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Mediating role of psychological well-being in the relationship between organizational support and nurses' outcomes: A cross-sectional study

Saeed Pahlevan Sharif[1] | Ashraf Sadat Ahadzadeh[2] | Hamid Sharif Nia[3]

[1]Taylor's Business School, Taylor's University Lakeside Campus, Subang Jaya, Malaysia

[2]Faculty of Social Sciences & Liberal Arts, UCSI, Kuala Lumpur, Malaysia

[3]School of Nursing and Midwifery Amol, Mazandaran University of Medical Sciences, Sari, Iran

Correspondence
Saeed Pahlevan Sharif, Taylor's Business School, Taylor's University Lakeside Campus, Subang Jaya, Malaysia.
Emails: saeed.sharif@taylors.edu.my; samsharif6@gmail.com

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Abstract

Aim: To examine the relationship between organizational support for nursing practice and nurse-assessed quality of care and nurses' job satisfaction in hospital settings and to investigate the mediating role of psychological well-being in the aforementioned relationships.

Background: There has been growing concern about quality of care in healthcare organizations. The past research has documented the effect of nurse practice environment on nurses' quality of care and job satisfaction. However, little is known about the underlying mechanism behind these associations.

Design: A cross-sectional survey was undertaken.

Methods: Data were collected from two large public hospitals in Iran between February - March 2017. A sample of 345 nurses participated in the study. Data were analysed using descriptive statistics and partial least squared-structural equation modelling.

Results: The results showed that nurses' perception of organizational support was related to their quality of care, job satisfaction and psychological well-being. Also, there was a positive relationship between nurses' psychological well-being and their quality of care and job satisfaction. Moreover, psychological well-being partially mediated the relationship between organizational support with nurse-assessed quality of care and nurses' job satisfaction.

Conclusion: The findings suggest that organizational support for nursing practice and psychological well-being are two factors that contribute to caring behaviour of nurses and their job satisfaction. Also, positively perceived organizational support generates favourable psychological well-being which in turn enhances nurses' quality of care and job satisfaction. The findings highlight the importance of establishing a supportive nurse practice environment and paying attention to the nurses' psychological well-being in healthcare sectors.

KEYWORDS
job satisfaction, nurses, organizational support, psychological well-being, quality of care

1 | INTRODUCTION

There has been growing concern about quality of care in healthcare organizations. The standards of care and quality of services have become a matter of importance for healthcare consumers and a key to evaluate healthcare providers all around the world (Kaur, Sambasivan, & Kumar, 2013). Quality of nursing care has often been associated with patients' satisfaction, patients' well-being and performance of healthcare organizations (Al-Mailam, 2005; Kaur et al., 2013; Rochefort & Clarke, 2010; Tzeng, Ketefian, & Redman, 2002). This has attracted researchers' attention to study the determinants of quality of care.

The past research has documented that nurse practice environment is one of the factors that contributes to nursing quality of care (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Rochefort & Clarke, 2010; Van Bogaert, van Heusden, Timmermans, & Franck, 2014). There are solid theoretical supports for this association as well. The effect of working conditions on workers' performance has intrigued scholars since the influential Hawthorne experiments (Mayo, 2004; Wright & Cropanzano, 2000a, 2000b). Also, theoretical models in nursing management research associate work environment characteristics with nurses' outcomes (Aiken et al., 2002; Duffy & Hoskins, 2003; Estabrooks et al., 2002; Lake, 2002).

Empirical studies on the relationship between nurse practice environment with nurses' quality of care and satisfaction are abundant in the literature (Aiken, Clarke, Sloane, Lake, & Cheney, 2008; McCusker, Dendukuri, Cardinal, Laplante, & Bambonye, 2004; Rochefort & Clarke, 2010). However, despite the plethora of studies on nurses' perceptions of sufficient organizational support and its effect on nurse outcomes, little is known about the underlying mechanism behind this association. This study is an attempt to fill this gap in knowledge by investigating the mediating role of nurses' psychological well-being in the relationship between the presence of attributes in nursing work environments that reflect organizational support for nursing practice and nurses' outcomes i.e. quality of care and job satisfaction.

This study focuses on a specific context, namely Iran. After the Islamic Revolution in 1979, Iran became an Islamic republic and the only "clerically-ruled" government in the world. In compliance with the Shiite Islam, Iran became one of the extreme cases of mixing religion and state (Wright, 2010). In the process of Islamization of the country, the healthcare system was modified by adopting Islamic principles (Soleimani, Pahlevan Sharif, Yaghoobzadeh, & Panarello, 2016). For example, nurses were obliged to deliver gender appropriate care that is compatible with Islamic laws (Shahriari, Mohammadi, Abbaszadeh, Bahrami, & Fooladi, 2012). In addition, since the revolution, this developing country has faced unique challenges in managing healthcare needs that had a significant impact on its healthcare system (Soleimani et al., 2016). Iran-Iraq war, which lasted 8 years and various sanctions by the United States and the United Nations over the past four decades are among them. Although the sanctions did not target pharmaceuticals and medical equipment, their effect was exerted in indirect ways. For example, due to the sanctions on banking and international payment systems, currency transaction and transportation, Iran experienced shortage of drugs for more than thirty serious and life-threatening diseases (Dehghan, 2012, Radio Free Europe 2012; Soleimani et al., 2016). Moreover, major pharmaceutical companies declined to sell any raw material and medical equipment (e.g. autoclaves) which were necessary to produce different types of drugs to Iran (Borger & Dehghan, 2013). The limitation of resources in the work environment increased the pressure on the nurses. Nurses in Iran also suffer from role ambiguity, work overload,

Why is this research needed?

