

Original Paper

# The Role of Organizational Support in Work Engagement Among Nurses Working in Intensive Care Units



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## ABSTRACT

**Introduction:** The challenges and difficulties of working in intensive care units put pressure on healthcare professionals, especially nurses. To support nurses working in intensive care units (ICUs), developing supportive climates in organizations may drive nurses towards increasing work engagement levels and other related factors.

**Objective:** This study aimed to determine the relationship between organizational support and the work engagement of nurses working in ICUs.

**Materials and Methods:** This correlational cross-sectional study was conducted on 140 nurses working in two governmental hospitals in Amman City, Jordan, from January to August 2021. The participants were selected with a simple random sampling method, and study data were collected using a 3-part questionnaire: demographics, the survey of perceived organizational support scale with 8 items, and the Utrecht work engagement scale with 9 items. Descriptive statistics, the independent t test, the Spearman correlation test, and hierarchal multiple linear regression analysis were performed to determine the contribution of perceived organizational support on nurses' work engagement. The significance level for all tests was set to be less than 0.05.

**Results:** About 53.6% of participants were male, 55% worked in medical-surgical intensive care units, and 45% were in cardiac care units. The results showed that the Mean±SD scores of perceived organizational support and work engagement were 29.53±6.71 and 3.71±0.88, respectively. Also, results showed no significant differences in perceived organizational support and work engagement based on nurses' socio-demographics or work-related factors. Finally, there was a significant positive weak correlation between perceived organizational support and work engagement ( $r = 0.23$ ,  $P = 0.002$ ). The linear regression model showed that perceived organizational support could predict work engagement ( $R^2 = 0.039$ ).

**Conclusion:** Perceived organizational support among nurses working in ICUs is one of the important factors in increasing work engagement. Findings have several implications for nurses in different settings. Jordanian health policymakers must take action to improve nurses' perception of organizational support and consequently increase nurses' work engagement.

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## Highlights

- Nurses in intensive care units are ready to take on a new role to improve the nursing profession and the quality of patient care.
- The organization needs to be more alert about managerial practices and the organizational climate because these factors could cause negative employee behaviors.
- Organizations should increase work engagement through tangible and intangible rewards, such as promotion or salary, respect, and recognition.

## Plain Language Summary

Intensive care units are amongst the most stressful occupations. Perceived organizational support is known as employees' perception that their work, efforts, and contributions are valued by an organization. Organizational support can help nurses to exhibit a positive attitude, make ethical decisions, and increase their work engagement. This research investigates Jordanian healthcare managers and policymakers to realize the role of providing a supportive work environment to persuade the staff to be more engaged in their work. The study findings revealed that most nurses had a moderate level of perceived organizational support and work engagement. Most nurses believed that receiving organizational support would benefit their workplace. Also, nurses believe that organizational support comprises continuous educational programs, ongoing training opportunities, availability of career advancement opportunities, a tangible reward system for nurses working in intensive care units, and support from managers, peers, and coworkers.

## Introduction

**H**uman resource capital is one of the most vital sources for any organization [1]. Nurses working in critical care units are vulnerable to more stressful events than nurses working in other units [2]. Hence the role of the organization is to create a supportive work environment for the employees to enhance their commitment and increase job performance [3].

Perceived organizational support enables employees to develop adaptive and innovative ways of coping with stressful occupational job demands. Organizational support theory emphasizes the reciprocity dynamics relationships and demonstrates three dimensions in the workplace: fair organizational procedures, supervisor support, and favorable rewards [4]. A supportive work environment encourages the staff to exhibit positive work behaviors [5]. It leads to positive outcomes for both the individual and the organization, such as increasing employees' dedication and loyalty to the organizational objectives, increasing productivity, and reducing staff's request to quit their position or unit change withdrawal behaviors such as turnover [6].

A significant positive impact of organizational support is employee satisfaction [7]. In contrast, job dissatisfaction and turnover are common consequences of an unsupportive work environment [8]. Higher work engagement levels were reported among nurses who perceived higher organizational support after fulfilling their needs [9]. Work engagement is a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption [10]. Vigor refers to high levels of energy and resilience in work. Whereas dedication is characterized by strong involvement in one's work as well as a sense of significance and enthusiasm. Absorption is a state of being fully concentrated and happily engrossed in one's work [11].

