. Mean age of private school teachers was 35.52±8.51 years and 41.97±8.13 years for public school teachers. (84.8%) teachers had completed postgraduation in private schools and 80.06% in public school. Most of them were married 97.9% and 94.4% in private and public schools respectively. Majority of the teachers were follower of Islam 79.1% and 88.9% in private

and public school respectively followed by 13.6% were Hindu in private school and 11.1% were Hindu in public schools. 7.3% were Christian in private schools.

Others selective socio-demographic attributes of the female teachers

Table 2 illustrates the educational status of husbands of the female teachers, maximum 77.5% and 83.3% were postgraduate in private and public school respectively followed by graduate 21.5% in private school and 15.3% were graduate in public school. Monthly income of the female school teachers, maximum 83.8% and 44.4% had 5000-30,000 taka in private and public school teachers respectively.

<b>Table 2.</b> Distribution of the female teachers by selective socio-demographic attributes (education of husband,
monthly income of respondents).

Socio-Demograp	Socio-Demographic Attributes		Private schools (n=191)		Public schools (n=72)	
	-	Frequency	Percent (%)	Frequency	Percent (%)	
Education of Husband	Higher secondary	2	1.0	1	1.4	
	Graduate	41	21.5	11	15.3	
	Post graduate	148	77.5	60	83.3	
Monthly Income	5000-30000	160	83.8	32	44.4	
	31000-50000	25	13.1	30	41.7	
	51000-70000	6	3.1	10	13.9	
Statistics		Mean±SD=17933.61±13643.42		Mean±SD=36223.61±13336.44		
		Min=5000,	Max=65000	Min=15000,	Max=70000	

Private school teachers average monthly income 17933.61 Tk and public school teachers' monthly income 36223.61 Tk.

#### Occupation of the husbands

Regarding husbands occupation, majority 80.6% and 74.9% were service holder in public and private school respectively. Among them, 20.90% were doing business in private schools and 15.30% in public schools.

Selective socio-demographic attributes of the female teachers

Table 3 states that Maximum female teachers (80.6%) of private schools had 2-5 family members and 87.5% had 2-5 family members in public school.

In both private and public school female teachers had nuclear family 73.8% and 83.3% respectively. Most of the female teachers were live in pucca house 97.4% and 98.6% in private and public schools respectively.

**Table 3.** Distribution of the female teachers by socio-demographic attributes (family members, family type and housing condition).

Socio-Demograp	Socio-Demographic Attributes		Private schools (n=191)		nools (n=72)
	·	Frequency	Percent	Frequency	Percent
Family members	2-5	154	80.6	63	87.5
	6-8	31	16.2	9	12.5
	9-11	6	3.1		
		Mean±SD=4.62±1.66		Mean±SD=4.15±1.22 Min=2,Max=8	
		Min=2,N	Iax=11		
Family type	Nuclear	141	73.8	60	83.3
	Joint	50	26.2	12	16.7
Housing	Semi-pucca	07	02.6	01	1.4
condition	Pucca	186	97.4	71	98.6

## Family income

Table 4 shows that the monthly family income, 58.1% had 20000-50000 taka in private school teachers and 58.3% had 51000-100000 taka in public school teachers. Average monthly was 68277.49 for private school teacher and 92523.61 for public school teachers.

Stress level of the female teachers

Out of 191 female teachers of private schools, 42.4%

had low stress and 57.6% had moderate stress. In public school out of 72 female teachers, 37.5% had low stress and 62.5% had moderate stress.

Association between mental stress level and selected attributes

Table states that about 51.7% had moderate stress in graduate level of education and 58.6% moderate stress in post-graduate level of education in private school teachers.

**Table 4.** Distribution of the female teachers by monthly family income.

Monthly Family Income	Private (n=191)		Public (n=72)	
	Frequency	Percent	Frequency	Percent
		(%)		(%)
20000-50000	111	58.1	14	19.4
51000-100000	56	29.3	42	58.3
101000-200000	24	12.6	16	22.2
	Mean±SD=68	Mean±SD=68277.49±46166.27		2523.61±45299.52
	Min=20000,		Min=20000,	
	Max=200000		Max=200000	

This association is not statistically significant (p=0.488). In public school teachers moderates stress significantly higher in graduate level of

education compare to post-graduation. This association in public schools is statistically significant (p=0.046) compare to private schools.

