

# THE IMPACT OF JOB CRAFTING DIMENSIONS ON WORK ENGAGEMENT AMONG NURSES: THE MEDIATING ROLE OF PSYCHOLOGICAL CAPITAL

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## ABSTRACT

Work significantly influences individual well-being and human growth. Jobs are not solely formulated by companies based on their needs but are also actively modified by the individuals who hold those positions. High-stress professions, such as nursing, highlight how stress levels are influenced by factors like resource availability, patient demands, colleague interactions, and workplace cultural dynamics. Hence, this study investigates the effect of job crafting dimensions on work engagement and examines psychological capital's mediating role in this relationship. It aims to reveal how job crafting can improve both personal and organizational well-being.

This study is a descriptive cross-sectional study. The study was conducted with 348 nurses at Al Dhafra Hospitals in Abu Dhabi, UAE. The analysis utilized in this study was conducted using Structural Equation Modeling (SEM) through SmartPLS 4 and SPSS version 27 for descriptive and correlation analysis.

The findings demonstrate that the impacts of job crafting dimensions—task crafting, cognitive crafting, and relational crafting—on work engagement and psychological capital are statistically significant. Additionally, the influence of psychological capital on work engagement is statistically significant. Path analysis revealed that psychological capital mediates the interaction between job crafting dimensions and work engagement. These relationships were shown to be statistically significant.

This study reinforces the significance of psychological capital and job crafting dimensions as crucial attributes in the workplace. Hence, it advocates for the healthcare industry to consider the implementation of targeted programs aimed at fostering these attributes within nursing teams. Such strategic initiatives are poised to improve individual well-being among nurses, which is expected to result in enhanced organizational efficiency and a notable decrease in turnover rates over time.

## KEYWORDS

cognitive crafting, job crafting dimensions, psychological capital, relational crafting, task crafting, work engagement

## INTRODUCTION

Work is a significant component of most individuals' lives, contributing to their overall well-being and vitality. The job experiences and knowledge we acquire have the potential to influence our overall well-being, as well as enhance human growth. They can improve our impression of our own effectiveness, value, social support, competence, and self-assurance [1]. Hence, identifying and promoting methods by which individuals can effectively better their job experience can also contribute to the enhancement of their well-being [2]. Jobs are not solely formulated by companies based on their needs but are also actively modified by the individuals who hold those positions. However, the stress levels experienced by nurses are impacted by multiple aspects, including the accessibility of resources for task completion, the demands of patients and their families, interactions with colleagues, and the ever-changing workplace culture [3].

Job crafting is a notion that enables individuals to actively shape their job obligations to align more effectively with their skills, interests, and values. It has gained significance in today's dynamic and always-changing workplace. While job crafting is not a recent occurrence, its importance has been widely acknowledged in recent years as organizations aim to improve employee engagement, work satisfaction, and general well-being.

Applying the concept of job crafting can bring significant advantages to the nursing profession. This notion includes three essential aspects: Task Crafting (TC), Cognitive Crafting (CC), and Relational Crafting (RC) [4]. Task Crafting (TC) refers to the practice of nurses modifying the scope and techniques of their work to adapt to the evolving healthcare needs effectively. Nurses may modify their methodologies in reaction to emerging healthcare technologies, evolving patient care protocols, or shifts in the healthcare industry. In addition, this enables people to improve task performance and efficiency by creatively utilizing their knowledge and experience. These modifications enhance both organizational and team performance in achieving healthcare goals while also maintaining an exciting and challenging nursing job that promotes ongoing learning and development. Cognitive Crafting (CC) refers to the process of deliberately and strategically shaping one's cognitive abilities and skills. This dimension pertains to the nurses' perception of their jobs. Instead of focusing simply on the routine parts of patient

care, nurses can reframe their work by highlighting the wider influence they have, such as their contribution to patient recovery and their role in spreading health education. By adopting a more comprehensive perspective, nurses might discover greater significance and satisfaction in their profession, recognizing themselves as essential contributors to patient health and welfare rather than mere executors of tasks. Relational Crafting (RC) emphasizes the importance of interpersonal relationships in the field of nursing. Nurses have the option to work together with colleagues who enhance their abilities, provide distinct viewpoints, or fulfill social requirements in the professional environment. Nurses improve the quality of patient care and create a happier work environment by developing collaborative and supportive relationships, which allow for the sharing of expertise and creativity [5].

Work engagement (WE) is defined as a 'motivational process influenced by resource availability,' where both workplace and personal resources can motivate employees, leading them to 'work hard (vigor), be involved (commitment), and feel happily absorbed (absorption) in their work' [6].

Psychological capital (PsyCap), defined as the combination of an individual's mental capabilities, such as self-efficacy, resilience, optimism, and hope, can be nurtured and developed [7]. In addition, Organizational development is the process of fostering constructive behaviors in individuals within a company to enhance overall organizational effectiveness. This idea highlights the significance of positive psychological characteristics in shaping organizational behavior and is thought to have a greater impact on productivity compared to traditional types of capital [8].

This research enhances the theories of job crafting and job demand-resources (JD-R). Job Crafting Theory and Job Demand-Resources Theory provide insightful frameworks for understanding employee engagement and well-being; within these models, Job crafting is a well-researched personal resource that has gained significance in studying employee well-being [9]. It is closely linked to other essential factors in the work setting, such as dedication and job happiness inside the business [10].

