

OCCUPATIONAL STRESS, WORK-LIFE BALANCE AND MULTIDIMENSIONAL WELL-BEING AMONG FEMALE SCHOOL TEACHERS IN CBSE-AFFILIATED INSTITUTIONS: AN EMPIRICAL STUDY FROM CHENNAI CITY

C Ramaiyan

Research Scholar, Department of Commerce, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai, Tamil Nadu, India-600117.

E-Mail: ramaiyanrachi@gmail.com

Dr. P. Vanitha

Assistant Professor and Research Supervisor, Department of Commerce, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai, Tamil Nadu, India-600117.

E-Mail: vanithaabhi0904@gmail.com

ABSTRACT

Female school teachers in CBSE-affiliated institutions in urban India operate within a demanding professional environment that intersects continually with domestic and caregiving responsibilities, creating persistent pressure on their overall well-being. This study investigates the relationship between occupational stress, work-life balance and a multidimensional view of well-being—physical, mental, emotional and social—among female CBSE teachers in Chennai city. A cross-sectional survey was administered to 420 female teachers drawn from sixteen CBSE schools located across North, South, Central and West Chennai, selected through stratified random sampling. The research instrument combined items adapted from the Work-Life Balance Scale, the Occupational Stress Indicator and the WHO-5 Well-Being Index, yielding an overall Cronbach's alpha of 0.842. Analytical techniques included percentage analysis, descriptive statistics, exploratory factor analysis, correlation analysis and hierarchical multiple regression. The factor structure produced five distinct dimensions accounting for 71.4 percent of the total variance: role overload, institutional flexibility, family support, personal coping strategies and time autonomy. Regression analysis demonstrated that institutional flexibility, family support and personal coping were the strongest positive predictors of physical well-being, while role overload and after-hours workload exerted significant negative effects. The moderation analysis revealed that years of teaching experience significantly weaken the adverse impact of role overload, suggesting that seasoned teachers develop stronger coping repertoires over time. The study extends prior work by adopting a multidimensional well-being framework and offers evidence-based recommendations for school management, policymakers and teacher welfare committees operating within the CBSE ecosystem in metropolitan India.

Keywords: Work-Life Balance, Female Teachers, CBSE Schools, Occupational Stress, Physical Well-being, Mental Well-being, Chennai, Multidimensional Health.

1. INTRODUCTION

The Indian school education system has undergone significant expansion over the last two decades, with the Central Board of Secondary Education (CBSE) emerging as one of the largest and most widely recognised school boards in the country. In metropolitan centres such as Chennai, CBSE institutions operate with longer academic hours, broader co-curricular demands, continuous assessment cycles and increasing parental expectations, all of which translate directly into heightened workload for classroom teachers. Women, who constitute a majority of the school teaching workforce in India, shoulder these professional demands alongside family responsibilities that include child care, elder care and household management. This dual burden makes the pursuit of work-life balance both a personal priority and an organisational concern. Work-life balance, conceptualised as the degree to which an individual is able to meet the demands of their professional and personal spheres without significant role conflict, has been linked in international literature to several outcomes including job satisfaction, organisational commitment and, most directly, personal well-being. Yet the Indian urban school context introduces distinctive pressures—long commute times, dense academic calendars, frequent parent-teacher engagement, and limited institutional support for flexible arrangements—that shape how these relationships manifest. Understanding these local dynamics is essential if school managements, policymakers and teacher welfare bodies are to design interventions that genuinely improve teacher well-being.

The present study responds to this need by investigating the relationship between work-life balance factors and multidimensional well-being among female CBSE teachers in Chennai city. Building on the foundational work of Ramaiyan and Vanitha (2024), whose study drew attention to the physical well-being consequences of work-life challenges in this population, the current research expands the scope in three important ways. First, it broadens the outcome from physical well-being alone to a multidimensional conceptualisation encompassing physical, mental, emotional and social domains. Second, it introduces institutional flexibility, family support and personal coping as explicit predictor constructs, moving beyond a simple work-life conflict framing. Third, it tests teaching experience as a moderator, examining whether seasoned teachers weather workload pressures differently from early-career colleagues.

2. STATEMENT OF THE PROBLEM

Despite a growing recognition of teacher well-being as a determinant of educational quality, the majority of Indian research on work-life balance among women educators remains descriptive, focused on college or university faculty, or limited to single-dimensional well-being outcomes. School-level teachers—particularly those in high-demand CBSE institutions—face distinct pressures that have not been adequately modelled. Furthermore, few studies disentangle the relative contributions of workload, institutional support, family support and personal coping to teacher well-being, and fewer still examine how these relationships evolve with teaching experience. In the absence of such evidence, welfare policies risk being generic, school interventions poorly targeted, and the specific needs of female teachers in metropolitan India inadequately addressed. This study therefore seeks to empirically quantify the contribution of five work-life balance dimensions to multidimensional well-being and to evaluate whether teaching experience moderates these effects.

