

Research Article

An Analysis of Key Factors and Demographic Variables of Occupational Stress Influencing Higher Secondary Educators in Kerala

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Abstract: Teachers in the process of shaping students' future with necessary moral values and knowledge, play a crucial role in the society. Higher secondary schools' performance and teachers' well-being has a consequential challenge due to Occupational stress in most of the cities. This study aims to bring out the determinants of occupational stress factors among higher secondary teachers in Kerala. Using Principal component axis with varimax five components emerged as significant factors such as Student Behavioural and Parental Expectation Issues, Academic and Administrative Pressure, Work life Stressors and Professional Support, Inadequate Infrastructure and Resources and Time and Appreciation Crunch which together contributed for 69% of the occupational stress. The study emphasised student behaviour, additional administrative responsibilities, excessive work, tight schedules and students disrespectful attitude caused major effect on occupational stress levels among educators. Further, the study also visibly reveals that females and married persons experience noticeably greater stress levels compared to unmarried and male teachers.

Keywords: Occupational Stress, Teachers, Student Behaviour, Institutional Support, Work-Life Balance, Administrative Responsibilities, Professional Growth

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INTRODUCTION

Teaching profession is growing more and more challenging in today's world as teachers have to play a multi-faceted role of being instructor, mentor, event organiser, administrator. Hence occupational stress is constantly increasing among educators which affects their personal and mental well-being. It is often said that teaching profession is the noble as well as one of the toughest job because of diverse demands and responsibilities. Teachers have to accommodate themselves to changing educational policies, latest knowledge upgradation, social expectations [1]. In the educational institutions, the complex nature of these roles often rise occupational stress among teachers resulting in burnout, rise in churn out, decreased productivity and mental well-being [2].

Kerala, a state known for its high literacy rate and quality education, teachers in Kerala are constantly under pressure to fulfil students' requirements, meet academic standards, parents expectations and manage administrative commitments. There are several research conducted on stress factors affecting on teachers in global context. Excessive workload, huge societal pressure, lack of student motivation. Discipline issue are major stress factors as per several research conducted in universities [3]. Higher Secondary educators are susceptible to these stressors as they have dual pressure of preparing students to board exams and meeting institution, parents and societal expectations [4]. In Kerala, this pressure is further augmented by the competitive academic atmosphere and importance is laid on high student performance is often at the cause of teacher's mental well-being. The attitude and behaviour of students is frequently cited as the most vital cause of occupational stress among teachers. Classroom management has becoming challenging due to lack of focus, discipline issues, distraction using electronic devices and disruptive attitudes [5].

Further, teachers in schools recurrently battle to resolve their commitment towards their professional and personal lives. Prolonged working hours, lack of institutional support, meeting academic standards through professional growth further influences on teachers' productivity and well-being [6].

Excessive working hours, Unmanageable tight deadlines, Lack of peer support, uncontrollable student behavioural issues, Result pressure are some of the major stress factors that hampers the growth and mental wellbeing of teachers. These stressors are prevalent in Kerala as the teachers confront these challenges to meet their job demands. Additionally, rigid evaluation systems, bureaucratic hurdles further impact on stress level. Overall, these challenges can negatively impact teachers job satisfaction, mental-wellbeing and effectiveness.

Review of Literature

Kabito *et al.* [7] researched on the work stress factors among academicians and staff of Northwest Ethiopia. A Cross-sectional study was conducted using stratified sampling from 534 academicians' respondents. The researchers used multiple logistic regression and found high job demand, low job control, smoking cigarette and age are the major stress contributors for occupational stress.

Kaur and Kumar [8] conducted study on identifying the determinants of occupational stress among Indian urban faculty group. The study also aimed at identifying demographical patterns and socio-economic status of workplace stressors. The study was conducted from 398 teachers and found teachers are impacted by occupational stress. The study suggested for persistent evaluation of teachers stress levels and to suggesting counselling sessions as a remedy for the reduction of stress.

Harmesen *et al.* [9] examined the impact of work stress among school teachers. The study found institutions have to certainly take measure to reduce occupational stress among teachers. The major recommendations of the study was institutions to provide conducive environment among teachers and students where they can interact each other well. The study stresses on the point that teachers job satisfaction stems from their relationship with students.

Sing and Katoch [10] observed the occupational stress among school teachers in Himachal Pradesh. The data was collected from 200 Government school teachers. Major findings are there was a significant impact of occupational stress levels among teachers. There was a significant difference between male and female teacher in the experience of stress level. Female teachers experience greater stress level than male teachers.