The Job Demands-Resources (JD-R) hypothesis suggests that job crafting is associated with a conducive and innovative work environment. It also indicates that job

crafting can act as a personal resource that modifies job demands, augments existing job resources, and improves work engagement [9]. Currently, nurses face many challenges as frontline providers, which can increase internal stress and impact their psychological well-being, job happiness, and engagement. The psychological toll of witnessing numerous patient deaths can deteriorate one's mental health, underscoring the need to look at the undefined effect of job crafting on nurses' work engagement. In the UAE, resources discussing this issue are limited. Therefore, this study addresses the need for additional psychological support to improve job happiness and aims to alleviate work stress and the mental status of nurses [9].

This study aims to analyze the effects of job crafting dimensions, including task crafting (TC), cognitive crafting (CC), and relational crafting (RC) on work engagement (WE) among nurses in hospitals in the Al Dhafra region of Abu Dhabi, UAE. Given the remoteness and rural characteristics of Al Dhafra, healthcare delivery faces unique challenges, underscoring the importance of exploring how nurses adjust their roles to enhance engagement and job satisfaction in such a demanding environment. In addition, the study investigates the role of psychological capital (PsyCap) in mediating the connection between job crafting dimensions and work engagement (WE).

## HYPOTHESIS

Contemporary research finds a minimum of three main factors that prompt individuals to participate in job crafting. Initially, individuals strive to exert authority over their work or specific elements of their occupations in order to prevent feelings of isolation. Additionally, they actively participate in job crafting as a means to uphold a favorable perception of themselves. Furthermore, it satisfies fundamental human necessities [11].

In recent years, several review articles have examined the various elements that contribute to job crafting. One of the most extensive studies on meta-analysis revealed that job crafting, along with various other workplace-related characteristics, is connected with improved engagement [11].

A correlation has been shown between work engagement and job crafting in a cross-sectional study involving workers

from various industries, excluding healthcare. Job crafting has been connected to work engagement, work performance, job satisfaction, organizational commitment, and quality of care [12]. Additionally, a prior cross-sectional study established a correlation between work crafting and job engagement among nurses [13]. In addition, the study discovered that enhancing the structural work resources components of individual job crafting exhibited a moderate correlation with work engagement, while enhancing the social work resources components exhibited a weak correlation [13].

Two prior investigations were conducted specifically for nurses. A cross-sectional study discovered a favorable correlation between job crafting and work engagement among healthcare workers in a Chinese public hospital [14]. A different study found that the initial job crafting of a team was linked with the amount of work engagement among clinicians, such as doctors and nurses, in Vietnam. This relationship was observed one month after the study began [15]. Thus, the practice of collaborative job building may potentially be linked to enhanced work engagement among nurses.

**H1:** Task crafting is positively related to work engagement.

**H2:** Cognitive crafting is positively related to work engagement.

**H3:** Relational crafting is positively related to work engagement.

Psychological Capital (PsyCap) is an acknowledged psychological asset that has a favorable influence on persons by bolstering their resilience, optimism, hope, and self-efficacy [16]. However, PsyCap influences overall organizational outcomes and significantly affects well-being, health, and behavior in the workplace [17]. PsyCap serves as a bridge between an employee's attitude and behavior towards work and their psychological condition. Prior research has found strong negative correlations between job crafting and psychological discomfort and propensity to leave [18]. However, employees who possess the ability to actively shape their job roles are more adept at managing job requirements and are capable of fulfilling both their work and family obligations [19].

Research has shown that individuals that are engaged demonstrate higher levels of innovation, productivity, and initiative in the workplace. In addition, they implement proactive modifications in their work environment to remain engaged. Engaging in job crafting behaviors can

enhance the cultivation of psychological capital [20], which subsequently fosters the attainment of satisfactory employment conditions and heightened job satisfaction among employees [21], while also bolstering their level of work engagement. Additionally, Prior studies have demonstrated a correlation between job crafting and psychological capital [22,20]. The successful execution of job crafting relies heavily on the individual's psychological capital, which comprises their personal resources [23].

In order to develop PsyCap, which includes resilience, hope, and self-confidence, it is essential to have a sound psychological condition. In contrast, adverse mental states can give rise to mental diseases, exhaust psychological resources, and ultimately lead to job discontent, impeding the cultivation of PsyCap [24]. Psychological capital (PsyCap) is a significant construct in the field of Positive Organizational Behavior [25].

**H4:** Task crafting is positively related to psychological capital.

**H5:** Cognitive crafting is positively related to psychological capital.

**H6:** Relational crafting is positively related to psychological capital.

In previous research, psychological capital (PsyCap) has a significant association with work engagement in the nursing profession, which means that nurses with elevated of PsyCap typically demonstrate higher work engagement [26]. Based on performed research, it was revealed that work creating has the potential to enhance an individual's psychological capital [22]. another study also found PsyCap to be an important factor in predicting work engagement [27]. In additional, PsyCap is viewed as a resource and protective factor in elevating levels of job satisfaction and work engagement [24].

**H7:** Psychological capital is positively related to work engagement

Work engagement positively influences a diversity of job-related outcomes; higher work engagement among nurses leads to better job satisfaction, organizational

commitment, lower turnover rates, reduced error rates, and an overall improvement in the quality of work life [26]. These findings emphasize the significance of promoting work engagement in the field of nursing, given its association with positive outcomes not only for the individual nurses but also for the healthcare organizations they work for and the patients they care for.

A separate study discovered that job crafting significantly influences the job engagement and service recovery of flight attendants [28]. Furthermore, another study has provided evidence of the established correlation within educational institutions. There is currently a lack of extensive research on the mediating effect of psychological capital in the relationship between task crafting and work engagement in the setting of healthcare [29].

Scientific research has established work crafting as a mediator in the relationship between work engagement and job performance [30]. It also acts as a mediator between psychological capital and job happiness [22]. Nevertheless, there is a lack of research that investigate the role of psychological capital in mediating the connection between job crafting and work engagement. Initial research suggests that psychological capital may serve as a mediator between job autonomy and work engagement [31], however the evidence is still limited.

