



Occupational Stress and its Associated Factors among the School Teachers Working in Schools in Lamjung District, Nepal

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Abstract

Background: The World Health Organization characterizes workplace stress as a "global epidemic" due to its pervasive influence on various facets of daily life. Occupational stress among educators is on the rise in both developed and developing nations, with estimates suggesting that at least one-third of teachers experience high levels of stress and burnout. The main objective of this study was to determine occupational stress and associated factors among teachers in selected schools.

Material and Methods: In 2022, a cross-sectional study was conducted in Lamjung District, Nepal, involving nine secondary-level schools from Besishahar Municipality and Marshyangdi Rural Municipality. Data collection occurred from February 13 to February 26, with participation from 193 school teachers who completed a self-administered questionnaire. The selection of teacher participants was carried out using purposive sampling. The association between teachers' occupational stress, socio-demographic characteristics, and work-related variables was analyzed using Pearson's chi-square test.

Results: Nearly half (47.2%) of the respondents had experienced stress, with the majority (37.3%) reporting mild stress levels. Females (50.56%) and older respondents, particularly those aged 51 to 60 years, experienced higher stress levels (71.43%). This study revealed that only education level ($p=0.035$) and large class size ($p=0.002$) were significantly associated with occupational stress.

Conclusion: Despite the majority of respondents reporting factors such as a high monthly salary, good student behavior, a favorable work environment, and sufficient social support, nearly half of them still reported experiencing stress. This underscores the need for further investigation into the underlying causes of occupational stress among teachers.

Keywords: Occupational Stress, Teachers, Schools, Municipality, Workplace.

Introduction

Workplace experience is responsible for the global rise in stress-related health issues, with teaching being one of the most stressful occupations in the world [1]. Academics in both developed and developing nations are increasingly experiencing

work-related stress. It is estimated that at least one-third of teachers suffer from stress and burnout, and this claim is supported by the fact that stress-related medical expenses and absenteeism cost over \$150 billion annually [2]. Occupational stress (OS) is employees' response to work

demands and pressures exceeding their available resources, needs, skills, and coping abilities [3]. An alternate definition characterizes teachers' stress as an array of negative emotions experienced in response to various aspects of their profession, including anger, frustration, anxiety, depression, and nervousness [4]. Teaching, though rewarding, has evolved into one of the most stress-inducing professions, marked by high to extremely high-stress levels [5]. From a public health perspective, work-related stress can lead to physical ailments, diminished well-being, and psychological distress. Left unaddressed, it can result in academic performance decline and broader life challenges, including anxiety, depression, and even suicide. Common stressors in the workplace encompass work demands, job changes, education levels, limited support from peers and family, and strained relationships with coworkers [6]. Given the adverse impact of stress on teachers, school environments, and students' educational experiences, it is imperative to identify effective strategies to address this issue [7]. Furthermore, measuring teacher stress is crucial as it can enhance researchers' understanding of the mechanisms leading to teacher burnout [8]. Therefore, this study assesses occupational stress among teachers in selected schools.

The objectives of this study are 1) to determine the level of occupational stress among teachers in selected schools; 2) To assess the socio-demographic and work-related characteristics of the respondents; and 3) to analyze the association between socio-demographic characteristics and work-related variables with occupational stress.

Materials and Methods

This community-based descriptive cross-sectional study was conducted in 2022 within the Besishahar Municipality and Marshyangdi Rural Municipality of Lamjung District, Nepal, involving nine secondary-level schools. Out of 203 teachers, 193 participated in the study. Data were collected through a self-administered questionnaire adapted from a previous study in India with the same objectives [9], which included socio-demographic characteristics and work-related information. Additionally, the questionnaire incorporated two established scales: the Multidimensional Scale of Perceived Social Support (MSPSS) for assessing social support and the General Health Questionnaire-12 items (GHQ-12) for measuring occupational stress, both known for their validity and reliability [10-12].

The MSPSS is a 12-item self-reported social support scale with three subscales for family,

friends, and significant others. Responses are on a seven-point scale (1-7), with total scores ranging from 12 to 84 [13]. Adequate social support was defined as at least 60, while scores below 60 indicated inadequate social support [9]. The GHQ-12, created by Goldberg in the 1970s, assesses general (non-psychotic) psychiatric well-being and is globally validated and widely used in multiple languages [14, 15]. This scale consists of 12 Likert-scale questions (range 0-36), with scores indicating the level of stress: less than 15 (no stress), 15-20 (moderate tension), and more than 20 (severe stress)[9].