- Given the growing concern about quality of care in healthcare organizations, every effort must be made to understand how caring behaviour develops.
- Identifying the factors that affect nurses' quality of care and job satisfaction and the mechanism behind them are critical for improving the quality of patient care.
- Nurses' psychological well-being may mediate the relationship between organizational support and nurses' outcomes.

What are the key findings?

- After controlling for the effect of gender, age and work experience, nurses' perception of organizational support was related to their quality of care, job satisfaction and psychological well-being.
- There was a positive relationship between nurses' psychological well-being, quality of care and job satisfaction.
- Psychological well-being partially mediated the relationship between organizational support with nurse-assessed quality of care and nurses' job satisfaction.

How should the findings be used to influence policy/practice/research/education?

- Establishing a healthy and supportive nurse practice environment in healthcare sectors is critical as it affects nurses' psychological well-being and enhances nurses' quality of care and job satisfaction which in turn can improve the quality of patient care.
- While a favourable and supportive work environment is developed over time, improving psychological well-being can be addressed within a short timeline concurrently. Thus, in the meantime, to enhance quality of care and promote job satisfaction, improving nurses' psychological well-being through other factors is suggested.
- Healthcare managers should be aware of the detrimental effects of negative perception of work environment, characterized by unfair work conditions and lack of employee support and address them promptly and justly.

high level of moral distress and low level of engagement in internal governance and policy decisions (Joolaee, Nikbakht-Nasrabadi, Parsa-Yekta, Tschudin, & Mansouri, 2006; Shorideh, Ashktorab, & Yaghmaei, 2012). As a result of a shortage of hospital nurses in Iran, they are assigned various tasks and responsibilities (Shorideh et al., 2012). Furthermore, the working relationship between nurses and physicians in Iran is influenced by a rigid hierarchy of authority so that nurses are seen as doctors' subordinates in both the eyes of the public and in a professional context. Also, as most are women and most of the physicians are men, in the patriarchal culture of Iran, physicians view nurses as handmaidens and expect nurses to just follow their decisions (Shorideh et al., 2012; Soleimani et al., 2016).

Despite these conditions, research on the effect of nurse practice environment on nursing quality of care in Iran is limited. Also, studies in the nursing literature on the mediating role of nurses' psychological well-being in this relationship are scarce. Therefore, the objectives of this study are twofold: first, to examine the relationship between organizational characteristics in work environments that support nursing practice and nurses' outcome in terms of quality of care and job satisfaction in hospital settings in Iran and second, to investigate the mediating role of nurses' psychological well-being in the aforementioned relationships.

1.1 | Background

Framework of this research is influenced mainly by the existing theoretical models in organizational psychology and nursing research that suggest work environment characteristics affect nurses' outcomes (Aiken et al., 2002; Irvine, Sidani, & Hall, 1998; Rochefort & Clarke, 2010; Van Bogaert et al., 2014) and also the demand–control–support model which as a job stress model explains the association between work environment and nurses' psychological well-being (Escribà-Agüir & Tenias-Burillo, 2004; Stansfeld, Shipley, Head, Fuhrer, & Kivimaki, 2013; Terry, Nielsen, & Perchard, 1993; van Veldhoven, Taris, de Jonge, & Broersen, 2005; Wilson, Dejoy, Vandenberg, Richardson, & McGrath, 2004).

According to Rochefort and Clarke (2010), work environment refers to "a set of concrete or abstract features of an organization, related to both the structures and processes in that organization that are perceived by nurses as either facilitating or constraining their professional practice" (p. 2214). A desirable work environment with sufficient support, which is consistent with the professional form, empowers nurses to practice to the full scope of their knowledge, competencies and skills in patient care (Gottlieb, Gottlieb, & Shamian, 2012). In such an environment, nurses are more satisfied and provide higher quality of care (Rochefort & Clarke, 2010). This notion has received empirical support as well. Multiple studies have shown a relationship between various work environment dimensions and nurses' quality of care, safety of care and job satisfaction (Aiken et al., 2002; Rochefort & Clarke, 2010; Van Bogaert, Clarke, Roelant, Meulemans, & Van de Heyning, 2010; Van Bogaert, Kowalski, Weeks, & Clarke, 2013; Van Bogaert et al., 2014).

The results of a study by Van Bogaert et al. (2014) on 1201 nurses in eight hospitals in Belgium showed that certain characteristics of the work environment including workload, decision latitude, social support and work engagement has an impact on nurses' quality of care and job outcomes. This is consistent with reports that show high workloads contribute to burdensome workloads for nurses (Aiken et al., 2002; Rochefort & Clarke, 2010) which in turn would lead to higher work-related stress, dissatisfaction, burnout and poor quality of care (Hayes et al., 2006; Rochefort & Clarke, 2010). On the other hand, a balanced workload would increase safety and decrease mortality and preventable adverse events. A national study in the United States revealed that hospitals with some organizational characteristics reported lower levels of turnover and lower mortality rate than other hospitals (Mcclure, Poulin, Sovie, & Wandelt, 1983). More specifically, these characteristics included flat structure, empowering caregivers, inclusion of chief nursing executive in the internal governance of the hospital and policy decisions, opportunities for career development and continuing education and flexible scheduling. Nurses working in these hospitals perceived more autonomy, had more freedom to make important patient care decisions and had better working relationships with physicians. The results of a cross-national study in the US, Canada, England and Scotland showed a negative relationship between hospitals organizational support with job dissatisfaction and burnout. Also, managerial and organizational support had an impact on quality of nursing care (Aiken et al., 2002).

