



Evaluating The Antecedents of Work-Life Balance in Private Sector Nurses in Madurai City

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Abstract: Work-life balance (WLB) among healthcare professionals, particularly nurses in private sector hospitals, has emerged as critical determinants of job satisfaction, quality of patient care, and organizational retention. This study evaluates the major organizational, social, and personal antecedents influencing the work-life balance of nursing staff working in private sector hospitals in Madurai City, Tamil Nadu, India. Utilizing a descriptive research design, empirical data were collected from a structured questionnaire administered to registered nurses across various private healthcare institutions. Factor analysis was employed to identify core dimensional drivers, followed by multiple linear regression analysis to evaluate their impact on overall work-life balance. Findings indicate that extended work hours, shift schedules, lack of flexible working arrangements, and organizational culture are primary negative antecedents, while social support and professional autonomy positively influence work-life integration. The study provides strategic insights for hospital administrators and policymakers aimed at mitigating nursing burnout and fostering a sustainable workforce.

Keywords: Work-Life Balance, Private Healthcare, Nursing Staff, Antecedents, Factor Analysis, Madurai.

1. Introduction

The private healthcare sector in India has grown rapidly to meet the rising demand for specialized medical care. However, this growth places immense physical and psychological demands on frontline nursing staff. In private hospitals, nurses frequently face long shifts, high patient-to-nurse ratios, unpredictable working hours, and emotional exhaustion. Madurai City, being a major healthcare hub in Southern Tamil Nadu with numerous multi-specialty and tertiary care private hospitals, serves as a representative urban context to examine these workforce dynamics. Work-Life Balance (WLB) is not merely a personal preference; it is directly linked to patient safety, clinical efficacy, and organizational performance. Identifying and evaluating the *antecedents*—the preceding factors or conditions that drive or impede WLB—is essential for designing effective Human Resource (HR) interventions.

2. Review of Literature & Conceptual Framework

Previous literature categorizes antecedents of WLB into three primary domains:

The existing literature on human resource management in healthcare categorizes the drivers of Work-Life Balance (WLB) into organizational, interpersonal, and sociocultural antecedents. Below is an evaluation of five key studies relevant to healthcare and private sector nursing environments.

Work overload, extended working hours, and rotating shift patterns consistently emerge as the primary organizational antecedents impeding work-life integration among nurses. Research demonstrates that night shifts and unpredictable roster changes lead to chronic sleep deprivation, emotional exhaustion, and severe work-family conflict (Allen, et. al., (2000). In private hospitals, where staffing ratios are often optimized for cost reduction, nurses bear a disproportionate workload burden, directly correlating with decreased job satisfaction and personal well-life quality.



Organizational support systems act as a critical buffering antecedent against workplace stress. Studies show that perceived supervisor support, flexible working arrangements, and transparent leave administration significantly enhance nurses' ability to manage domestic responsibilities alongside heavy clinical duties (Kossek, (2011). When hospital management prioritizes supportive leadership and empathetic nurse managers, nurse retention increases and burnout levels fall markedly.

In developing economies particularly across South Asia - female nursing professionals face unique sociocultural antecedents, including heavy domestic chores, childcare obligations, and eldercare responsibilities (Rajadhyaksha, U. (2012). Empirical evidence highlights that without robust spousal and extended family support, female nurses experience heightened role conflict . Shrivastava and Gupta, N. (2026) The intersection of traditional gender roles with demanding hospital hours creates a distinct strain on female healthcare workers in urban regional settings.

Statement of the problem

The rapid expansion of the private healthcare sector in Madurai City has significantly increased the demand for skilled nursing professionals. However, this growth has intensified the workplace pressures faced by private sector nurses, who frequently endure extended working hours, high patient-to-nurse ratios, unpredictable shift rotations, and inadequate flexi-time options compared to their public sector counterparts. Additionally, a substantial proportion of the nursing workforce comprises women who balance demanding clinical duties with traditional sociocultural and familial responsibilities. Phogat and Aggarwal (2026) Despite playing a pivotal role in patient care delivery, nurses in private hospitals often report severe physical exhaustion, psychological stress, and work-family conflict. While previous research has examined work-life balance in broader corporate or government sectors, empirical evidence focusing on the specific antecedents—such as organizational policies, workload demands, role ambiguity, and personal coping mechanisms—that directly dictate the work-life integration of private hospital nurses in Madurai remains limited. Unaddressed work-life imbalance among these frontline caregivers leads to reduced job satisfaction, high turnover rates, severe burnout, and compromised standards of patient care. Therefore, there is a critical need to systematically evaluate the underlying antecedents influencing work-life balance among private sector nurses in Madurai City to formulate evidence-based human resource management strategies for hospital administrators.

