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Antecedents and outcomes of job embeddedness among nurses

Fariborz Rahimnia , Saeid Nosrati , and Ghasem Eslami 

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ABSTRACT

Embedding nurses in their jobs is associated with many positive results because they have to deal with varying patient needs and sometimes make close relationships with them. Having mentioned that, we have limited knowledge of antecedents and possible outcomes of job embeddedness. Accordingly, this study aimed to explore the mediating role of job embeddedness (JE) among this group in the relationship between Team-Member Exchange (TMX), Empowering Leadership (EL), and Perceived Organizational Support (POS) with Innovative Work Behavior (IWB). Data were gathered from a group of 800 nurses, who were working in fourteen different public hospitals in the northeast of Iran. Of 800 distributed questionnaires, 723 questionnaires were completely filled. Different statistical analysis methods, such as Confirmatory Factor Analysis (CFA), Pearson correlation coefficient, and Structural Equation Modeling (SEM), were used for data analysis. The results indicate the positive influence of TMX and POS on IWB through the mediating role of JE in this group. It is worth noting that the JE-mediated effect of EL on IWB was not significant.

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KEYWORDS

Team-member-exchange; empowering leadership; perceived organizational support; job embeddedness; Innovative Work Behavior

Introduction

Nowadays, changes in the business environment are inevitable. In this volatile situation, creativity and continuous innovation are valuable and of great importance for organizational success in business markets (Agarwal, 2014). Nowadays, the healthcare system is shifting from a provider-centered to a patient-centered system, which requires nurses to make regular voluntary efforts to better care quality and subsequently increase patient satisfaction in innovative ways (Kim et al., 2017). Among the several reasons that have enforced hospital management to urge IWB (Innovative Work Behavior) among nurses are faster treatment response, reliable and technologically advanced medical care, and cooperation aiming to increase client satisfaction and the quality of the health care (Wen et al., 2016). New ideas and methods have been developed by the IWB to meet the newly created work-related requirements (Chang et al., 2013). International Council of Nurses considered innovation to be a highly required measure to improve health, reduce health risk factors, avoid illnesses, improve attitudes toward a healthy lifestyle, and enhance the treatment strategies and procedures (Kessel et al., 2012). Moreover, IWB was regarded to have a key role in improving nursing care practices to better patient care quality and safety. Therefore, for nurses to be active participants in attaining the goals of health care organizations, their IWB is considered to be critical (Knol & Van Linge, 2009).

Managing boundaries is considered to be a challenging responsibility in nursing. While working in public sector hospitals, this situation becomes even worse for nurses. It has been noticed that different work related challenges inhibit nurses from achieving their goals in

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managing their work and non-work roles (Han et al., 2017). Among those challenges, the most significant ones are workload, shortage of nurses, unpredictable working hours, and inflexible work schedules (Yasir & Majid, 2019). As a result, healthcare organizations are dealing with the nursing shortage in recent years. Turnover growth among professional nurses can expose the quality of medical services and the stability of healthcare organizations to risk (Choi & Kim, 2015; Zhao et al., 2013). Therefore, senior managers would be a challenging job when it comes to keeping experienced and talented nurses and encouraging them to show more IWBs (Babakus et al., 2008; Karatepe, 2013).

In this regard, JE is considered a new strategy in human resource management literature. JE is defined as a combination of psychological, social, and financial factors with a role in employee retention (Howes & Goodman-Delahunty, 2015; Mitchell et al., 2001: 1104–1105). The three dimensions of link, fit, and sacrifice are used to assess JE. Links are characterized as “formal or informal connections between a person and institution or other people”. Fit is defined as “an employee’s perceived compatibility or comfort with an organization and with his or her environment”. And finally, sacrifice refers to “the perceived cost of material or psychological benefits that may be forfeited by leaving a job.” These three dimensions are categorized separately based on whether the effects occur on-the-job or off-the-job (Mitchell et al., 2001: 1104–1105).