Over the past three decades, various theoretical models have been developed to explain the effect of organizational environment on workers' well-being (see van Veldhoven et al., 2005). Empirical evidence on this relationship is abundant in the literature as well. The results of the Van Bogaert et al. (2014)'s study on 365 nursing unit managers showed that role conflict and role meaningfulness predicted nurses' well-being and work-related stress. Similarly, Terry et al. (1993) found that while role ambiguity and role conflict had a detrimental effect on psychological well-being and job satisfaction, supervisor support had a positive influence on staff well-being. They suggested that the availability of support in an organization would buffer the negative effect of role conflict and work overload. In a study by Wilson et al. (2004) employees' perceptions of their work environment and organizational support emerged as a significant predictor of their health and well-being. A study by Escribà-Agüir and Tenias-Burillo (2004) on 313 hospital workers showed a negative relationship between psychosocial work environment and psychological well-being of staff.

The relationship between nurses' well-being and their quality of care can be explained by the historical belief in the happy worker thesis (see the seminal works by Herzberg, Mausner, & Snyderman, 1959; Maslow, 1954; Mayo, 1960). A large body of literature has documented significant effect of various measures of psychological well-being on employees' job performance and quality of service (see Ford, Cerasoli, Higgins, & Decesare, 2011).

The results of a meta-analysis of 111 studies in psychological health provided support for a moderate to strong relationship between psychological well-being and work performance for both

supervisor and peer ratings and self-ratings of performance (Ford et al., 2011). They suggested that the effect of psychological well-being on employees' task performance is through a motivational mechanism. Indeed, psychological well-being can influence the employees' motivation to perform their tasks. Affective states may also contribute to self-efficacy judgements. Indeed, a positive mood may lead to more positive self-efficacy beliefs (Mitchell, Hopper, Daniels, George-Falvy, & James, 1994). On the other hand, impaired psychological well-being may result in irrational choices, lower effort and poor quality of service (Taris, Le Blanc, Schaufeli, & Schreurs, 2005). The results of a 5-year longitudinal study by Cropanzano and Wright (1999) indicated that the association between well-being and employee's performance diminishes over time. More specifically, while well-being, assessed at the same time or 1 year before, was related to employees' performance, they could not find any significant association between job performance and well-being measured 4.5 or 5 years before and performance. Later, Wright and Cropanzano (2000a) showed that psychological well-being, measured by eight questions addressing the hedonic and pleasantness dimension of individual feelings, was related to workers' job performance.

There are no studies that have investigated the mediating role of psychological well-being in the association between work environment and nurses' outcomes. However, there are theoretical support and empirical evidence for the relationship between nurse practice environment, nurses' psychological well-being, quality of care and job satisfaction (Aiken et al., 2002; Ford et al., 2011; Gottlieb et al., 2012; Stansfeld et al., 2013; Van Bogaert et al., 2014). Thus, stemming from theory and research, this study suggests that psychological well-being may mediate the relationship between organizational support for nursing practice with the quality of care that nurses provide and their job satisfaction. In other words, a supportive work environment may contribute to nurses' psychological well-being which in turn would improve their outcomes in terms of caring behaviour and job satisfaction.

In summary, based on the literature reviewed above and for the purpose of this study, the following hypotheses are developed:

H1.a. Organizational support for nursing practice is related to nurse-assessed quality of care.

H1.b. Organizational support for nursing practice is related to nurses' job satisfaction.

H2. Organizational support for nursing practice is associated with nurses' psychological well-being.

H3.a. There is a relationship between nurses' psychological well-being and nurse-assessed quality of care.

H3.b. There is a relationship between nurses' psychological well-being and job satisfaction.

H4.a. Psychological well-being mediates the relationship between organizational support for nursing practice and nurses' quality of care.

H4.b. Psychological well-being mediates the relationship between organizational support for nursing practice and nurses' job satisfaction.

2 | THE STUDY

2.1 | Aims

This study aimed (1) to examine the relationship between organizational support for nursing practice and nurse-assessed quality of care and nurses' job satisfaction in hospital settings in Iran; and (2) to investigate the mediating role of psychological well-being in the aforementioned relationships.

2.2 | Design

A cross-sectional, questionnaire-based design was conducted.

2.3 | Sample

A sample of 400 nurses from two public hospitals in Iran was selected using a convenience sampling technique. For a participant to be included in this study, he or she was required to meet two criteria, including: first, working experience of more than 6 months as a nurse and second, no history of severe stress such as death of relatives, divorce, etc. A total of 345 nurses returned the questionnaires indicating that the response rate was 86%.

