

Prevalence of Occupational Stress, Perceived Stress and Fatigue among Private School Teachers in Surat City: A Cross-Sectional Study

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Abstract: ***Background:** Stress is the most prevalent psychological factor that we can see in the today's world. Fatigue causes a reduction in performance. It may even cause Work-related Musculoskeletal Disorders (WRMSDs) and it promotes a set of changes in the body resulting from physical or mental activities in excess that lead to feeling of tiredness. **Objectives:** To determine the prevalence of Occupational Stress, Perceived Stress and fatigue among private school teachers and correlation with independent variables (age, gender, work experience, rest time and marital status). **Methods:** Data will be collected on demographic data-sheet. Teachers occupational stress scale (TOSS), Perceived Stress Scale (PSS) and Fatigue assessment scale (FAS) will be used to assess Occupational stress and Fatigue respectively. **Results:** The results of the study show that occupational stress is more (64.10%) in higher secondary school teachers and Primary school teachers presented higher level (1.30%) of perceived stress. The level of fatigue is more (5%) in primary school teachers in compared to secondary and higher secondary school teachers. **Conclusion:** This study focused on the prevalence of Occupational stress, Perceived stress and Fatigue among private school teachers in Surat City, India. The study concluded that Occupational stress is more in higher secondary school teachers whereas, Perceived stress and Fatigue are more in primary school teachers. The study concluded that there is a significant association of Age with Occupational stress and Fatigue, Marital status with Perceived stress and Fatigue, and Rest time with Perceived stress.*

Keywords: Occupational stress, Fatigue, Primary, Secondary, Higher secondary Private school teachers

1. Introduction

It's challenging to define stress. According to Hans Selye, who is frequently referred to as the "Father of Stress," "Everyone knows what stress is, but nobody really knows." According to Selye, "Stress is the body's nonspecific reaction to any demand".⁽⁴⁾

Stress can manifest as both internal and external symptoms. According to Riches (1994) Internal symptoms can include feeling ill, being irritated, or having a headache. Throwing things, screaming with anger, sobbing, etc. are examples of possible external symptoms. However, even when working in the same environment, many people may experience different levels of stress.⁽⁵⁾

The phrase "stress at work" refers to occupational stress. It happens when the needs of the workplace and those of the individual are at odds. The feeling of unpleasant emotional states including annoyance, concern, anxiety, and sadness that are attributed to work-related problems is known as job stress, often referred to as occupational stress.⁽⁶⁾

Occupational Stress often degrades teachers' quality of life as well as their general mental and physical health. Additionally, it causes negative feelings like despair and anxiety that make it difficult for the teacher to function at work or manage everyday life.

Academic workers experience stress at work because of an imbalance between their workload and their capacity to handle it. Academic staff members typically engage in

research and teaching activities that demand focus and energy. Due to their extensive workloads and other issues on an individual and organisational level, academic faculty are under pressure.⁽⁸⁾

Among the main symptoms that teachers present due to the pressure to which they are exposed related to the use of educational technology are stress and anxiety.⁽⁹⁾ Considering all of the different conceptualizations, stress in the workplace refers to the response adopted by individuals when faced with a threatening situation in the workplace resulting from different factors that are aggravated by the use of new technologies.⁽¹⁰⁾

There are numerous interpretations of fatigue. It seems connected to the state brought on by sleep deprivation at the level of overt behaviour. The assessment techniques employed should presumably be those utilised in studies of stress if fatigue manifests as a generalised stress response.⁽¹¹⁾ Fatigue can be caused by working too much or too hard at jobs or home and can also cause by not knowing how to manage the time well and take time for rest and relaxation.⁽¹²⁾

Fatigue causes a reduction in performance and as a result, the increase in absences. It may even cause labour diseases called Repetitive Strain Injury or Work-related Musculoskeletal Disorders (RSI / WMSDs). Fatigue promotes a set of changes in the body resulting from physical or mental activities in excess that lead to feeling of tiredness.^(12, 13)

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Fatigue can be understood as an effect of continued work, which tends to cause reversible reduction of the body's capacity and a quality degradation of this work. It is caused by a complex set of factors whose effects are cumulative. There are physiological factors such as intensity and duration of physical and intellectual work; psychological factors such as monotony and lack of motivation; environmental factors such as inadequate lighting and excessive noise, besides organizational factors, concerning the relationship with the leadership and co-workers. ^(12, 14)

2. Materials and Methods

Study Design:-A Cross-Sectional Study.

Study Setting:-Private schools of Surat city.

Study Population:-25 to 65 years old Private school teachers.