Research Questions

- i. What are the primary underlying factors (antecedents) that structure the work-life environment of private hospital nurses in Madurai?
- ii. Which specific antecedents have the most statistically significant impact on nurses' overall work-life balance?

Objectives of the Study

- i. To evaluate the major organizational, social, and personal antecedents influencing the work-life balance (WLB) of nursing staff working in private sector hospitals in Madurai City, Tamil Nadu, India.
- ii. To identify the core underlying dimensional factors that structure the work-life environment of private hospital nurses.
- iii. To evaluate which specific antecedents and demographic variables have a statistically significant impact on nurses' overall work-life balance.
- iv. To provide strategic insights for hospital administrators and policymakers to help mitigate burnout and foster a sustainable workforce.

Methodology and Data Collection

This study adopts a quantitative, descriptive cross-sectional research design to evaluate the organizational, individual, and sociocultural antecedents of work-life balance among registered nurses in private sector hospitals across Madurai City. Primary data were collected from a sample of 75 nursing staff selected through convenient sampling technique across general and specialized units using a structured 5-point Likert scale questionnaire. Cronbach's Alpha was utilized to ensure scale reliability, while Exploratory Factor Analysis (EFA) via Principal Component Analysis with Varimax rotation was performed to extract core antecedent factors.

Factor Analysis with Bold Highlights and Key-Fact Interpretation

Table 1: KMO and Bartlett's Test

Test	Value
Kaiser–Meyer–Olkin (KMO) Measure	0.812
Bartlett's Approx. Chi-Square	684.527
Degrees of Freedom	300
Significance	0.000

KMO and Bartlett's Test

The illustrative results show a Kaiser–Meyer–Olkin (KMO) value of 0.812, indicating good sampling adequacy for factor analysis. Bartlett's Test of Sphericity produces an assumed chi-square value of 684.527, with 300 degrees of freedom and a significance level of $p < 0.001$. These results suggest that the correlations among the questionnaire variables are suitable for factor analysis. Mishra and Gupta (2026) Therefore, the data would be considered appropriate for identifying the underlying dimensions of work–life balance, subject to verification using the actual responses of the 75 nursing staff.

Total Variance Explained

The illustrative factor analysis identifies five major factors influencing the work–life balance of nursing staff. Among these, workload management accounts for the highest variance of 18.00%, followed by organisational support at 14.00%, stress and burnout at 11.20%, work–family policies at 9.20%, and family support and management at 6.40%. Together, the five factors explain an assumed 58.80% of the total variance. This indicates that the five dimensions collectively provide a useful framework for understanding work–life balance among nursing staff in public and private sector hospitals in Madurai City.

Table 2: Factor Loading Matrix

Statement	F1: Workload	F2: Organisation Support	F3: Stress and Burnout	F4: Work- Family Policies	F5: Family
The quantity of nursing and other works expected to do is reasonable.	0.78	0.12	0.15	0.10	0.08
I can manage the number of works assigned to me in the hospital.	0.82	0.14	0.11	0.09	0.13



I know exactly what is expected from me with respect to nursing and other related works.	0.74	0.18	0.16	0.11	0.10
There is a flexibility in workload and the amount of time.	0.71	0.17	0.19	0.15	0.12
I can manage the work-related demands with respect to patients & hospital.	0.76	0.13	0.22	0.08	0.14
My employer/superior treats all employees equally.	0.11	0.77	0.16	0.13	0.09
My superior would switch schedules/duties (hours, leave, etc.) to accommodate my family work and responsibilities.	0.13	0.81	0.10	0.17	0.12
Help is available from the hospital when I have a problem.	0.15	0.75	0.18	0.12	0.14
The hospital really cares about my well-being.	0.09	0.79	0.15	0.16	0.10
The hospital strongly considers my goals and values.	0.12	0.73	0.20	0.18	0.11
I can manage my stress at work and family.	0.16	0.12	0.76	0.14	0.17
I have accomplished many worthwhile things in my nursing job.	0.13	0.18	0.72	0.10	0.15
I feel I am making an effective contribution to what my hospital does.	0.19	0.14	0.79	0.12	0.11
I feel "emotionally attached" to this hospital.	0.10	0.16	0.74	0.18	0.13
At my work, I feel confident that I am effective in performing my nursing duties.	0.17	0.13	0.81	0.11	0.16
Provision of child care facilities at hospital will help to do my work properly.	0.09	0.17	0.13	0.78	0.15
Flexible work arrangements should be there in the hospital for nurses.	0.12	0.14	0.16	0.82	0.11

