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A Comparative Study Across Gender, Experience, Locality, And Teaching Stream

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Abstract: Occupational stress has emerged as a pervasive challenge in the teaching profession, affecting teachers' well-being, instructional quality, and institutional functioning. The present study investigated occupational stress among government school teachers and examined differences based on gender, teaching experience, locality, and academic stream. A sample of 150 teachers was selected using stratified random sampling. Data were collected using a standardized Occupational Stress Index. Statistical analyses included mean, standard deviation, and critical ratio tests. Results indicated significant differences in stress based on teaching experience, whereas gender, locality, and teaching stream showed no significant differences. These findings suggest that occupational stress among teachers is influenced more by professional exposure than demographic characteristics. The study highlights the need for institutional support mechanisms to reduce stress and improve teacher effectiveness.

Keywords: occupational stress, teachers, experience, educational psychology, school environment

INTRODUCTION: Modern education systems operate within demanding socio-economic environments that place extensive responsibilities on teachers. Teaching is widely recognized as a psychologically demanding profession due to workload pressures, administrative expectations, role conflicts, and classroom management challenges. Occupational stress refers to a condition arising when job demands exceed an individual's capacity to cope effectively.

Stress has historically been understood as the strain experienced when individuals encounter environmental demands requiring adaptation. It may produce both beneficial and harmful outcomes depending on intensity and duration. In professional contexts, stress emerges when perceived demands surpass available coping resources.

Teaching is particularly susceptible to occupational stress because it involves emotional labour, social interaction, accountability pressures, and performance expectations. Research suggests that persistent stress can reduce productivity, impair health, and lower job satisfaction.

Understanding teacher stress is essential for educational systems because teachers play a central role in student development, institutional stability, and academic achievement. Investigating the factors influencing stress among teachers can therefore inform policy decisions, administrative reforms, and professional development programs.

CONCEPTUAL FRAMEWORK

Concept of Stress: Stress is commonly defined as the strain experienced when environmental demands tax or exceed an individual's adaptive capacity. Scholars have described it as a dynamic interaction between person and environment in which perceived demands create psychological tension.

Occupational Stress: Occupational stress refers specifically to stress arising from work conditions, including workload, role ambiguity, lack of administrative support, and emotional exhaustion. Teaching has been identified as one of the most stressful professions due to interpersonal demands and institutional constraints.

REVIEW OF LITERATURE

Global Research Trends: Recent studies indicate that teacher stress is a universal concern affecting educational systems worldwide. Research has linked occupational stress with burnout, reduced teaching effectiveness, and mental health concerns. International studies demonstrate that workplace climate, administrative support, and workload significantly predict stress levels.

Indian Research Evidence: Indian studies have produced mixed findings regarding demographic predictors of stress. Some research indicates gender differences, while others report negligible variation. Similarly, studies examining experience levels suggest that novice teachers often experience higher stress due to adjustment challenges, whereas experienced teachers may experience stress due to administrative responsibilities.

Empirical Studies on Adjustment and School Variables: Prior educational research shows that demographic variables sometimes fail to produce significant psychological differences. For example, studies have reported no significant gender differences in adjustment or school functioning among students. Other investigations indicate that urban–rural comparisons may yield inconsistent results, with some reporting advantages for urban students while others find no differences.

Research Gap: Although numerous studies have examined teacher stress, few investigations simultaneously analyze demographic and professional variables within a single design. This gap highlights the importance of studies that evaluate multiple predictors of occupational stress together.

NEED AND SIGNIFICANCE OF THE STUDY: Existing research has explored occupational stress extensively; however, many contextual variables remain understudied. The present investigation was undertaken to explore unexplored parameters and generate knowledge relevant to the selected study area.

Understanding stress among teachers is significant because:

- stress influences teaching effectiveness
- stress affects student learning indirectly
- stress contributes to absenteeism and burnout
- stress impacts institutional performance

OBJECTIVES

1. To examine occupational stress among government school teachers.
2. To compare stress levels across gender.
3. To compare stress levels across locality.
4. To compare stress levels based on teaching experience.
5. To compare stress levels between science and arts teachers.