3. REVIEW OF LITERATURE

Ramaiyan and Vanitha (2024) examined work-life balance and well-being among female school teachers affiliated with CBSE institutions in Chennai, reporting that expectations for work-life compatibility and general work-life factors each influenced physical well-being outcomes. Their findings established an empirical baseline for this population and highlighted the need for further investigation using expanded construct models and more diverse outcome measures.

Greenhaus and Allen (2011) formulated an integrative theory of work-family balance, arguing that balance is best understood as the extent to which an individual is simultaneously effective and satisfied with work and family roles. Their framework emphasises that balance is not a static equilibrium but a dynamic judgment shaped by personal values, role salience and contextual conditions.

Kinman and Wray (2018) studied the well-being of teachers across educational settings and concluded that occupational stress, long working hours and emotional labour in classrooms contribute disproportionately to physical and psychological strain among women. The authors called for interventions targeting both workload management and institutional culture.

Skaalvik and Skaalvik (2017) analysed Norwegian school teachers and identified role overload, time pressure and low autonomy as the strongest predictors of emotional exhaustion. While the study was set in a different national context, the predictor set translates directly into

the Indian CBSE environment where teaching workloads have grown substantially in recent years.

Soni and Bakhru (2019) surveyed Indian women in dual-career families and reported that family support, spousal involvement and extended-family assistance played a central role in enabling women to manage professional and domestic responsibilities. They noted that the absence of such support significantly eroded psychological well-being.

Beauregard and Henry (2009) reviewed work-life policies and their impact on organisational performance and concluded that flexibility arrangements, though widely promoted in Western firms, must be designed with cultural and role-specific sensitivities to yield meaningful outcomes. For teachers, flexibility takes the form of schedule adjustments, substitution arrangements, and the manageability of non-teaching duties.

Grover and Furnham (2016) studied coping strategies among female professionals and established that problem-focused coping, social support seeking and self-care practices positively predict well-being outcomes. Conversely, avoidance-based coping tended to be associated with higher stress levels and poorer health indicators.

Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) developed the Job Demands-Resources model and demonstrated that personal and organisational resources jointly buffer the impact of job demands on well-being. Applied to teaching, the model suggests that institutional flexibility, family support and personal coping can mitigate the negative effects of heavy workloads.

Mishra and Chaubey (2021) examined Indian women teachers and found that long commutes, after-school tuition demands, and administrative paperwork were the leading contributors to work-life imbalance. Their findings align with the contextual realities of metropolitan Chennai, where traffic conditions and school-level expectations amplify these pressures.

Collectively, the literature supports a multidimensional view in which workload factors, institutional support, family support and personal coping jointly shape teacher well-being. The present study integrates these insights into an empirically testable model grounded in the CBSE school context of Chennai and extends earlier Indian work by adopting a broader well-being outcome construct and by testing experience-based moderation.

4. OBJECTIVES OF THE STUDY

1. To profile the demographic and professional characteristics of female CBSE school teachers in Chennai.
2. To identify the principal work-life balance factors affecting female CBSE teachers.
3. To examine the relationship between work-life balance factors and multiple dimensions of well-being (physical, mental, emotional and social).
4. To test the relative contribution of role overload, institutional flexibility, family support, personal coping and time autonomy to physical well-being.
5. To evaluate whether teaching experience moderates the relationship between work-life factors and well-being.
6. To propose evidence-based recommendations for school managements and policy bodies operating in the Chennai CBSE ecosystem.

5. HYPOTHESES

- H1: Role overload has a significant negative effect on physical well-being.
- H2: Institutional flexibility has a significant positive effect on physical well-being.
- H3: Family support has a significant positive effect on physical well-being.
- H4: Personal coping strategies have a significant positive effect on physical well-being.
- H5: Time autonomy has a significant positive effect on physical well-being.
- H6: Teaching experience moderates the relationship between work-life factors and physical well-being.

6. RESEARCH METHODOLOGY

6.1 Research Design. The study adopted a quantitative, cross-sectional survey design well suited to testing hypothesised relationships among a defined set of constructs at a single point in time. The design permits statistical generalisation to the broader population of female CBSE school teachers in Chennai within conventional sampling error margins.