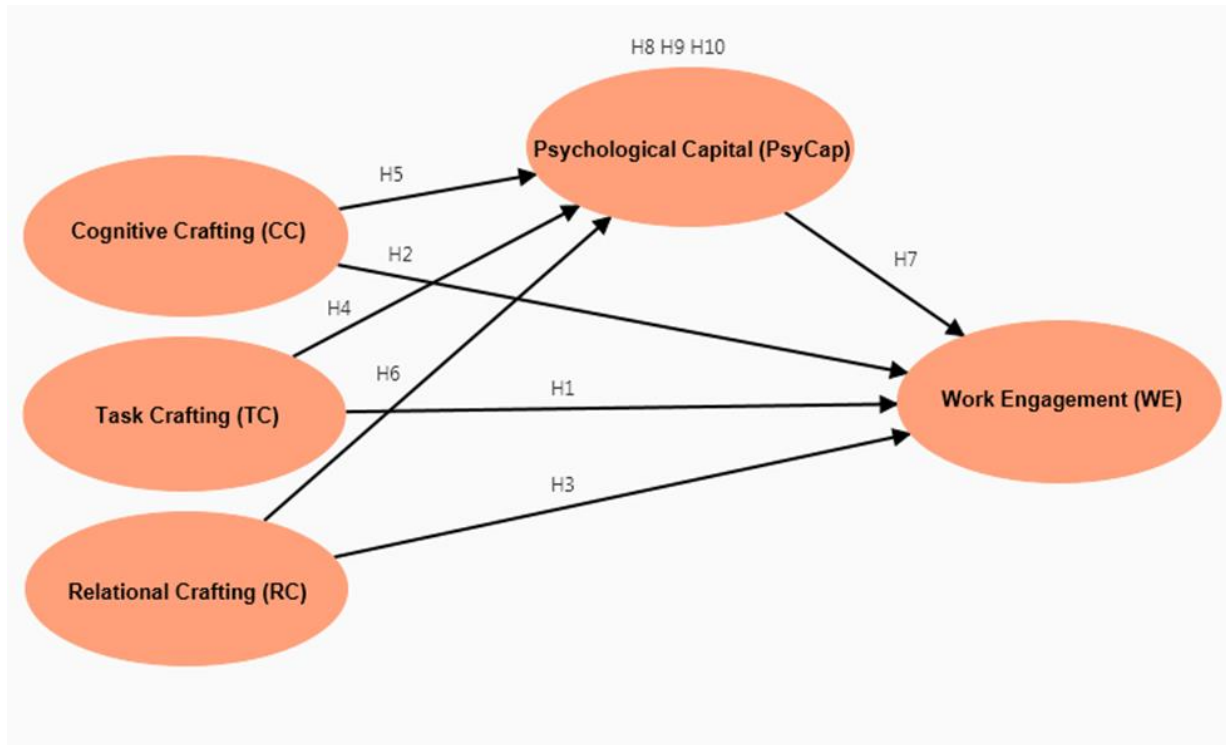
**H8:** There is a mediating role of psychological capital in the relationship between task crafting and work engagement

**H9:** There is a mediating role of psychological capital in the relationship between cognitive crafting and work engagement

**H10:** There is a mediating role of psychological capital in the relationship between relational crafting and work engagement

Figure 1 illustrates the conceptual framework of this research, which was constructed using the connections between different variables revealed in the literature review.

FIGURE 1. CONCEPTUAL FRAMEWORK



## METHODS

### SAMPLING AND DATA COLLECTION

The research will employ a descriptive cross-sectional design. The research was carried out with a sample size of 348 nurses employed in Al Dhafra hospitals located in Abu Dhabi, UAE. The analysis utilized in this study was conducted using Structural Equation Modeling (SEM) through SmartPLS 4 and SPSS version 27 for descriptive and correlation analysis.

The study focuses on nursing in the UAE, and voluntary nurses from Al Dhafra Hospitals will participate in the research to gather the essential data. Participants were

chosen using questionnaires that will be sent to the Al Dhafra hospitals via online survey questionnaires.

All information will be kept confidential on the principal investigator's laptop, which is secured with a password. After the cleaning of the data, all information will be entered into Smartpls and SPSS software.

### MEASUREMENTS

As previously stated, this study uses five latent variables (independent variables - Task crafting, Cognitive crafting, and Relational crafting; dependent variable work engagement; and mediation variable - PsyCap), and a 5-point Likert scale was used (see Table 1).

TABLE 1. INSTRUMENTATION

Variables	Sources	Items
Task crafting (TC)	[32]	5
Cognitive crafting (CC)	[32]	5
Relational crafting (RC)	[32]	5
work engagement (WE)	[33]	17
Psychological Capital (PsyCap)	[16]	22

## ETHICAL CONSIDERATIONS

The Ethical Committee of Al Dhaifra Hospitals in the UAE gave ethical clearance for this research (ADH-IREC-365).

## STATISTICAL ANALYSES

### VALIDITY AND RELIABILITY ANALYSIS

From the Tasking crafting scale, one item was removed; from the Work engagement scale, four items were removed; and from the Psychological capital scale, one item was removed. These items were excluded because their factor loadings were less than the minimum criterion of 0.50. The remaining items demonstrate strong scale reliability, as shown in Table 2.

The constructs of Task crafting, Cognitive crafting, Relational crafting, Work engagement, and Psychological capital showed factor loading ranges (>0.50). These intervals underscore a substantial and consistent measurement of the constructs by the scale items. Moreover, The Average Variance Extracted (AVE) values for these constructs are above the minimum criterion of

0.50, provide additional evidence supporting the convergent validity of the measures. These values indicate a reasonable degree of variance that is accounted for by each construct.