Table 5. Association between mental stress level and educational qualification of female teachers.

Educational qualification of	Low Stress	Moderate stress	Total	Significance
female teachers	f (%)	f (%)	f (%)	
	Private schoo	ls (n=191)		χ²=.482
Graduate	14 (48.3%)	15 (51.7%)	29 (100.0%)	df=1
Post graduate	67 (41.4%)	95 (58.6%)	162 (100.0%)	p=0.488
	Public schoo	ls (n=72)		χ²=3.996
Graduate	2 (14.3%)	12 (85.7%)	14 (100.0%)	df=1
Post graduate	25 (43.1%)	33 (56.9%)	58 (100.0%)	p=0.046

Association between level of mental stress and educational status of husbands

Table 6 illustrates that there is 100% moderate stress among female teachers with the higher secondary educational qualification of the husband and 73.2% with that of graduate level of educational qualification of husband. This association was statistically significant (p=0.021) in private schools.

Table 6. Association between level of mental stress and educational qualification of husbands.

Educational qualification of Husbands	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private schools			Fisher Exact=6.634
Higher secondary	0 (0.0%)	2 (100.0%)	2 (100.0%)	df=2
Graduate	11 (26.8)	30 (73.2%)	41 (100.0%)	p=0.021
Post graduate	70 (47.3%)	78 (53.7%)	148 (100.0%)	_
	Public schools			Fisher Exact=2.011
Higher secondary	1 (100.0%)	0 (0.0%)	1 (100.0%)	df=2
Graduate	3 (27.3%)	8 (72.7%)	11 (100.0%)	p=0.471
Post graduate	23 (38.3%)	37 (61.7%)	60 (100.0%)	

In public school, the association of mental stress among female teachers and educational status of husband (p=0.471) which was not statistically significant.

Association between mental stress of female teachers and work load in schools

Table 7 shows that female teachers who had severe workload, 68.7 percent were found to be having

moderate stress which was statistically significant(p=0.042) in private schools. In public school teachers who had severe workload, 74.4

percent were found to be having moderate stress which was significantly associated (p=0.030) with stress in public schools.

**Table 7.** Association between mental stress of female teachers and work load in schools.

Work load in school	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private sch	100ls (n=191)		Fisher Exact=5.440
No	1 (50.0%)	1 (50.0%)	2 (100.0%)	df=2
Medium	59 (48.4%)	63 (51.6%)	122 (100.0%)	p=0.042
Severe	21 (31.3%)	46 (68.7%)	67 (100.0%)	<del></del>
	Public sch	nools (n=72)		Fisher Exact=5.106
Medium	17 (51.5%)	16 (48.5%)	33 (100.0%)	df=1
Severe	10 (25.6%)	29 (74.4%)	39 (100.0%)	p= 0.030

Association between mental stress of female teachers and duration of teaching profession

Table 8 shows that fifty four teachers having 1- 2 years of teaching experience among them, 63% had moderate stress, 3-4 years of experience having 48.0% had moderate stress, with 5-6 years teaching experience having 61.5% had moderate stress and more than 7 years of teaching experience having 55.8% had moderate stress. No significant different (p=0.603) of stress among different duration of teaching profession in Private school female teachers. Among public schools, 3 female teachers having 1- 2 years of teaching experience among them, 100% had moderate stress, 3-4 years of experience having 33.3% had moderate stress, and more than 7 years of

teaching experience having 65.1% participants had moderate stress. Duration of teaching profession is significantly associated with moderate stress in public school female teachers (p=0.045).

Association between mental stress of female teachers and working section in schools

Table 9 illustrates that regarding working section in schools, 65.8% were found to moderate stress, working in both the sections in private schools. This association was statistically significant (p=0.040) in private schools. The association between mental stress level among female teachers and working in primary, secondary and both sections were not statistically significant (p=0.063) in public schools.