Work engagement is the positive psychological state of the employees concerning their work that will make them feel fully involved in their work [12]. An employee with high work engagement is fully energized to the organization's activities and smoothly deals with all emerging job demands [13].

The broaden-and-build theory states that positive emotions in our mind and body, including joy, interest, and contentment, are translated as behaviors; these behaviors' repertoire builds skills and personal resources (physical, social, and psychological) [14]. If the employ-

ees are happy and feel supported, it will be reflected in their performance, and we will find them creative, innovative, and engaged in their workplaces [15]. Several factors affect employees' work engagement, such as personality traits, prior experience, organizational support, and successful use of coping mechanisms [16]. Job engagement can be enhanced by improving the employee's loyalty, which ensures the vital role of organization support in creating a positive psychological state leading to higher work engagement [17].

Nurses work in a risky working environment, which aggravates their psychological unsafety and may affect their working state. The results of a study have shown that psychological safety positively impacts employees' work engagement in different occupations [18]. Nurses working in intensive care units (ICUs) are exposed to stressful situations. Therefore, our study tries to identify the factors organizations can use to develop perceived organizational support and employee work engagement in the workplace. This study aimed to investigate the relationship between organizational support and the work engagement of nurses working in ICUs.

## Materials and Methods

This research has a correlational cross-sectional design and was conducted on 140 professional nurses (males and females) working in intensive care units (medical, surgical, cardiac, pediatric, burn) at two governmental hospitals in Amman City, Jordan, from January to August 2021. A simple random sampling technique of probability sampling was used for data collection and recruiting the study participants, randomly selecting participants from a population. Each member of the population has an equal chance of being selected.

The required sample size was calculated using the G\*power program version 3.1.9.2. For the multiple linear regression analysis, an effect size of 0.15, power of 0.80,  $\alpha$  of 0.05, and regarding the 10 possible predictors, the study needs to include a minimum number of 118 participants. The sample size was increased to 140 to address the possibility of incomplete questionnaires.

The following inclusion criteria were implemented to recruit nurses. Nurses' experience should be at least one year in the selected units; nurses should have at least a bachelor's degree, work at the bedside in direct patient care, on all shifts, and be willing to participate in the study.

This study used well-recognized scales that are available in the English language. Two original scales were used to measure the perceived organization support and work engagement. A socio-demographic sheet was used to collect demographic data, including age, gender, marital status, level of education, individual income, the number of family members, years of experience in nursing, years of experience in critical care, years of experience in current hospital, and type of unit.

Eisenberger designated the survey perceived organizational support questionnaire (in the English version) in 1986 to measure perceived organizational support. A lot of previous studies supported the reliability and validity of this tool, which is also used in many Eastern and Western countries [19]. The questionnaire contains 8 items. Every item has 7 choices, including strongly disagree=0, moderately disagree=1, slightly disagree=2, neither agree nor disagree=3, slightly agree=4, moderately agree=5, strongly agree=6. The total score range is between 0 and 48. The higher total score reflects a higher level of perceived organizational support. In this study, the English version of this questionnaire was used.

The Utrecht work engagement scale (UWES-9S) was designed by Schaufeli in 2006 to measure work engagement. It is extensively used and is available in the English language [20, 21]. The questionnaire contains 9 items with 3 subscales (vigor, dedication, absorption). It has 6 choices of never=0, almost never=1, rarely=2, sometimes=3, often=4, very often=5, always=6. The total scores range from 0.0 to 6.0. The higher total score reflects a higher level of work engagement. In this study, the English version of this questionnaire was used.

After the research project was approved by the Research Ethics Committee of Zarqa University of Nursing Sciences, the researcher visited the hospitals in different working shifts to brief the participants on the research objectives and procedure and obtained their written consent.

The study data were collected over 6 months (June to august 2021). Data were analyzed using descriptive statistics (frequency, percentages, mean, standard deviations) to describe the sample characteristics and inferential statistics by the Independent sample t test to answer the related research questions in SPSS version 23. Normal data distribution was investigated by the Kolmogorov-Smirnov test. Also, the Spearman correlation test was used to identify the correlation between the following continuous variables and the main study variables. Finally, the hierarchal multiple linear regres-

sion analysis was used to determine the unique contribution of perceived organizational support on nurses' work engagement.