The constructs also demonstrate strong internal consistency, as indicated by Cronbach's alpha values significantly exceeding the accepted reliability threshold of 0.70. Additionally, the composite reliability (CR) scores, surpassing the 0.60 benchmark, confirm the composite reliability of the constructs, provide strong evidence of the reliability of the measures utilized in this study.

### DISTRIBUTION OF VARIOUS DEMOGRAPHIC FACTORS

The majority of the participants in the sample are female (75.9%), while the male participants make up a smaller percentage (24.1%). The age distribution shows that the majority of participants are concentrated in the age bracket of 30-39 years (43.1%), with a relatively balanced distribution across the other age groups, while a smaller percentage work morning shifts of 8 hours (29.3%). The participants' demographic data is displayed in Table 3.

TABLE 2. RESULTS OF VALIDITY AND RELIABILITY ANALYSES

Factor	Num. of items	Factor loading intervals	Cronbach's alpha (α)	Composite reliability (rho_α)	Composite reliability (rho_c)	Average variance extracted (AVE)
Task Crafting (TC)	4	0.671-0.801	0.751	0.755	0.843	0.574
Cognitive Crafting (CC)	5	0.716-0.898	0.900	0.911	0.926	0.717
Relational Crafting (RC)	5	0.689-0.776	0.797	0.798	0.860	0.552
Work Engagement (WE)	12	0.630-0.815	0.920	0.924	0.932	0.533
Psychological Capital (PsyCap)	21	0.594-0.865	0.962	0.967	0.965	0.573

TABLE 3. DEMOGRAPHIC FACTORS RESULTS

Control Variable	Demographic Factors	Frequency	Percentage
Gender	Male	84	24.1
	Female	264	75.9
Age	20-29 years	24	6.9
	30-39 years	150	43.1
	40-49 years	126	36.2
	50 years and above	48	13.8
Marital status	Single	45	12.9
	Married	300	86.2
	Divorce	3	0.9

<b>Qualification</b>	Diploma	36	10.3
	Bachelors	243	69.8
	Master	66	19.0
	Doctorate	3	0.9
<b>Experience</b>	1-5 years	27	7.8
	6-10 years	78	22.4
	11-15 years	93	26.7
	16 years and above	150	43.1
<b>Nursing specialist</b>	Practical Nurse (PN)	12	3.4
	Registered Nurse (RN)	267	76.7
	Charge Nurse (CN)	42	12.1
	Others	27	7.8
<b>Workplace</b>	Out-Patient (OPD)	33	9.5
	Intensive Care Unit (ICU)	48	13.8
	Emergency Department (ED)	51	14.7
	In-Patient (Ward)	171	49.1
	Others	45	12.9
<b>Duty shift</b>	Day/Night shift (12 hours)	246	70.7
	Morning shift (8 hours)	102	29.3
	<b>Total</b>	<b>348</b>	<b>100</b>

## DATA ANALYSIS

### DESCRIPTIVE STATISTICS

The sample size for each variable is 348 respondents, as shown in Table 4. Job crafting dimensions have a mean score of 4.05, 4.09, and 4.165, respectively. Indicates that participants generally engage actively in shaping their tasks, cognitive perception, and strong tendency at work. Meanwhile, work engagement is reported with a mean of

4.035, suggesting a high level of engagement among the participants. Finally, psychological capital, with an average score of 4.00, indicates a significant presence of good psychological qualities such as resilience, optimism, and self-efficacy among the participants.

These statistics collectively suggest that the participants in this study exhibit moderately high levels of job crafting dimensions, work engagement, and psychological capital, with some individual differences in each of these areas.

TABLE 4. DESCRIPTIVE STATISTICS OF THE SCORES OF PARTICIPANTS ON THE STUDY VARIABLES

Variable	N	Minimum	Maximum	Mean	Standard Deviation	Variance
Task Crafting (TC)	348	1	5	4.050	1.010	1.030
Cognitive Crafting (CC)	348	1	5	4.090	0.760	0.580
Relational Crafting (RC)	348	1	5	4.165	0.805	0.655
Work Engagement (WE)	348	1	5	4.035	0.850	0.725
Psychological Capital (PsyCap)	348	1	5	4.000	0.845	0.715