**Table 8.** Association between mental stress of female teachers and duration of teaching profession.

Duration of the teaching	Low stress	Moderate stress	Total	Significance
profession	f (%)	f (%)	f (%)	
	Private schools (r	n=191)		$\chi^2=1.857$
1-2 yrs	20 (37.0%)	34 (63.0%)	54(100.0%)	df=3
3-4 yrs	13 (52.0%)	12 (48.0%)	25 (100.0%)	p=0.603
5-6 yrs	10 (38.5%)	16 (61.5%)	26 (100.0%)	<del>_</del>
7or more yrs	38 (44.2%)	48 (55.8%)	86 (100.0%)	<del>_</del>
	Public schools (r	1=72)		$\chi^2 = 8.068$
1-2 yrs	0 (0.0%)	3 (100.0%)	3 (100.0%)	df=3
3-4 yrs	2 (66.7%)	1(33.3%)	3 (100.0%)	p=0.045
5-6 yrs	3 (100.0%)	0(0.0%)	3 (100.0%)	
7or more yrs	22 (34.9%)	41 (65.1%)	63 (100.0%)	

Association between mental stress level and female teachers describe their work hours

Table 10 shows that regarding description of working hours, 95% moderate stress in non-flexible working hours among female teachers in private schools. This

association was highly statistically significant (p=0.000) in public school's female teacher, 100% moderate stress in non-flexible working hours among female teachers. This association was statistically significant (p=0.001).

Table 9. Association between mental stress of female teachers and working section in school.

Working section in school	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private schools (19:	1)		$\chi^2 = 6.441$
Primary	28 (40.6%)	41 (59.4%)	69 (100.0%)	df=2
Secondary	28 (57.1%)	21 (42.9%)	49 (100.0%)	p= 0.040
Both	25 (34.2%)	48 (65.8%)	73 (100.0%)	_
	Public schools (72)	)		$\chi^2 = 5.514$
Primary	5 (20.8%)	19 (79.2%)	24 (100.0%)	df=2
Secondary	16 (51.6%)	15 (48.4%)	31 (100.0%)	p=0.063
Both	6 (35.3%)	11(64.7%)	17 (100.0%)	_

Association between mental stress level and how female teachers satisfaction at decision making in schools

Table 11 shows, regarding satisfaction at decision making in schools, 77.4% moderate stress among female teachers and 53.8% moderate stress among

the female teachers who have satisfaction at decision making in schools. This association in private schools were statistically significant (p=0.015). In public school, this association was not statistically significant teachers in public school female teachers (p=0.124).

**Table 10.** Association between mental stress level and how female teachers describe their work hours.

Description of working hours	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private scho	ols (n=191)		χ²=12.800
Flexible	80 (46.8%)	91 (53.2%)	171 (100.0%)	df=1
Non flexible	1 (5.0%)	19 (95.0%)	20 (100.0%)	p=0.000
	Public scho	ols (n=72)		χ²=14.368
Flexible	27 (47.4%)	30 (52.6%)	57 (100.0%)	df=1
Non flexible	0 (0.0%)	15 (100.0%)	15 (100.0%)	p=0.001

Association between mental stress of female teachers and salary satisfaction

Table 12 describes that salary satisfaction, moderate stress significantly associated with not satisfaction in salary among female teachers in private schools. This association was statistically significant in private schools (p=0.030). Among public schools female teachers, 73.8% moderate stress who were not satisfied in their salary. This association between mental stress and salary satisfaction among female

teachers in public schools was statistically significant (p=0.019).

Association between mental stress of female teachers and support from boss during conflict at work

Table 12 illustrates, regarding support from boss was

Table 13 illustrates, regarding support from boss was significantly associated with moderate stress among female teachers in public schools (p=0.030) and in private schools this association was not significant (p=0.099).

**Table 11.** Association between mental stress level and how female teachers satisfaction at decision making in schools.

Satisfaction at decision making	Low Stress f (%)	Moderate stress f (%)	Total f (%)	Significance
	Private scho	ools (n=191)		χ <sup>2</sup> =5.957
Yes	74 (46.3%)	86 (53.8%)	160 (100.0%)	df=1
No	7 (22.6%)	24 (77.4%)	31 (100.0%)	p=0.015
	Public scho	ools (n=72)		$\chi^2=2.371$
Yes	22 (43.1%)	29 (56.9%)	51 (100.0%)	df=1
No	5 (23.8%)	16 (76.2%)	21 (100.0%)	p=0.124

Association between mental stress of female teachers and physical environment of office room

Analysis indicate that office room environment was significantly associated with stress in private school teachers (p=0.032). In public school female teacher's stress was not significantly associated with office room environment (p=0.673).

Association between mental stress of female teachers and sufficient toilet facilities

Table 15 shows that sufficient toilet facilities were not significantly associated with mental stress among female teachers in private schools (p=0.057) and public school female teachers (p=0.315).