Sample Design:-Convenient Sampling

Sample Size:-286 samples

Study Duration:-9 months.

Criteria for selection:

Subjects for the study were selected based on the following criteria.

Inclusion criteria:

- 1) Subjects who are willing to participate.
- 2) Teachers of private schools.
- 3) Age between 25 to 65 years old school teachers.
- 4) Both males and females.

Exclusion criteria:

- 1) Teachers of Hindi and Gujarati mediums.
- 2) Teachers of Government schools.

Outcome measures:

- 1) Teachers Occupational Stress Scale (TOSS)
- 2) Perceived stress scale (PSS)
- 3) Fatigue Assessment Scale (FAS)

Methodology

A Cross-Sectional study was carried out from August 2022 to February 2023. Prior to data collection, all private school teachers were informed of the study purpose and procedures, and written informed consent was taken. Convenient sampling technique was performed in this study. According to our convenience the schools were selected from Surat. Population was selected according to inclusion and exclusion criteria of our study which will be Private School teachers of primary, secondary and higher secondary schools. Permission was taken from Principals of their

schools for our research study. The procedure was explained to all the subjects about the study. All the subjects were assessed as per evaluation format. The sample was estimated to be 318 defined in a randomized manner. We gave the questionnaires to them and ask them to fill the data. The first part of the questionnaire includes socio- demographic details like gender, age, marital status, rest time per day and work experience. The second part of the questionnaire includes teacher occupational stress scale which is a 20 items scale. The third part has perceived stress scale which is a 10-item scale that examines the perceived stress of the last 1 month. The fourth part includes fatigue assessment scale which is 10 item scale. Observations were carried out during the study period regarding the working environment, work nature and some related psychosocial factors. After collecting the data, we interpreted and analysed the data.

3. Result

Table 1: Mean Age of Participants According to Gender

Age Group	N	Mean Age	Standard Deviation
Female	150	34.47	±30.32
Male	136	35.69	±31.21

Table 1 displays the age distribution among the 286 participants. The mean age of the female is 34.47 with standard deviation ±30.32 and mean age of the male is 35.69 with standard deviation ±31.21.

Table 2: Percentage of Total Population According to Educational Level

S No.	Educational Level	Frequencies	Percentage
1.	Primary	80	27.97%
2.	Secondary	114	39.86%
3.	Higher secondary	92	32.16%

Table 2-The present study population was divided into following 3 categories based on their Educational levels i. e., Primary (27.97%), Secondary (39.86%), and Higher secondary (32.16%).

Table 4: Frequency & Percentage of Teachers Experiencing Less, Moderate and More Occupational stress

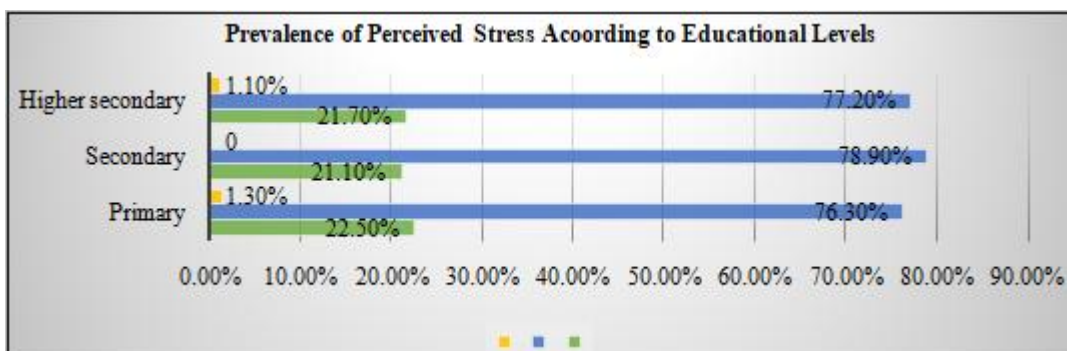
S no.	Education level	Teachers occupational stress scale		
		Less	Moderate	More
1.	Primary	5 (6.30%)	28 (35%)	47 (58.80%)
2.	Secondary	5 (4.40%)	41 (36%)	68 (59.60%)
3.	Higher secondary	7 (7.60%)	26 (28.30%)	59 (64.10%)



Graph 1: Percentage Distribution of Occupational Stress according to Educational Levels.