Durlak *et al.* [11] conducted a study on student's emotional and social learning. The data was collected from the staff who applied SEL programs from 213 schools. The study found Social and Emotional Learning (SEL) programs impacted on students to enhance skills. The study provided suggestion to implement SEL program among students which also helps teachers to deal with their students effectively.

Objectives:

- To determine the key factors influencing on occupation stress among higher secondary teachers in Kerala
- To understand the reliability of the key components on occupational stress
- To analyse the association between gender and levels of occupational stress

To examine the association between marital status and levels of occupational stress

MATERIALS AND METHODS

The present study is based on primary and secondary data. Primary data is collected through structured questionnaire using purposive sampling method where teachers working in higher secondary schools in Kerala were chosen for the study. The sample size is 130 respondents out of which 118 responses were received. The secondary data is based on books, journals and reports. Descriptive analysis, KMO Bartlett's test, Principal Component Analysis of Exploratory factor analysis, Cronbach's alpha Reliability tests are conducted using SPSS (Table 1).

Analysis and Interpretation

Factor Analysis: The KMO test is conducted to measure sample adequacy and Bartlett's test is performed to identify whether variables have adequate correlation for factor analysis. The KMO result depicts the value 0.888 which is meritorious as the value is more than 0.8. This indicates the sample is adequate to proceed for factor analysis. The Bartlett test reveals the p value 0.000 which is significant at 1% with chi square value 1957.98 and degrees of freedom value 276. This shows that all the variables have relationship which further supports for factor analysis (Table 2).

Table 1: Descriptive Analysis

Sample Characteristics (N = 118)		Frequency	%
Gender	Male	47	38.8
	Female	71	60.2
Age	Less than 30 years	15	12.7
	30-35 years	12	10.2
	36-45 years	27	22.9
	More than 45 years	64	54.2
Highest Educational Qualification	Post Graduate	51	43.2
	SET	43	36.4
	NET	12	10.2
	M. Phil	12	10.2
Marital status	Married	90	76.3
	Single	28	23.7
Monthly Income	Upto 50,000	31	26.3
	50,001-85,000	30	25.4
	85,001-1,00,000	19	16.1
	1,00,001-1,50,000	30	25.4
	1,50,001 & above	8	6.8
Number of Children	None	16	13.6
	One	28	23.7
	Two	54	45.8
	>2	20	16.9
Nature of Institution	Government	23	19.5
	Aided	79	66.9
	Private	16	13.6
Teaching domain	Commerce	41	34.7
	Science	31	26.3
	Arts/Humanities	27	22.9
	Languages	19	16.1
Experience	Less than 5 years	24	20.3
	5-10 years	15	12.7
	11-20 years	32	27.1
	More than 20 years	47	39.8

Table 2: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

KMO measure of sampling adequacy		0.888
Bartlett's test	Chi-square	1957.98
	df	276
	Significant value	0.000

The communalities Table 3 exhibits the extraction values more than 0.4 of variables that indicates the items well represent the factors. Challenges to manage multifaceted student behaviour, short deadlines and role conflict has high extraction value indicates these variables strongly contribute for the dimensions of occupational stress. Non-recognition and lack of opportunities for professional growth have less values but still provides valuable contribution. Overall, the extraction values, all the items are suitable for factor analysis.

The Eigen values greater than 1 is extracted under principal component axis with varimax rotation that formed five components. Around 69.8% of the variance in occupational stress among teachers are explained by these five components whose Eigen value are greater than 1. This suggests majority of the information is retained in these five components on occupational stress. The very first factor value is 45% shows that it is a dominant factor that has a major influence on occupational stress. The varimax rotation shows the redistribution of variance across five components. This redistribution improves interpretability suggesting the occupation stress arises not by single source but based on multiple sources (Table 4).

Scree Plot-Interpretation

The scree plot depicts a high Figure 1 in the first component and a slope after the first component, then it levels off after fifth component. This shows first five components has to be retained as the core dimension of occupational stress as it has very meaningful variance. The additional components after fifth component suggests there is a lesser or minimal contribution among other factors as their Eigen value is less than 1. Hence five components are retained for the analysis of occupational stress among teachers.

The above Table 5 presents the rotated component matrix. All the 24 variables have acceptable loadings and can be grouped to the five factors. The items that fall under each factor are mentioned below (Table 6).

