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Article

Work Engagement as a Critical Mediator in the Relationship Between Workload, Organizational Support, Career Adaptability, Job Crafting, and Nurses' Well-Being

Anisha P. Gopal[1*], V Mohana Sundari[2], Kesavan D[3]

[1*,2,3]Faculty of Management, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, 603203.

Mail ID's: ap1083@srmist.edu.in[1*], mohanas1@srmist.edu.in[2], dhakshanasri2015@gmail.com[3]

Abstract: Private healthcare nurses are confronted continuously with issues of workload overload, lack of organizational support, and career change aspirations. This study addresses the impact of workload, organizational support, career adaptability, and job creation on the well-being of nurses with work engagement as a mediator. Participants were n = 166 private hospital nurses who completed a standardized questionnaire via a quantitative cross-sectional design. Statistical tests using SPSS and SEM were run, such as descriptive statistics, reliability analysis (Cronbach's $\alpha > 0.78$ for all dimensions), correlation, multiple regression, and mediation. The structural model accounted for high levels of well-being ($R^2 = 0.830$) but relatively lower work engagement ($R^2 = 0.083$). The results showed that workload negatively impacted work engagement ($\beta = –0.192$, $p < 0.001$) and well-being ($\beta = –0.175$, $p < 0.001$). Organizational support ($\beta = 0.494$, $p < 0.001$) and career adaptability ($\beta = 0.550$, $p < 0.001$) significantly positively impacted well-being, mediated by work engagement ($\beta = 0.911$, $p < 0.001$). Job crafting had no significant direct or indirect impact ($p > 0.05$). Mediation study established that work engagement softened the negative effects of workload and amplified the positive effects of organizational support and career adaptability on well-being. The research highlights that creating a supportive work environment culture, offering development opportunities for career progression, adopting effective workload management methods are some of the ways that can A lot boost work engagement and at the same time, help keep the nurses in the white sector as their employer. In fact, the current findings could be a steering vehicle for the health care decision-makers in formulating the workforce policies based on evidence which ultimately target the welfare of the employees and mainly the retention of nurses.

Keywords: Work engagement, Workload, Organizational support, Career adaptability, Job crafting, Nurses' well-being

1. Introduction

Work engagement is characterized by an inner emotional state in which individuals experience enthusiasm, commitment, and purpose in their job, where people are deeply attached to their job. It is a desirable psychological state that improves performance and fosters commitment to individual and organizational objectives (Poku et al.,2025). This correlation reinforces the importance of developing a support work environment and highlights the potential for better nurse health and patient care outcomes (Keykha et al.,2025). Work engagement is a vital mediator in understanding how workload and organizational support contribute to nurses' wellbeing (Wang, 2024). Due to the fluctuating demands of nursing, it is important to understand how work engagement can counter the adverse effects of workload and enhance the sense of organizational support (Badwan et al., 2022). The nursing career faces increased demands, realizing the importance of job engagement might help understand how favourable working environments can help cushion the negative effects of overwhelming workload (Zhang et al., 2022). The present study seeks to investigate the interrelations, emphasizing the role of job engagement in improving the wellbeing of nursing professionals.

1.1 *The essence of Work Engagement and Organizational Support*

Engagement at work boosts the nurses' commitment and productivity, thus improving patient satisfaction and care (Li et al.,2025). Organizational support reduces job expectations, promoting a healthy work environment that increases nurse retention and decreases burnout (Wilson et al., 2025). Work engagement is decisive as it endorses a highly motivated and productive workforce, thereby improving organizational effectiveness and employee well-being (Woime & Shato,2025). Organizational support plays a pivotal role in nurturing engagement by providing people, reward, and a supporting environment that propels workers towards high performance (Toska et al.,2025). Organizational support promotes a positive working environment that strengthens employee morale and satisfaction, thus boosting their engagement and commitment towards the organization (Gomes &Marques, 2025). Work engagement is crucial as it promotes employee passion, commitment, and overall performance, which in turn affects the performance and success of the company (Yudistira et al.,2024).

1.2 *Significance of Work Engagement and Wellbeing*

Work engagement has a great influence on productivity and job retention by creating emotional and intellectual involvement in work, leading to improved overall job satisfaction. Promoting employees' health through work-life balance and healthy living reduces stress while at the same time increasing job motivation and commitment (Andrli et al., 2025). A positive work culture that focuses on these aspects not only enhances personal performance but also enhances overall organizational health and effectiveness (Zhou et al., 2025). Engagement and well-being boost employee happiness, dedication, and performance, creating a productive team. Supportive workplaces enhance retention rates and build a more resilient and motivated team, creating a better workplace culture (AbdELhay et al., 2025). Employee well-being and engagement are crucial in developing a resilient and productive workforce since they have a direct impact on job satisfaction and turnover (Chang,2024).