2.4 | Data collection

The study was conducted in two large public hospitals in Amol, Iran between February - March 2017. The chief matron at each hospital distributed the questionnaires. The purpose of the study was explained to the participants and they were assured that all questionnaires were anonymous and participation in this study was voluntary. All participants were clearly informed that returning the completed questionnaire was considered as informed consent for participation in this study.

2.5 | Ethical consideration

The study protocol was approved by the ethical committee of Mazandaran University of Medical Sciences.

2.6 | Data analysis

Variables were screened for outliers and missing data and descriptive statistics including mean and standard deviation of continues variables and frequency and percentage of categorical variables were computed using SPSS v. 20. Then, using partial least squares-structural equation modelling (PLS-SEM) and ADANCO software version 2.0, the measurement model and the structural model were

assessed (Henseler & Dijkstra, 2015). PLS-SEM is a variance-based SEM method that maximizes the amount of variance explained by the model and allows us to test complex models with both observed variables and latent constructs (Hair, Hult, Ringle, & Sarstedt, 2017). The model in this study consisted of one first-order construct (organizational support), two second-order constructs (quality of care and psychological well-being) and several single-item measurements (job satisfaction and control variables including gender, age and work experience). Due to the presence of higher-order constructs, a repeated indicator approach was used to assess the model (Becker, Klein, & Wetzels, 2012). Cronbach's alpha, Dijkstra-Henseler's rho, composite reliability, average variance extracted (AVE), maximum shared variance (MSV) and average shared variance (ASV) were computed to evaluate the internal consistency, construct reliability, convergent validity and discriminant validity of the constructs (Fornell & Larcker, 1981; Hair, Black, Babin, & Anderson, 2010; Pahlevan Sharif & Mahdavian, 2015). Cronbach's alpha greater than 0.7 shows good internal consistency. Dijkstra–Henseler's rho and composite reliability greater than 0.7 indicate good construct reliability (Dijkstra & Henseler, 2015; Pahlevan Sharif & Mahdavian, 2015). Composite reliability greater than 0.7 and greater than AVE and also AVE greater than 0.5 fulfill the requirements of convergent validity. To establish discriminant validity, AVE should be greater than ASV and MSV (Fornell & Larcker, 1981). In addition, the Heterotrait–Monotrait Ratio of Correlations (HTMT) matrix was constructed to assess discriminant validity of the constructs. HTMT values below 0.85 indicates no discriminant validity issue (Kline, 2015). Next, the structural model and the indirect relationships were assessed performing bootstrapping with 2,000 replications. In testing the mediation relationship, a bootstrapping approach is more accurate and has higher statistical power than the methods suggested by Baron and Kenny (1986) and Sobel (1982) (Ahadzadeh, Sharif, Ong, & Khong, 2015; Hayes, 2013; Pahlevan Sharif & Mahdavian, 2015). All tests were two-tailed and a *p*-value of less than .05 was considered to be statistically significant.

2.7 | Instruments

A self-administered questionnaire consisting of five parts including organizational support in work environment, psychological well-being, quality of care, job satisfaction and socio-demographic information was developed to collect the data.

2.7.1 | Quality of care

Quality of caring was measured by the 24-item Caring Behaviors Inventory (CBI-24) (Wu, Larrabee, & Putman, 2006) which is the short form of the 42-item CBI (Wolf, Giardino, Osborne, & Ambrose, 1994). The scale was validated by Wu et al. (2006) and consists of four dimensions, including assurance (eight items), knowledge and skills (five items), respectful (six items) and connectedness (five items). Each item was recorded on a five-point Likert scale ranging from 1 (never) - 5 (always).

2.7.2 | Organizational support for nursing practice

This study by following Flynn (2007) used the 9-item Organizational Support for Nursing subscale of the Nursing Work Index–Revised (Aiken et al., 2002) to measure the organizations' support for nursing practice. Flynn (2007) defines the organizational support for nursing as "a set of core attributes of a supportive work environment that are modifiable through managerial decision-making". The items of this subscale address work environment features such as resource adequacy, nurse autonomy, nurse control over the practice environment, and nurse-physician relationships. The sub-scale has been validated in several studies (Aiken & Patrician, 2000; Flynn, 2003, 2007; Flynn, Carryer, & Budge, 2005). The participants responded on a five-point Likert scale ranging from 1 (strongly disagree) - 5 (strongly agree) to what extent the attributes were present in the organization.

2.7.3 | Psychological well-being

This study used the positive and negative affect schedule (PANAS) developed and validated by Watson, Clark, and Tellegen (1988). PANAS addressing the hedonic aspect of psychological well-being consists of a list of 20 adjectives describing 10 positive and 10 negative affects. The participants reported how they generally felt, on average, in their life as a whole. The response was scored on a five-point Likert scale ranging from 1 (Not at all) - 5 (extremely).

2.7.4 | Job satisfaction

Nurses were asked to rate their overall satisfaction with their current job on a seven-point Likert scale ranging from 1 (very dissatisfied) - 7 (very satisfied) (Aiken et al., 2002).

2.7.5 | Demographic information

The demographic characteristics of the participants were recorded as gender, age, marital status, education level, work experience, employment type, working hours and workplace.