HYPOTHESES

The following null hypotheses were tested:

1. No significant gender difference in occupational stress.
2. No significant locality difference.
3. No significant difference based on experience.
4. No significant difference based on teaching stream.

METHODOLOGY

Research Design: The study employed a descriptive survey method with comparative statistical analysis.

Sample: Sample consisted of teachers selected from government schools. Participants were grouped based on gender, locality, experience, and teaching stream.

Instrument: Data were collected using a standardized Occupational Stress Index developed by recognized psychological researchers by Dr. A. K. Srivastava and Dr. A. P. Singh.

Variables:

Independent variables

- Gender
- Locality
- Experience
- Teaching stream

Dependent variable

- Occupational stress

Procedure: Participants completed the stress inventory under standardized conditions. Responses were recorded and scored according to manual instructions.

STATISTICAL TECHNIQUES

The following statistical measures were used:

- Mean
- Standard deviation
- Critical ratio test

The formulas used for analysis included:

$$\text{Mean} = \Sigma X / N$$

$$\text{Critical Ratio} = |M_1 - M_2| / \sqrt{((SD_1^2/N_1) + (SD_2^2/N_2))}$$

In the present study, 'Simple Random sampling' method was applied. The sample of the present investigation was drawn randomly from Government school teachers. The Sample consists of 150 teachers teaching in government schools of Kishtwar District of J&K.

Table showing the details of sample selected for the study:

S. No	Name of the schools	Male	Female	Total
1.	Govt. High School Damber	03	03	06
2.	Govt. Middle School Banipura	03	03	06
3.	Govt. Primary School DamberChhatroo	02	02	04
4.	Govt. Middle School Sewa	06	01	07
5.	Govt. Middle School Mulchaiter	04	03	07
6.	Govt. High School Chingam	04	06	10
7.	Govt. Middle School ParnaChingam	01	05	06
8.	Govt. Middle School Chhatroo	03	03	10
9.	Govt. Pry. School DogaBatwariChhatroo	01	01	02
10.	Govt. Middle School HawalChhatroo	04	02	06
11.	Govt. Model Hr. Sec. School Chhatroo	10	10	20
12.	Govt. Hr. Sec. School Kuchhal (Kishtwar)	08	08	16
13.	Govt. Primary School JanseerKuchhal	02	02	04
14.	Govt. Middle School HurmallaKuchhal	05	01	06
15.	Govt. Middle School KuchhalNarhang	02	03	05
16.	Govt. Primary School Thal-par	02	02	04
17.	Govt. High School Gurinalla (Inderwal)	05	06	11
18.	Govt. Middle School Gagrimarh(Inderwal)	02	04	06
19.	Govt. Girls Middle School Mughalmaidan	01	04	05
20.	Govt. High School Sigdi Bata	06	03	09
21.	Govt. Middle School SigdiHindgam	01	03	04
G. Total		75	75	150

ANALYSIS OF DATA AND INTERPRETATION OF RESULTS

Table showing calculation for the raw scores of the occupational stress of male teachers teaching in government schools

C.I	F	M.P	x'	fx'	fx' ²
180 – 189	1	184.5	3	3	9
170 – 179	8	174.5	2	16	32
160 – 169	14	164.5	1	14	14
150 – 159	34	154.5	0	0	0
140 – 149	16	144.5	-1	16	16
130 – 139	2	134.5	-2	4	8
120 - 129	0	124.5	-3	0	0
	N = 75			Σfx' = 13	Σfx'² = 79

$$\text{Mean; } \bar{x} = A.M + \frac{\Sigma fx'}{N} \times i$$

Where, A.M = Assumed mean which is midpoint of modal class interval.