1.3 *Research Gap*

There is certain research gaps identified in relation to work engagement and the wellbeing of nurses working in the private sector. Firstly, notwithstanding exhaustive research on the well-being of nurses, a major lacuna remains in understanding the intricate interplay among workload, organizational support, career adaptability, and job creation with work engagement mediating this process. Secondly, the existing studies have largely examined these attributes in isolation rather than assessing their combined effects on nurses' general well-being. Thirdly, while past research has illustrated how high workload negatively affects job satisfaction and mental health, there is limited work assessing the ways work engagement could help alleviate such outcomes or enhance the positive impact of organizational support and career adaptability. Furthermore, job crafting, an action that helps make one's job more joyful, has not been thoroughly explored within the private healthcare sector. There is a lack of longitudinal studies that measure the long-term influence of these determinants on nurse performance and retention. This research bridges gaps by introducing an overarching model that makes use of work engagement as a mediator variable, providing new insights into effective sustainable workforce policies in private healthcare settings.

1.4 *Research objectives*

The well-being of nurses is also a key determinant that affects the quality of health care services and patients' outcomes. The purpose of this study is to examine the effects of workload, organizational support, career adaptability, and job crafting on nurses' well-being, emphasizing the mediating role of work engagement in these relationships. The objectives of the study are as follows;

1. To assess the impact of workload on nurses' well-being and explore the mediating effect of work engagement in this relationship.
2. To probe the role of organizational support in increasing work engagement and its resulting effect on nurses' well-being.
3. To investigate the effect of career adaptability on work engagement and its contribution to improving nurses' well-being.
4. To evaluate the effect of job crafting on work engagement and its ability to enhance nurses' well-being.
5. To investigate the mediating effect of work engagement in the relationship between workload, organizational support, career adaptability, job crafting, and overall well-being among nurses.

2. Literature Review

Nurses' wellbeing in the private healthcare sector is increasingly shaped by many factors at the workplace. The current review examines the impact of workload, organizational support, career adaptability, and job crafting on nurses' wellbeing, with work engagement as an important mediator across the variables. This research aims to explain the ways through which such factors affect the psychological and professional health of nurses using a review of existing research.

2.1 *Workload*

A person or team's workload can comprise physical, mental, and emotional work required to achieve stated objectives. It is task complexity, resources, and deadlines dependent, influencing productivity and job performance (Galatzan et al., 2025). The nurses' workload encompasses the complete array of work required to provide care for patients, both direct and indirect patient care activities (Zhang et al.,2024). Higher workload pressures can lead to increased stress, burnout, and job dissatisfaction, taking a toll on nurses' emotional well-being as well as productivity (Bahrami Nejad Joneghai et al.,2023). The workload significantly influences nurses' well-being by influencing their mental health, social roles, and general work performance, particularly in stressful environments such as ICU (Chetty et al.,2021). It is influenced by various factors, such as patient acuity, resource availability, and non-patient care duties which may adversely affect efficiency and job satisfaction (Campos et al.,2018).

H1 a: Workload has a significant impact on the work engagement of nurses.

H1 b: Workload has a significant impact on the well-being of nurses, and work engagement mediates this relationship.

2.2 *Organisational Support*

Organisational support is the degree to which workers feel their organization loves them and cares about them, and that can enhance psychological capital, work engagement, and diminish burnout (Terry et al.,2025). Organisational Support refers to the extent to which an organisation invests resources, provides support, and creates a work environment that promotes employee wellbeing and performance, thereby developing a supportive work culture (Zhou et al.,2025). Organizational support positively influences nurses' mental health by fostering a sense of belonging and self-worth within the workplace, thereby reducing stress and enhancing job satisfaction (Wang, 2023). The support enables nurses to perform professionally by providing them with necessary tools and encouragement, thereby improving job performance and general mental health (Sen & Yildirim, 2023).

H2 a: Organizational support has a significant impact on the work engagement of nurses.

H2 b: Organizational support has a significant impact on the well-being of nurses, and work engagement mediates this relationship.

2.3 *Job Crafting*

Job crafting in nurses is the active process of altering nurses' work tasks, relationships and cognitive perceptions to improve job satisfaction, job engagement and well-being in their work role (Park &Ya,2025). Nurses dynamically redefine their role and responsibilities through task, relational and cognitive modifications to enhance their work environment and manage healthcare issues more effectively, particularly in stressful situations such as crises (Tripathy et al., 2025). This positive change fosters an effective work environment, which is particularly critical in difficult times, like the COVID-19 pandemic, because it reduces job pressure and improves overall job performance (Yeo & Ha,2025). Job crafting promotes nurses' well-being through the ability to actively reshape their work roles, which raises job satisfaction and personal involvement (Guo et al., 2024).

H3 a: Job Crafting has a significant impact on the work engagement of nurses.