Socio-demographic characteristics included age, sex, marital status, educational status, income, and work experience. This study categorized teachers with less than ten years of teaching experience as less experienced, and those with more than ten years were classified as experienced. Similarly, monthly salary was categorized as poor if it was less than NPR 20,000 and good if it exceeded NPR 20,000.

Work-related factors encompassed workload, student behavior, workplace conditions, and class size. A regular workload was defined as less than 6 hours per day, while more than 6 hours indicated work overload. Student behavior was assessed for discipline and cooperation, distinguishing between well-behaved and misbehaving students. Workplace conditions were evaluated based on ten questions, categorizing them as poor (with only five amenities available) or better (more than five facilities available). Class size was classified as normal (up to 50 students) or large (more than 50 students).

The English questionnaire was translated into Nepali and validated by subject experts. The Nepali version was pre-tested with 10% of the total sample, with necessary corrections. The reliability of each questionnaire element was assessed using Cronbach's alpha, demonstrating good internal consistency ($\alpha = 0.863$ for GHQ-12, $\alpha = 0.911$ for MSPSS).

Before commencing the study, permissions were obtained from selected schools, and ethical approval was granted by the Yeti Health Science Institutional Review Committee (Ref. No. 2079/80-022). A clear explanation of the study's purpose and instructions for completing the questionnaire was provided to respondents, ensuring written consent was obtained. Filled questionnaires were rigorously checked for accuracy and completeness daily. Data collection occurred between February 13 and February 26, 2022.

Statistical analysis was conducted using SPSS for Windows (version 26; SPSS Inc., Chicago). Descriptive statistics were used to calculate means

and standard deviations. The Chi-square test assessed the association between occupational stress and various factors, categorizing stress into two categories: stress and no stress, with statistical significance accepted at a P-value of < 0.05.

Results

Table 1 shows the respondents' socio-demographic characteristics. This study included 193 school teachers, with a mean age of 35.65 (±

9.506) years. The age group 18–30 years had the highest number of respondents (39.9%, n=77), followed by the age group 31–40 years (30.6%, n=59), and more than half of them were males (53.9 %, n=104). In terms of marital status, the majority of them were married (75.6%, n=146), and 38.9% (n=75) had completed both a bachelor's and a master's degree, respectively. About 66.8% (n=129) had good payments, and more than half were less experienced (61.1%, n=118).

Table 1. Socio - demographic characteristics of the respondents (n = 193)

Variables		n	%
Age (years)	18-30	77	39.9
	31-40	59	30.6
	41-50	36	18.7
	51-60	21	10.9
Sex	Male	104	53.9
	Female	89	46.1
Marital status	Married	146	75.6
	Unmarried	47	24.4
Education level	Higher secondary completed	43	22.2
	Bachelor completed	75	38.9
	Master completed	75	38.9
Monthly salary	Good payment	129	66.8
	Poor payment	64	33.2
Teaching experience	Experienced	75	38.9
	Less experienced	118	61.1

Most respondents had work overload (69.4%, n=134), 76.6% (n=147) students behaved well in classroom. Regarding working conditions, the majority (94.3%, n=182) of respondents had a better working environment, but most of them had to attend a class in a large classroom (73.1%, n=141). Further, we found that most (89.1%, n=172) of the respondents had received adequate

social support. Occupational stress scores were evaluated to obtain relevant descriptive statistics, and Table 2 shows the results. The findings revealed that nearly half of the respondents (47.2%, n=91) had stress, of which 37.3% had mild stress, and only 9.8 percent had severe stress. The mean score was 12.87, with a standard deviation of ±5.93.