## CORRELATIONAL ANALYSIS OF VARIABLES

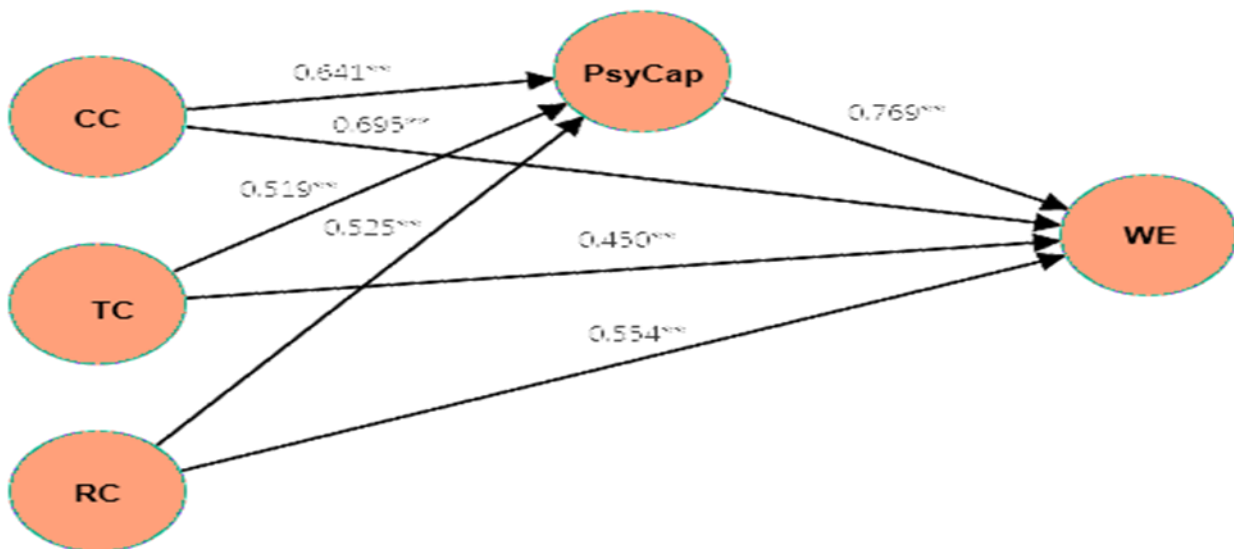
The study's correlation analysis illuminates the relationships between job crafting dimensions, work engagement, and psychological capital. Upon reviewing Table 5, it is positively correlated with work engagement ( $r = .450^{**}$ ,  $p < .01$ ), suggesting a substantial and meaningful relationship between the two variables. The data shows that cognitive crafting has a significant and positive correlation with work engagement ( $r = .695^{**}$ ,  $p < .01$ ). This underscores the importance of mental processes in employee engagement. The statistical analysis reveals that relational crafting exhibits

a positive association with work engagement ( $r = .554^{**}$ ,  $p < .01$ ). This suggests that the caliber of interpersonal connections in the professional environment significantly influences the extent of employee involvement. The psychological capital variable is positively correlated with task crafting ( $r = .519^{**}$ ,  $p < .01$ ), cognitive crafting ( $r = .641^{**}$ ,  $p < .01$ ), and relational crafting ( $r = .525^{**}$ ,  $p < .01$ ). Additionally, it exhibits the strongest correlation with work engagement ( $r = .769^{**}$ ,  $p < .01$ ). This pattern indicates that psychological capital is an essential element that is intrinsically linked to all forms of job making and serves as a strong indicator of work engagement.

TABLE 5. CORRELATIONS RESULT

Variable		Mean	SD	1	2	3	4
1	Task crafting (TC)	4.050	1.010	1			
2	Cognitive crafting (CC)	4.090	0.760	0.449**	1		
3	Relational crafting (RC)	4.165	0.805	0.628**	0.610**	1	
4	Work engagement (WE)	4.035	0.850	0.450**	0.695**	0.554**	1
5	Psychological capital (PsyCap)	4.000	0.845	0.519**	0.641**	0.525**	0.769**

FIGURE 2. CORRELATION RESULT IN THE MODEL



## HYPOTHESIS TESTING

The outcomes of evaluating the impacts in a Path model (H1-H7) in the absence of a mediator are presented in Table 6.

**H1:** Task crafting is positively related to work engagement.

The correlation between task crafting (TC) and work engagement (WE) is fairly positive, with a  $\beta$  coefficient of 0.45. These findings indicate that persons who proactively alter elements of their job duties are likely to observe a significant enhancement in their level of work engagement. The statistical significance of this discovery is supported by



a p-value of 0.00 and a t-value of 9.157, both of which surpass the conventional limits for significance.

**H2:** Cognitive crafting is positively related to work engagement.

The correlation between cognitive crafting (CC) and work engagement (WE) is significantly strong, as indicated by a  $\beta$  coefficient of 0.716. It is suggested that when employees alter their cognitive perspectives of their work, it has a substantial and beneficial impact on their levels of engagement. This relationship is highly significant statistically, with a t-value of 18.856, p-value = 0.00, and suggests a potent area for interventions aimed at increasing work engagement.

**H3:** Relational crafting is positively related to work engagement.

The positive relationship between relational crafting (RC) and work engagement (WE) is moderately strong, with a  $\beta$  coefficient of 0.563. It signifies that building better work relationships can lead to a substantial increase in work engagement. This finding is statistically robust (t-value = 12.72, p-value = 0.00).

**H4:** Task crafting is positively related to psychological capital.

The  $\beta$  coefficient of 0.522 suggests that task crafting (TC) not only affects work engagement (WE) but also has a moderately strong positive impact on the psychological resources that contribute to an individual's positive psychological state and also suggests that modifying job tasks can have a meaningful positive effect on employees' optimism, hope, resilience, and confidence. This relationship is statistically significant, with a high t-value of 11.298 and a P-value of 0.00, indicating that task crafting is a solid

predictor of psychological capital.

**H5:** Cognitive crafting is positively related to psychological capital.

There is a strong positive relationship between cognitive crafting (CC) and psychological capital (PsyCap), as shown by a  $\beta$  coefficient of 0.666. Changing how employees view their work appears to boost their psychological resources significantly. The statistical strength of this relationship is very high (t-value of 15.598 and p-value of 0.00), which underscores the importance of cognitive aspects of job crafting in enhancing psychological capital.

**H6:** Relational crafting is positively related to psychological capital.

Relational crafting (RC) has a moderate to strong positive impact on psychological capital (PsyCap), with a  $\beta$  coefficient of 0.537. It indicates that fostering better interpersonal connections at work is likely to contribute positively to employees' psychological capital. The relationship is statistically significant (t-value of 10.779 and p-value of 0.00) and suggests relational crafting is an important factor in building psychological strength.