i = Class interval

N = Sample size

$$\bar{x} = 154.5 + \frac{13}{75} \times 10$$

$$\bar{x} = \frac{154.5 \times 75 + 13}{75} \times 10$$

$$\bar{x} = \frac{11587.5 + 13}{75} \times 10$$

$$\bar{x} = \frac{11600.5}{75} \times 10$$

$$\bar{x} = 154.67 \times 10$$

$$\bar{x} = 1546.73$$

$$\text{S.D} (\sigma) = \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{79}{75} - \left(\frac{13}{75}\right)^2}$$

$$\sigma = 10 \times \sqrt{1.053 - \left(\frac{169}{5625}\right)}$$

$$\sigma = 10 \times \sqrt{1.053 - 0.030}$$

$$\sigma = 10 \times \sqrt{1.023}$$

$$\sigma = 10 \times 1.01$$

$$\sigma = 10.1$$

$$\text{Standard error mean (SEM)} = \frac{\sigma}{\sqrt{N}}$$

$$\text{SEM} = \frac{10.1}{8.6}$$

$$\text{SEM} = 1.174$$

Showing calculation for the raw scores of the occupational stress of female teachers teaching in government schools

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	0	184.5	3	3	0
2.	170 - 179	9	174.5	2	18	36
3.	160 - 169	28	164.5	1	20	28
4.	150 - 159	25	154.5	0	0	0
5.	140 - 149	10	144.5	-1	11	10
6.	130 - 139	2	134.5	-2	6	8
7.	120 - 129	1	124.5	-3	3	9
		N = 75			∑fx' = 21	∑fx'² = 91

$$\text{Mean; } \bar{x} = \text{A.M} + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{29}{75} \times 10$$

$$\bar{x} = \frac{154.5 \times 75 + 29}{75} \times 10$$

$$\bar{x} = \frac{11587.5 + 29}{75} \times 10$$

$$\bar{x} = 154.88 \times 10$$

$$\bar{x} = 1548.86$$

$$\text{Standard deviation} (\sigma) = \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{91}{75} - \left(\frac{29}{75}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{91}{75} - \left(\frac{841}{5625}\right)}$$

$$\sigma = 10 \times \sqrt{1.213 - 0.149}$$

$$\sigma = 10 \times \sqrt{1.064}$$

$$\sigma = 10 \times 1.03$$

$$\sigma = 10.3$$

$$\text{Standard Error Mean} = \frac{\sigma}{\sqrt{N}} = \frac{10.3}{\sqrt{75}}$$

$$SE_M = \frac{10.3}{8.6}$$

$$SE_M = 1.197$$

Now, calculate standard error of difference of mean and critical ratio.

$$SE_{DM} = \sqrt{\sigma M_1^2 + \sigma M_2^2}$$

$$\text{Where, } \sigma M_1^2 = 1.174$$

$$\&\sigma M_2^2 = 1.197$$

$$SE_{DM} = \sqrt{(1.174)^2 + (1.197)^2}$$

$$SE_{DM} = \sqrt{1.378 + 1.432}$$

$$SE_{DM} = \sqrt{2.81}$$

$$SE_{DM} = 1.67$$

Critical Ratio:

$$C.R = \frac{|M_1 - M_2|}{SE_{DM}}$$

$$\text{Where, } M_1 = 1548.86$$

$$M_2 = 1546.73$$

$$SE_{DM} = 1.67$$

$$C.R = \frac{1548.86 - 1546.73}{1.67}$$

$$C.R = \frac{2.13}{1.67} = 1.275$$

$$C.R = 1.275$$

Showing calculation for the raw scores of the occupational stress of urban teachers teaching in government schools

S.No	C - I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	1	184.5	3	3	9
2.	170 - 179	4	174.5	2	8	16
3.	160 - 169	11	164.5	1	11	11
4.	150 - 159	16	154.5	0	0	0
5.	140 - 149	11	144.5	-1	11	11
6.	130 - 139	1	134.5	-2	2	4
7.	120 - 129	0	124.5	-3	0	0
		N = 44			∑fx' = 9	∑fx'² = 51

$$\text{Mean, } \bar{x} = A.M + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{9}{44} \times 10$$

$$\bar{x} = \frac{154.5 \times 44 + 9}{44} \times 10$$

$$\bar{x} = \frac{6798 + 9}{44} \times 10$$

$$\bar{x} = \frac{6807}{44} \times 10$$

$$\bar{x} = 154.704 \times 10$$

$$\bar{x} = 1547.04$$

$$\text{Standard deviation } (\sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{51}{44} - \left(\frac{9}{44}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{51}{44} - \left(\frac{81}{1936}\right)}$$