Table 5: Frequency & Percentage of Teachers Experiencing Low, Moderate and High Perceived Stress

Sr no.	Education level	Perceived stress scale		
		Low	Moderate	High
1.	Primary	18 (22.50%)	61 (76.30%)	1 (1.30%)
2.	Secondary	24 (21.10%)	90 (78.90%)	-
3.	Higher secondary	20 (21.70%)	71 (77.20%)	1 (1.10%)

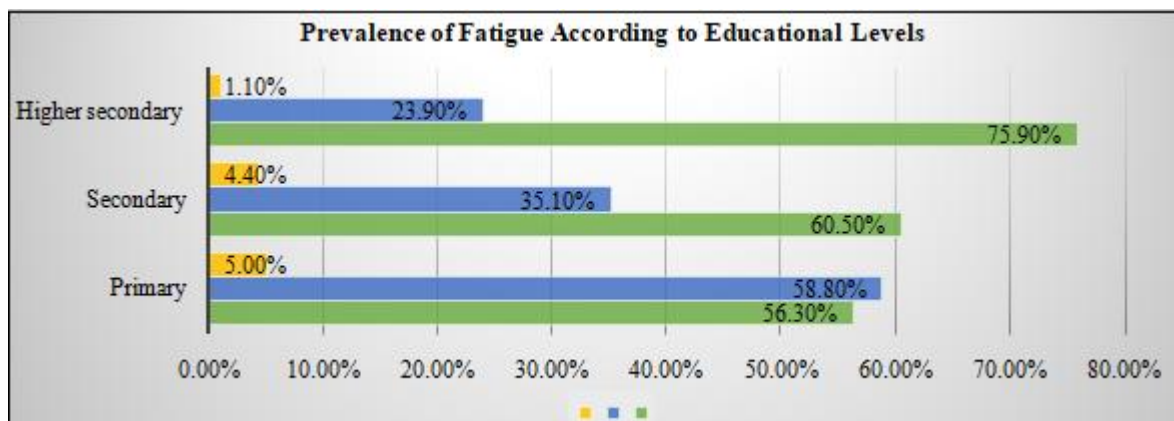


Graph 2: Percentage Distribution of Perceived Stress According To Educational Levels.

In Graph 2 all categories teachers are divided into three groups, that is low, moderate and high stressed groups, on the basis of their Perceived stress scores.

Table 6: Frequency & Percentage of Teachers Experiencing Less, Moderate and More Fatigue

S. No.	Education level	Fatigue assessment scale		
		Less	Moderate	More
1.	Primary	45 (56.30%)	31 (58.80%)	4 (5%)
2.	Secondary	69 (60.50%)	40 (35.10%)	5 (4.40%)
3.	Higher secondary	69 (75.90%)	22 (23.90%)	1 (1.10%)



Graph 3: Percentage Distribution of Fatigue according to Educational Levels

In Graph 3 all categories teachers are divided into three groups, that is Less, Moderate and More levels of fatigue, on the basis of their fatigue scores.

Table 7: Association between the Sociodemographic Data (Age, Gender, Marital Status) with Stress and Fatigue.

Educational Level	Scales	Sociodemographic data		
		Age	Gender	Marital status
Primary	TOSS	0.178	0.184	0.708
	PSS	0.152	0.486	0.794
	FAS	0.032	0.696	0.386
Secondary	TOSS	0.466	0.277	0.63
	PSS	0.298	0.069	0.026
	FAS	0.044	0.015	0.683
Higher secondary	TOSS	0.063	0.547	0.244
	PSS	0.930	0.147	0.000
	FAS	0.447	0.261	0.003

Table 7 shows association between the sociodemographic data with Occupational stress, perceived stress and fatigue. There is a significant association of Perceived stress with Marital status in secondary ($p=0.02$) and higher secondary ($p=0.00$) school teachers.

In Primary and Secondary school teachers, Fatigue is associated with Age ($p=0.03$) and ($p=0.04$) respectively. There is a significant association of Fatigue with Gender ($p=0.01$) in Secondary school teachers.

Also there is a significant association of Fatigue with Marital status ($p=0.003$) in Higher secondary school teachers. Meanwhile, there is no association between sociodemographic data with stress and fatigue in Secondary school teachers.