**H7:** Psychological capital is positively related to work engagement.

The correlation between psychological capital (PsyCap) and work engagement (WE) is markedly positive, as demonstrated by the highest  $\beta$  coefficient of 0.769. It suggests that individuals possessing high levels of psychological capital are significantly more likely to be actively engaged and committed in their work. The exceptionally high t-value of 22.349, coupled with a p-value of 0.00, provides robust evidence supporting this relationship.

**TABLE 6. PATH MODEL**

Path	$\beta$	SE	t-Value	p-Value	LLCI	ULCI
TC → WE	0.450**	0.049	9.157	.000	0.340	0.538
CC → WE	0.716**	0.038	18.856	.000	0.637	0.786
RC → WE	0.563**	0.044	12.720	.000	0.467	0.642
TC → PsyCap	0.522**	0.046	11.298	.000	0.427	0.610
CC → PsyCap	0.666**	0.043	15.598	.000	0.568	0.736

RC →PsyCap	0.537**	0.050	10.779	.000	0.427	0.624
PsyCap →WE	0.769**	0.018	22.349	.000	0.795	0.949

Note:  $\beta$  = path coefficient; Bootstrap sample size=5000 ; LL lower limit, CI confidence interval, UL upper limit ;N=348 ; (\*\* p < .05).

### MEDIATING ROLE OF PSYCHOLOGICAL CAPITAL (H8-H10)

**H8:** There is a mediating role of psychological capital in the relationship between task crafting and work engagement. The overall impact of task crafting (TC) on work engagement (WE) is statistically significant, with a beta coefficient of 0.45, which suggests a considerable beneficial influence without considering any mediators. Nevertheless, upon examining the specific impact of task crafting on work engagement while accounting for psychological capital (PsyCap), the beta coefficient decreases to 0.058, rendering this association statistically insignificant with a p-value of 0.105. These findings indicate that the impact of task designing on work engagement is mainly mediated via its effects on psychological capital rather than having a direct effect. Conversely, the indirect impact is particularly robust, with a beta coefficient of 0.393 and a statistically significant p-value of 0.00. This suggests that psychological capital plays a considerable role in

mediating the connection between task crafting and work engagement. The robustness of the indirect effect, as evidenced by the substantial t-value of 10.472, suggests that the alterations in PsyCap resulting from task crafting exert a significant impact on enhancing work engagement. In other words, task crafting enhances psychological capital, which in turn significantly increases work engagement.

In summary, the evidence confirms that psychological capital plays a significant role as a partial mediator in the connection between task crafting and work engagement. It has a substantial indirect impact; while its direct effect is not statistically significant when accounting for psychological capital, it highlights the significance of cultivating psychological capital in employees as a means via which task crafting can boost work engagement. Table 7. Presents the results of PsyCap mediating the impact of TC on WE.

**TABLE 7. THE RESULTS OF PSYCAP MEDIATING THE IMPACT OF TC ON WE**

Path	$\beta$	SE	t-Value	p- Value	LLCI	ULCI
TC $\square$ WE	0.450	0.049	9.157	0.000	0.340	0.538
Direct effect (TC $\square$ PsyCap $\square$ WE)	0.058	0.035	1.622	0.105	-0.012	0.126
Indirect effect (TC $\square$ PsyCap $\square$ WE)	0.393	0.037	10.472	0.000	0.310	0.459

Note:  $\beta$  = path coefficient; Bootstrap sample size=5000 ; LL lower limit, CI confidence interval, UL upper limit ;N=348 ; (\*\* p < .05).

**H9:** There is a mediating role of psychological capital in the relationship between cognitive crafting and work engagement.

The statistical study reveals that cognitive crafting (CC) significantly and positively affects work engagement (WE), as evidenced by a notable overall effect with a beta coefficient of 0.716. This significant effect persists even when accounting for psychological capital (PsyCap) as a mediator, demonstrated by a substantial direct effect of 0.348 and an indirect effect of 0.368. Both effects are

statistically significant, with p-values of 0.00; this indicates that cognitive crafting directly contributes to enhancing work engagement. Furthermore, it significantly boosts psychological capital, which in turn has a positive influence on work engagement. The considerable t-values for the direct (7.217) and indirect (14.306) effects suggest that psychological capital acts as a partial mediator in this relationship. Both pathways independently contribute to the outcome of work engagement. Table 8. Illustrates the results of the impact of CC on WE, mediated via PsyCap.

**TABLE 8. THE RESULTS OF THE IMPACT OF CC ON WE, MEDIATED VIA PSYCAP**

Path	$\beta$	SE	t-Value	p- Value	LLCI	ULCI
CC $\square$ WE	0.716	0.038	18.856	.000	0.637	0.786
Direct effect (CC $\square$ PsyCap $\square$ WE)	0.348	0.048	7.217	0.000	0.257	0.448
Indirect effect (CC $\square$ PsyCap $\square$ WE)	0.368	0.026	14.306	0.000	0.318	0.418

Note:  $\beta$  = path coefficient; Bootstrap sample size=5000 ; LL lower limit, CI confidence interval, UL upper limit ;N=348 ; (\*\* p < .05).

**H10:** There is a mediating role of psychological capital in the relationship between relational crafting and work engagement.

The data demonstrates that relational crafting (RC), which involves altering the quality and amount of interpersonal interactions within the workplace, has a significant total effect on work engagement with a beta of 0.563. This strong relationship is supported by a substantial t-value of 12.72 and a p-value of 0, indicating that changes in work relationships can greatly enhance work engagement. When taking psychological capital (PsyCap) into account, the direct impact of relational craftsmanship on work engagement remains considerable but less strong, with a beta coefficient of 0.201; this is further corroborated by a substantial t-value of 5.233 and a p-value of 0, indicating that the act of creating and nurturing relationships directly enhances work engagement, regardless of one's psychological capital. On the other hand, the influence of

relational crafting on work engagement is also remarkable when considering its indirect effect through psychological capital. A beta coefficient of 0.362 indicates that a considerable portion of relational crafting's impact on work engagement is mediated by psychological capital. The t-value of 10.644 and a p-value of 0 for this indirect effect underscore the significance of this mediation.