Table 2. Respondents' Level of Occupational stress (n=193)

Variables		n	%
Presence of occupational stress	Stress	91	47.2
	No stress	102	52.8
	Mean (Score) ± SD	12.87± 5.93	
	Median (min-max)	14.00 (0–24)	
Level of occupational stress	No stress	102	52.8
	Mild stress	72	37.3
	Severe stress	19	9.8

Most of the respondents who had mild stress were between the ages of 41-50 (38.9%) and 51- 60 (57.1%), and the majority (41.6%) were female. Regarding marital status, mild stress was more common in married respondents (40.4%) compared to unmarried (27.7%), but severe stress was almost identical among both (9.6% and 10.6%). Nearly half (48.0%) of the respondents

who have completed bachelor's degrees reported mild stress, followed by respondents with master's degrees (33.3%). However, severe stress among respondents with higher secondary, bachelor's, and master's degrees was very similar (11.6%, 10.7%, 8.0%). Regarding monthly salary, respondents with good salaries were more likely to experience mild stress (38.8%), whereas

respondents with low salaries were more likely to experience severe stress (12.5%). Similar to this, more experienced teachers reported mild stress (40.0%), whereas less experienced teachers reported more severe stress (11.9%) (Table 3). Table 3 shows the relationship between occupational stress levels and factors related to the workplace. Results show that mild stress was found among 39.6% of respondents who had work overloads, but severe stress was more common among those with normal workloads (16.9%). In the classroom, misbehaving students caused more mild (45.7%) and severe (13.9%) stress among

teachers than well-behaved students. Regarding work environments, 37.4% and 8.2% of respondents, respectively, had mild and severe stress, whose working environment was better, whereas 36.4% had mild and severe stress, whose working environment was poor. Only 31.9% of respondents who taught in large classrooms reported mild stress, compared to 51.9% who taught in normal-sized classrooms. When respondents had adequate social support, mild stress was evident in 37.8%, whereas severe stress was more common among those with insufficient support (19.0%).

Table 3: Cross-tabulation of respondents' occupational stress levels with their socio-demographic characteristics and work-related factors (n=193).

Variables		Level of Occupational stress			Total n
		No Stress	Mild Stress	Severe Stress	
		n (%)	n (%)	n (%)	
Age	18-30	45 (58.4%)	25(32.5%)	7(9.1%)	77
	31-40	32(54.2%)	21(35.6%)	6(10.2%)	59
	41-50	19(52.8%)	14(38.9%)	3(8.3%)	36
	51-60	6(28.6%)	12(57.1%)	3(14.3%)	21
Sex	Male	58(55.8%)	35(33.7%)	11(10.6%)	104
	Female	44(49.4%)	37(41.6%)	8(9.0%)	89
Marital status	Married	73(50.0%)	59(40.4%)	14(9.6%)	146
	Unmarried	29(61.7%)	13(27.7%)	5(10.6%)	47
Education level	Higher secondary completed	27(62.8%)	11(25.6%)	5(11.6%)	43
	Bachelor completed	31(41.3%)	36(48.0%)	8(10.7%)	75
	Master completed	44(58.7%)	25(33.3%)	6(8.0%)	75
Monthly salary	Good payment	68(52.7%)	50(38.8%)	11(8.5%)	129
	Poor payment	34(53.1%)	22(34.4%)	8(12.5%)	64
Teaching experience	Experienced	40(53.3%)	30(40.0%)	5(6.7%)	75
	Less experienced	62(52.5%)	42(35.6%)	14(11.9%)	118
Workload	Normal workload	30 (50.8%)	19 (32.2%)	10 (16.9%)	59
	Work overload	72(53.7%)	53 (39.6%)	9 (6.7%)	134
Students behavior	Good behavior	83 (56.5%)	51 (34.7%)	13 (8.8%)	147
	Misbehavior	19 (41.3%)	21 (45.7%)	6 (13.0%)	46
Workplace environment	Better	99(54.4%)	68 (37.4%)	15 (8.2%)	182
	Poor	3 (27.3%)	4 (36.4%)	4 (36.4%)	11
Social support	Adequate	92 (53.5%)	65 (37.8%)	15 (8.7%)	172
	Inadequate	10 (47.6%)	7 (33.3%)	4 (19.0%)	21

Table 4. Comparing socio-demographic and work-related variables with occupational stress using Pearson's chi-square test n=193

Variables	Occupational stress among teachers	
	Chi-square	P-value
Age	5.979	0.113
Sex	0.771	0.380
Education	6.715	0.035*
Marital status	1.954	0.162
Monthly income	0.003	0.957
Teaching experience	0.915	0.915
Workload	0.137	0.712
Students behavior	3.231	0.072
Work Place environment	3.062	0.080
Class size	9.497	0.002*
Social support	0.259	0.611

