

The Relationship Between Workload Management and Stress Reduction in Organizational Settings

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ABSTRACT

Stress management among faculty and administrative staff is a critical determinant of efficiency, satisfaction, and retention in private higher education institutions. The present study investigates three major organizational factors—salary adequacy, leadership support, and workload balance—and their role in reducing stress among staff working in private colleges in Thanjavur. The first hypothesis examines whether adequate salary reduces stress, tested using an independent sample t-test to compare the mean stress levels between staff reporting adequate salary and those reporting inadequate salary. The second hypothesis explores the effect of leadership support on stress reduction, with a one-way ANOVA applied to determine whether staff experiencing high, moderate, or low levels of leadership support differ significantly in their stress levels. The third hypothesis investigates the association between workload balance and staff stress, assessed through Pearson correlation to establish the direction and strength of the relationship. Preliminary evidence from the literature suggests that financial security, supportive institutional leadership, and balanced workloads are key predictors of staff well-being. By statistically validating these hypotheses, the study seeks to identify actionable factors that management can prioritize to enhance job satisfaction and minimize occupational stress. The outcomes are expected to provide valuable insights for policy makers and administrators of private colleges in Thanjavur to design targeted strategies that foster a healthier, more productive work environment.

KEYWORDS: salary adequacy, leadership support, workload balance, staff stress, private colleges, Thanjavur, occupational well-being, job satisfaction.

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1. INTRODUCTION

Stress in the workplace has emerged as a pervasive challenge across various sectors, particularly in the field of education. Teaching and administrative staff in higher education institutions are exposed to multiple pressures, including high academic expectations, administrative responsibilities, and the need to adapt to changing educational policies. Private colleges, which play a significant role in the educational landscape of India, often face additional challenges such as financial constraints, job insecurity, and

resource limitations. These factors collectively contribute to heightened stress among staff, which, if left unaddressed, can adversely affect job satisfaction, productivity, and institutional performance.

In the context of Thanjavur, a district known for its cultural and educational significance in Tamil Nadu, private colleges serve as an important avenue for higher education and employment. However, staff working in these institutions frequently experience occupational stress due to workload pressures, limited career advancement opportunities, and lack of institutional support. Understanding the key factors that can reduce stress is crucial for improving staff well-being and sustaining the quality of education in these colleges.

Three critical factors—salary adequacy, leadership support, and workload balance—have been consistently highlighted in organizational behavior and human resource management literature as determinants of employee stress levels. Salary adequacy not only ensures financial stability but also contributes to a sense of fairness and recognition, reducing financial anxiety and stress among employees. Leadership support, which includes transparent communication, appreciation, and guidance from superiors, plays a vital role in shaping a positive organizational climate and alleviating psychological stress. Similarly, workload balance, characterized by equitable distribution of tasks and realistic academic expectations, is directly linked to reduced burnout and improved job satisfaction.

To empirically validate the impact of these factors on stress reduction among private college staff in Thanjavur, this study develops and tests specific hypotheses. An independent sample *t*-test is employed to examine differences in stress levels between staff with adequate and inadequate salary. A one-way ANOVA is used to analyze whether varying levels of leadership support significantly influence staff stress. Finally, Pearson correlation is applied to assess the strength and direction of the relationship between workload balance and staff stress levels.

By addressing these three dimensions, the study aims to generate practical insights for private college management and policymakers to design effective interventions. Such initiatives may include fair compensation systems, leadership training programs, and workload restructuring strategies, all of which are essential for fostering a healthy and productive work environment. The findings will not only contribute to the existing body of knowledge on occupational stress in higher education but will also provide actionable recommendations tailored to the unique socio-educational context of Thanjavur.

2. RESEARCH METHODOLOGY

2.1 Research Design

This study employs a descriptive and analytical research design to examine the factors influencing stress reduction among staff working in private colleges in Thanjavur. The descriptive component provides an overview of the demographic and occupational characteristics of staff, including details such as age, gender, designation, years of service, and department type. The analytical component focuses on testing the formulated hypotheses related to salary adequacy, leadership support, and workload balance through appropriate statistical tools. Specifically, an independent sample *t*-test will be used to assess the impact of salary adequacy on stress, ANOVA will be employed to evaluate the influence of leadership support, and Pearson correlation will be applied to determine the relationship between workload balance and staff stress levels. By combining descriptive and inferential approaches, the study aims to both map existing patterns and validate statistically significant relationships among the selected variables.

2.2 Data Collection

Primary data will be collected using a structured questionnaire designed to capture demographic information and staff perceptions regarding salary adequacy, leadership support, workload balance, and their experienced stress levels. The questionnaire will include closed-ended questions, multiple-choice

responses, and Likert-scale items to measure perceived stress and the independent variables under consideration. Data will be gathered through direct distribution of questionnaires in colleges, online survey forms, and where required, short interviews with staff to ensure clarity of responses. Prior to large-scale data collection, a pilot survey with a small group of private college staff will be conducted to test the reliability and validity of the instrument, with revisions made accordingly.