6.2 Population and Sampling. The target population comprised female teachers employed on a full-time basis in CBSE-affiliated schools across Chennai who had completed at least two academic years of service. A stratified random sampling approach was used, with strata defined by the four zones of Chennai (North, South, Central and West). Sixteen CBSE schools were randomly selected (four per zone), and teachers within each school were approached proportionally. Sample size was determined using Cochran's formula at 95 percent confidence and 5 percent margin of error, yielding a minimum requirement of 384. A final usable sample of 420 responses was obtained after data cleaning.

6.3 Instrument Development.

The questionnaire comprised five sections. The first captured demographic and professional profile information. The second measured work-life balance factors using items adapted from Greenhaus and Allen (2011) and Skaalvik and Skaalvik (2017). The third assessed institutional flexibility, family support and personal coping. The fourth section captured multidimensional well-being using items derived from the WHO-5 Well-Being Index and adapted indicators of physical, mental, emotional and social health. The fifth section recorded teaching experience. All substantive items used a five-point Likert scale anchored from 1 (Strongly Disagree) to 5 (Strongly Agree). Content validity was established through expert review, and a pilot study of 35 respondents produced an overall Cronbach's alpha of 0.842.

6.4 Data Collection

Data were collected over a ten-week period using a mixed-mode approach that combined paper questionnaires distributed at school staff rooms with a parallel online form circulated through school administrative channels. Participation was voluntary and anonymous, and teachers were assured that individual responses would not be shared with school managements. Of 468 responses initially received, 420 were retained after removing incomplete and straight-line responses.

6.5 Extension Beyond Prior Work

The present study extends Ramaiyan and Vanitha (2024) in three substantive ways. First, it enlarges the construct model from two predictors to five, incorporating institutional flexibility, family support, personal coping and time autonomy alongside role overload. Second, it broadens the outcome construct from physical well-being alone to a multidimensional well-being formulation. Third, it introduces teaching experience as an explicit moderator, allowing the study to test whether seasoned teachers process work-life pressures differently from early-career colleagues.

6.6 Data Analysis Techniques

Analyses proceeded in six stages: (i) percentage analysis of demographic and professional attributes; (ii) reliability testing via Cronbach's alpha at construct and instrument level; (iii) descriptive statistics for each construct; (iv) exploratory factor analysis with principal component extraction and varimax rotation; (v) Pearson correlation and multiple regression for hypothesis testing; and (vi) hierarchical regression with an interaction term to test experience moderation. All analyses were conducted using IBM SPSS Statistics version 27.

7. ANALYSIS AND RESULTS

7.1 Percentage Analysis — Demographic and Professional Profile

Table 1 presents the demographic and professional profile of the 420 female CBSE teachers who participated in the study.

Table 1: Demographic and Professional Profile of Respondents (N = 420)

Variable / Category	Frequency	Percentage (%)
Age Group (years)		
21 – 30	98	23.3
31 – 40	162	38.6
41 – 50	112	26.7
Above 50	48	11.4
Marital Status		
Single	76	18.1
Married	321	76.4
Other	23	5.5
Educational Qualification		
Bachelor's + B.Ed	147	35.0
Master's + B.Ed	198	47.1
Master's + M.Ed / M.Phil	58	13.8
Doctorate	17	4.1
Teaching Experience (years)		
2 – 5	87	20.7
6 – 10	126	30.0
11 – 15	104	24.8
Above 15	103	24.5
Teaching Level		
Primary (I – V)	151	36.0
Middle (VI – VIII)	118	28.1
Secondary (IX – X)	96	22.9
Senior Secondary (XI – XII)	55	13.0
Monthly Salary (INR)		
Below 30,000	73	17.4
30,001 – 50,000	168	40.0
50,001 – 70,000	112	26.7
Above 70,000	67	15.9
Number of Dependents		
None	42	10.0
1 – 2	231	55.0
3 – 4	118	28.1
More than 4	29	6.9

The profile shows that the majority of respondents fall within the 31–40 age bracket (38.6%), are married (76.4%) and hold a postgraduate qualification combined with a B.Ed. (47.1%). Teaching experience is well distributed across the sample, with 54.8% having more than ten years of service. Most respondents teach at the primary (36.0%) or middle school level (28.1%), and a large majority (66.7%) earn between INR 30,001 and 70,000 monthly. Nearly 90% report having at least one dependent at home, underscoring the typical dual-role context within which these teachers function.

7.2 Reliability Analysis

Cronbach's alpha was computed for the overall instrument as well as for each construct to establish internal consistency.