Table 3: Communalities

	Initial	Extraction
Excessive workload caused by teaching and curriculum requirements	1.000	0.671
Short deadlines for lesson planning and grading	1.000	0.794
Struggling to balance teaching with administrative responsibilities	1.000	0.765
Imbalance in managing work and personal life due to job demands	1.000	0.634
Lack of proper support from school administration	1.000	0.666
Pressure to ensure high academic results	1.000	0.696
Conflicts with institutional policies	1.000	0.722
Insufficient teaching materials	1.000	0.726
Inadequate access to facilities and technology	1.000	0.759
Restricted freedom in choosing methodology of teaching and curriculum decisions	1.000	0.771
Lack of adequate opportunities for professional growth	1.000	0.439
Non-recognition or non-appreciation for work contributions	1.000	0.458
Lack of collaborations or support from colleagues	1.000	0.611
Disruptive behaviour of students in the classroom	1.000	0.640
Difficult to manage large size classes	1.000	0.729
Regular usage of electronic devices during class	1.000	0.767
Disrespectful attitude of students	1.000	0.755
Challenge to manage multifaceted student personality and behaviour	1.000	0.809
Limited attention span in class among students	1.000	0.671
Incidents of bullying and student conflicts	1.000	0.683
Parents high expectations on students' performance	1.000	0.745
Role conflict between teaching requirements and administrative responsibilities	1.000	0.809
Hard to retain control over student discipline	1.000	0.660
Lack of adequate student motivation to learn	1.000	0.769

Extraction Method: Principal Component Analysis

Table 4: Total Eigen Values and Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.835	45.147	45.147	10.835	45.147	45.147	4.261	17.753	17.753
2	1.897	7.905	53.051	1.897	7.905	53.051	3.570	14.873	32.626
3	1.654	6.891	59.943	1.654	6.891	59.943	3.213	13.386	46.012
4	1.285	5.354	65.297	1.285	5.354	65.297	3.034	12.640	58.652
5	1.078	4.490	69.787	1.078	4.490	69.787	2.672	11.135	69.787

Extraction Method: Principal Component Analysis

Table 5: Rotation Component Matrix

	Component				
	1	2	3	4	5
Lack of adequate student motivation to learn	0.838				
Role conflict between teaching requirements and administrative responsibilities	0.825				
Parents high expectations on students' performance	0.747				
Hard to retain control over student discipline	0.738				
Disruptive behaviour of students in the classroom	0.571				
Difficult to manage large size classes	0.549				
Excessive workload caused by teaching and curriculum requirements		0.802			
Conflicts with institutional policies		0.705			
Lack of proper support from school administration		0.668			
Pressure to ensure high academic results		0.635		0.510	
Imbalance in managing work and personal life due to job demands		0.626			
Disrespectful attitude of students			0.797		
Regular usage of electronic devices during class			0.687		
Lack of adequate opportunities for professional growth			0.589		
Lack of collaborations or support from colleagues			0.578		
Challenge to manage multifaceted student personality and behaviour			0.564		
Incidents of bullying and student conflicts			0.473		
Inadequate access to facilities for teaching				0.792	
Restricted freedom in choosing methodology of teaching and curriculum decisions				0.630	
Limited availability of equipment and technology				0.616	
Insufficient teaching materials				0.569	
Short deadlines for lesson planning and grading					0.813
Struggling to balance teaching with administrative responsibilities					0.706
Non-recognition or non-appreciation for work contributions					0.564

Extraction Method - Principal Component Analysis and Rotation method - Varimax with Kaiser Normalization

Table 6: Computation of Key Factors

Component/Factor	Items with respective loading for each component	Loading
Factor 1 Student Behavioural and Parental Expectation Issues	Lack of adequate student motivation to learn	(0.838)
	Role conflict between teaching requirements and administrative responsibilities	(0.825)
	Parents' high expectations on students' performance	(0.747)
	Hard to retain control over student discipline	(0.738)
	Disruptive behaviour of students in the classroom	(0.571)
	Difficult to manage large size classes	(0.549)
Factor 2 Academic and Administrative Pressure	Excessive workload caused by teaching and curriculum requirements	(0.802)
	Conflicts with institutional policies	(0.705)
	Lack of proper support from school administration	(0.668)
	Pressure to ensure high academic results	(0.635)
	Imbalance in managing work and personal life due to job demands	(0.626)
Factor 3 Work life Stressors and Professional Support	Disrespectful attitude of students	(0.797)
	Regular usage of electronic devices during class	(0.687)
	Lack of adequate opportunities for professional growth	(0.589)
	Lack of collaborations or support from colleagues	(0.578)
	Challenge to manage multifaceted student personality and behaviour	(0.564)
	Incidents of bullying and student conflicts	(0.473)
Factor 4 Inadequate Infrastructure and Resources	Inadequate access to facilities for teaching	(0.792)
	Restricted freedom in choosing methodology of teaching and curriculum decisions	(0.630)
	Limited availability of equipment and technology	(0.616)
	Insufficient teaching materials	(0.569)
Factor 5 Time and Appreciation Crunch	Short deadlines for lesson planning and grading	(0.813)
	Struggling to balance teaching with administrative responsibilities	(0.706)
	Non-recognition or non-appreciation for work contributions	(0.564)