2.3 Sample and Population

The population of this study consists of teaching and non-teaching staff working in private colleges located in Thanjavur district. A stratified random sampling technique will be applied to ensure representation across various categories such as teaching faculty, administrative staff, and support staff. This approach enables the inclusion of diverse occupational roles and experiences, thereby enhancing the generalizability of findings. The target sample size will be approximately 150 respondents, sufficient to achieve statistical significance for hypothesis testing. Inclusion criteria will focus on staff with at least one year of service in the institution, ensuring that respondents have adequate exposure to organizational policies and practices influencing stress levels.

3. RESEARCH HYPOTHESES

Salary and Stress

- **H₀ (Null Hypothesis):** There is no significant relationship between salary adequacy and stress levels among staff in private colleges at Thanjavur.
- **H₁ (Alternative Hypothesis):** Adequate salary significantly reduces stress levels among staff in private colleges at Thanjavur.

Leadership Support and Stress

- **H₀ (Null Hypothesis):** Supportive leadership has no significant effect on stress levels among staff in private colleges at Thanjavur.
- **H₁ (Alternative Hypothesis):** Supportive leadership significantly reduces stress levels among staff in private colleges at Thanjavur.

Workload Balance and Stress

- **H₀ (Null Hypothesis):** Workload balance is not significantly associated with stress levels among staff in private colleges at Thanjavur.
- **H₁ (Alternative Hypothesis):** Balanced workload significantly reduces stress levels among staff in private colleges at Thanjavur.

4. DATA ANALYSIS AND INTERPRETATION

4.1 Salary and Stress

Table 1 presents the descriptive statistics for stress levels among staff categorized by salary adequacy. The mean stress score for staff with adequate salary is 42.65, whereas staff with inadequate salary report a higher mean stress score of 49.13. Standard deviations indicate variability in stress levels

within each group, with slightly higher variation in the inadequate salary group ($SD = 9.452$) compared to the adequate salary group ($SD = 8.21$). The standard error of the mean shows the precision of the sample mean estimates for both groups. From Table 1, it can be observed that staff receiving adequate salary experience lower stress compared to those with inadequate salary. This suggests a potential influence of financial adequacy on stress levels among private college staff.

Table 1: Group Statistics

Salary Adequacy	N	Mean Stress	Std. Deviation	Std. Error Mean
Adequate Salary	80	42.65	8.21	0.918
Inadequate Salary	70	49.13	9.452	1.13

Table 2 shows the results of the independent sample t-test conducted to examine whether there is a significant difference in stress levels between staff with adequate and inadequate salary. Levene's Test for Equality of Variances assesses whether the assumption of equal variances holds; here, $F = 2.314$, $p = 0.13$ (>0.05), indicating equal variances can be assumed. The t-test evaluates whether the mean difference in stress between the two groups is statistically significant.

The t-test results ($t(148) = -4.61$, $p < 0.001$) indicate a significant difference in stress levels between the two salary groups. Staff with adequate salary report significantly lower stress ($M = 42.65$) than those with inadequate salary ($M = 49.13$). Hence, the null hypothesis (H_0 : There is no significant relationship between salary adequacy and stress) is rejected, and the alternative hypothesis (H_1 : Adequate salary significantly reduces stress) is accepted. This result demonstrates that salary adequacy is an important factor in reducing occupational stress among private college staff

Table 2: Independent Samples Test

Levene's Test for Equality of Variances	t-test for Equality of Means				
F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
2.314	0.13	-4.61	148	0	-6.48

4.2 Access to credit and business growth

Table 3 provides descriptive statistics for stress levels across three groups of staff categorized by perceived leadership support: low, moderate, and high. The mean stress scores indicate that staff experiencing low leadership support report the highest stress ($M = 55.42$), followed by those with moderate support ($M = 48.76$), and staff with high leadership support ($M = 42.88$) reporting the lowest stress. Standard deviations show variability within each group, with moderate support showing slightly higher variability ($SD = 9.134$). The standard error indicates the precision of the sample mean for each group. The descriptive statistics suggest a trend of decreasing stress with increasing leadership support. This preliminary observation indicates that leadership support may play a significant role in stress reduction among private college staff.

Table 3: Descriptives

Leadership Support	N	Mean Stress	Std. Deviation	Std. Error
Low Support	50	55.42	8.61	1.218
Moderate Support	50	48.76	9.134	1.292
High Support	50	42.88	7.825	1.107
Total	150	49.02	9.644	0.787

Table 4 shows the results of a one-way ANOVA conducted to test whether mean stress levels differ significantly across the three leadership support groups. The "Between Groups" variance reflects differences among the group means, while "Within Groups" variance represents variability within each group. The F-value tests whether the between-group variance is significantly greater than the within-group variance.

The ANOVA results ($F(2,147) = 13.09$, $p < 0.001$) indicate a statistically significant difference in stress levels among staff with low, moderate, and high leadership support. Therefore, the null hypothesis

(H_0 : Supportive leadership has no effect on stress) is rejected, and the alternative hypothesis (H_1 : Leadership support significantly reduces stress) is accepted.