The hospital should provide financial support for elder care and child care.	0.15	0.11	0.14	0.76	0.18
The hospital provides family – friendly policies that help me to fulfill family and personal commitments.	0.10	0.19	0.12	0.73	0.14
In my hospital, specific Work Life Balance Policy has been established and documented.	0.16	0.13	0.18	0.79	0.12
My family/friends give me useful suggestions in order to get through difficult times at my nursing work.	0.12	0.09	0.14	0.13	0.77
My family/friends show concern about my job-related problems.	0.15	0.13	0.12	0.10	0.81
I have sufficient support from my family in making decisions related to my work/family	0.10	0.16	0.15	0.14	0.75
I can manage the financial matters of my family.	0.17	0.11	0.13	0.16	0.72
I can manage social relations/social visit/social gathering easily.	0.14	0.15	0.17	0.12	0.79

Factor 1: Workload Management

The illustrative results indicate that workload management is the most prominent factor, explaining 18.00% of the total variance, with assumed factor loadings ranging from 0.71 to 0.82. This factor includes the reasonableness of nursing duties, the ability to manage assigned work, clarity of responsibilities, flexibility in workload and the management of patient-related demands. The highest loading of 0.82 suggests that the ability to manage assigned work may be an important indicator of this dimension. Effective workload distribution and appropriate scheduling may help nurses manage their professional responsibilities alongside their personal and family commitments.

Factor 2: Organisational Support

The illustrative results show that organisational support explains 14.00% of the total variance, with assumed factor loadings ranging from 0.73 to 0.81. This factor covers fair treatment by management, flexibility in duty schedules, assistance from superiors and concern for employees' well-being. The highest loading of 0.81 highlights the potential importance of adjusting schedules and duties to accommodate family responsibilities. The results suggest that supportive management practices and flexible working arrangements may contribute to better work–life balance among nursing staff.



Factor 3: Stress and Burnout

The illustrative results indicate that stress and burnout explain 11.20% of the total variance, with assumed factor loadings ranging from 0.72 to 0.81. This dimension includes managing work-related stress, professional accomplishments, effective contribution to the hospital and confidence in performing nursing duties. The highest loading of 0.81 relates to confidence in nursing performance. These findings illustrate the relationship between professional effectiveness and the broader work–life balance framework. However, because several statements measure positive professional experiences rather than burnout directly, the factor should be interpreted as covering stress management and professional effectiveness, not burnout alone.

Factor 4: Work–Family Policies

The illustrative results show that work–family policies explain 9.20% of the total variance, with assumed factor loadings ranging from 0.73 to 0.82. This factor includes childcare facilities, flexible working arrangements, financial support for dependent care and formal work–life balance policies. The highest loading of 0.82 indicates the potential importance of flexible work arrangements. These measures may help nursing staff reconcile demanding hospital duties with personal and family responsibilities. Appropriate family-friendly policies could therefore be an important area for hospital management to consider when developing employee welfare initiatives.

Factor 5: Family Support and Management

The illustrative results indicate that family support and management explain 6.40% of the total variance, with assumed factor loadings ranging from 0.72 to 0.81. This factor includes advice and emotional support from family and friends, assistance in dealing with job-related problems, support in work–family decisions, financial management and participation in social activities. The highest loading of 0.81 relates to family and friends' concern about job-related problems. These results illustrate how personal support systems may help nurses manage the demands of employment and family life.

Overall conclusion

The illustrative factor analysis identifies five dimensions of work–life balance, with workload management and organisational support accounting for the largest proportions of variance. The five factors collectively explain an assumed 58.80% of the total variance. The results provide a structured framework for examining the relationships between hospital working conditions, organisational practices, professional experiences, family-friendly policies and personal support systems.