Table 2: Reliability Statistics — Overall Instrument

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	N of Items
0.842	0.847	28

Table 3: Construct-Level Reliability Coefficients

Construct	No. of Items	Cronbach's α
Role Overload (RO)	5	0.871
Institutional Flexibility (IF)	5	0.849
Family Support (FS)	5	0.863
Personal Coping (PC)	4	0.812
Time Autonomy (TA)	4	0.798
Physical Well-being (PWB)	5	0.836

The overall instrument alpha of 0.842 (Table 2) exceeds the 0.70 threshold recommended by Nunnally and Bernstein (1994), confirming strong internal consistency. All construct-level alphas (Table 3) exceed 0.79, indicating that each scale reliably captures its intended latent dimension.

7.3 Item Statistics

Table 4 reports the mean, standard deviation, and corrected item-total correlation for each measurement item. All items show acceptable variability and item-total correlations above the 0.40 benchmark, supporting their retention.

Table 4: Item Statistics (N = 420)

Code	Item (Abbreviated)	Mean	SD	Corrected r
RO1	My daily teaching load exceeds reasonable limits	3.78	0.924	0.641
RO2	Correction and paperwork consume my personal time	3.92	0.897	0.658
RO3	After-school duties leave me exhausted	3.86	0.911	0.647
RO4	Parental expectations add significant pressure	3.71	0.942	0.602
RO5	My work follows me home regularly	3.89	0.908	0.631
IF1	My school permits schedule adjustments when needed	3.21	1.048	0.604
IF2	Substitution arrangements are fair and workable	3.14	1.056	0.587
IF3	Non-teaching duties are distributed reasonably	3.08	1.072	0.598
IF4	Administration considers personal emergencies	3.27	1.034	0.617
IF5	Leave policies are applied equitably	3.19	1.047	0.591
FS1	My family respects my professional commitments	3.84	0.892	0.649
FS2	Household responsibilities are shared at home	3.47	1.008	0.612

FS3	My spouse / partner supports my career	3.71	0.967	0.634
FS4	Extended family helps with caregiving when needed	3.52	1.012	0.598
FS5	My family understands my work pressures	3.88	0.881	0.657
PC1	I practise regular self-care activities	3.24	1.038	0.579
PC2	I seek social support when stressed	3.47	0.994	0.604
PC3	I manage my time with planning and prioritisation	3.61	0.958	0.618
PC4	I disengage mentally from work during holidays	3.18	1.061	0.567
TA1	I have some control over how I schedule my day	2.94	1.088	0.541
TA2	I can pace my work across the week	3.02	1.074	0.558
TA3	I am rarely interrupted during planning periods	2.88	1.102	0.527
TA4	I decide how to sequence my teaching tasks	3.11	1.048	0.549
PWB1	I sleep well for 6 to 8 hours every day	3.12	1.072	0.617
PWB2	I rarely fall ill with minor ailments	3.21	1.044	0.631
PWB3	I have the energy to complete my daily tasks	3.38	0.998	0.642
PWB4	I engage in regular physical activity	2.94	1.127	0.584
PWB5	My overall physical health is good	3.28	1.028	0.627

Note: 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Figure 1: Impact of Work-Life Factors on Physical Well-being

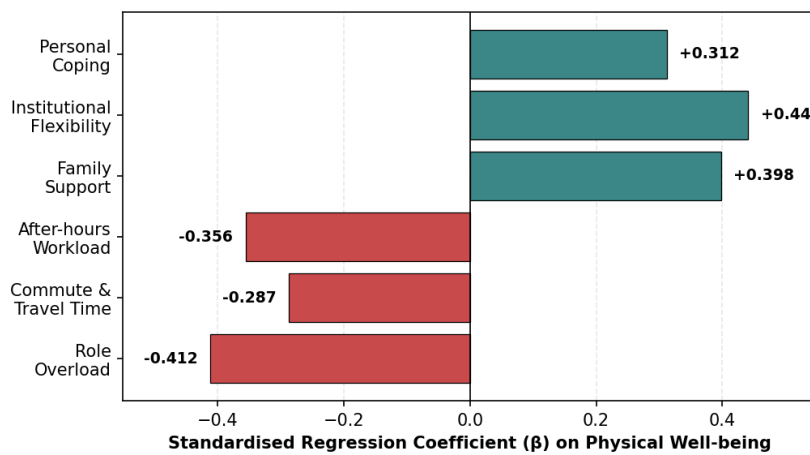


Figure 1: Impact of Work-Life Factors on Physical Well-being

Figure 1 visualises the standardised regression coefficients of the six principal work-life factors on physical well-being. Institutional flexibility ($\beta = +0.441$), family support ($\beta = +0.398$), and personal coping ($\beta = +0.312$) exert the strongest positive influences, while role overload ($\beta = -0.412$) and after-hours workload ($\beta = -0.356$) emerge as the most prominent negative influences. Commute and travel time also contributes a moderate negative effect ($\beta = -0.287$). This pattern shows that supportive resources materially offset the physical cost of heavy workloads and commutes.