According to the literature, crowded emergency rooms, unscheduled working hours, work overloads, and unexpected working conditions are among different problems related to the work atmosphere in hospitals affecting employees JE in the healthcare industry (Holtom & O’neill, 2004). According to Hobfoll (2001), in Conservation of Resource (COR) theory, some potential resources lead to positive outcomes, such as TMX (Team Member Exchange), EL (Empowering Leadership), and POS (Perceived Organizational Support). Regarding the previous studies by Michel et al. (2011), these variables are categorized under the more general concept of social support. Moreover, COR theory argues that to embed better into the organization and to enhance their resources, people seek to employ their social relations (Harris et al., 2011). Accordingly, strong risk perceptions in employees’ behavior would appear along with unsatisfactory outcomes as a result of a lack of social support. This shows that social connectedness develops a sense of JE, leading to positive work outcomes, such as IWB (Hobfoll, 2001).

Social Exchange Theory (SET), aligned with COR theory, argues that “the expanding exchange of benefits of different sorts between individuals makes them increasingly interdependent, establishes mutual trust, and fortifies their social bond.” According to the concept of SET, positive outcomes, such as IWB, are the result of employees getting more social support from the organization, leaders, and coworkers, which probably indicates higher levels of JE (Chang et al., 2013). According to the literature, SET declares that a favor offered to employees by the employer or institutions leads to positive attitudes toward the whole system, and accordingly, the employees will neither harm nor leave the institutions (Akgunduz & Sanli, 2017). Being aware of social exchange relationships encourages the employees to develop high levels of mutual support with their organization, leaders, and coworkers, consequently leading to working better in cooperation with colleagues.

Therefore, this study can contribute to the literature by responding to recent demands for further research on the antecedents of JE and also JE as an intermediary mechanism. This study is set out to use the SET and COR theory to consider the relationship between TMX and JE (which has not been addressed in the literature) and correlate them with other research variables (Harris et al., 2011; Holtom et al., 2012; Khorakian et al., 2018). As a result, COR theory and SET are used as the theoretical underpinning of this research to achieve the mentioned objective. Secondly, as Michel et al. (2011) argue, TMX, EL, and POS (the three independent variables) can be classified and considered to be variables of organizational social support. Having said that, the effect of these three variables, at the same time, on JE, has not been researched before. Third,

considering that the relationship between JE and IWB has been studied in previous researches, this study aimed to investigate the influence of JE on IWB among nurses, specifically in a developing country. A few studies have researched the role of nurses' IWB as a result of JE, in responding to the patients' varying needs in Iranian hospital settings.

Literature review and hypothesis development

Team-Member Exchange (TMX) and Job Embeddedness (JE)

TMX measures the quality of reciprocal exchange among employees in the workplace (Seers, 1989). TMX highlights the relationship among team members, while LMX (Leader-Member Exchange) concentrates on a specific relationship between the leader and each subordinate (Banks et al., 2014). TMX is typically recognized as mutual relationships of team members with each other's ideas, feedback, and assistance. Such relationships can result in a positive atmosphere in which employees are highly compatible and knowledge sharing, information exchange, and acceptance by the other team members are facilitated (Shih et al., 2017). Employee engagement and retention depends completely and utterly on such a safe and positive environment (Liao et al., 2013).

According to Blanco-Donoso, Garrosa, Moreno-Jiménez, de Almeida, and Villela-Bueno (2017), TMX in the working environment would enable the nurses to solve the current challenges, fatigue, and work overload. According to SET, the relationship of employees in the workplace is a crucial factor that leads to nurses focusing on their job and feel more fitting – a dimension of JE – with everything they do in the organization (Liao et al., 2013). Undoubtedly, previous research has indicated that high-quality TMX can increase members' helping behaviors and knowledge sharing. By creating an atmosphere, they cannot sacrifice, they will be embedded in their work (Liao et al., 2013). According to the COR Theory, TMX properly helps staff to acquire different resources, including mutual trust and constructive feedback from colleagues, to boost their job performance (Lee et al., 2012). Consistent with this study, Kiazad et al. (2015) found that TMX encourages extra-unit collaboration which, in turn, promotes social interaction among employees with various skills at different organizational levels (Kiazad et al., 2015). Based on the COR theory, the connections made by social interactions and team working would hold the employees' current position. TMX has been proved to have a positive correlation with JE because team members with a mutual relationship are more likely to come emotionally bonded (Banks et al., 2014). Employees would be equipped with a positive relational context leading to be more embedded in their work roles through high-quality TMX. Thus:

H1. There is a positive relationship between TMX and JE.