Table 12. Association between mental stress of female teachers and salary satisfaction.

Salary satisfaction	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Privat	e schools (n=191)		$\chi^2 = 4.717$
Yes	46 (50.5%)	45 (49.5%)	91 (100.0%)	df=1
No	35 (35.0%)	65 (65.0%)	100 (100.0%)	p=0.030
	Publi	c schools (n=72)		χ²=5.501
Yes	16 (53.3%)	14 (46.7%)	30 (100.0%)	df=1
No	11 (26.2%)	31 (73.8%)	42 (100.0%)	p=0.019

Association between mental stress of female teachers and satisfaction with current teaching profession

Table 15 shows that moderate stress among female teachers was strongly associated with satisfaction with current teaching profession in private schools (p=0.000) and public school teachers (p=0.003).

Comparison of mean Perceived Stress Score with selected attributes

Table 17 illustrates that Mean perceived stress score by selected attributes was significant difference between flexible and not flexible working hours among female teachers in private schools(p=0.001) and public schools(p=0.001). Mean perceived stress score was significant difference between sufficient and not sufficient leisure hours in public school among female teachers (p=0.007) but not significant in private school teachers (p=0.072). Mean perceived stress score significant different satisfied at decision making at school among female teachers in Private school (p=0.012) whereas it was not significant in public schools among female teachers (p=0.321).

Table 13. Association between mental stress of female teachers and support from boss during conflict at work.

Support from boss	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private schools (n=	:191)		$\chi^2 = 2.723$
Yes	78 (44.1%)	99 (55.9%)	177 (100.0%)	df=1
No	3 (21.4%)	11 (78.6%)	14 (100.0%)	p=0.099
	Public schools (n=	72)		χ²=4.721
Yes	25 (43.9%)	32 (56.1%)	57 (100.0%)	df=1
No	2 (13.3%)	13 (86.7%)	15 (100.0%)	p=0.030

Comparison of mean perceived stress score by selected attributes (salary satisfaction and support from boss in schools)

Table 18 states that mean perceived stress score by selected attributes was significant difference between salary satisfaction in female teachers of private schools(p=0.001) and also in public schools (p=0.022). Mean perceived stress score was not significant difference between support from boss at school in private (p=0.169) and also in public school teachers (p=0.050).

Comparison of mean perceived stress score with selected attributes (Educational qualification of husband and Type of workload at school)

Table 19 shows that mean perceived stress score by selected attributes was significant difference among different educational level of the participants in private schools(p=0.006) and not significant with

that in public-school teachers(p=0.053). Regarding type of workload at school, mean perceived stress score was significantly higher in severe workload in private schools (p=0.041), whereas not significant in public schools (p=0.327).

Comparison of mean perceived stress score by selected attributes (Duration of teaching profession and Working hours at school)

Table 20 illustrates that mean perceived stress score by selected attributes was significant difference among different duration of teaching profession in private school teachers(p=0.324), while statistically significant among female teachers of public schools(p=0.005). Regarding working hours, mean perceived stress score was significantly associated among the working hours in private school (p=0.040), while not significant associated in public school (p=0.379).

Table 14. Association between mental stress of female teachers and physical environment of office room.

Office room environment	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private schools	(n=191)		$\chi^2$ =4.605
Satisfied	75 (45.5%)	90 (54.5%)	165 (100.0%)	df=1
Not satisfied	6 (23.1%)	20 (76.9%)	26 (100.0%)	p= 0.032
	Public schools	(n=72)		χ²=.178
Satisfied	21 (38.9%)	33 (61.1%)	54(100.0%)	df=1
Not satisfied	6 (33.3%)	12 (66.7%)	18 (100.0%)	p=0.673

## Discussion

The present comparative cross sectional study has confirmed that mental stress remains a common problem among female teachers .The study was conducted among 263 female school teachers in selected private and public schools in Dhaka city, where 191 from private schools and 72 from public schools.

Table 15. Association between mental stress of female teachers and sufficient toilet facilities.