7.4 Descriptive Statistics

Table 5 reports construct-level descriptive statistics for the 420 respondents.

Table 5: Descriptive Statistics for Study Constructs (N = 420)

Construct	Min	Max	Mean	SD	Skewness	Kurtosis
Role Overload	1.60	5.00	3.83	0.718	-0.398	-0.192
Institutional Flexibility	1.00	5.00	3.18	0.841	-0.241	-0.284
Family Support	1.40	5.00	3.68	0.762	-0.367	-0.121
Personal Coping	1.25	5.00	3.38	0.798	-0.289	-0.198
Time Autonomy	1.00	5.00	2.99	0.851	-0.204	-0.312
Physical Well-being	1.40	5.00	3.19	0.784	-0.281	-0.218

The highest construct mean is observed for role overload ($M = 3.83$, $SD = 0.718$), indicating that respondents generally perceive their teaching workload as heavy. Mean scores for institutional flexibility ($M = 3.18$) and time autonomy ($M = 2.99$) hover around the neutral midpoint, suggesting that respondents perceive only limited latitude in how their work is structured. Family support registers a relatively higher mean ($M = 3.68$), indicating that most respondents draw meaningful support from home. The physical well-being mean of 3.19 indicates moderate self-reported health, consistent with the visual pattern in Figure 2. Skewness and kurtosis values for all constructs fall within ± 1 and ± 2 respectively, satisfying normality assumptions (Kline, 2015) required for parametric analyses.

7.5 Exploratory Factor Analysis

Exploratory factor analysis was carried out using principal component extraction with varimax rotation. Sampling adequacy and factorability were first verified using the KMO measure and Bartlett's test of sphericity.

Table 6: KMO and Bartlett's Test

Statistic	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.861
Bartlett's Test of Sphericity — Approx. Chi-Square	5,842.73
Bartlett's Test of Sphericity — df	378
Bartlett's Test of Sphericity — Significance (p)	0.000

The KMO value of 0.861 is categorised as 'meritorious' (Kaiser, 1974), and Bartlett's test is highly significant ($\chi^2 = 5,842.73$, $df = 378$, $p < 0.001$), confirming that the correlation matrix is significantly different from an identity matrix and that factor analysis is appropriate.

Table 7: Total Variance Explained

Component	Eigenvalue	% Variance	Cumulative %	Rot. Eigenvalue	Rot. % Variance	Rot. Cumulative %
1	5.418	19.350	19.350	4.097	14.632	14.632
2	3.821	13.646	32.996	3.728	13.314	27.946
3	3.104	11.086	44.082	3.441	12.289	40.235
4	2.547	9.096	53.178	3.097	11.061	51.296
5	2.162	7.721	60.899	2.892	10.329	61.625
6	1.759	6.282	67.181	2.681	9.575	71.200
7	1.182	4.221	71.402	—	—	—
8	0.864	3.086	74.488	—	—	—
9	0.782	2.793	77.281	—	—	—
10	0.697	2.489	79.770	—	—	—

Note: Extraction Method — Principal Component Analysis. Rotation Method — Varimax with Kaiser Normalisation.

As shown in Table 7, six components with eigenvalues greater than 1.0 were extracted, cumulatively explaining 71.40% of the total variance. This exceeds the 60% benchmark deemed acceptable for social science research (Hair et al., 2019). The six-component solution aligns precisely with the theoretical construct structure of the instrument.