Empowering Leadership (EL) and Job Embeddedness (JE)

Considering the need for promoting employees' efficiency in an organization, the concept of empowerment was proposed in 1980 (Amundsen & Martinsen, 2014). EL is described as the process of sharing power with subordinates and increasing their level of autonomy and responsibility (Lorinkova et al., 2013). EL creates a mutual relationship between leaders and subordinates along with guiding, inspiring, and supporting employees. As a result, embedding employees into their jobs and boosting extra-role behaviors will be the positive outcomes in these organizations (Erkutlu & Chafra, 2015; Harris et al., 2011).

Effective leadership is essential for establishing reciprocal relationships and encouraging employees' retention in the healthcare industry (Gilbert et al., 2010). Particularly, EL is considered to be an appropriate approach in the healthcare context (Bobbio et al., 2012). As the COR theory posits, employees who believe that they can accumulate more job resources and benefits from establishing a close relationship with the organization's leaders would demonstrate higher levels of JE (Hobfoll,

2001). Various studies indicate the significant effect of leaders' behavior on JE. For example, considering the COR Theory, Harris et al. (2011) indicate that employees' JE would be strengthened by reciprocal relationships between leaders and employees. Additionally, Karatepe (2013) indicates that higher levels of JE could be the result of supervisor support. Supervisor support is considered as a subcategory of organizational social support.

In addition, leaders encourage trust by boosting interpersonal relationships and assigning more responsibility and autonomy to their employees, which is the result of sharing organization power or granting authority to the subordinates (Srivastava et al., 2006). Thus, this will lead to employees being allowed to share their ideas and be a part of the decision making procedure and not be worried about probable punishment or demotion at the same time. Moreover, individual-organization fit can be fostered through developing a sense of self-determination, offering job security, and flexible scheduling. Overall, all the factors would contribute to higher JE (Kiazad et al., 2015). Thus, it is indicated that the high quality of EL exchanges would lead to subordinates having various benefits and resources that are directly associated with organizational job embeddedness. Based on the prior theoretical arguments, the second hypothesis would be as following:

H2: There is a positive relationship between EL and JE.

Perceived Organizational Support (POS) and Job Embeddedness (JE)

POS refers to employees' perception concerning the extent to which the organization values their contribution and cares about their well-being (Varma & Russell, 2016). That is, POS is defined as a normative exchange agreement in which employees are treated with respect by their organizations, and in exchange, they foster a sense of duty leading to the organizational goals (Chen et al., 2009). According to SET, deep psychological bonds with their corresponding organization would be established by the employees as a result of widespread reciprocal relationships and feelings of support throughout the organization (Agarwal, 2014). It has been indicated by various researches that POS has a positive correlation with job satisfaction, organizational commitment, job performance, and employee retention while having a negative relationship with turnover (Harris & Kacmar, 2018).

There is no literature on an existing correlation between POS and JE. Despite this, considering the SET point of view and building on reciprocity, employees would feel compelled to care about the organization's welfare and as a result, try to reach its goals when they create favorable perceptions of organizational support (Karatepe, 2012b). Higher levels of JE, effective performance and reduced turnover are shown by the employees if they are being recognized and rewarded for their work efforts by the organization (Karatepe, 2012a). By establishing reciprocal relationships through POS, knowledge and skill sharing would be easier between the employees and the organization which as a result would lead to an increase in employees JE so that they would fit well in their current job and organization (Holtom & Inderrieden, 2006). According to the conceptual framework of SET (Blau, 1964), when the employees notice that their skills and existences are valued by the organization, they would possibly have more positive behaviors toward their job and the organization (Akgunduz & Sanli, 2017). The COR theory also posits that the POS would result in a virtuous resource gain cycle, which can foster the sense of JE in the employees' behavior (Hobfoll, 2002). Concerning this relationship, Akgunduz and Sanli (2017) for the first discovered significant positive effect of POS on hotel employees' JE. They also found a significant negative effect on their turnover intention. Based on the discussion so far, the third hypothesis would be as follows:

H3: There is a positive relationship between POS and JE.