Table 8: Association between the Work Characteristics (Work Experience and Rest time) with Stress and fatigue

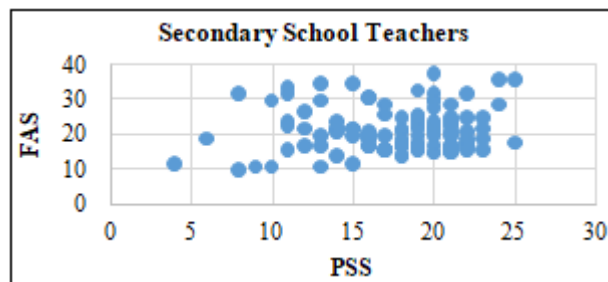
Educational level	Scales	Work characteristics	
		Work experience	Rest time
Primary	TOSS	0.751	0.553
	PSS	0.574	0.014
	FAS	0.921	0.274
Secondary	TOSS	0.658	0.616
	PSS	0.309	0.000
	FAS	0.298	0.802
Higher secondary	TOSS	0.716	0.497
	PSS	0.417	0.028
	FAS	0.638	0.269

Table 8 shows association between the work characteristics with Occupational stress, perceived stress and fatigue. There is a significant association of the Perceived stress with rest time in Primary (p=0.01), Secondary (p=0.00) and Higher secondary (p=0.02) school teachers. Meanwhile, there is no association between work characteristics with stress and fatigue in Secondary school teachers.

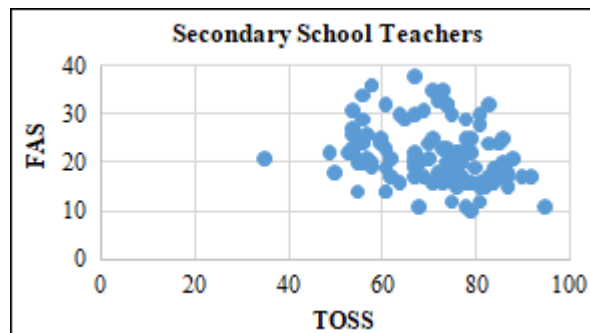
Table 9: Correlation between Occupational stress, Perceived stress and Fatigue of primary, secondary and higher secondary school teachers

	TOSS*PSS	TOSS*FAS	FAS*PSS
Primary	0.948	0.007	0.01
Secondary	0.758	0.001	0.01
Higher secondary	0.183	0.00	0.001

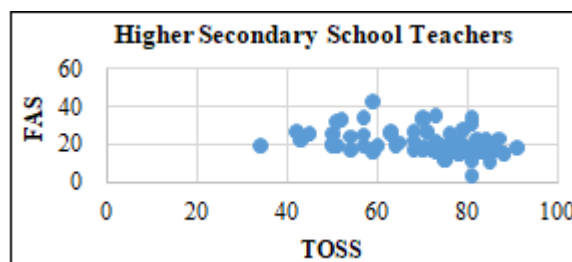
Table 9 shows the correlation between Occupational stress, perceived stress and fatigue of primary, secondary and higher secondary school teachers. P value of <0.05 is considered significant in this study. So here, there is significant association of Occupational stress with fatigue and also Perceived stress with Fatigue (p=0.01). Meanwhile, there is no significance between Occupational stress and Perceived stress.



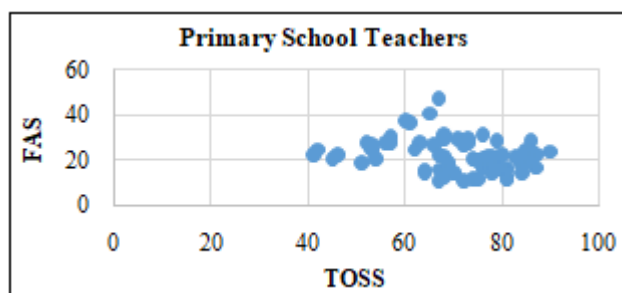
(C) Shows the correlation between Fatigue and Occupational Stress in Secondary school teachers



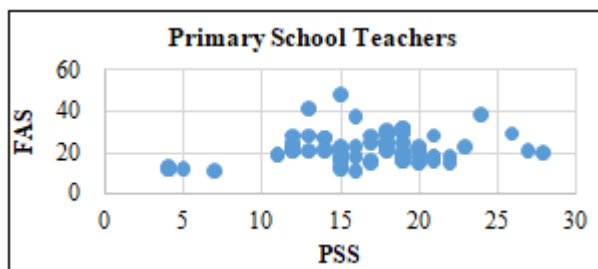
(D) Shows the correlation between Fatigue and Perceived Stress in Secondary school teachers.