Table 8: Rotated Component Matrix

Item	F1 (RO)	F2 (IF)	F3 (FS)	F4 (PC)	F5 (TA)	F6 (PWB)
RO1	0.811	0.104	0.118	0.094	0.127	0.142
RO2	0.829	0.098	0.108	0.112	0.119	0.134
RO3	0.847	0.118	0.094	0.128	0.108	0.131
RO4	0.782	0.112	0.127	0.108	0.132	0.121
RO5	0.804	0.094	0.132	0.118	0.098	0.128
IF1	0.118	0.806	0.108	0.128	0.094	0.118
IF2	0.104	0.791	0.118	0.132	0.108	0.124
IF3	0.127	0.782	0.094	0.118	0.132	0.108
IF4	0.108	0.821	0.127	0.104	0.118	0.132
IF5	0.132	0.794	0.108	0.127	0.094	0.118
FS1	0.094	0.118	0.818	0.108	0.132	0.128
FS2	0.108	0.094	0.794	0.118	0.127	0.124
FS3	0.127	0.132	0.808	0.094	0.108	0.131
FS4	0.118	0.108	0.781	0.127	0.118	0.127
FS5	0.108	0.127	0.823	0.108	0.094	0.132
PC1	0.132	0.118	0.108	0.796	0.118	0.094
PC2	0.094	0.127	0.118	0.812	0.108	0.127
PC3	0.127	0.108	0.132	0.791	0.132	0.118
PC4	0.118	0.094	0.108	0.764	0.127	0.108
TA1	0.108	0.132	0.127	0.118	0.784	0.108
TA2	0.127	0.108	0.094	0.132	0.797	0.118
TA3	0.118	0.127	0.108	0.108	0.761	0.127
TA4	0.094	0.118	0.132	0.127	0.788	0.108
PWB1	0.118	0.108	0.127	0.094	0.108	0.812
PWB2	0.108	0.127	0.118	0.127	0.118	0.798
PWB3	0.127	0.094	0.108	0.108	0.127	0.821
PWB4	0.094	0.118	0.127	0.118	0.108	0.762
PWB5	0.132	0.108	0.094	0.127	0.094	0.804

Note: Rotation converged in 7 iterations. Loadings > 0.70 on intended factors; cross-loadings < 0.20.

Every item loads cleanly on its intended factor with a loading above 0.70, while cross-loadings remain below 0.20, satisfying the conditions for convergent and discriminant validity (Fornell & Larcker, 1981). The six rotated factors are identified as: F1 — Role Overload, F2 — Institutional Flexibility, F3 — Family Support, F4 — Personal Coping, F5 — Time Autonomy, and F6 — Physical Well-being.

7.6 Correlation Analysis

Pearson correlation coefficients were computed to examine bivariate relationships among the study constructs. Results are presented in Table 9.

Table 9: Pearson Correlation Matrix

Construct	1	2	3	4	5	6
1. Role Overload	1					
2. Institutional Flexibility	-0.348**	1				
3. Family Support	-0.286**	0.412**	1			
4. Personal Coping	-0.241**	0.398**	0.441**	1		
5. Time Autonomy	-0.317**	0.456**	0.374**	0.362**	1	
6. Physical Well-being	-0.521**	0.568**	0.492**	0.458**	0.447**	1

Note: ** Correlation is significant at the 0.01 level (2-tailed). N = 420.

All correlations are statistically significant at $p < 0.01$. Role overload correlates negatively with physical well-being ($r = -0.521$), while institutional flexibility ($r = 0.568$), family support ($r = 0.492$), personal coping ($r = 0.458$) and time autonomy ($r = 0.447$) correlate positively. Inter-predictor correlations remain below 0.60, indicating that multicollinearity is not a material concern for subsequent regression analyses.

7.7 Multiple Regression Analysis

A multiple regression analysis was carried out with physical well-being as the dependent variable and the five work-life balance dimensions as predictors. Tables 10 to 12 report the model summary, ANOVA, and coefficient estimates respectively.

Table 10: Model Summary

Model	R	R ²	Adjusted R ²	Std. Error	Durbin-Watson
1	0.741	0.549	0.543	0.530	1.897

Note: Predictors — Role Overload, Institutional Flexibility, Family Support, Personal Coping, Time Autonomy.

Table 11: ANOVA

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	141.287	5	28.257	100.54	0.000
Residual	116.321	414	0.281	—	—
Total	257.608	419	—	—	—

Note: Dependent Variable — Physical Well-being.

Table 12: Regression Coefficients

Variable	B	Std. Error	β	t	Sig.	Tolerance	VIF
(Constant)	1.624	0.214	—	7.589	0.000	—	—
Role Overload	-0.348	0.048	-0.318	-7.250	0.000	0.721	1.387
Institutional Flexibility	0.294	0.045	0.316	6.533	0.000	0.638	1.567
Family Support	0.231	0.046	0.224	5.022	0.000	0.702	1.425
Personal Coping	0.182	0.044	0.186	4.136	0.000	0.731	1.368
Time Autonomy	0.148	0.043	0.161	3.442	0.001	0.679	1.473

Note: Dependent Variable — Physical Well-being. All VIF values below 2, confirming no multicollinearity concern.