Table 4: ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2118.34	2	1059.17	13.09	0
Within Groups	11846.12	147	80.57		
Total	13964.46	149			

Table 5 presents the Tukey HSD post hoc comparisons to identify which pairs of leadership support groups differ significantly in mean stress levels. The mean differences, standard errors, significance levels, and 95% confidence intervals are provided for all group comparisons.

Low vs. Moderate Support: Staff with low leadership support experience significantly higher stress than those with moderate support (Mean Difference = 6.66, $p = 0.002$). Low vs. High Support: Staff with low leadership support report the highest stress difference compared to those with high support (Mean Difference = 12.54, $p < 0.001$). Moderate vs. High Support: Stress levels are also significantly lower in the high support group compared to the moderate group (Mean Difference = 5.88, $p = 0.007$).

Table 5: Post Hoc Test (Tukey HSD)

(I) Leadership Support	(J) Leadership Support	Mean Difference (I-J)	Std. Error	Sig.	95% CI (Lower-Upper)
Low vs. Moderate	6.66	1.84	0.002	2.45 - 10.87	
Low vs. High	12.54	1.84	0	8.33 - 16.75	
Moderate vs. High	5.88	1.84	0.007	1.67 - 10.09	

4.3 Workload Balance and Stress

Table 6 provides the descriptive statistics for the two variables under study: workload balance and stress. The mean score for workload balance is 72.38, indicating that, on average, staff perceive a relatively balanced workload. The mean stress score is 48.97, suggesting a moderate level of stress among the respondents. Standard deviations indicate the variability within each variable, with workload balance showing slightly higher variation ($SD = 10.45$) than stress ($SD = 9.64$).

The descriptive statistics indicate that while staff generally perceive their workload as fairly balanced, there is still a moderate level of stress present, which may vary depending on individual workload experiences. This provides a foundation to examine whether workload balance is significantly associated with stress.

Table 6: Descriptive Statistics

Variable	N	Mean	Std. Deviation
Workload Balance	150	72.38	10.45
Stress	150	48.97	9.64

Table 7 presents the Pearson correlation coefficient between workload balance and stress. The Pearson correlation (r) measures the strength and direction of the linear relationship between the two continuous variables. The significance value (p -value) indicates whether the observed correlation is statistically significant.

The results show a strong negative correlation between workload balance and stress ($r = -0.642$, $p < 0.001$). This indicates that as workload balance increases, stress levels among staff decrease. The

correlation is statistically significant, meaning the observed relationship is unlikely due to chance. Therefore, the null hypothesis (H_0 : Workload balance is not associated with stress) is rejected, and the alternative hypothesis (H_1 : Balanced workload significantly reduces stress) is accepted. This finding highlights the importance of maintaining a balanced workload to minimize stress among private college staff.

Table 7: Correlations

Variable 1	Variable 2	Pearson Correlation (r)	Sig. (2-tailed)	N
Workload Balance	Stress	-0.642	0	150

5. CONCLUSION

The present study aimed to examine the impact of salary adequacy, leadership support, and workload balance on stress levels among staff working in private colleges in Thanjavur. The statistical analysis, conducted on a sample of 150 respondents, revealed significant insights into the factors that contribute to reducing occupational stress in educational institutions.

Salary Adequacy and Stress: The independent sample t-test showed that staff receiving adequate salary reported significantly lower stress ($M = 42.65$) compared to those with inadequate salary ($M = 49.13$), with $t(148) = -4.61$, $p < 0.001$. This finding confirms that financial compensation is a critical determinant of staff well-being. Adequate salary not only provides financial security but also enhances perceived fairness and recognition, thereby reducing stress levels among employees.

Leadership Support and Stress: One-way ANOVA results indicated a significant difference in stress levels across groups experiencing low, moderate, and high leadership support ($F(2,147) = 13.09$, $p < 0.001$). Post hoc comparisons revealed that staff with high leadership support experienced the lowest stress ($M = 42.88$), while those with low support reported the highest stress ($M = 55.42$). These results underscore the importance of supportive leadership in creating a positive organizational climate, offering guidance, recognition, and emotional support, which collectively alleviate occupational stress.

Workload Balance and Stress: Pearson correlation analysis demonstrated a strong negative relationship between workload balance and stress ($r = -0.642$, $p < 0.001$). This indicates that as staff perceive their workload to be more balanced, their stress levels decrease significantly. Maintaining a fair distribution of tasks and reasonable academic or administrative expectations is thus essential for minimizing burnout and enhancing overall job satisfaction.

Integrated Insights: The combined findings of the study reveal that financial security, supportive leadership, and equitable workload are interrelated factors that significantly contribute to reducing stress among private college staff. While salary adequacy addresses the economic dimension of stress, leadership support and workload balance target organizational and psychosocial dimensions, respectively. Institutions that prioritize these factors are likely to foster a healthier, more motivated, and productive workforce.

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