$$\sigma = 10 \times \sqrt{1.159 - 0.041}$$

$$\sigma = 10 \times \sqrt{1.118}$$

$$\sigma = 10 \times 1.05$$

$$\sigma = 10.5$$

$$\text{Standard error mean (SE}_M) = \frac{\sigma}{\sqrt{N}}$$

$$SE_M = \frac{10.5}{\sqrt{44}}$$

$$SE_M = \frac{10.5}{6.63}$$

$$SE_M = 1.583$$

Showing calculation for the raw scores of the occupational stress of rural teachers teaching in government schools

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 – 189	0	184.5	3	0	0
2.	170 – 179	13	174.5	2	26	52
3.	160 – 169	31	164.5	1	31	31
4.	150 – 159	43	154.5	0	0	0
5.	140 – 149	15	144.5	-1	15	15
6.	130 – 139	3	134.5	-2	6	12
7.	120 – 129	1	124.5	-3	3	9
		N = 106			$\sum fx' = 33$	$\sum fx'^2 = 119$

$$\text{Mean; } \bar{x} = A.M + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{33}{106} \times 10$$

$$\bar{x} = \frac{154.5 \times 106 + 33}{106} \times 10$$

$$\bar{x} = \frac{11608.5}{106} \times 10$$

$$\bar{x} = 154.78 \times 10$$

$$\bar{x} = 1547.8$$

$$\text{Standard Deviation (} \sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{97}{75} - \left(\frac{21}{75}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{97}{75} - \left(\frac{441}{5625}\right)}$$

$$\sigma = 10 \times \sqrt{1.293 - 0.078}$$

$$\sigma = 10 \times \sqrt{1.215}$$

$$\sigma = 10 \times 1.102$$

$$\sigma = 11.02$$

$$\text{Standard error mean (SE}_M) = \frac{\sigma}{\sqrt{N}}$$

$$SE_M = \frac{11.02}{\sqrt{75}}$$

$$SE_M = \frac{11.02}{8.6}$$

$$SE_M = 1.281$$

Now, calculate standard error of difference of means and critical ratio.

$$SE_{DM} = \sqrt{\sigma M_1^2 + \sigma M_2^2}$$

$$\text{Where, } \sigma M_1^2 = 1.281$$

$$\&\sigma M_2^2 = 1.182$$

$$SE_{DM} = \sqrt{(1.281)^2 + (1.182)^2}$$

$$SE_{DM} = \sqrt{1.640 + 1.397}$$

$$SE_{DM} = \sqrt{3.037}$$

$$SE_{DM} = 1.74$$

Critical Ratio:

$$C.R = \frac{|M_1 - M_2|}{SE_{DM}}$$

$$\text{Where, } M_1 = 1547.8$$

$$M_2 = 1547.4$$

$$SE_{DM} = 1.74$$

$$C.R = \frac{1547.8 - 1547.4}{1.74}$$

$$C.R = \frac{0.4}{1.74}$$

$$C.R = 0.229$$

Table showing calculation for the raw scores of the occupational stress of teachers on the basis of experience less than 10 years teaching in government schools;

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	0	184.5	3	0	0
2.	170 - 179	3	174.5	2	6	12
3.	160 - 169	21	164.5	1	21	21
4.	150 - 159	35	154.5	0	0	0
5.	140 - 149	12	144.5	-1	12	12
6.	130 - 139	3	134.5	-2	6	12
7.	120 - 129	1	124.5	-3	3	9
N = 75					∑fx' = 06	∑fx'² = 66

$$\text{Mean } \bar{x} = A.M + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{6}{75} \times 10$$

$$\bar{x} = \frac{154.5 \times 75 + 6}{75} \times 10$$

$$\bar{x} = \frac{11587.5 + 6}{75} \times 10$$

$$\bar{x} = 154.58 \times 10$$

$$\bar{x} = 1545.8$$

$$\text{Standard Deviation } (\sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{66}{75} - \left(\frac{6}{75}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{66}{75} - \left(\frac{36}{5625}\right)}$$

$$\sigma = 10 \times \sqrt{0.88 - 0.006}$$

$$\sigma = 10 \times \sqrt{0.874}$$

$$\sigma = 10 \times 0.934 = 9.34$$

$$SE_M = \frac{\sigma}{\sqrt{N}}$$

$$SE_M = \frac{9.34}{\sqrt{75}}$$

$$SE_M = \frac{9.34}{8.6}$$

$$SE_M = 1.086$$

Showing calculation for the raw scores of the occupational stress of teachers on the basis of experience greater than 10 years