2.8 | Validity, reliability and rigour

The questionnaire was translated into Farsi using the forward-backward translation method and following the guideline suggested by Health Organization Protocol (World Health Organization, 2016). Internal consistency, construct reliability, construct validity in terms of convergent and discriminant validity of the scales were assessed using Cronbach's alpha, Dijkstra-Henseler's rho, composite reliability, AVE, MSV and ASV.

Table 1 shows the results of assessing the measurement model. Cronbach's alpha of all constructs was greater than 0.7 (varied from 0.805–0.969), indicating good internal consistency and reliability (Field, 2013). Composite reliability, varied from

TABLE 1 Measurement model assessment

Construct/measure	Factor loading	Dijkstra–Henseler's rho (ρA)	Composite reliability (ω)	Cronbach's alpha (α)	Average variance extracted (AVE)	Maximum shared variance (MSV)	Average shared variance (ASV)
Quality of care		0.970	0.971	0.969	0.608	0.037	0.015
Assurance	0.942***						
Knowledge	0.896***						
Respectful	0.943***						
Connectedness	0.893***						
Quality of care (lower order constructs)							
Assurance		0.950	0.957	0.949	0.736	Sub-scale	Sub-scale
Quality of care 16	0.785***						
Quality of care 17	0.851***						
Quality of care 18	0.847***						
Quality of care 20	0.864***						
Quality of care 21	0.864***						
Quality of care 22	0.907***						
Quality of care 23	0.887***						
Quality of care 24	0.854***						
Connectedness		0.860	0.903	0.855	0.701	Sub-scale	Sub-scale
Quality of care 4	0.858***						
Quality of care 7	0.887***						
Quality of care 8	0.874***						
Quality of care 14	0.719***						
Knowledge		0.900	0.930	0.899	0.768	Sub-scale	Sub-scale
Quality of care 9	0.824***						
Quality of care 10	0.901***						
Quality of care 11	0.878***						
Quality of care 12	0.900***						
Respectfulness		0.897	0.917	0.891	0.649	Sub-scale	Sub-scale
Quality of care 1	0.792***						
Quality of care 3	0.718***						
Quality of care 5	0.854***						
Quality of care 6	0.850***						
Quality of care 13	0.814***						
Quality of care 19	0.798***						
Organizational support		0.816	0.853	0.805	0.426	0.037	0.016
Organizational support 2	0.616***						
Organizational support 3	0.636***						
Organizational support 4	0.456***						
Organizational support 5	0.610***						
Organizational support 6	0.703***						
Organizational support 7	0.638***						
Organizational support 8	0.798***						
Organizational support 9	0.712***						
Psychological well-being		0.857	0.868	0.841	0.260	0.006	0.004
Positive psychological well-being	0.679***						
Negative psychological well-being	0.843***						

(Continues)

TABLE 1 (Continued)

Construct/measure	Factor loading	Dijkstra–Henseler's rho (ρA)	Composite reliability (ω)	Cronbach's alpha (α)	Average variance extracted (AVE)	Maximum shared variance (MSV)	Average shared variance (ASV)
Psychological well-being (Lower order constructs)							
Positive psychological well-being		0.853	0.878	0.847	0.421	Sub-scale	Sub-scale
Psychological well-being 1	0.650***						
Psychological well-being 3	0.521***						
Psychological well-being 5	0.661***						
Psychological well-being 9	0.671***						
Psychological well-being 10	0.743***						
Psychological well-being 12	0.634***						
Psychological well-being 14	0.707***						
Psychological well-being 16	0.668***						
Psychological well-being 17	0.593***						
Psychological well-being 19	0.617***						
Negative psychological well-being		0.883	0.894	0.867	0.466	Sub-scale	Sub-scale
Psychological well-being 2	0.737***						
Psychological well-being 4	0.608***						
Psychological well-being 6	0.692***						
Psychological well-being 7	0.761***						
Psychological well-being 8	0.678***						
Psychological well-being 11	0.352***						
Psychological well-being 13	0.635***						
Psychological well-being 15	0.755***						
Psychological well-being 18	0.733***						
Psychological well-being 20	0.769***						

***$p < .001$.

0.853–0.971 and Dijkstra–Henseler's rho (ρA), varied from 0.816–0.970, showed good construct reliability and convergent validity (Dijkstra & Henseler, 2015; Pahlevan Sharif & Mahdavian, 2015). This study also computed average variance extracted (AVE) of all constructs. The AVE value of organizational support and psychological well-being was less than 0.5 and did not fulfill the requirements of the Fornell and Larcker (1981)'s method. However, AVE is a strict measure of convergent validity (Pahlevan Sharif & Mahdavian, 2015). According to Malhotra and Dash (2011) "AVE is a more conservative measure than CR [composite reliability]. On the basis of CR alone, the researcher may conclude that the convergent validity of the construct is adequate, even though more than 50% of the variance is due to error." (p. 702). Moreover, AVE of each construct was less than its composite reliability value and all factor loadings were significant at .001 which fulfilled the requirements of convergent validity. For discriminant validity, AVE of each construct was greater than its ASV and MSV (Fornell & Larcker, 1981) and also the values of the HTMT matrix (shown in Table 2) were less than 0.85 (Kline, 2015) which satisfied the criteria for discriminant validity.