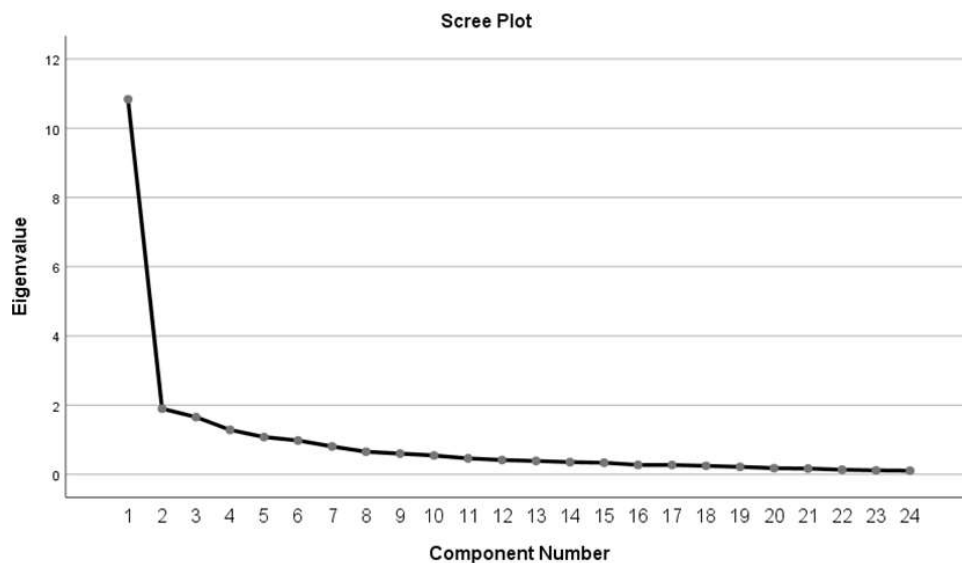


Figure1: Scree Plot
Source: Primary data

Factor 1: Student Behavioural and Parental Expectation Issues

The component one indicates classroom and students' behaviour issues and high parental expectations. The high loadings that constitute the above component are lack of student motivation, student discipline issue, disruptive behaviour, role conflict, managing large classroom and parental high expectation. This shows the reason for major contribution to occupational stress levels among teachers is difficulty to deal student classroom behaviour issues and meeting high expectations from society.

Factor 2: Academic and Administrative Pressure

This factor constitutes loadings on items such as heavy workload, conflicts with institutional policy, work-life imbalance with high job demands lack of administration support. This factor highlights the stressors among teachers to balance both personal and professional life with academic and administration pressure.

Table 7: Reliability Test

Parameters	Alpha value
Factor 1: Student Behavioural and Parental Expectation Issues	0.887
Factor 2: Academic and Administrative Pressure	0.866
Factor 3: Work life Stressors and Professional Support	0.882
Factor 4: Inadequate Infrastructure and Resources	0.845
Factor 5: Time and Appreciation Crunch	0.724

Table 8: Model Fit and Assumption Testing Results for Ordinal Logistic Regression

Test	Chi-Square	df	p-value
Model Fit (Final Vs null model)	82.214	2	0.000
Proportional Odds Test (Parallel Lines)	4.689	6	0.585
Goodness of Fit-Pearson	12.881	10	0.230
Goodness of Fit-Deviance	10.134	10	0.429

Factor 3: Work life Stressors and Professional Support

Items such as students' disrespectful attitude, electronic device usage in classroom, diverse personality students' group, lack of professional growth and peer support load heavily on this factor. This reflects student discipline stressors and lack of opportunities for professional growth. These stressors from students and colleagues significantly influence on interpersonal stress among teachers.