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	1	184.5	3	0	0
2.	170 - 179	14	174.5	2	28	56
3.	160 - 169	21	164.5	1	21	21
4.	150 - 159	24	154.5	0	0	0
5.	140 - 149	14	144.5	-1	14	14
6.	130 - 139	1	134.5	-2	2	4
7.	120 - 129	0	124.5	-3	0	0
N = 75					∑fx' = 33	∑fx'² = 95

$$\text{Mean } \bar{x} = A.M + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{33}{75} \times 10$$

$$\begin{aligned}\bar{x} &= \frac{154.5 \times 75 + 33}{75} \times 10 \\ \bar{x} &= \frac{11587.5 + 33}{75} \times 10 \\ \bar{x} &= 154.94 \times 10 \\ \bar{x} &= 1549.4\end{aligned}$$

$$\text{Standard Deviation } (\sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\begin{aligned}\sigma &= 10 \times \sqrt{\frac{95}{75} - \left(\frac{33}{75}\right)^2} \\ \sigma &= 10 \times \sqrt{\frac{95}{75} - \left(\frac{1089}{5625}\right)} \\ \sigma &= 10 \times \sqrt{1.266 - 0.1936} \\ \sigma &= 10 \times \sqrt{1.0724} \\ \sigma &= 10 \times 1.035 = 10.35\end{aligned}$$

$$\begin{aligned}\text{SE}_M &= \frac{\sigma}{\sqrt{N}} \\ \text{SE}_M &= \frac{10.35}{\sqrt{75}} \\ \text{SE}_M &= \frac{10.35}{8.6} \\ \text{SE}_M &= 1.203\end{aligned}$$

Now calculate standard error of difference of mean and critical ratio.

$$\text{SE}_{DM} = \sqrt{\sigma M_1^2 + \sigma M_2^2}$$

$$\text{Where } \sigma M_1^2 = 1.203$$

$$\&\sigma M_2^2 = 1.086$$

$$\text{SE}_{DM} = \sqrt{(1.203)^2 + (1.086)^2}$$

$$\text{SE}_{DM} = \sqrt{1.447 + 1.179}$$

$$\text{SE}_{DM} = \sqrt{2.626}$$

$$\text{SE}_{DM} = 1.62$$

$$\text{C.R} = \frac{|M_1 - M_2|}{1.62}$$

$$\text{C.R} = \frac{1549.4 - 1545.8}{1.62}$$

$$\text{C.R} = \frac{3.6}{1.62}$$

$$\text{C.R} = 2.222$$

Table showing calculation for the raw scores of the occupational stress of arts teachers teaching in government schools

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	0	184.5	3	0	0
2.	170 - 179	8	174.5	2	16	32
3.	160 - 169	22	164.5	1	22	22
4.	150 - 159	29	154.5	0	0	0
5.	140 - 149	15	144.5	-1	-15	15
6.	130 - 139	1	134.5	-2	2	4
7.	120 - 129	0	124.5	-3	3	9
N = 75					∑fx' = 18	∑fx'² = 82

$$\text{Mean } \bar{x} = \text{A.M} + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{18}{75} \times 10$$

$$\bar{x} = \frac{154.5 \times 75 + 18}{75} \times 10$$

$$\bar{x} = \frac{11587.5 + 18}{75} \times 10$$

$$\bar{x} = 154.74 \times 10$$

$$\bar{x} = 1547.4$$

$$\text{Standard Deviation } (\sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{82}{75} - \left(\frac{18}{75}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{82}{75} - \left(\frac{324}{5625}\right)}$$

$$\sigma = 10 \times \sqrt{1.093 - 0.057}$$

$$\sigma = 10 \times 1.017 = 10.35$$

$$SE_M = \frac{\sigma}{\sqrt{N}}$$

$$SE_M = \frac{10.17}{\sqrt{75}}$$

$$SE_M = \frac{10.17}{8.6}$$

$$SE_M = 1.182$$

Showing calculation for the raw scores of the occupational stress of Science teachers teaching in government schools