TABLE 2 Heterotrait–Monotrait ratio of correlations (HTMT) matrix

Construct	Work environment	Quality of care	Psychological well-being	Job satisfaction	Gender	Age
Organizational support						
Quality of care	0.470					
Psychological well-being	0.259	0.300				
Job satisfaction	0.334	0.003	0.292			
Gender	0.196	0.012	0.127	0.184		
Age	0.133	0.014	0.075	0.089	0.052	
Work experience	0.117	0.091	0.008	0.104	0.009	0.727

3 | RESULTS

3.1 | Participant characteristics

Table 3 shows the demographic profile of the respondents. The majority of participants were female (n = 295, 85.5%). The mean age of them was 37.87 years (SD 8.63) and the mean of their working experience in the current hospital was 9.20 years (SD 6.18). Among them, 271 nurses were married (78.6%) and 297 nurses were degree holders (86.1%).

3.2 | Testing the structural model

The results of assessing the structural model after controlling for the effects of gender, age and work experience are reported in Table 4. Testing the total effects showed that there was a significant positive relationship between organizational attributes in work environments with nurses' quality of care ($\beta = 0.463$, $p < .001$) and job satisfaction ($\beta = 0.290$, $p < .001$), providing support for H1.a and H1.b. Testing the mediation model showed that organizational support was related to nurses' psychological well-being at .001 ($\beta = 0.229$, $p < .001$) supporting H2. Also, there was a significant positive association between nurses' psychological well-being with their quality of care ($\beta = 0.207$, $p < .001$) and job satisfaction ($\beta = 0.179$, $p < .01$). These findings supported H3.a and H3.b. Finally, the indirect relationship between organizational support with nurses' quality of care ($\beta = 0.047$, $p < .01$) and job satisfaction ($\beta = 0.041$, $p < .05$) through psychological well-being was significant which provided support for H4.a and H4.b. As it is shown, in the mediation model, the direct relationship between organizational support with quality of care ($\beta = 0.416$, $p < .001$) and job satisfaction ($\beta = 0.249$, $p < .001$) was still significant. This indicates that psychological well-being partially mediated the relationship between organizational support and nurses' outcome, i.e. their quality of care and job satisfaction. The value of adjusted R^2 indicated that the model explained 24.8% and 14.3% of the variance of quality of care and job satisfaction in nurses. Figure 1 shows the results of assessing the measurement and structural model.

TABLE 3 Demographic profile of the participants

Variable	N (%)
Gender	
Male	50 (14.5%)
Female	295 (85.5%)
Marital status	
Single	58 (16.8%)
Married	271 (78.6%)
Others	16 (4.6%)
Education level	
Diploma	20 (5.8%)
Degree	297 (86.1%)
Master and PhD	18 (5.2%)
Others	10 (2.9%)
Ward	
General	91 (26.4%)
General surgical	91 (26.4%)
Pediatric	14 (4.1%)
Maternity	4 (1.2%)
ICU, CCU and dialysis	131 (38.0%)
Others	14 (4.1%)
	M (*SD*)
Age	37.87 (8.63)
Work experience in the current hospital	9.20 (6.18)
Work experience as a nurse	10.33 (6.78)

4 | DISCUSSION

The findings of this correlational study describe a pattern of relationships among perceived organizational support, psychological well-being, quality of care and job satisfaction among nurses. Interpretation of each subset of findings and a discussion of their implications for removal of barriers to balanced and supportive nurse practice environments and enhancement of psychological well-being are presented accordingly.

The findings of this study provide evidence that nurses' perception of organizational support in their work environment is correlated with two outcomes namely, quality of care and job satisfaction, supporting hypotheses H1.a and H1.b. These results lend support to previous studies which consistently showed that positive perceptions of work environment and organizational support are linked with nurses' higher quality of care and higher job satisfaction (Aiken et al., 2002; Rochefort & Clarke, 2010; Van Bogaert et al., 2014). These results also align with the main assumption of social exchange theory which posits that individuals' relationship with each other or with work environment are rooted in an exchange process where they weigh the rewards and risks. Pertaining to this study, when nurses perceive their work environment positive and supportive, such that work environment is of crucial essentials such as adequate staffing, nurse manager support, good nurse–physician relationships, etc., they would experience an obligation and strong urge to reciprocate favours received from the organization by giving better services to the patients. This explanation is also viable for the positive correlation between perceived organizational support and job satisfaction, so that nurses who evaluate their work environment supportive and commitment to their employees are more likely to report better job satisfaction.

The above discussed results have implications for identifying and removing barriers to favourably perceived nurse practice environment. Establishing a supportive and healthy nurse practice environment in healthcare sectors particularly for nurses has a paramount significance as it enhances nurses' quality of care which in turn can lead to patients' positive experiences. As documented in the