H3 b: Job Crafting has a significant impact on the well-being of nurses, and work engagement mediates this relationship.

2.4 *Career Adaptability*

Career adaptability is a psychosocial construct referring to an individual's ability for managing current and future responsibilities, changes and difficulties concerning their occupational functions (Tejedor et al.,2025). It is the capacity of an individual to effectively adapt and deal with job issues and changes through the utilization of cognitive

skills, forward thinking and proactive measures to improve their learning and career choices (Pang et al.,2025). Career flexibility is an asset for nurses, and it provides them with the skills necessary to cope with the complexity and demands of the profession and subsequently reduce stress levels and enhance resilience (Oliveira & Marques, 2024). The flexibility enhances problem-solving in a difficult situation as well as stimulating the sense of control and confidence required in maintaining global well-being as well as work satisfaction (Fan et al., 2025).

H4 a: Career adaptability has a significant impact on the work engagement of nurses.

H4 b: Career adaptability has a significant impact on the well-being of nurses, and work engagement mediates this relationship.

2.5 *Work Engagement*

Nurses' work engagement means affective and cognitive involvement at work, as the vigor, dedication, and absorption in the job in the hospital environment reflect (Poku et al.,2025). Work engagement is a good, satisfying and work-oriented state of mind that is identified by vigor, dedication and absorption in one's job. It indicates the level of enthusiasm and commitment the employees have toward their job and how it impacts their overall wellbeing and job performance (Galanis et al.,2025). Nurses' health is made up of their mental, emotional, and social health, which has a great impact on their ability to provide quality care and be job satisfied (Moisio, 2023). Nurse work engagement is a positive psychological state that includes vigor, dedication and absorption to work, resulting in high work commitment and performance (Cruz et al., 2022).

H5: Work engagement has a significant impact on the Well-being of nurses.

2.6 Wellbeing

Well-being is a desirable state felt by people and society, considered a vital resource for everyday life, influenced by various social, economic, and environmental factors (Liu et al, 2025). Wellbeing of nurses is the total physical, mental, and emotional wellbeing of the nurses that allows them to work and manage the built-in stresses of the position (Al Khatib et al., 2024). It is vital to building job satisfaction and resilience and, finally, the quality of the care given to the patient and the hospital environment (Vallone et al.,2020). Nurses' wellbeing pertains to the general mental and emotional health of nursing personnel, including job satisfaction, commitment, and capacity to deal with work stress while achieving an outstanding work-life balance (Kinman et al.,2020).

Past studies have identified some significant relationships between work demand, organizational support, career flexibility, job redesign, work involvement, and nurses' well-being; But such factors have mainly been analysed separately, and even the direct relationships have been limited. Most of the current researches have focused on the singular effect of job demands or organizational resources and only few have simultaneously considered their combined effect in one single model. In addition, there seems to be a lack of experimental evidence supporting the idea that work engagement concurrently acts as a mediator of the relationship between workload, organizational support, career adaptability, job crafting, and nurses' well-being, mainly in private healthcare facilities. This paper proposes to bridge this gap by merging these organizational and individual resources within a single mediation model which not only portrays how work engagement results in nurses' well-being, but also is a blueprint for sustainable workforce management in private hospitals.

Conceptual Research Framework

The conceptual research framework illustrates the independent variables of workload, organizational support, job crafting, and career adaptability influencing nurses' overall well-being. Work involvement is, in this model, a mediating variable, as it is labelled with its impact on the well-being relationship with workplace features. The paradigm suggests that the level of involvement of nurses in their job can either maximize or minimize the impact of workload, support, individual job design activities, and flexibility on their physical, emotional, and mental health.

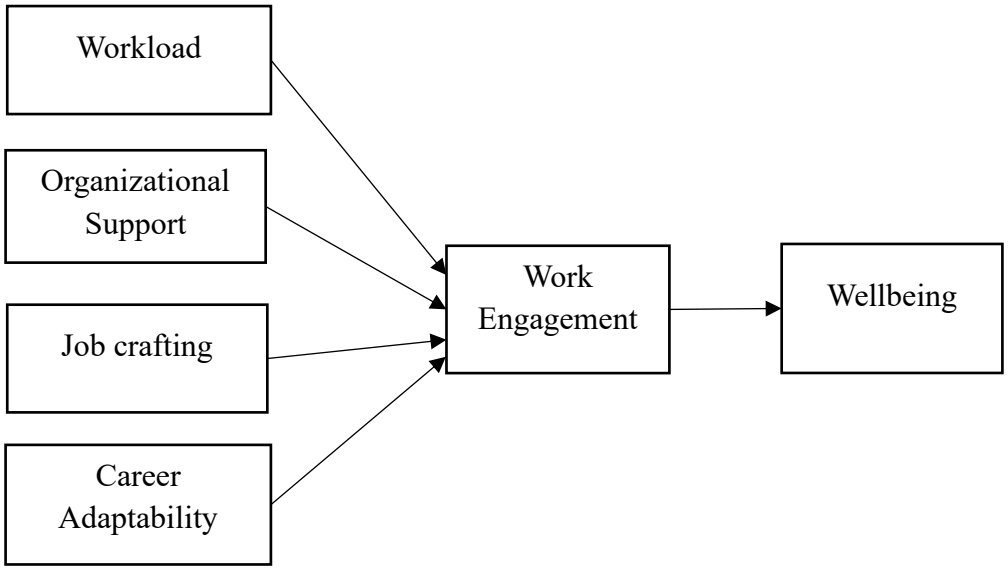

Figure 1

(Source: Compiled by the Author)