Job Embeddedness (JE) and Innovative Work Behavior (IWB)

According to Farr and Ford (1990), IWB is defined as the intentional behavior of an individual to start and introduce new and helpful ideas, products, processes, and procedures (Farr & Ford, 1990). Even though the two concepts of innovation and creativity are usually used interchangeably, the distinction

between them could be more than it is recognized. Employee creativity refers to the ability to come up with new and useful ideas. And this is considered its difference from IWB, i.e. Creativity is the foundation of IWB. In other words, creativity is the foundation of IWB, considered to be a specific proactive behavior, which refers to the application of novel and useful ideas gained through creativity (Schuh et al., 2017). The process of generating, establishing, evaluating, and implementing creative ideas is referred to as IWB among nurses. To accomplish higher performance, doing things differently and carrying out different things are considered in healthcare innovation (McSherry & Douglas, 2011). The professional IWB of nurses may appear in research, clinical skills, management, education, technologies, and public health policies (Hughes, 2006). The nurses' desire to gain knowledge and skills required for developing new ways and procedures to use technologies, systems, theories and patterns is referred to as innovation in nursing practice. The extent to which the nurses are engaged in bettering the services, asking others to participate, and adapting new work plans along with improving the old procedures of care are considered as nurses' IWB (Åmo, 2006).

Although a few studies are suggesting the direct-indirect and positive-negative relationship between JE and IWB. For example, as suggested by Staw (1980), organizational innovation might lessen by low levels of JE and turnover, since more ideas could be brought into the organization by outsiders (Staw, 1980). JE hurts organizational innovation by causing lower rates of turnover. On the other hand, Lee et al. (2004) noticed the positive effect of JE on employees' intention to be actively engaged in in-role and extra-role performance (Ampofo et al., 2017; Ng & Feldman, 2010). This relationship is justified by COR Theory. Based on this theory, embedded employees exhibit more interest in extra-role behaviors such as IWB, as long as they feel that they can acquire more resources, benefits, and moral values (Hobfoll, 2001). Rahimnia et al. (2019) concluded that when embedded in their jobs, employees better fit their organizations and obligations. Creative performance among employees is increased by this part of JE, which leads to motivation in taking part in extra-role behaviors like IWB. Embedded employees also benefit from strong *connections*, reflecting their sense of compatibility with work and valuable assets (Rahimnia et al., 2019). As a result, they try to become more innovative in their careers to be able to get more useful things. Furthermore, Welbourne et al. (1998) argued that because of a particular and crucial resource for promotion, highly embedded staff are motivated to take part in innovation-related activities (Welbourne et al., 1998). Regarding these opinions, Ng and Feldman (2010) claimed the direct impact of JE on the employees' motivation to encourage, spread, and apply new ideas in organizations. Thus, these authors suggest a positive relationship between JE and employees' IWB. Karatepe (2016), in a study, examined the role of JE in promoting front-line hotel employees' creativity in Cameroon. According to Karatepe (2016), JE may lead to an increase in creativity and subsequently in employees' IWB (Karatepe, 2016). Consistent with the literature, this study hypothesized that JE has a positive effect on the employees' IWB:

H4: There is a positive relationship between JE and IWB.

Job embeddedness and its mediating role

Harris et al. (2011) stated that JE intervenes in the relationship between the supervisors' behaviors and work outcomes. Karatepe and Karadas (2012) reported that the JE's antecedents, such as the employees' empowerment, authority, and job freedom, may appear in getting engaged in extra-role tasks which, in turn, can improve customer satisfaction (Karatepe & Karadas, 2012). Karatepe and Shahriari (2014), believes that when employees gain a good understanding of their job's objectives, their values would properly fit with both the organization and the community. As a result, while engaged with their job, they would never leave their organization (Thakur & Bhatnagar, 2017).

Moreover, considering COR theory, to have deeper ties and to be able to be a better fit with the organizational culture, employees seek to increase JE and as result protect their acquired resources (Karatepe & Shahriari, 2014). According to this viewpoint, there have been different studies revealing that JE could be increased by receiving support from colleagues, supervisors, and family (Karatepe, 2013, 2016). All these are characterized as social support. After that, the mediating role of JE leads to a

decrease in the turnover intention while increasing creative performance. Collins et al. (2016) posited that “social support which consists of organizational, supervisor and coworker support, and linkages collectively reinforce employees’ intention to stay in their jobs.” In other words, employees would feel more embedded in their jobs and manage it more satisfactorily if they acquire resources resulted from form TMX, EL, and POS, in dealing with work-related problems. Additionally, they would fit well if they have high quality and manageable relationships with their colleagues. Finally, in order not to lose an important commodity, they appreciate organizational support (Collins et al., 2016). Therefore, the following hypotheses are formulated:

H5: The relationship between TMX and IWB is mediated by JE.