Sufficient toilet facilities	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
	Private schoo	ls ( n=191)		$\chi^2 = 3.611$
Satisfied	73 (45.3%)	88 (54.7%)	161 (100.0%)	df=1
Not satisfied	8 (26.7%)	22 (73.3%)	30 (100.0%)	p=0.057
	Public school	ols (n=72)		χ²=1.008
Satisfied	21 (41.2%)	30 (58.8%)	51(100.0%)	df=1
Not satisfied	6 (28.6%)	15 (71.4%)	21 (100.0%)	p=0.315

In the study, mean age of school teachers was 38.745 years. Among the school teachers working in private school mean age was 35.52±8.51 years, whereas among teachers from public school the mean age was 41.97±8.13 years. Hundred percent participants were female. These findings are in line with many previous studies. In agreement with our study, Hatti *et al.*, (2016) reported in the study mean age of school

teachers was  $43.23 \pm 8.92$  years. Among the school teachers working in public school mean age was  $44.24 \pm 7.85$  years and private school the mean age was  $42.40 \pm 9.69$  years. De Lange *et al.*, (2003) reported in a study on Primary and Secondary School Teachers, observed that the mean age of primary teachers was 37.48 years and the mean age of secondary teachers was 35.76 years.

**Table 16.** Association between mental stress of female teachers and satisfaction with current teaching profession.

Satisfaction with current teaching profession	Low Stress	Moderate stress	Total	Significance
	f (%)	f (%)	f (%)	
Privat	e schools (n=191)			$\chi^2 = 14.607$
Yes	74 (49.7%)	75 (50.3%)	149 (100.0%)	df=1
No	7 (16.7%)	35 (83.3%)	42 (100.0%)	p=0.000
Publi	c schools (n=72)			$\chi^2 = 8.571$
Yes	26 (46.4%)	30 (53.6%)	56 (100.0%)	df=1
No	1 (6.3%)	15 (93.8%)	16 (100.0%)	p=0.003

Regarding educational qualification, around eighty five percent participants had completed post-graduation in private schools and 80.06% in public school teachers. Most of the female teachers were married 97.9% and 94.4% in private and public school respectively. Majority of the female teachers were Muslim 79.1% and 88.9% in private and public school respectively followed by 13.6% participants

were Hindu in private school and 11.1% participants were Hindu in public school. Private school teacher's average monthly income is 17,933.61 BDT and public school teachers monthly income is 36,223.61.

Maximum female teachers (80.6%) of private school had 2-5 family members and 87.5% had 2-5 family members in public school.

**Table 17.** Comparison of mean perceived stress score by selected attributes (by working hours, leisure hours in schools and satisfied at decision making in school).

	Attributes		Mean score(±SD)	Significance
By working hours	Private	Flexible	17.40±5.149	t=-3.265, df=189
	(n=191)	Not flexible	21.30±4.143	p=0.001
	Public	Flexible	17.61±3.954	t=-3.445, df=70
	(n=72)	Not flexible	21.27±2.052	p=0.001
Leisure hours in	Private	Sufficient	17.23±5.234	t=-1.807, df=189
school	(n=191)	Not sufficient	18.60±5.038	p=0.072
	Public	Sufficient	16.48±4.045	t=-2.755, df=70
	(n=72)	Not sufficient	19.16±3.630	p=0.007
Satisfied at decision	Private	Yes	17.39±5.267	t=-2.534, df=189
making in school	(n=191)	No	19.94±4.195	p=0.012
	Public	Yes	18.08±4.171	t=-1.00, df=70
	(n=72)	No	19.10±3.223	p=0.321

In both private and public school female teachers had nuclear family 73.8% and 83.3% respectively. Most of the participants were live in pucca house 97.4% and approximately ninety nine percent in private and public school female teachers respectively. Ghulzar *et al.*,(2019) reported among public sector secondary school teachers to determine the stressors being faced by the secondary school teachers. In regard to age

349(34.9%) were between 20-30 years, 197(19.7%) were between 31-40 and 454(45.4%) were having age 41 or above 41. Highest qualification of 140(14.0%) participants were B.Ed., 810(81.0%) were having MA or M.Sc. and 50(5.0%) of the participants were M. Phil & Ph. D. The average monthly family income was 68,277 BDT in private school teachers and 92,523 BDT in public school teachers.

**Table 18.** Comparison of mean perceived stress score by selected attributes (salary satisfaction and support from boss in schools).