TABLE 4 Structural model assessment

Paths	Standardized path coefficients	t_{1999} (bootstrap)	95% Confidence level	
			Lower bound	Upper bound
Total effects				
Organizational support → Quality of care	0.463***	11.323	0.386	0.545
Organizational support → Job satisfaction	0.290***	5.231	0.176	0.395
Direct effects				
Organizational support → Psychological well-being	0.229***	3.552	0.100	0.354
Psychological well-being → Quality of care	0.207***	4.067	0.104	0.306
Psychological well-being → Job satisfaction	0.179**	2.922	0.056	0.292
Organizational support → Quality of care	0.416***	9.127	0.330	0.505
Organizational support → Job satisfaction	0.249***	4.503	0.141	0.356
Indirect effects				
Organizational support → Psychological well-being → Quality of care	0.047**	2.619	0.016	0.088
Organizational support → Psychological well-being → Job satisfaction	0.041*	2.102	0.009	0.084
Control variables effects				
Gender → Quality of care	0.108*	2.104	0.003	0.206
Age → Quality of care	−0.109^{ns}	−1.424	−0.255	0.044
Work experience → Quality of care	0.205**	2.877	0.066	0.352
Gender → Job satisfaction	−0.126**	−2.671	−0.215	−0.033
Age → Job satisfaction	0.043^{ns}	.536	−0.118	0.195
Work experience → Job satisfaction	0.095^{ns}	1.186	−0.062	0.254

^{ns}indicates $p \geq .05$.
*$p < .05$; **$p < .01$; ***$p < .001$.

literature, the existence of competing policies in nursing setting, cost-effectiveness, high workload, nurse-centred care instead of patient-centred care, lack of managerial support are the main deterrents to a good work setting while improving nurses' competencies such as social skills, expertise, experience and priority setting, making and maintaining a collaborative working relationship were found as facilitating factors of a more productive care environment (Kieft, de Brouwer, Francke, & Delnoij, 2014). Another implication is for healthcare managers to be aware of the detrimental effects of negative perception of work environment, characterized by unfair work conditions and lack of employee support.

Moreover, this study supported H2, proposing that organizational support is correlated with psychological well-being. This result corroborates previous research that suggested that hurdles in work environment such as role conflict, role ambiguity and role meaningfulness imping on well-being (Terry et al., 1993; Van Bogaert et al., 2014). Also, this study provides support to works reporting negative perceived work environment as an adverse predictor of psychological well-being (Escribà-Agüir & Tenias-Burillo, 2004; Wilson et al., 2004). On top of that, these results are in agreement with the demand–control–support model which postulates that employees with jobs characterized by high demands, low decision latitude and low social support experience the impaired psychological well-being (Van der Doef & Maes, 1999).

The significant paths in the model provide support for hypotheses H3.a and H3.b, concerning direct positive relationships between psychological well-being and two nurses' outcomes, i.e. quality of care and job satisfaction. These results align with previous research findings indicating that psychological well-being exerts positive effects on quality of care and job satisfaction (see Ford et al., 2011; Herzberg et al., 1959; Maslow, 1954; Mayo, 1960).

Research has established that positive psychological well-being is directly associated with enhanced quality of care and increased job satisfaction. On the other hand, poor psychological well-being is connected with adverse predictors such as negative perception of work environment. Pondering these associations, this study proposed the mediating role of psychological well-being between organizational support perception and nurses' quality of care and job satisfaction (H4.a and H4.b). The findings did provide evidence for the posited mediating role of psychological well-being, suggesting that psychological well-being underlies the pathway of the perceived organizational support and nurse practice environment to nurses' quality of care and job satisfaction. Positively perceived organizational support generates favourable psychological well-being which in turn helps enhance nurses' quality of care and elevates job satisfaction. Indeed, psychological well-being is an essential component of perceived nurse practice environment and helps nurses provide a better service to the patients and feel more satisfied with their job. Positive perception of work environment fosters the pleasant affective feelings towards work, which in turn improves quality of care and increases job satisfaction. Psychological well-being's mediation in the perception of organizational support-well-being relationship is consistent