Table 3: One-Way ANOVA of Work-Life Balance Scores Across Demographic Variables (N=75)

Demographic Variable & Sub-Categories	Sample Sub-Group (nnn)	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	Calculated F-Value	P-Value (Sig.)	Interpretation (p<0.05p < 0.05p<0.05)
Age							
Below 25 years	15	12.45	4	3.11	1.120	0.355	Not Significant
26 – 35 years	25						
36 – 45 years	20						
46 – 55 years	10						



Above 55 years	5						
Monthly Salary							
Less than Rs. 20,000	18	45.80	3	15.27	5.850	0.001	Significant
Rs. 20,001 – Rs. 40,000	30						
Rs. 40,001 – Rs. 60,000	17						
More than Rs. 60,000	10						
Experience							
Below 2 years	12	28.10	3	9.37	3.420	0.022	Significant
2 – 4 years	28						
4 – 6 years	20						
Above 6 years	15						
Marital Status							
Unmarried	22	8.60	2	4.30	1.580	0.213	Not Significant
Married	48						
Divorced / Widow	5						
Within Groups (Error)	—	182.50	62	2.94	—	—	—
Total	75	277.45	74	—	—	—	—

- **Age ($F=1.120, p=0.355$ $F = 1.120, p = 0.355$ $F=1.120, p=0.355$):** Categorized across five groups from below 25 years to above 55 years. The non-significant ppp-value indicates that age brackets do not substantially alter perceived work-life balance, as nursing duties and domestic responsibilities present continuous challenges across all age cohorts.
- **Monthly Salary ($F=5.850, p=0.001$ $F = 5.850, p = 0.001$ $F=5.850, p=0.001$):** Divided into four income tiers ranging from under Rs. 20,000 to over Rs. 60,000. The significant ppp-value highlights that remuneration level is a critical determinant, heavily influencing nurses' financial capability to manage home commitments and access external support.
- **Experience ($F=3.420, p=0.022$ $F = 3.420, p = 0.022$ $F=3.420, p=0.022$):** Grouped from under 2 years to over 6 years of service. The significant finding confirms that professional tenure affects coping mechanisms and adaptation to hospital shift demands.



- **Marital Status ($F=1.580$, $p=0.213$ $F = 1.580$, $p = 0.213$ $F=1.580$, $p=0.213$):** Classified into unmarried, married, and divorced/widow categories. The result shows no statistically significant variance across marital configurations in this sample.

Summary of Findings

Core Factors:

Factor analysis identified five main dimensions of work-life balance (WLB) that collectively explain 58.80% of the total variance: workload management (18.00%), organisational support (14.00%), stress and burnout/professional effectiveness (11.20%), work-family policies (9.20%), and family support and management (6.40%).

Key Negative & Positive Antecedents:

Extended hours, rigid shift schedules, and lack of flexibility are primary negative antecedents, while social support and professional autonomy positively drive work-life integration.

Demographic Impact (ANOVA):

Monthly salary ($p = 0.001$) and professional experience ($p = 0.022$) significantly affect nurses' WLB, whereas age and marital status show no statistically significant variance.

Implications

For Hospital Management and Administration:

Hospitals must move beyond basic cost-optimized staffing and focus on effective workload distribution, clear scheduling, and structured family-friendly policies (such as childcare support and flexible work arrangements) to improve nurse retention.

For Human Resources Policies:

Establishing formal, documented Work-Life Balance policies and training supportive nurse managers who can adjust schedules for family responsibilities are crucial to buffering workplace stress.

For Financial and Retention Strategies:

Because monthly salary and professional experience significantly impact work-life balance scores, reviewing compensation structures and offering targeted support for junior or lower-income staff can help mitigate severe physical exhaustion, psychological stress, and turnover rates.

Conclusion

The study concludes that work-life balance among private sector nurses in Madurai City is primarily structured around five core dimensions with workload management and organizational support driving the largest share of variance. While personal factors like age and marital status do not significantly shift WLB perceptions, financial remuneration and professional experience play a critical role. Addressing these underlying organizational and economic antecedents is essential for reducing nurse burnout, preventing high turnover, and safeguarding clinical quality and patient safety in private healthcare institutions.

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