In summary, the analysis supports and suggests partial mediation, where relational crafting boosts work engagement on its own and also by enhancing psychological capital, which in turn positively impacts work engagement. Table 9. Presents the results of PsyCap mediating the impact of RC on WE.

Following the explanation of the analyses, the summary of the results for the hypotheses can be found in Table 10.

**TABLE 9. THE RESULTS OF PSYCAP MEDIATING THE IMPACT OF RC ON WE**

Path	$\beta$	SE	t-Value	p- Value	LLCI	ULCI
RC $\square$ WE	0.563	0.044	12.720	0.000	0.467	0.642
Direct effect (RC $\square$ PsyCap $\square$ WE)	0.201	0.038	5.233	0.000	0.123	0.274
Indirect effect (RC $\square$ PsyCap $\square$ WE)	0.362	0.034	10.644	0.000	0.290	0.424

Note:  $\beta$  = path coefficient; Bootstrap sample size=5000 ; LL lower limit, CI confidence interval, UL upper limit ;N=348 ; (\*\* p < .05).

**TABLE 10. SUMMARY OF HYPOTHESES**

Hypotheses	Summary	Results
<b>H1</b>	Task crafting is positively related to work engagement	Supported
<b>H2</b>	Cognitive crafting is positively related to work engagement	Supported
<b>H3</b>	Relational crafting is positively related to work engagement	Supported
<b>H4</b>	Task crafting is positively related to psychological capital	Supported
<b>H5</b>	Cognitive crafting is positively related to psychological capital	Supported
<b>H6</b>	Relational crafting is positively related to psychological capital	Supported
<b>H7</b>	Psychological capital is positively related to work engagement	Supported

<b>H8</b>	There is a mediating role of psychological capital in the relationship between task crafting and work engagement	Supported
<b>H9</b>	There is a mediating role of psychological capital in the relationship between cognitive crafting and work engagement	Supported
<b>H10</b>	There is a mediating role of psychological capital in the relationship between relational crafting and work engagement	Supported

## DISCUSSION

This study investigated the correlation between job crafting dimensions and work engagement among nurses. Additionally, the study explored the mediation effect of psychological capital in this relationship. According to the study results, the levels of work engagement among nurses also rise in correlation with an increase in job crafting dimensions, which includes task crafting, cognitive crafting, and relational crafting. Consequently, they demonstrate a greater inclination towards taking initiative and are able to align their employment with their personal preferences and principles. Additionally, job crafting might be seen as a proactive approach used by nurses to enhance the demands and resources of their profession, with the aim of making it more meaningful, fulfilling, and conducive to increased productivity.

This finding aligns with the theoretical predictions of [12,13,14,15] which suggest there is correlation between job crafting dimensions and work engagement. This setting instills nurses with confidence since they believe they will not face humiliation or punishment, even if their actions lead to unfavorable outcomes. These papers in the literature corroborate our research findings.

Upon reviewing the literature, it is commonly observed that psychological capital serves as a mediator between job crafting dimensions and work engagement [22,26,29,31]. These studies corroborate our research findings. Furthermore, there needs to be more research investigating the impact of inter-job crafting on work engagement and also to investigate the mediating role of psychological capital in this relation within the health sector.

The study revealed a noteworthy correlation between job crafting dimensions and work engagement. Consequently, nurses who experience psychological comfort and security demonstrate greater engagement in proactive actions. They can effectively guide their job by implementing steps that will imbue it with personal significance. When

conducting a literature review, it is imperative to include more studies that investigate the correlation between job crafting and psychological capital. A study conducted in Taiwan examined 163 individuals from 45 teams in 12 firms. The study discovered that introducing the notion of job crafting promotes employees to demonstrate good psychological capital behaviors [20]. A study involving employees in the health sector indicated that job crafting is a significant element in enhancing psychological safety and is positively associated with the occurrence of impediment circumstances in job crafting [34]. These studies corroborate our research findings.

The present findings showed that there was a significant correlation between psychological capital and work engagement. This means that the nurses who have an elevated of psychological capital will report an elevated of work engagement. This result was supported in literature review [28,29]

This study examined the function of psychological capital in mediating the relationship between job crafting and work engagement. The results indicate that psychological capital serves as a mediator in this relationship. This study is the first known investigation to examine the influence of psychological capital on the connection between job crafting and work engagement among nurses. The presence of psychological capital as a mediating factor in this connection highlights its significant relevance as an explanatory mechanism.

Significant effects of job crafting aspects on nurses' work engagement, with psychological capital playing an important mediating role. These findings not only fill a gap in the existing literature but also provide practical implications for enhancing nurse engagement through strategic work. By advancing our understanding of these dynamics, healthcare organizations can better support their nursing workforce, foster an environment that fosters intellectual capital and enhances overall job satisfaction and productivity.

## RECOMMENDATIONS

Hospital work is becoming more complex and inherently stressful. Nurses often find themselves in challenging and stressful practice environments, which can adversely affect their work engagement.

The study's findings and consequences lead to the following proposed recommendations:

1. Develop and implement structured job crafting programs that encourage employees to personalize their work experiences and tasks in a way that leverages their strengths and interests.
2. Foster an organizational culture that values and promotes psychological capital by providing training and resources aimed at enhancing employees' resilience, optimism, hope, and self-efficacy.
3. Integrate psychological capital development into leadership training modules, ensuring that managers are equipped to support and facilitate job crafting efforts among their teams.
4. Conduct regular assessments of work engagement and psychological capital to identify areas for intervention and measure the effectiveness of job crafting initiatives.
5. These recommendations aim to harness the power of job crafting and psychological capital to create a more engaged and productive workforce.