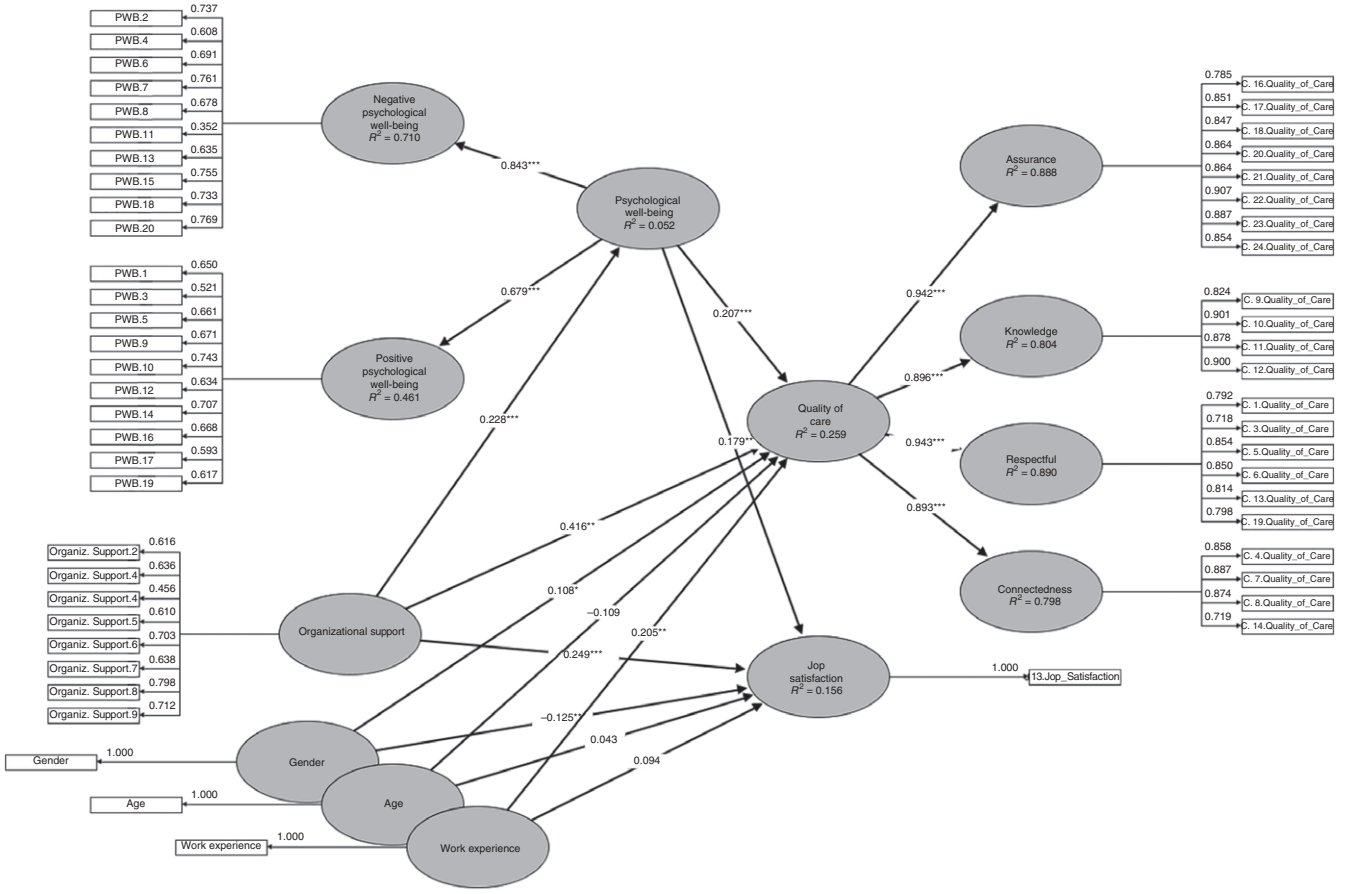

FIGURE 1 The assessment of the measurement and structural model

with the contention that nurses who attentively listen to the patients, support patients and demonstrate their care and concern as a result of their positive evaluation of their organizational support for nursing practice rely on their emotional attachment to their organization and work environment which helps them cope with the demands of their work life and overcome any possible difficulties in their work.

The mediation results have a practical implication for fostering psychological well-being through intervention programs. While a favourable and supportive work environment is developed over time, improving psychological well-being can be addressed within a short timeline concurrently. Thus, in the meantime, to enhance quality of care and promote job satisfaction, improving nurses' psychological well-being through other factors is suggested.

4.1 | Limitations

Several limitations of the present study should be addressed. The use of self-report measures in this study may give rise to several response biases and the dispositional characteristics of respondents and contextual effects (Podsakoff, MacKenzie, & Podsakoff, 2012). Using a single method self-report questionnaire and collecting data for all variables from the same respondents may create the potential for common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, methods to control for common method variance are not necessarily desirable for assessing perceptual latent constructs (Read & Laschinger, 2015). The cross-sectional design of this study does not allow for confident causal conclusions. Collecting data at different points in time and conducting longitudinal studies are recommended for future studies. Data for this study were collected from nurses working in two public hospitals located in an urban area of Iran, therefore not representative of the nurses' populace and generalizability of research results is in shadow as well. Future studies should be conducted by including samples from rural areas and other states as nurses in rural areas may experience different working conditions or availability of resources and support. Other than psychological well-being, alternative factors such as organizational commitment may link perceived environment and quality of care and job satisfaction. Therefore, future studies are suggested to examine the mediating role of other factors in this relationship.

5 | CONCLUSION

This study on nurses' quality of care and job satisfaction contributes to the growing evidence in support of theoretical models in organizational psychology and nursing research that suggest nurse practice environment affects nurses' outcomes. Moreover, the findings of this

study are of great relevance, as they shed more light on the underlying mechanism of the effect of organizational support on nurses' quality of care and job satisfaction. This study shows that establishing a supportive and healthy nurse practice environment in healthcare sectors particularly for nurses has a paramount significance as it enhances nurses' quality of care and job satisfaction which in turn can lead to patients' positive experience. Also, this study shows that psychological well-being explains the pathway of the perceived organizational support to nurses' quality of care and job satisfaction. Indeed, positively perceived organizational support generates favourable psychological well-being which in turn enhances nurses' quality of care and job satisfaction. Nurses who perceive their work environment more supportive in terms of adequate staffing, nurse manager support, good nurse–physician relationships, etc., would experience an obligation to reciprocate favours received from the organization by giving better services to the patients. The findings highlight the importance of establishing a supportive nurse practice environment and paying attention to the nurses' psychological well-being in healthcare sectors. Moreover, as establishing a favourable supportive work environment to enhance quality of care and promote job satisfaction may be counted as a time and cost consuming task, in the meantime, interventions to improve psychological well-being in nurses might be used to improve their quality of care and job satisfaction.

AUTHOR CONTRIBUTIONS

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE [http://www.icmje.org/recommendations/]):

- substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

ORCID

Saeed Pahlevan Sharif http://orcid.org/0000-0001-8082-4541

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