Factor 4: Inadequate Infrastructure and Resources

This factor is characterized by loadings on items such as restricted freedom in choosing curriculum and teaching methods, inadequate facilities for teaching, technology usage, equipment and teaching materials. These items highlight the lack of proper facilities and limited access teaching resources affect the job satisfaction and effectiveness in class delivery.

Factor 5: Time and Appreciation Crunch

Items with high loadings are tight deadlines in lesson planning, grading, struggle to balance teaching and administrative responsibilities and non-appreciation/recognition for work constitutes the component 'Time and Appreciation Crunch'. These stressors indicate how high job demands and inadequate appreciation hamper teacher morale and motivation and increase occupational stress.

Cronbach's Alpha is conducted to understand whether the items under scale has internal consistency and reliable for further analysis. Factor 1 Student Behavioural and Parental Expectation Issues (0.887), Factor 2 Academic and Administrative Pressure (0.866), factor 3 Work life Stressors and Professional Support (0.882) and Factor 4 Inadequate Infrastructure and Resources (0.845) has high reliability as the alpha value is more than 0.8 and Factor 5 Time and Appreciation Crunch (0.724) has acceptable reliability as the alpha value is more than 0.7. Overall, all the items under each factor reliably measure occupational stress among teachers (Table 7).

The model fit summary of ordinal logistic regression compares the final model (gender and marital status) with null model (no predictors) has a chi-square 82.21 with 2 degrees of freedom and p value significant at 1%. This depicts gender and marital status significantly predicts occupational stress. The assumption of proportional odds holds good as the p- value is more than 0.05 with chi-square value 4.69. This signifies the effect of marital status and gender is consistent across the different thresholds of occupational stress. The goodness of fit test results of both Pearson ($X^2 = 12.88$, $p = 0.23$) and Deviance ($X^2 = 10.13$, $p = 0.43$) test shows the model fits the occupational stress data well, as there is no significant discrepancies between observed and predicted values. Overall, these results confirms that regression model is suitable and adequate and adequately represents the data (Table 8).

Calculation of Odds Ratio (OR)

Formula: Odds Ratio (OR) = $\exp(B) = e^{\text{Estimate}}$

For Gender (Male Vs Female)

Estimate (B) = -2.078

OR = $e^{-2.078} = 0.125$

For Marital Status (Single Vs Married)

Estimate (B) = 3.931

OR = $e^{3.931} = 50.98$

Table 9: Parameter Estimates of Ordinal Logistic Regression

Predictor	Estimate	OR(Exp(B))	p-Value
Gender (Male vs. Female)	-2.078	0.125	0.000
Marital Status (Single Vs Married)	3.931	50.98	0.000

OR = Odds Ratio; Exp(B) = Exponentiated regression coefficient; $p < 0.05$ indicates statistical significance

The parameter estimates of regression analysis tests results revealed that gender and marital status are significant predictors of occupational stress. Specifically, male teachers experiences lower stress levels than female teachers as the value of estimate is -2.078 with odds ratio 0.12 and P value lesser than 0.01, indicating that male experiences of about 88% less stress than female teachers. Conversely, single individual teachers experience high stress than married individuals as the estimate value is 3.93 with OR 50.98 and p value significant at 1% level. These results highlight that both gender and marital status are significant on impacting the teachers stress levels. Female teachers experience higher stress shows multiple role to handle becomes challenging. Single individuals experience higher stress than married teachers shows there are chances of job experience can impact on occupational stress as single individuals usually has less teaching experience. These results highlight the important role of demographic factors in occupational stress levels (Table 9).

CONCLUSION

The study brings out the key stressors of occupational stress specially among higher secondary educators. The findings reveal that lack of student motivation, additional administrative responsibilities, short deadlines at work, excessive workload are the major stress contributors on occupational stress. Alongside disrespectful attitude of students, inadequate teaching facilities, high parental expectation also greatly impact on occupational stress. Incidents of bullying among students, large classroom, non-recognition for work are comparatively less stressors of occupational stress.

Institutions have to focus on monitoring student behavior, establishing rules for student discipline, classroom management techniques, enhance teaching materials and infrastructure. Excessive workload especially administrative work can be cut down by appointing office assistant for administrative related work. Resolving all these issues would create an enduring atmosphere for teachings without affecting their stress level. Further organizing mentoring sessions, counselling sessions, streamlining administrative process, flexible work schedules, recreational programs, stress management techniques can greatly impact on reducing stress among educators. These solutions contribute for more job satisfaction, mental health and in turn enhances productivity.

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