Attributes			Mean score(±SD)	Significance
Salary satisfaction	Private	Yes	16.47± 5.947	t=-3.490
	Schools	No	19.02±4.038	df=189
	(n=191)			p=0.001
	Public schools	Yes	17.13±4.710	t=-2.340
	(n=72)			df=70
	-	No	19.26±3.005	p=0.022
Support from boss in schools	Private	Yes	17.66± 5.284	t=-1.380
	Schools			df=189
	(n=191)	No	19.64±3.296	p=0.169
	Public schools	Yes	17.91±4.163	t=-1.991
	(n=72)	No	20.13±2.134	df=70
				p=0.050

In present study out of 191 female teachers of private school, 42.4% participants had low stress and 57.6% had moderate stress. In public school out of 72 female teachers, 37.5% participants had low stress and 62.5% had moderate stress. Hatti *et al.*, (2016) reported moderate stress 83.8% in public school, 77.6% moderate stress in private schools. High stress was

found 16.2% in public school teachers and 22.4% participants had high stress in private schools. Onder and Sari (2009) reported as management as source of the stress; two (11.1%) rated as somewhat stressful, six (33.3%) as moderately stressful, five (27.8%) as very stressful and two (11.1%) as extremely stressful shows the scale of the levels of stress.

**Table 19.** Comparison of mean perceived stress score by selected attributes (educational qualification of husband and type of workload at school).

Attrib	Attributes			Significance
Educational qualification of husband	Private schools	H.S.C	21.50±4.950	F=5.285
	(n=191)	Graduate	19.93±4.502	df=2
		Post graduate	17.17±5.216	p=0.006
	Public	H.S.C	9.00±0.00	F=3.072
	schools	Graduate	18.64±4.296	df=2
	(n=72)	Post graduate	18.48±3.726	p=0.053
Type of workload at school	Private	No	16.50±9.192	F=3.252
	schools	Medium	17.12±5.177	df=2
	(n=191)	Severe	19.09±4.935	p=0.041
	Public	Medium	17.88±4.037	F=.974
	schools	Severe	18.79±3826	df=1
	(n=72)			p=0.327

In present study, about around fifty two percent had moderate stress in graduate level of education and 58.6% moderate stress in post-graduate level of education in private school teachers. No significant difference of stress between graduate and postgraduate educational level of private school teachers (p=0.488). In public school teachers moderates stress significantly higher in graduate level of education compare to post-graduation (p=0.046). Qusar (2011) reported in a study qualification affects the mental stress of teachers. Level and type of school

does affects the mental stress whereas qualification with level and type of school does not affect the mental stress, level with type affect mental stress. When qualification, level and type interact with each other it is found that they do not affect mental stress among female teachers. In this study, showed that association of mental stress and among females teacher's husbands educational qualification statistically significant (p=0.02) in private schools and but not statistically significant with that's of (p=0.47) in public schools.

**Table 20.** Comparison of mean perceived stress score by selected attributes and duration of teaching profession and working hours at schools).

Attri	butes	_	Mean Score(±SD)	Significance
Duration of teaching profession	Private	1-2 years	18.76 ±4.782	F=1.167
	schools	3-4 years	16.52±5.738	df=3
	(n=191)	5-6 years	17.58±4.989	p=0.324
		7 or more years	17.65±5.300	
-	Public	1-2 years	19.33±1.528	F=4.726
	schools	3-4 years	19.33±5.774	df=3
	(n=72)	5-6 years	10.67±2.887	p=0.005
		7 or more years	18.65±3.629	
Working hours at school	Private	3-4 hours	15.79±5.778	F=3.277
	schools	5-6 hours	18.35±4.465	df=2
	(n=191)	7-8 hours	17.98±6.035	p=0.040
-	Public	3-4 hours	16.00±4.301	F=.984
	schools			df=2
	(n=72)			p=0.379

In present study, among teachers who had severe workload, 68.7 percent were found to be having moderate stress. Severe work load is significantly associated with stress in private school (p=0.042). In public among teachers who had severe workload, 74.4 percent were found to be having moderate stress. Severe work load is significantly associated with stress in public school (p=0.030). Shyam (2008) demonstrated that teachers with high workload were found to have approximately 20 times higher risk of mental stress when compared to those with normal workload. Mathew (2005) reported in across sectional survey reported from Kerala among teachers of high workload, large class size, poor working environment and low salary were found among

important sources of mental stress. As a result of stress, teachers were having physical and mental disorders, which is nearly similar to this study.