3. Research Methodology

3.1 Data and Sample

This quantitative cross-sectional study sought to examine if work engagement mediates the relationship between workload, organizational support, career adaptability, job crafting, and nurses' well-being. Data was collected from 166 nurses in private health care. It is above the minimum number specified for sample size required for Structural Equation Modelling (SEM). Generally, SEM require sample sizes greater than 150 for obtaining parameter estimation stability in models containing multiple latent variables (Hair et al. 2022). Pasrticipants were intentionally sampled from nurses who had at least one year of work experience as a nurse to ensure enough exposure to the workplace dynamics. The sample consisted of both female and male participants and nurses from various age ranges, levels of education, and positions. This variability broadened the understanding of the constructs that were being studied.

3.2 Research Instrument

The main instrument for data collection was a structured questionnaire, which was developed to include existing, established, and validated scales used in prior research. The questionnaire included sections that examined demographics as well as specific constructs including: workload, organizational support, job crafting, career adaptability, work engagement, and well-being. The questionnaire was developed using a 5-point Likert scale with response categories of 1 (Strongly Disagree) to 5 (Strongly Agree). After pilot testing with 20 respondents, the questionnaire was assessed for clarity and subsequently distributed to participants. The final version of the questionnaire was made available in electronic and paper forms in an effort to reach a maximum number of participants.

3.3 Measures

The construct was evaluated with multiple items selected from established scales. The workload was measured using a five -item scale by Paul Spector (1998) that assessed the perceived mental and physical demand. The Organizational Support is the 5-item measure is from Eisenberger’s perceived organizational support scale and considered the levels of organizational caring and awareness. Job Crafting used a 5-item developed by Slemp & Vella-Brodrick (2013) that represented the three areas of task, relational and cognitive crafting, while Career Adaptability was measured with a 5-item scale Career Adapt-Abilities Scale (CAAS) by on Savickas’s professional adaptability

framework that included the constructs of control, curiosity, concern, and confidence. Work Engagement used the 5-item Utrecht Work Engagement Scale (UWES), which focused on the energy, devotion, and absorption in work. Well-being was measured using 5 items combining emotional, psychological and social well-being indicators identified by Keyes (2005). The reliability was strong for all scales as indicated by Cronbach's alpha over the minimum .70 standard. Validity was established via factor analysis and convergent-discriminant tests.

4. Results

The below are the results obtained from the data analysis.

4.1 Demographic profile of the Respondents

The demographic description of the respondents provides key information like age, gender, educational level, position in the company, and experience in years, providing a comprehensive image of the sample profile.

Table 1: Demographic profile

Gender	**Frequency**	**Percentage**
Female	90	54.2
Male	76	45.8
Total	**166**	**100**
Age		
Under 25	50	30.1
25-34	91	54.8
35-44	18	10.8
45-54	7	4.2
Total	**166**	**100**
Marital Status		
Married	102	61.4
Single	64	38.6
Total	**166**	**100**
Highest level of Education		
Bachelor's Degree	83	50.0
Master's Degree	44	26.5
Diploma	4	2.4
Others	35	21.1
Total	**166**	**100**
Current Employment Status		
Full time	103	62.0
Part time	27	16.3

Contract	36	21.7
Total	**166**	**100**
Hospital Size		
1-50 employees	33	19.9
51-200 employees	68	41.0
201-500 employees	29	17.5
501-1000 employees	36	21.7
Total	**166**	**100**
Years of Experience		
Less than 1 year	44	26.5
1-3 years	63	38.0
4-6 years	25	15.1
13.27-10 years	22	13.3
More than 10 years	12	7.2
Total	**166**	**100**

(Source: Fieldwork Survey)

The table 4.1 indicates a sample of 166 respondents, with a distribution of 54.2% female and 45.8% male. Most participants are between the ages of 25-34 (54.8%), married (61.4%), and have a Bachelor's Degree (50%). Most work full-time (62%), work in organizations with 51-200 employees (41%), and have 1-3 years of experience (38%).

4.2 Descriptive Statistics

The descriptive statistics indicate the average tendencies and variations of the main variables examined (workload, organizational support, job crafting, career adaptability, work engagement and well-being).