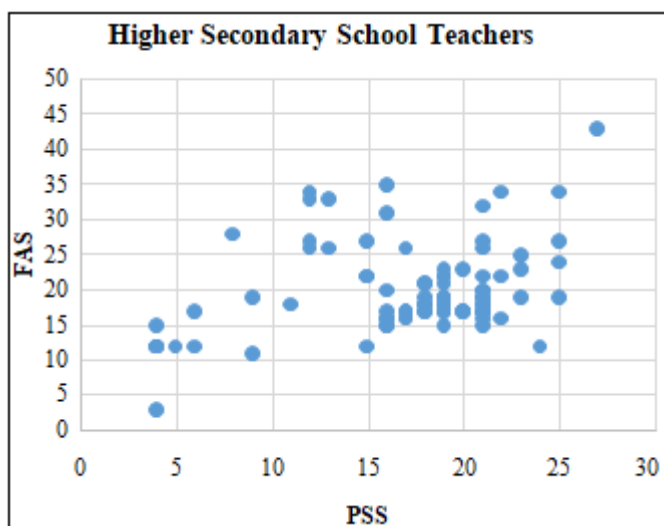
(E) Shows the correlation between Fatigue and Occupational Stress in higher Secondary school teachers.



(A) Shows the correlation between Fatigue and Occupational Stress in Primary school teachers



(B) Shows the correlation between Fatigue and Percived Stress in Primary school teachers.



(F) Shows the correlation between Fatigue and Perceived Stress in higher Secondary school teachers

Diagram 1: Scatter Diagrams of Correlation of Occupational Stress, Perceived Stress and Fatigue

4. Discussion

The objectives of the study are to determine the prevalence of occupational stress, perceived stress and fatigue among

Primary, Secondary and Higher secondary private school teachers and correlation of occupational stress, perceived stress and fatigue with age, gender, marital status, work experience and rest time.

The results of the study show that occupational stress is more (64.10%) in higher secondary school teachers. Work overload, lack of communication and loss of teaching control have all been cited in the international literature as being sources of stress in teachers lives. Also one other study in Hong Kong jin et al. (2008) found that increasingly competitive environment, teachers were being placed under parental pressure to prepare students for various examinations.

The results of our study indicated that primary school teachers presented higher level (1.30%) of perceived stress. Because they have to deal with child and also in regards to discipline and classroom management, they face more stressful events.

The level of fatigue is more (5%) in primary school teachers in compared to secondary and higher secondary school teachers. The reason behind this is primary teachers have more physical load in order to work with unmotivated or careless child Arul Edison Anthony, (2016). Also the behaviour of child, professional responsibilities and child discipline can affect teachers physically.

The study also reveals a significant correlation of occupational stress and perceived stress with fatigue. Because of the responsibilities to complete work on time, to deal with unco-operative students and poor working condition causes stress at work and because of increasing in mental load. They feel exhausted and tired physically as well as mentally.

This study also finds association between age and occupational stress. The stress in teachers increases with an increase in their age. It suggests that the old age teachers are having more occupational stress than young age teachers. It is mainly due to heavy workload, job dissatisfaction and burnout at the work.

The results also suggest that there is a significant relation of marital status with perceived stress and fatigue. It suggests that marriage life can affect professional life because teachers have responsibilities at work as well as in family.

There are many causes of stress which affects the person both physically and mentally. Surinder Kaur (2011) found that-working conditions like large classes, lack of resources, crowded staff area, working on school matters during vacations and also behaviors of students, verbal abuse from students towards staff, students using bad language, attitude of students towards authority and risk of violence from students-are main causes of stress for teachers.

5. Conclusion

The aim of the present study was to assess the prevalence of Occupational stress, Perceived stress and fatigue among Private School Teachers. Based on the results, the

prevalence of Occupational stress (64.10%) in Higher Secondary School Teachers. The prevalence of Perceived stress and Fatigue is Higher (1.30%) and (5%) in Primary School Teachers. Also results suggests that there is a significant association of Age with Occupational stress and Fatigue, Marital status with Perceived stress and Fatigue, and Rest time with Perceived stress.

Occupational stress among instructors at higher secondary schools needs to be reduced for the benefit of educational institutions. An increase in educational standards, a rise in school enrolment, a decrease in the drop-out rate, an improvement in teacher morale, a decline in compensation claims, and a decrease in workplace accidents can all be benefits of a systematic and collaborative approach to stress reduction. The most important benefit in reducing occupational stress is that it will promote a pleasurable work environment for all.

This study calls for appropriate interventions to prevent or reduce Perceived stress and fatigue among primary school teachers for the betterment of the teachers as well as children. It is recommended that regular assessment of stress level and fatigue level should be conducted for preventive measures. Besides that, the institution or management should investigate the cause for fatigue and stress and evaluate the organizational climate of the schools. They should also suggest ways, like seminars and workshops to alleviate and cope with stress and fatigue.

6. Limitation

- The study was restricted to Surat.
- This study was completed in a constrained amount of time.

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