H6: The relationship between EL and IWB is mediated by JE.

H7: The relationship between POS and IWB is mediated by JE.

Figure 1 shows the conceptual model suggested by this study.

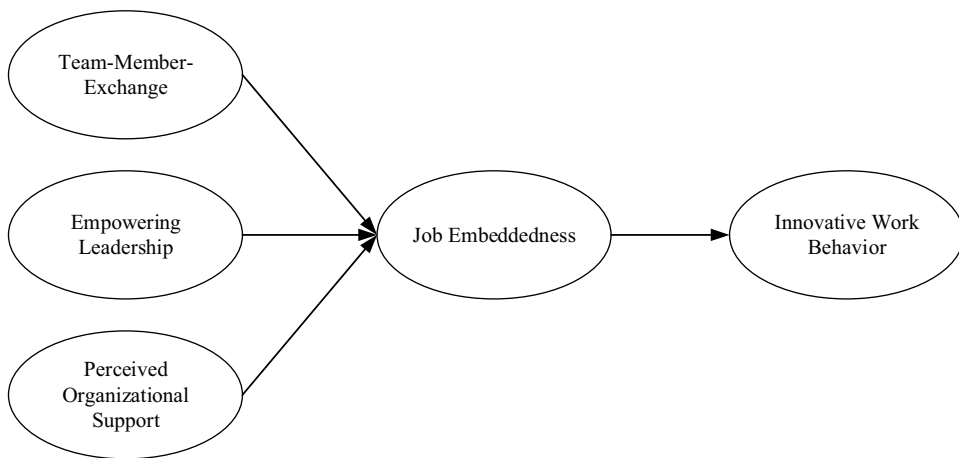


Figure 1. Proposed research model.

Method¹

The participants in this study included nurses in 14 public hospitals in the northeast of Iran with patient contact. Two particular reasons led to the selection of nurses in our study. The first reason was that the nurses represent their organizations to the outsiders, and they can improve the hospitals’ image and legitimacy through advocacy (Bobbio et al., 2012; Tsai, 2013). And secondly, nurses have the most face to face and voice to voice interactions with various needs of patients, and as a result, they occupy a vital role in the delivery of service quality, effective service recovery, and retention of satisfied and loyal customers by their IWB (Orin Edward Reitz, 2014; O Ed; Reitz et al., 2010). Letters were sent to the educational and research department managers of all the hospitals, explaining the goals and details of the study, in order to obtain permission for data collecting. After that, a contact person was introduced by the management department of each hospital for sending out questionnaires without any limitations or organizational secrecy in each nursing unit. The participants of the study worked in different departments, such as the emergency department, operation room, heart care department, intensive care unit, department of obstetrics, and gynecology. Of 800 questionnaires, 723 were filled out completely. Among the participants, 69% were female. About 642 nurses had bachelor of science

degrees. The paper-pencil survey was sent out during unit meetings. Completed surveys were handed out by the participants to the researcher in person. The nurses have plenty of time to fill out the questionnaire during work hours. Different techniques were used to analyze the collected data such as Pearson correlation coefficient in SPSS, confirmatory factor analysis, and structural equation modeling in AMOS software.

Measures

The questionnaire contained specific items to measure TMX, EL, POS, JE, and IWB. Table 1 presented the mean, standard deviation, correlation coefficient, and Cronbach's alpha values.

TMX was measured using five items of the questionnaire (Lee et al., 2012). A sample item is: "I am flexible about switching jobs with others in my workgroup." The items were scored based on a 5-point Likert scale anchored by "strongly agree" to "strongly disagree." the participants were asked to rate the frequency of TMX exhibited by the employees. The obtained Cronbach's alpha of TMX in the present

Table 1. Descriptive statistics and correlation coefficients among the variables.