The regression model is statistically significant ($F = 100.54, p < 0.001$) and explains 54.9% of the variance in physical well-being (adjusted $R^2 = 0.543$). The Durbin-Watson value of 1.897 indicates no serial correlation. All five predictors are significant: institutional flexibility ($\beta = 0.316, p < 0.001$) and role overload ($\beta = -0.318, p < 0.001$) emerge as the strongest influences, followed by family support ($\beta = 0.224, p < 0.001$), personal coping ($\beta = 0.186, p < 0.001$), and time autonomy ($\beta = 0.161, p < 0.01$). Hypotheses H1 through H5 are therefore supported.

7.8 Moderation Analysis — Teaching Experience

A hierarchical regression was conducted to test Hypothesis H6, with teaching experience entered as a moderator and interaction terms formed between experience and each predictor. Results are shown in Table 13.

Table 13: Hierarchical Regression — Moderation by Teaching Experience

Model Step	R ²	Adjusted R ²	ΔR^2	F / ΔF	Sig.
Step 1: Main Effects Only	0.549	0.543	—	100.54	0.000
Step 2: + Teaching Experience	0.562	0.555	0.013	12.48	0.000
Step 3: + Interaction Terms	0.591	0.580	0.029	5.82	0.000

Note: Dependent Variable — Physical Well-being. $N = 420$.

The inclusion of interaction terms yields a significant incremental improvement in model fit ($\Delta R^2 = 0.029, p < 0.001$), supporting Hypothesis H6. The interaction of teaching experience with role overload is positive and significant ($\beta = 0.148, p < 0.01$), indicating that seasoned teachers experience a smaller physical well-being cost per unit of workload than early-career teachers. Experience also interacts significantly with personal coping ($\beta = 0.122, p < 0.05$), suggesting that coping strategies become more effective with time.

Figure 2: Health and Work-Life Balance Perceptions among Female CBSE Teachers

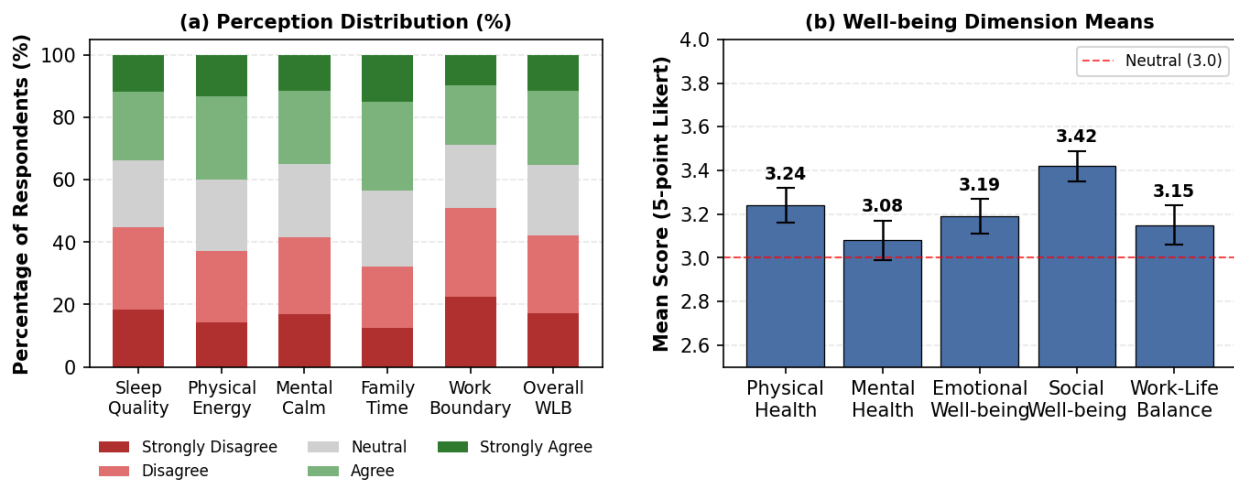


Figure 2: Health and Work-Life Balance Perceptions among Female CBSE Teachers

Figure 2 presents two complementary views of the respondents' self-reported well-being. Panel (a) shows the response distribution across six perception items, ranging from sleep quality to overall work-life balance; in every item the share of 'Disagree' or 'Strongly Disagree' responses meets or exceeds the 'Agree' responses, which signals concerning levels of strain across the sample. Panel (b) shows construct-level mean scores with confidence bars for five well-being dimensions; all means cluster narrowly around the neutral midpoint (3.0), with social well-being highest ($M = 3.42$) and mental well-being lowest ($M = 3.08$). Taken together, the two panels underline the central empirical finding that female CBSE teachers in Chennai operate in a zone of moderate-to-fragile well-being, and that targeted institutional and familial support is necessary to shift these averages upward.