*Significant at p-value <0.05

Using Pearson's chi-square test, we examined the relationship between demographic and work-related factors and the existence of occupational stress among school teachers (Table 4). The only socio-demographic factor that was shown to be statistically significant with occupational stress was education level ($p = 0.035$), while other factors, including age ($p = 0.113$), sex ($p = 0.380$), marital status ($p = 0.162$), monthly income ($p = 0.957$), and teaching experience ($p = 0.915$) were not. Similarly, only the work-related variables' class size ($p = 0.002$) was significantly associated with occupational stress. The respondents' workload ($p = 0.712$), students' behavior ($p = 0.072$), work environment ($p = 0.080$), and social support ($p = 0.611$) were not significantly associated.

Discussion

In this study, respondents' ages ranged from 18 to 60 years old, with a mean age of 35.65 years (± 9.506), consistent with earlier research [5]. Occupational stress was reported by nearly half of the 193 respondents (47.2%). This finding is consistent with a previous West Sussex, UK study, which reported that 43% of head teachers experienced stress [16]. However, these results contrast studies conducted in Malaysia, Northeast Ethiopia, and Tanzania, which reported stress prevalence among school teachers at 34%, 60.4%, and 75%, respectively [8, 17, 18]. Additionally, the present study found that only 9.8% of respondents experienced severe stress, a figure similar to previous studies [19, 20] but differ from studies conducted in Nepal and Haridwar, India, where severe stress was reported among 51.6% and 65.0% of school teachers, respectively [21, 22]. These variations may be attributed to many factors, including socio-cultural contexts, regional disparities in teaching conditions, and differences in data collection methods.

Consistent with earlier research [3], occupational stress was higher among those aged 40 years or older, female teachers, and individuals with higher educational credentials. This alignment with prior findings underscores the consistency of these demographic factors as influential determinants of occupational stress among teachers.

Similarly, our study revealed that 46.27% of respondents with work overload and 58.70% of those dealing with student misbehavior in the classroom reported experiencing occupational stress. These proportions are lower than those observed in earlier studies, where 90% of secondary school teachers cited workload and 73% reported stress due to student misbehavior [23]. The variance in prevalence rates suggests

the potential impacts of differing teaching environments, class sizes, and regional educational policies on the level of stress experienced by teachers in various contexts.

In this study, we found that among the socio-demographic variables (age, gender, education, marital status, monthly income, and teaching experience), only the education level of respondents was significantly associated with occupational stress, consistent with previous findings [24-27]. However, these findings contradict studies conducted in the Madurai District, Tamil Nadu, and South-West Nigeria [28, 29]. These discrepancies may arise from differences in data collection techniques, sample characteristics, or regional disparities in teaching environments. Furthermore, we found that while workload, student behavior, working environment, and social support were not significantly associated with occupational stress, class size was. This aligns with the findings of a prior study; however, that study also discovered significant associations between occupational stress, workload, and social support [30]. The previous study highlighted a strong link between job stress, workload, and social support. Variances in teaching conditions, class sizes, and support accessibility may account for differences between our findings and theirs, underscoring the intricate nature of occupational stress among educators. Further research is essential to fully grasp these complexities and develop effective stress management strategies for teachers.

This community-based cross-sectional study, conducted in nine different schools, was constrained by limited participants due to resource limitations. Utilizing a translated questionnaire from a prior study introduces the possibility of information bias. Consequently, the results may not be readily generalizable to the larger population due to the sample's inadequate representation of the country's nationality stratification.

Further research is required, as other studies have shown that work overload, student misbehavior, unfavorable work environments, lack of social support, and low pay all contribute to an elevated risk of occupational stress among school teachers. To mitigate this issue, we recommend school administrations take proactive measures to manage and prevent occupational stress among their teaching staff.

Conclusion

Despite most respondents enjoying good monthly salaries, reporting positive student behavior,

experiencing favorable work environments, and having access to adequate social support, nearly half of them reported experiencing stress. This study revealed that only education level and a large class size were significantly associated with occupational stress. For future research, we recommend conducting more extensive and frequent studies with larger sample sizes to further explore factors contributing to teacher stress within this context. A deeper understanding of these dynamics will be essential for developing targeted interventions to mitigate mental health challenges among teachers in the district.

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Conflict of interest: None declared.

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