## Results

A total of 140 participants completed the study. The result showed their Mean±SD age was 32.7±4.08 years, ranging from 24 to 39 years. The participants' Mean±SD years of experience in the nursing profession was 10.2±4.24 years, ranging from 2 to 18 years. The participants' Mean±SD year of experience at the current

unit was 8.4±4.33, ranging from 2 to 18 years. The participants' mean experience in the current hospital was 8.49±4.50 years and ranged from 2 to 18 years. Also, the results showed the majority of samples were male (53.6%), married (85%), had bachelor's degrees (92.1%), working at medical-surgical ICU (55%), had small family (62.9%), and with more than \$846 as monthly income (52.1%) (Table 1).

Additionally, the result showed that their Mean±SD score of perceived organizational support was 29.53±6.71, and the Mean±SD score of work engagement was 3.71±0.88

**Table 1.** Demographics of the study participants (n=140)

Variables		No. (%)
Gender	Male	75(53.60)
	Female	65(46.4)
Marital status	Single	21(15)
	Married	119(85)
Level of education	Bachelor's degree	129(92.1)
	Master's degree	11(7.9)
Monthly income, US dollar	≤846	61(43.6)
	> 846	79(56.4)
Number of family members	(Small)	88(62.9)
	>5 (medium)	52(37.1)
Type of unit	Medical-Surgical / ICU	77(55)
	Cardiac care unit	63(45)

**Table 2.** The relationship between perceived organizational support, work engagement, age, and years of experience

Variables		Organizational Support	Work Engagement
Age	r	-0.08	-0.007
	p*	0.35	0.933
Total experience in the Nursing profession	r	0.35	0.099
	p*	0.68	0.245
The total experience in the current unit	r	0.12	0.156
	p*	0.14	0.065
Total experiences in the current hospital	r	0.05	0.088
	p*	0.52	0.300
Work engagement	r	0.26	
	p*	0.00	

\*The Spearman Rho test.

**Table 3.** Perceived organizational support and work engagement based on the nurses' socio-demographical variable

Variable	Mean±SD		p*	Mean±SD		p*
	Organizational Support			Work Engagement		
Gender	Male	30.71±7.40	0.244	3.73±0.76	0.79	
	Female	28.78±5.79		3.69±0.89		
Marital status	Single	31.48±6.85	0.150	3.65±0.77	0.744	
	Married	29.18±6.66		3.72±0.89		
Type of unit	Medical-Surgical ICU	28.56±6.55	0.06	3.67±0.92	0.55	
	Cardiac care unit	30.71±6.77		3.76±0.83		
Level of education	Bachelor degree	29.38 ±6.80	0.371	3.67±0.87	0.06	
	Master degree	31.27±5.57		4.19±0.79		
Monthly income, US dollar	≤ 846	29.59±6.29	0.92	6.59±0.85	0.18	
	> 846	29.48±7.06		3.79±0.89		
Size of family	≤ 5	29.98±6.63	0.305	3.64±0.86	0.25	
	>5	28.77±6.86		3.82±0.89		

\*The independent t test.

and 3.73±0.99 for vigor subscale, 3.72±1.16 for dedication subscale and 3.68±1.07 for absorption subscale.

The Spearman correlation coefficients indicated a positive and significant correlation between perceived

organizational support and work engagement ( $P=0.002$ ,  $r_s=0.26$ ). This finding means that the participants with higher perceived organization support obtained higher scores on work engagement and vice versa (Table 2).

**Table 4.** Results of hierarchical multiple regression analysis in predicting nurses' work engagement

Model	B	SE	Beta	t	P	95% CI		R <sup>2</sup>
						Lower	Upper	
Constant (model 1)	0.099	2.127		0.047	0.963			
Age	-0.043	0.026	-0.205	-1.635	0.104	-0.714	-0.081	
Gender	-0.015	0.170	-0.152	-0.087	0.931	-0.508	0.542	
Marital status	0.170	0.232	-0.131	0.733	0.465	-0.231	0.246	
Level of education	0.536	0.275	0.011	1.950	1.950	-0.164	0.914	0.066
Type of unit	0.080	0.148	0.046	0.539	0.591	-0.003	0.118	
Monthly income	0.323	0.191	-0.134	1.686	0.094	-0.512	-0.910	
Number of family members	0.234	0.164	-0.073	1.432	0.154	-0.232	0.780	
Constant (model 2)	0.409	2.267		0.180	0.857			
Years of experience in nursing	0.036	0.044	-0.069	0.819	0.414	-0.098	0.063	0.060
Years of experience in unit	0.110	0.065	0.545	2.456	0.115	-0.012	0.210	
Years of experience in hospital	-0.089	0.066	-0.424	-1.947	0.064	-0.189	0.034	
Constant (model 3)	-0.576	2.261		-0.255	0.799			
Perceived organization support	0.028	0.011	0.269	2.451	0.016	0.014	0.056	0.039

Results showed no statistically significant difference in the scores of the main study variables (Table 3) based on the socio-demographic variables (marital status, gender, level of education, type of unit, monthly income, number of family members, and level of education).