Table 2: Descriptive Statistics

Variable	Mean	Median	Mode	Std. Deviation	Range
Work Load	3.85	4	4	0.92	4
Organisational Support	3.72	4	4	1.01	4
Job Crafting	3.62	4	4	1.08	4
Career Adaptability	3.41	3	3	1.06	4
Work Engagement	3.78	4	4	0.98	4
Wellbeing	3.69	4	4	1.05	4

The descriptive statistics indicate the respondents had assigned relatively high average values for each of the variables with the highest average values for Work Load (M = 3.85) and Work Engagement (M = 3.78). All variables showed stable central tendencies (median and mode = 4) and moderate variability, indicating overall positive attitudes with the same range of responses (range = 4) for all the measured constructs.

4.3 Correlation Test

Correlation test was conducted to determine the correlation strength and direction among main variables of the study. The analysis evaluated the strength of relationships between workload, organizational support, job crafting, career adaptability, work engagement and well-being.

Table 3: Correlation Test

Constructs	**Work Load**	**Organisational Support**	**Job Crafting**	**Career Adaptability**	**Work Engagement**	**Wellbeing**
Work Load	1	-	-	-	-	-
Organisational Support	.756	1	-	-	-	-
Job Crafting	.798	.867	1	-	-	-
Career Adaptability	.690	.729	.766	1	-	-
Work Engagement	.664	.751	.787	.773	1	-
Wellbeing	.742	.835	.822	.765	.783	1

The results indicate that all variables were positively interrelated, meaning increase in one variable led to an increase in all of the other variables. The strongest relation was between Job Crafting and Organizational Support (r =.867), meaning employees who feel supported by their organization are more likely to be proactive in their own Job Crafting.

4.4 Regression

Regression analysis was applied to explore the hypothesized relationships among (independent) variables (workload, organizational support, job crafting and career adaptability) and (dependent) variables (work engagement and well-being). The regression analysis specifies how much independent variables account for variation in dependent variables and helps examine the extent these independent variables make a contribution to the dependent variables of interest.

Table 4: Regression Table – Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.883[a]	0.781	0.774	1.58604
a. Predictors: (Constant), JC, WL, OS, CA, WE				

The model summary reflects a strong positive correlation between the predictors and the dependent variable with an R value of 0.883. Predictors Job Control (JC), Workload (WL), Organizational Support (OS), Career Advancement (CA), and Work Environment (WE) together explain approximately 78.1% of the variance of Workplace Behavior (WB), which reflects a good model fit.

Table 5: Regression – ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1431.273	5	286.255	113.795	.000[b]
	Residual	402.486	160	2.516		
	Total	1833.759	165			
a. Dependent Variable: WB						
b. Predictors: (Constant), JC, WL, OS, CA, WE						

The results of the ANOVA reveal that the regression model is significant in the prediction of the dependent variable WB (Workplace Behavior), $F(5, 160) = 113.795$, $p < .001$. This implies that the combined effect of the predictor Job Control (JC), Workload (WL), Organizational Support (OS), Career Advancement (CA), and Work Environment (WE) explains a statistically significant variance in workplace behavior.

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.429	.793		3.063	.003		
	WL	.110	.060	.117	1.836	.068	.337	2.964
	OS	.294	.064	.359	4.595	.000	.225	4.445
	JC	.116	.081	.129	1.442	.151	.171	5.852
	CA	.159	.064	.163	2.499	.013	.324	3.090
	WE	.211	.068	.209	3.102	.002	.303	3.296
a. Dependent Variable: WB								

Table 6: Regression Table – Coefficients

The regression coefficients suggest that Organizational Support (OS), Career Advancement (CA), and Work Environment are all significant positive predictors of Workplace Behaviour (WB) ($p < .05$) [i.e. all p's < .05], and the OS indicator had the largest standardized effect ($\beta = .359$, $p < .001$). On the contrary, Workload (WL) and Job Control (JC) were not statistically significant predictors at 0.05 level, while the multicollinearity diagnostics pointed toward moderate to high intercorrelation among the predictors, in particular JC (VIF = 5.852).

4.5 Reliability and Construct Validity

Construct validity and reliability (e.g., Cronbach's Alpha, Rho-A, Composite Reliability, Rho-C, the Average Variance Extracted (AVE)), were examined to provide evidence regarding the internal consistency of the measurement model and to assess how accurately the constructs represent what they intended to measure. The three main metrics were computed to examine the reliability and convergent validity of the constructs.