In present study 54 teachers having 1- 2 years of teaching experience among them, 63% female teachers had moderate stress, 3-4 years of experience having 48.0% had moderate stress, with 5-6 years teaching experience having 61.5% had moderate stress and more than 7 years of teaching experience having 55.8% female teachers had moderate stress. No significant difference of stress among different duration of teaching profession in Private school teachers. Duration of teaching profession significantly associated with moderate stress in public school

teachers. Pulse (2005) reported teachers having less experience were having higher level of stress. Inexperienced teachers were found to be having higher stress than experienced teachers. Teachers having higher experience tend to be more satisfied with their profession. In an open-ended finding of the study, some of the inexperienced teachers reported

that they find it difficult to meet the needs of students. In present study mental stress level among primary, secondary and both primary and secondary schools were significantly different (p=0.04) in private school teachers and different working section in school were not significant associated (p=0.06) with public schools.

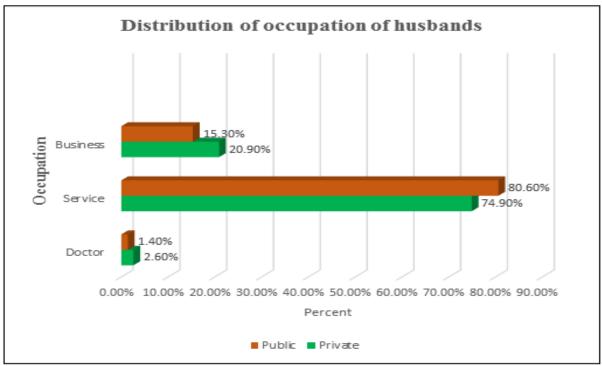


Fig. 1. Distribution of occupation of female teacher's husbands.

Among private female teachers 41(59.4%) moderate stress was found in primary section and 48(65.8%) were found in both primary and secondary working section in school. In public schools female teachers 19(79.2%) were found to moderate stress in primary, 15(48.4%) were in secondary section and 11(64%) were found moderate stress in both primary and secondary working section in schools. Regarding description of working hours, 91(53.2%) moderate stress was found in flexible working hours and 19(95%) were in non-flexible working hours in private schools which was strongly significantly associated (p=0.000) with not flexible working hours in private schools. In public school female teachers, 15(100%) were found moderate stress in not flexible working hour in schools and also highly statistically significant (p=0.001). Regarding satisfaction at decision making, in private female school teachers, 24(77.4%) were

found moderate stress which is significantly associated (p=0.01) with not satisfaction at decision making. Whereas in public schools, 16(76.2%) female teachers were found moderate stress in not satisfaction in decision making in schools and insignificant (p=0.12). Present Analysis indicate salary satisfaction, moderate stress 65(65%) were found not salary satisfaction among private female school teachers which was significantly associated (p=0.03). 31(73.8%) were found moderate stress among public school teachers and which is significantly different (p=0.01) with not satisfaction salary. Regarding support from boss in private schools, 11(78.6%) were found moderate stress in no support from boss which was not significantly associated (p=0.099). In public school, 13(86.7%) were found moderate stress in regarding no support from boss and was significant (p=0.030). Present

study indicates that office room environment was significantly associated (p=0.03) with 20(76.9%) were moderate stress in private school teachers but in public school teachers stress was not significantly associated (p=0.67) with office room environment. Moderate stress 35(83.8%) in private school teachers was significantly associated with satisfaction (p=0.03) with current teaching profession in private schools and not significant associated (p=0.67) in public school teachers. Hatti *et al.*, (2016) reported there is no significant difference in public and private school teachers in total scores of mental stress. However there is significant difference in public and

private school teachers in subscales of mental stress in time management. From the existing literature many studies supported the above finding. Hasty ((2007) showed means for the five sources of stress (time management, work related stressors. professional distress, discipline/motivation, and professional investment) ranged from 2.22 to 3.45 with the highest means for time management (3.45) and work related stressors (3.37). They observed almost no relationship between teachers' sources of stress and their intentions to leave at the end of the school year. However, due to p-values below the study's (p=0.05) level of significance.

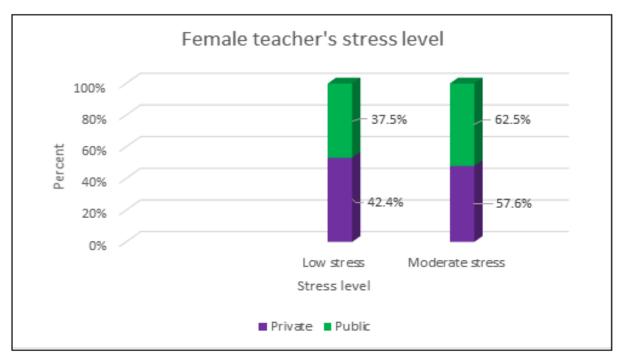


Fig. 2. Distribution of the female teachers by stress level.