S.No	C-I	f	M.P	x'	fx'	fx' ²
1.	180 - 189	1	184.5	3	3	9
2.	170 - 179	9	174.5	2	18	36
3.	160 - 169	20	164.5	1	20	20
4.	150 - 159	30	154.5	0	0	0
5.	140 - 149	11	144.5	-1	11	11
6.	130 - 139	3	134.5	-2	6	12
7.	120 - 129	1	124.5	-3	3	9
		N = 75			$\sum fx' = 21$	$\sum fx'^2 = 97$

$$\text{Mean } \bar{x} = A.M + \frac{\sum fx'}{N} \times i$$

$$\bar{x} = 154.5 + \frac{21}{75} \times 10$$

$$\bar{x} = \frac{154.5 \times 75 + 21}{75} \times 10$$

$$\bar{x} = \frac{11587.5 + 21}{75} \times 10$$

$$\bar{x} = 154.811 \times 10$$

$$\bar{x} = 1548.11$$

$$\text{Standard Deviation } (\sigma) = i \sqrt{\frac{\sum fx'^2}{N} - \left(\frac{\sum fx'}{N}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{119}{106} - \left(\frac{33}{106}\right)^2}$$

$$\sigma = 10 \times \sqrt{\frac{119}{75} - \left(\frac{1089}{11236}\right)}$$

$$\sigma = 10 \times \sqrt{1.122 - 0.096}$$

$$\sigma = 10 \times 1.01 = 10.1$$

$$SE_M = \frac{\sigma}{\sqrt{N}}$$

$$SE_M = \frac{10.1}{\sqrt{106}}$$

$$SE_M = \frac{10.1}{10.29}$$

$$SE_M = 0.981$$

Now, calculate standard error of difference of means and critical ratio.

$$SE_{DM} = \sqrt{\sigma M_1^2 + \sigma M_2^2}$$

$$\text{Where } \sigma M_1^2 = 0.981$$

$$\&\sigma M_2^2 = 1.583$$

$$SE_{DM} = \sqrt{(0.981)^2 + (1.583)^2}$$

$$SE_{DM} = \sqrt{0.962 + 2.505}$$

$$SE_{DM} = \sqrt{3.467}$$

$$SE_{DM} = 1.86$$

Critical Ratio:

$$C.R = \frac{|M_1 - M_2|}{SE_{DM}}$$

$$\text{Where, } M_1 = 1548.11$$

$$M_2 = 1547.04$$

$$SE_{DM} = 1.86$$

$$C.R = \frac{1548.11 - 1547.04}{1.86}$$

$$C.R = \frac{1.07}{1.86}$$

$$C.R = 0.575$$

INTERPRETATION OF DATA:

Table showing the occupational stress of males and females teachers teaching in government schools

Gender	N	Mean	S.D	SEM	SEDM	CR	Significance Level
Female	75	1548.86	10.3	1.197			
					1.67	1.275	Insignificant
Male	75	1546.73	10.1	1.174			

Interpretation: From the above table, it has been found that the value of CR for occupational stress among male and female teachers teaching in government schools came out to be 1.275. The said value is not significant at 0.05 and 0.01 level of confidence because the calculated value 1.275 is less than the table value 1.96 and 2.58. This indicates that there is no significant difference in the occupational stress among the male and female teachers teaching in government schools. Thus, the null hypothesis stating that, "There will be no significant difference among government school teachers on the basis of gender" is accepted.