Table 7: Reliability and Construct Validity - Indices of Model

	Cronbach's alpha	Rho-a	Rho-c	AVE
CA	0.851	0.902	0.891	0.627
JC	0.784	0.812	0.849	0.533
OS	0.860	0.870	0.900	0.643
WB	0.754	0.785	0.845	0.580
WE	0.926	0.928	0.940	0.693
WL	0.811	0.857	0.859	0.550

The reliability and convergent validity of all the constructs are adequate, as shown by Cronbach's alpha, Rho-A, and Composite Reliability (Rho-C) indices greater than the minimum requirement of 0.70, and Average Variance Extracted (AVE) indices higher than the minimum requirement of 0.50. The findings that reveal the measurement model is robust in internal consistency and convergent validity for all the constructs.

4.6 Discriminant Validity

Discriminant validity ensures that a research study construct measures a distinct concept and does not overlap with others within the measuring model. Career Adadtability (CA), Job Crafting (JC), Organizational Support (OS),

Well-Being (WB), Work Engagement (WE), and Workload (WL) evaluate AI-based HRM in Chennai's IT industry. For this, this research employs discriminant validity.

Table 8: Discriminant Validity

	CA	JC	OS	WB	WE	WL
CA	0.792					
JC	0.924	0.730				
OS	0.834	0.914	0.802			
WB	0.817	0.922	0.922	0.762		
WE	0.929	0.937	0.959	0.911	0.833	
WL	0.860	0.824	0.646	0.663	0.711	0.742

The correlation matrix illustrates strong positive correlations between the constructs, with most of the inter-construct correlations well above 0.70, indicating potential conceptual redundancy. The square root of the AVE value (in the diagonal elements) are greater than the corresponding inter-construct correlations, thus supporting the Fornell-Larcker criterion of discriminant validity.

4.7 Structural Equation Modelling

Structural equation modelling (SEM) is a powerful statistical technique that compares observed and latent variable relationships to test and validate a theoretical model, so it is appropriate for investigating complex interdependencies in an AI-based HRM model like Chennai's Information Technology industry.

Figure 1: Structural Equation Modelling

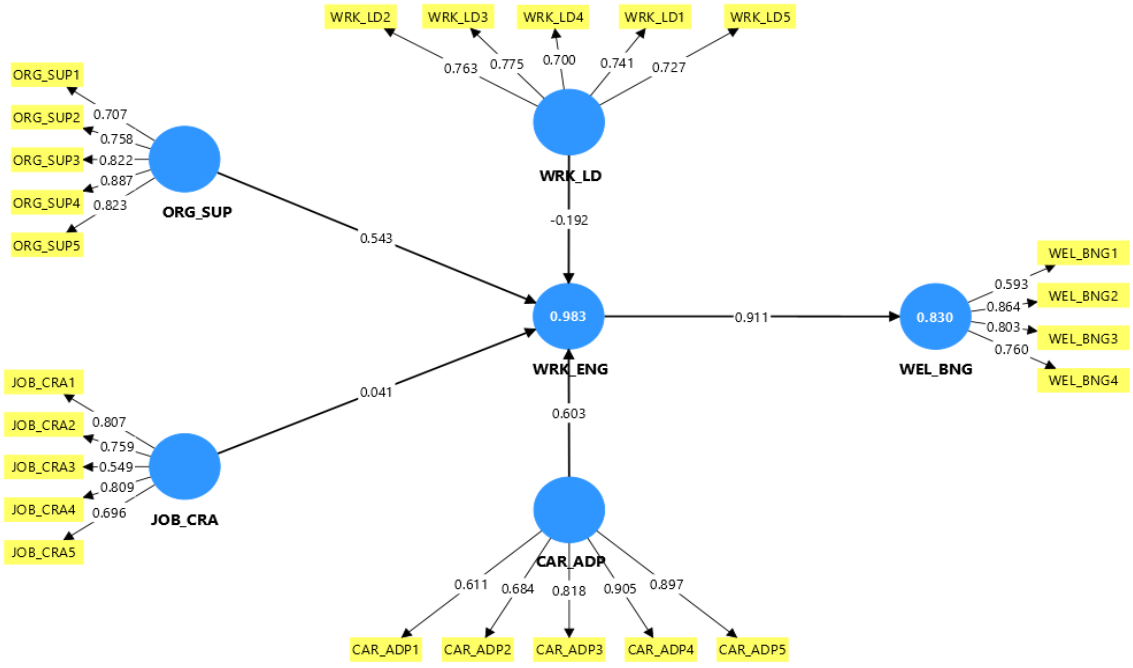

Figure 2

The structural model illustrates that organizational support and career adaptability positively influence work engagement, which in turn has a strong positive effect on well-being, but job crafting's and workload's effects on work engagement are insignificant or negative.

4.8 R Square

R-square measures are the proportion of variance explained in the dependent variables by the model, while adjusted R-square takes into account the number of predictors, providing a more conservative estimate of model fit.

Table 9: R Square

R Square		
	R - Square	R -Square Adjusted
WEL_BNG	0.830	0.828
WRX_ENG	0.083	0.082

The values of R-square indicate that 83.0% of well-being variance is explained by the model, which suggests strong explanatory power, while only 8.3% of work engagement variance is explained, suggesting limited predictive capability for its antecedents.