In present study, the mean perceived stress score (21.30±4.143) and (21.27±2.052) selected attributes was significant difference (p=0.001) in non-flexible working hours in both private and public school teachers. Mean perceived stress score (19.16±3.630) was significantly different (p=0.007) in not sufficient leisure hours in public school but not significant (0.072) in private school teachers. Mean perceived stress score (19.94±4.195) significantly different (p=0.012) in not satisfied at decision making at school in Private schools, whereas it was not significant (p=0.321) in public schools. Mean perceived stress score (19.02±4.038) by selected

attributes was significantly different (p=0.001) no salary satisfaction in female teachers of private schools and (19.26±3.005) also significant (p=0.022) in public schools. Mean perceived stress score was not significantly different (p=0.169) between support from boss at school in private schools and also not significant difference (p=0.05) in public school teachers. Mean perceived stress score (21.50±4.950) by selected attributes was significantly different (p=0.006) among H.S.C educational level of the husbands of female teachers in private schools and18.48±3.726also significantly different (p=0.05) in post-graduate level of education among husbands

of female teachers in public-school. Regarding type of workload at school, mean perceived stress score (19.09±4.935) was significantly higher (p=0.04) in severe workload in private school, whereas not significant (p=0.32) in public school.

Mean perceived stress score by selected attributes was not significantly different (p=0.32) among different duration of teaching profession in private school teachers. While mean perceived stress score (19.33±1.528) significantly different (p=0.005) in female teacher of public schools. Regarding working hours, mean perceived stress score was (18.56±3.601) significantly different (p=0.04) among the working hours in private school, while not significant difference (p=0.37) in public school female teachers.. Saravanan *et al.*, (2017) showed that the significant difference between the mean values of public & private school teachers (5.24) and public & private school teachers (4.52) in relation to job satisfaction.

Although of the findings of the study is more or less similar to the other findings as mention but similar conclusion cannot be made due to the different study place, study period, sample size and also the data analysis.

#### Conclusion

The present study revealed that the level of mental stress remains a common problem among female teachers both in private and public schools. This comparative cross-sectional study was carried to assess the level of mental stress and related influencing factors among the female teachers. In this study majority of the female teachers have moderate stress in both private and public schools? In public school teachers, moderates stress significantly higher graduate level of education. Educational qualification of the husband of private school of female teacher was significantly associated with mental stress. Severe work load in both private and public school significantly associated with mental stress. Duration of teaching profession significantly associated with moderate stress in public school. Working section in schools and working hours in not flexible among female teachers in private schools are significant associated? statistically Regarding satisfaction at decision making and salary satisfaction significantly associated mental stress in private schools. Office room environment was significantly associated in private schools. Moderate stress among female teachers was strongly associated with satisfaction with current teaching profession in both private and public schools. Mean perceived stress score by selected attributes was significant difference between flexible and not flexible working hours among female teachers in both private and public schools. Teacher plays a great role in the education of every student. Since the study relies heavily on information's obtained from a small sample of female teachers in selected private and public school the findings might not portray an accurate picture of mental stress among female teachers in the country. However, the study is significant in that its represent a step towards re-examining previously held belief about the magnitude of mental stress experienced by practicing teachers.

On the basis of findings of the study following recommendation are forwarded to reduce mental stress and to improve mental health condition of female school teachers.

- Severe workload and flexibility in working hour is an important factor in moderate stress in both private and public female school teachers. So necessary steps to be taken to make the working hour flexible for them to balance their time with family and other social work.
- Ensuring favorable policy towards teachers in terms of increased salaries and benefits and condition of the employment both in private and public teachers.
- The unfavorable physical environment (insufficient working space, cleanness, sufficient toilet facilities etc.) is one of the important stressors causing physical and mental stress which can be reduced by improving physical environment of the work place.
- A financial commitment from the state to respond to the demands of the 21st century in

education, allowing per equipment improvements and modern communication tools.

• Finally, awareness should be created in the society to acknowledge female teachers active and devoted are improving quality of education.

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