Hierarchical multiple linear regression analysis was conducted to determine the contribution of three blocks of variables (socio-demographics, work experience, and organization support) on work engagement. Only the third regression model where the predictor “perceived organizational support” added could predict the “work engagement” ( $R^2=0.039$ ). The final model (Table 4) shows that when organizational support increases, work engagement will increase ( $B=0.028$ , 95% CI: 0.014 -0.056,  $P=0.016$ ).

## Discussion

This study aimed to investigate the perceived organizational support in work engagement among nurses working in ICUs in two governmental hospitals in Amman, Jordan. The study finding showed that most nurses had a moderate level of perceived organizational support. This result is consistent with the results of previous studies [22-24]. This result is inconsistent with the Khrais’ study [25], which found that the perceived organizational support levels were below average. The possible causes of the differences can be attributed to the differences in organizational cultures, specifically, in applying organizational justice or fairness between employees, the different economic conditions, the number of samples, and individual factors or personality traits such as the stressful background.

Regarding work engagement, the study finding showed that most nurses had a moderate level of work engagement, consistent with the result of Shantz [26] and de Cordova PB [27]. However, this result is inconsistent with the results of other studies Nasurdin [28, 29] and Engelbrecht [29]. Another study in Australia reported a high level of work engagement of nurses working in intensive care units [30]. The possible causes of the differences can be attributed to the differences in psychological job demands, which means that the uncomfortable working environment, such as working hours, irregular shifts, nursing shortage, workload, inadequate monetary rewards, respect, and job promotion, could be responsible for lack of aspiration, initiative, commitment, and work engagement. Thus, nurses’ negative perception of the work and its related factors might reduce their work engagement level.

Regarding perceived organizational support and work engagement, there was a significant positive association between perceived organizational support and work engagement. This result is consistent with previous studies [31, 32] but inconsistent with Gupta [33]. The possible causes of the differences might be related to other contributing factors or mediating variables that could play a role in the relationship between perceived organizational support and work engagement. Possible contributing factors could be employees’ satisfaction, self-esteem, self-efficacy, and empowerment.

However, the following limitations might affect the generalizability of the findings. Nurses who participated in the study were recruited from two public hospitals; therefore, nurses from other healthcare institutions were not represented. Although the study controlled the effects of age, gender, level of education, years of experience, and monthly income, other unknown confounders could influence the relationship between perceived organizational support and work engagement.

This study showed that the perceived organizational support and work engagement were moderate among nurses working in intensive care units. Findings revealed no significant differences in perceived organizational support and work engagement based on nurses’ socio-demographics or experience. Additionally, perceived organizational support and work engagement have a weak positive association among Jordanian nurses working in intensive care units. Policymakers should be encouraged to improve nurses’ perception of organizational support and consequently increase nurses’ work engagement by motivating the organizations to increase the organization support through adopting a reward system and conducting regular training.

## Ethical Considerations

### Compliance with ethical guidelines

Ethical approval was obtained from Institutional Review Board at Zarqa University. Acceptance for data collection was also acquired from Institutional Review Board in the Jordanian Ministry of Health. The researcher obtained a signed electronic consent form from all nurses before they started filling out the study questionnaire. Each participant was given a brief description of the study’s purposes and procedures, and they knew that their participation was voluntary and had the right to withdraw at any time. The confidentiality and anonymity of each participant were ensured. Additionally, the collected electronic data were kept on Google drive.



that was secured with only one password kept with the researcher. Ethical approval was obtained from the Ethics Committee of [Zarqa University](#) of Nursing Sciences (Code: IRB.8/2020).

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### Authors' contributions

Conceptualization and designing, review and editing: All authors; Manuscript draft preparation: Nidal Eshah and Ahmad Rayan; Data collection and statistical analysis: Marwa Badwan, Nidal Eshah, and Ahmad Rayan.

### Conflict of interest

The authors declared no conflict of interest.

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