4.9 Hypothesis Testing

Hypothesis testing is a statistical method used to establish whether empirical evidence supports a specific assumption, or hypothesis, concerning a population parameter. The process normally hypothesises a null hypothesis (H_0), which proposes no effect or relationship, against an alternative hypothesis (H_1) to reason that there is some effect or relationship.

Table 10: Direct Effect

Relationship	Original sample (0)	Sample mean (M)	Standard deviation (STDEV)	T statistics (STDEV)	P values
CAR AOP - > WEL_BNG	0.550	0.551	0.041	13.393	0.000
CAR_ADP - > WRX_ENG	0.603	0.604	0.045	13.329	0.000
JOB CRA -> WEL BNG	0.038	0.038	0.072	0.523	0.601
JOB CRA -> WRK ENG	0.041	0.042	0.079	0.524	0.600
ORG_SUP -> WEL_BNG	0.494	0.494	0.045	10.982	0.000
ORG_SUP -> WRX_ENG	0.543	0.541	0.048	11.360	0.000
WRK_ENG -> WEL_BNG	0.911	0.913	0.020	46.388	0.000
WRK_LD -> WEL_BNG	-0.175	-0.175	0.048	3.671	0.000
WRK LD -> WRK ENG	-0.192	-0.191	0.053	3.642	0.000

There are significant correlations between well-being (WEL_BNG) and work engagement (WRK_ENG) (β = 0.913, p < 0.001), work engagement (WRK_ENG) and career adaptability (CAR_ADP) (β = 0.604, p < 0.001), organizational support (ORG_SUP) positively influencing outcomes (β = 0.494, β = 0.541) respectively, job crafting (JOB_CRA) does not lead to either (p > 0.05), and workload (WRK_LD) negatively influences both well-being and engagement. The findings of the study showed that personal characteristics, specialty nursing behaviours, and career adaptability significantly influenced specialist nurses' job engagement in Xiamen hospitals (Xu et al., 2024). The research indicates that work engagement enhances well-being. Work engagement has strong impacts on emotional, social, and psychological well-being (β=0.34, p=0.001, p=0.001, enhances nurse well-being. (Han, 2023). Enhancing organizational support enhance work engagement through a more rewarding and committed environment (Lambert et al., 2017). The job crafting shows neither and workload has been found to have a negative influence on both mental well-being and work engagement (Zappalà et al., 2022).

Table 11: Indirect Effect

	Original sample (0)	Sample mean (M)	Standard deviation (STDEV)	T statistics (STDEV)	P values
ORG_SUP -> WRK_ENG -> WEL_BNG	0.494	0.494	0.045	10.982	0.000
WRK LD -> WRK ENG - > WEL BNG	-0.715	-0.175	0.048	3.671	0.000
CAR ADP - > WRK ENG -> WEL BNG	0.550	0.551	0.041	13.393	0.000
JQB CRA -> WRK ENG -> WEL BNG	0.038	0.038	0.072	0.523	0.601

The Organizational Support (ORG_SUP) and Career Development Programs (CAR_ADP) enhance Well-Being (WEL_BNG) via Work Engagement (WRK_ENG) with substantial T-statistics (10.982 and 13.393) and P-values of 0.000. Workload (WRK_LD) negatively impacts Well-Being via Work Engagement with a T-statistic of 3.671 and P-value of 0.000. Job Crafting (JQB_CRA) exerted minimal influence on Well-Being through Work Engagement with a T-statistic of 0.523 and P-value of 0.601. Strong statistical evidence exists that organisational support perceived enhances well-being. As evidenced by a path coefficient of 0.436 and p = 0.000, perceived organisational support influences work engagement, highlighting the significance (Rahmi & Cucuani, 2021). The mediation analysis reveals a significant indirect impact of workload on wellbeing via work involvement (β = 0.17, p < 0.001), workload damages wellbeing through work engagement (Wang, 2023). Job crafting does not have a direct or indirect effect on the employee's well-being via work engagement, particularly relational or cognitive crafting (Han, 2023).