## THEORETICAL IMPLICATIONS

Job crafting dimensions have been found to impact work engagement at different levels and in diverse manners. Nevertheless, there is a need for more studies investigating the correlation between these variables in the health domain. Hence, this research on nurses serves to enhance the existing body of knowledge on job crafting dimensions, as well as work engagement. Although the effect of job designing and work engagement is recognized, there is a need for additional elucidation of this association. The overall environment and social situations influence the link between these variables. In this study, the researchers examined the mediating influence of the psychological capital notion, which contributes to employees' sense of safety and comfort, for the first time. The study found a positive and substantial relationship between job crafting dimensions and work engagement. This relationship was mediated by psychological capital. This finding offers a fresh outlook on job crafting dimensions and work engagement, especially in hospitals where there is a high level of interpersonal interaction.

## PRACTICAL AND MANAGERIAL IMPLICATIONS

The majority of healthcare professionals encounter numerous adverse circumstances, including burnout, job dissatisfaction, and diminished motivation. These adverse circumstances predominantly arise within the nursing profession, and this is due to the fact that nurses constitute the biggest number of healthcare workers and are primarily responsible for providing healthcare services. Research has demonstrated that nurses experience physical, cognitive, and perceptual burdens in their profession. Hence, it is imperative to eradicate these issues pertaining to working circumstances in order to ensure the safety of both nurses and patients [35]. Furthermore, the health industry is a highly specialized domain characterized by numerous unpredictable factors. Any unforeseen catastrophe, such as a crisis like the COVID-19 pandemic, conflicts, or earthquakes, necessitates crucial decision-making.

Furthermore, the workloads of all employees have escalated, and the working conditions have become more arduous. Nurses must demonstrate proactive behaviors in this setting. Thus, creating a conducive climate for work crafting within hospitals might mitigate the adverse circumstances encountered by nurses and empower them to demonstrate proactive actions. The study findings suggest that leaders/directors should create a conducive climate for work crafting by implementing rules and behaviors that promote psychological comfort and safety among nurses.

Furthermore, managers in healthcare settings must prioritize the improvement of job crafting chances and psychological capital among nurses; this has the potential to enhance work engagement, which leads to enhanced job performance and patient care. Within this particular framework, the findings of the present investigation indicate that businesses could gain advantages by promoting employees' involvement in task, cognitive, and relational crafting, as these activities are linked to increased levels of work engagement and psychological capital. Furthermore, considering the robust correlation between psychological capital and work engagement, it is advisable to propose that organizations allocate resources towards enhancing the psychological capital of their employees through training initiatives, supportive managerial strategies, and the cultivation of a positive work environment.

## LIMITATION AND SUGGESTIONS FOR FUTURE RESEARCH

We recognize certain constraints in this study, as the cross-sectional design of the research only provides insights into the situation during a specific time frame. Consequently, conducting tests on this model using a longitudinal design will be advantageous in terms of corroborating the research findings. The research was carried out in public healthcare facilities. Alternatively, the situation at private hospitals might also be depicted. Public and private hospitals are similar in quality and services.

Conversely, the study's sample consisted of nurses. An analysis of other professional groups in future studies will help to generalize the findings obtained for health professionals. Ultimately, the outcomes of this study may be influenced by confounding variables that were not taken into account, such as additional forms of job pressures and external factors that affect the environment beyond the workplace.

This study indicates that job crafting is indeed present, and certain elements of job crafting are enhanced as a consequence of prior elevated levels of psychological capital and work engagement. Standardization of work activities in the public healthcare sector for quality control and productivity enhancement may restrict employees' ability to customize their employment overall, including their specific job duties.

The variability of cognitive and relational job crafting in response to changes in psychological capital or work engagement may be attributed to the work context, while task-related job crafting remains unaffected. However, given that certain parts of job crafting are influenced by psychological capital or work engagement, it becomes intriguing to go deeper into the mechanisms, motivations, and circumstances surrounding job crafting. Senior employees who possess higher levels of formal autonomy and power are more likely to view job crafting as a challenge within their expectations of work conduct. Furthermore, our findings indicate that psychological capital positively influences certain elements of work crafting. The availability of these knowledge sources suggests that the relationship between psychological capital and job crafting may be mutually influential. Ultimately, the robust correlation between psychological capital and work engagement may give rise to further inquiries in the study. Which specific elements of psychological capital exert the greatest influence on

engagement, and how does psychological capital interact with other organizational aspects to shape work engagement? Given the findings of this study, we believe that the interrelationships among psychological capital, job crafting, and work-related well-being should be further investigated as an interactive system.

## CONCLUSION

The study highlights the significance of job crafting and psychological capital in improving work engagement among nurses. This study offers significant insights that contribute to both the theoretical comprehension and practical implementation of healthcare administration. By presenting compelling evidence of a predictive influence on both work engagement and job crafting dimensions, the mediating role of psychological capital emphasizes the importance of individual resources in amplifying the beneficial impacts of job crafting dimensions on work engagement. The results indicate that promoting psychological capital can enhance employee engagement, especially when people actively adapt their tasks, cognition, and work relationships. This study reinforces the significance of psychological capital and job crafting dimensions as crucial attributes in the workplace. Hence, it would be advantageous for the healthcare industry to contemplate establishing institutions to foster psychological capital and job crafting dimensions among work groups. Individual employees would experience improved well-being, leading to increased organizational efficiency and reduced turnover rates in the long run.

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