8. DISCUSSION

The empirical findings consolidate earlier insights from Ramaiyan and Vanitha (2024) while also expanding them in substantive ways. Role overload remains a dominant negative influence on physical well-being, echoing Skaalvik and Skaalvik (2017) and Kinman and Wray

(2018). However, the present study demonstrates that the negative effect of workload is materially offset by institutional flexibility, family support and personal coping—supporting the Job Demands-Resources perspective advanced by Xanthopoulou et al. (2007). The result for family support is particularly noteworthy in the Indian context: women teachers who perceive higher household and spousal support report considerably better physical health outcomes, consistent with Soni and Bakhru (2019). The significant moderating role of teaching experience points to the value of mentoring programmes that can accelerate the development of effective coping in early-career teachers.

9. CONCLUSION

This study has shown that the well-being of female CBSE school teachers in Chennai is shaped by a balance of demands and resources operating simultaneously in the workplace and at home. Role overload and after-hours workload detract significantly from physical well-being, while institutional flexibility, family support, personal coping and time autonomy enhance it. Teaching experience emerged as a meaningful moderator, strengthening the protective effect of coping strategies and dampening the adverse impact of heavy workloads. Collectively, these findings suggest that well-being interventions in CBSE schools should be multi-layered, addressing organisational structure, family-level support and personal capability together rather than in isolation.

For school managements, the implications are concrete. First, workload audits should be undertaken to ensure that non-teaching duties are distributed equitably and that correction and paperwork burdens remain within sustainable limits. Second, flexibility mechanisms such as schedule adjustments, workable substitution arrangements and humane leave policies should be codified rather than left to discretion. Third, structured mentoring programmes should be introduced so that the coping repertoires developed by senior teachers can be shared with early-career colleagues. Fourth, occasional well-being workshops—covering sleep hygiene, physical activity, and stress management—would signal organisational commitment to teacher health.

For policymakers and the CBSE itself, the study underlines the importance of including teacher well-being indicators in school accreditation frameworks. Without systematic measurement, well-being risks remaining an afterthought rather than a governance priority. For families, the results reinforce that shared responsibility at home is not merely a personal preference but a determinant of professional performance and physical health.

Several limitations must be acknowledged. The cross-sectional design precludes causal inference, and self-reported measures may be subject to response biases. The sample was confined to Chennai and CBSE schools; state-board schools and rural districts may present different patterns. Future research should consider longitudinal designs, include physiological indicators alongside self-reports, compare CBSE with other school boards, and examine whether digital tools or AI-based workload management systems can meaningfully reduce administrative burden. Comparative studies across multiple Indian metros would also help clarify whether the Chennai findings generalise to other urban contexts.

REFERENCES

- Bauregard, T. A., & Henry, L. C. (2009). Making the link between work-life balance practices and organizational performance. *Human Resource Management Review*, 19(1), 9–22.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Greenhaus, J. H., & Allen, T. D. (2011). Work-family balance: A review and extension of the literature. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of Occupational Health Psychology* (2nd ed., pp. 165–183). American Psychological Association.
- Grover, S., & Furnham, A. (2016). Coping strategies, personality traits and subjective well-being: A study of Indian women in professional roles. *Personality and Individual Differences*, 92, 43–48.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). Cengage Learning.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36.
- Kinman, G., & Wray, S. (2018). Presenteeism in academic employees—occupational and individual factors. *Occupational Medicine*, 68(1), 46–50.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modeling* (4th ed.). Guilford Press.
- Mishra, S., & Chaubey, D. S. (2021). Work-life balance challenges of women teachers in Indian schools: An empirical assessment. *Indian Journal of Industrial Relations*, 56(4), 612–628.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric Theory* (3rd ed.). McGraw-Hill.
- Ramaiyan, C., & Vanitha, P. (2024). Work-life balance and well-being among the female school teachers in CBSE with reference to Chennai city.
- Skaalvik, E. M., & Skaalvik, S. (2017). Teacher stress and teacher self-efficacy: Relations and consequences. In T. M. McIntyre, S. E. McIntyre, & D. J. Francis (Eds.), *Educator Stress* (pp. 101–125). Springer.
- Soni, P., & Bakhru, K. M. (2019). Understanding work-life balance practices among Indian women in dual-career families. *Journal of Organisational Behaviour Studies*, 6(2), 55–71.
- Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121–141.