5. Discussion

This study validates work engagement as an important mediating variable between nurses' well-being and work characteristics. job support, workplace flexibility, and job engagement correlate positively with a strong relationship, hence enhancing well-being. The results are consistent with the Job Demands-Resources (JD-R) model, which identifies utilization of resources such as good work environment and flexibility to enhance engagement, hence leading to better outcomes of well-being. This research confirms work engagement as a significant mediating factor between nurses' well-being and work features. job support, workplace flexibility, and job engagement have a strong positive correlation, thereby increasing well-being. The findings are in line with the Job Demands-Resources (JD-R) model, which emphasizes the use of resources like good work environment and flexibility to strengthen engagement, thereby resulting in improved well-being outcomes. Workload, however, had adverse effects on well-being and involvement, as predicted in previous work linking high job demands with burnout and stress. Job crafting exerted minimal direct

and indirect effects on well-being through involvement, in the sense that though it is nurtured as an energizing construct, it may not have positive effects everywhere, particularly where structural and systemic levels of workload are high. The mediating role of work engagement highlights the pivotal position of engagement in the occupational resources-converted-to-positive-psychological-outcomes process. Healthcare administrators would thus view engagement not only as an outcome but also as an intervention strategy to maximize employee wellness. The findings highlight the relevance of fostering a healthy work environment for the reversal of the negative effects of workload and the maximization of the effects of career and organizational support. Work engagement reduces the negative impacts of workload and enhances career adaptability and organizational support. Engagement is critical in workplace intervention to promote nurse well-being. Therefore, healthcare administrators must view engagement as an outcome and an intentional practice to improve employee well-being. Increased engagement may influence nurse retention, job satisfaction, and patient care. This research emphasized the role of intentional engagement initiatives to promote and sustain psychologically healthy employment cultures, especially in stressful private healthcare environments. This study revealed the critical process of facilitating a workspace to diminish work demands and promote support for careers and the organization.

6. Implications

6.1 Theoretical Implications

The research supports the Job Demands-Resources (JD-R) model of work engagement, identifying it as a key mediator between job resources (organizational support, career adaptability) and employee well-being. The study also notes limited previous research examining the accumulation of these attributes for private sector nurses providing an enhanced understanding of how engagement turns organizational and personal resources into better psychological outcomes.

6.2 Practical Implications

The outcomes of this study identify a number of ways for healthcare directors of private hospitals to improve work engagement and well-being of nurses. First of all, good workload management with adequate nurse-to-patient ratios and regular measurement of work volume are the very necessary instruments to help healthcare workers analyze stress and prevent burnout. Also, career readiness, motivation, and resilience of nurses can be boosted through different types of activities like mentorship programmes, continuous professional development, recognition programmes, well-being counselling services, etc. Still, staff retention, satisfaction, and delivering quality patient care would be some of the good results that arise from work-life balance which can be improved through supportive leadership, flexible working hours, and open communication.

7. Limitations and Future Research

The cross-sectional design of the study imposes limitations on making causal inferences. The use of self-reporting might incur some common method bias and subjective distortions. The participants were only nurses from private hospitals; this limitation could limit generalisability to acute public healthcare settings and other professions. The context or regions within which these participants were located may have influenced their perceptions of support and participation, so caution should be taken in generalising the findings.

Future research should employ longitudinal approaches to assess changes in work engagement and wellbeing, which could allow more reliable causal inferences. Also including nurses from public hospitals and across a broader geographical area could improve generalisability. Researchers could examine moderating variables, such as leadership style, team dynamics and organisational culture. Furthermore, using qualitative research methods could provide richer understandings of the layered experiences of nurses, particularly for the reasons that work crafting may not make a significant difference for wellbeing. Investigating the long-term impact of targeted engagement-enhancing strategies would help to provide ideas to inform sustainable workforce planning in healthcare.

8. Conclusion

The study focuses on the nexus between job requirements, organizational help, career adaptability, job crafting, and private hospital nurses' well-being, with work engagement having a significant mediating effect. The findings reveal that organizational support and career adaptability are responsible for most of the variation in work engagement phenomena, hence the better state of well-being. While high job demands lead to negative effects, the energetic state of work engagement plays a crucial mediating role in the process of dampening the negative influence and at the same time making the positive influence of job resources still strong. In this setting, job crafting, as a proactive way of job

enrichment that has been often talked about in the literature, showed no considerable direct and indirect effects on employee well-being. This implies that job crafting done by individuals might not be enough to bring about improvement in high-pressure settings, such as healthcare, when it is the private sector and may even be able to worsen the situation. On the other hand, organizational changes would ensure the desired outcome in such circumstances. From a strategic perspective, creating work engagement not only has a positive effect but also is a relatively easy and quick method to improve job satisfaction, employee retention, and productivity. A proactive investment of businesses in the nurturing of their personnel, through leadership engagement, professional development, and workload management, is a necessity for the nursing staff member to become more resilient, motivated, and healthy. This study argues for the importance of moving from reactive to proactive human resource strategies and gives priority to engagement as a both outcome as well as an energizer for the change. With the mounting stresses on the healthcare sector, the provision of focus on the well-being of nurses through engagement programs of the highest value is necessary to ensure the maintenance of the standard of service and its continuity. With this data, we have a foundation for the future workforce that is built on participation, adaptation, and aid.

Ethics Statement

An ethics clearance certificate has been obtained from SRM-IST.

Declaration of Conflicting Interests

The Authors declare that there is no conflict of interest.

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