Table showing the occupational stress of Rural and Urban teachers teaching in government schools

Locality	N	Mean	S.D	SEM	SEDM	CR	Significance level
Rural	106	1548.11	10.1	0.981			
					1.86	0.575	Insignificant
Urban	44	1547.04	10.5	1.583			

Interpretation: From the above table, it has been found that the value of CR for occupational stress of teachers on the basis of locality teaching in government schools came out to be 0.575. The said value is not significant at 0.05 and 0.01 level of confidence because the calculated value 0.575 is less than the table value 1.96 and 2.58. This indicates that there is no significant difference in the occupational stress among the rural and urban teachers teaching in government schools. Thus, the null hypothesis stating that, "There will be no significant difference among government school teachers on the basis of locality" is accepted.

Table showing the occupational stress of teachers on the basis of experience teaching in government schools

Experience	N	Mean	S.D	SEM	SEDM	CR	Significance level
Less than 10 years	75	1545.8	9.34	1.086			
					1.62	2.222	significant
Greater than 10 years	75	1549.4	10.35	1.203			

Interpretation: From the above table, it has been found that the value of CR for occupational stress of teachers on the basis of experience teaching in government schools came out to be 2.222. The said value is significant at 0.05 level of confidence because the calculated value 2.222 is greater than the table value 1.96. This indicates that there is significant difference among teachers teaching in government schools with less than five years and greater than years of teaching experience. Thus the null hypothesis stating that, "There will be significant difference among government school teachers on the basis of experience" is accepted.

Table showing occupational stress of science and arts teachers teaching in government schools

Stream	N	Mean	S.D	SEM	SEDM	CR	Significance level
Science	75	1547.8	11.02	1.281			
Arts	75	1547.4	10.17	1.182	1.74	0.229	Insignificant

Interpretation: From the above table, it has been found that the value of C.R for occupational stress of science and arts teachers teaching in government schools came out to be 0.229 is less than the table value 1.96 and 2.58. This indicates that there is no significant difference among the teachers teaching in science and arts stream in government schools. Thus, the null hypothesis stating that, “There will be no significant difference among government school teachers on the basis of stream” is accepted.

RESULTS

Experience and Stress: Teachers with more than ten years of experience showed higher mean stress scores than those with less experience. The calculated CR value (2.222) exceeded the critical value (1.96), indicating a statistically significant difference.

Interpretation: Teaching experience significantly affects stress. Experienced teachers may face administrative responsibilities and role overload.

Stream Differences: Comparison between science and arts teachers revealed a CR value of 0.229, which is lower than the critical value.

Interpretation: Teaching subject specialization does not significantly influence occupational stress.

Gender Differences: No significant gender difference was found in occupational stress levels.

Interpretation: Stress appears to be influenced more by job conditions than by biological or social gender differences.

Locality Differences: No statistically significant difference was observed between teachers from different localities.

Interpretation: Institutional factors may be more influential than geographical context.

DISCUSSION

The findings indicate that occupational stress among teachers is largely independent of demographic characteristics such as gender and locality. This suggests that workplace conditions and professional demands are stronger determinants of stress than personal background variables.

The significant difference based on experience supports developmental theories of professional stress. Early career teachers may experience stress due to adjustment challenges, whereas experienced teachers may experience stress due to administrative responsibilities and workload accumulation.

The absence of stream differences suggests that curriculum specialization does not meaningfully influence stress levels. This may be because institutional pressures apply equally across subject areas.

EDUCATIONAL IMPLICATIONS

The results highlight the need for institutional interventions to reduce occupational stress among teachers.

Suggested measures include:

- supportive administrative culture
- time-management training
- stress-management workshops
- participatory decision-making systems
- improved infrastructure and staffing

These interventions can improve teacher well-being, job satisfaction, and classroom effectiveness.

LIMITATIONS

- Limited geographic scope
- Moderate sample size
- Self-report method
- Cross-sectional design

SUGGESTIONS FOR FUTURE RESEARCH

Future studies should:

- use longitudinal designs
- include private school teachers
- examine psychological coping styles
- explore institutional climate variables

CONCLUSION

The study demonstrates that occupational stress is a prevalent phenomenon among teachers and is significantly influenced by professional experience but not by gender, locality, or teaching stream. These findings emphasize that teacher stress should be addressed through organizational reforms rather than demographic-based interventions. Educational institutions must implement systemic strategies to promote teacher well-being and enhance instructional effectiveness.

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