Variables	Mean	SD	TME	EL	POS	JE	IWB
Team Member Exchange	3.6242	0.66854	0.94				
Empowering Leadership	3.4839	0.85072	0.534**	0.72			
Perceived Organizational Support	2.7507	0.92414	0.163**	0.255**	0.84		
Job Embeddedness	2.9531	1.05563	0.247**	0.241**	0.378**	0.89	
Innovative Work Behavior	3.5360	0.64474	0.218**	0.207**	0.454**	0.275**	0.83

**Significant at $p < .01$; *significant at $p < .05$

n =

study was 0.94 ($\alpha = 0.94$).

EL was measured by nine items of the questionnaire (Pearce & Sims, 2002). A sample item is: "My team leader (members) encourages (encourage) me to treat myself to something I enjoy when I do a task especially well." The items were scored based on a 5-point Likert scale anchored by "strongly agree" to "strongly disagree." The Cronbach's alpha of this scale was 0.72 ($\alpha = 0.72$).

Six items measured the **POS** (Eisenberger et al., 2001). A sample item is: "This nurse values my contributions to its well-being." The items were scored based on a 5-point Likert scale anchored by "strongly agree" to "strongly disagree." This measurement model has excellent reliability ($\alpha = 0.84$).

Seven items were developed to measure **JE** (Crossley et al., 2007). A sample item is: "I simply could not leave this company that I work for". The items were scored based on a 5-point Likert scale anchored by "strongly agree" to "strongly disagree." This measure also showed excellent reliability ($\alpha = 0.89$).

IWB was measured using ten items of the questionnaire (De Jong & Den Hartog, 2010). A sample item is: "I often look for opportunities to improve things". The items were scored based on a 5-point Likert scale anchored by "strongly agree" to "strongly disagree." The reliability of this measure was also excellent ($\alpha = 0.83$). The content validity of the final questionnaire was evaluated based on the opinions of management experts. Table 2 shows the evaluated construct validity using confirmatory factor analysis.

Table 2. Results of confirmatory factor analysis.

Models	χ^2	df	χ^2/df	TLI	CFI	RMR	RMSEA
Team Member Exchange	9.686	5	1.937	0.960	0.980	0.030	0.061
Empowering Leadership	55.445	27	2.299	0.905	0.914	0.046	0.056
Perceived Organizational Support	25.047	9	2.783	0.910	0.946	0.059	0.045
Job Embeddedness	32.188	14	2.29	0.936	0.957	0.048	0.061
Innovative Work Behavior	81.956	29	2.82	0.903	0.925	0.048	0.057

Results

The mean, standard deviation, and Pearson's correlations for all the variables are presented in table 1. As shown in table 1, There are significant correlations between TMX, EL, POS, JE, and IWB. However, these correlations will not result in any conclusion because they are not able to compare the degree of impacts and also do not show how much the independent variable can affect the dependent variable. Therefore, conducting structural equation modeling is needed to enable us to reach valid conclusions.

Confirmatory factor analysis

Prior to the use of the structural equation modeling, the confirmatory factor analysis was employed to examine the distinctiveness of the variables and compare how the measurement models fit the desired values. All elements of measurement models, except those of the IWB, were considered to be one-dimensional for analysis. Table 3 shows the results from investigating the distinctiveness of the study variables using the confirmatory factor analysis. It is worth noting that since all the items and indicators were significant, they were not removed from the next analyses. As shown in Table 3, the measurement models' fitness with the collected data were higher than the desired level, indicating their reliability; therefore, the structural equation modeling can be used.

Table 3. Results of confirmatory factor analysis.

variable	item	Factor loading	sig	result
Team Member Exchange	Q1	0.404	0.000	Significant
	Q2	0.627	0.000	Significant
	Q3	0.646	0.000	Significant
	Q4	0.641	0.000	Significant
	Q5	0.651	0.000	Significant
Empowering Leadership	Q6	0.829	0.000	Significant
	Q7	0.885	0.000	Significant
	Q8	0.896	0.000	Significant
	Q9	0.895	0.000	Significant
	Q10	0.794	0.000	Significant
	Q11	0.757	0.000	Significant
	Q12	0.738	0.000	Significant
	Q13	0.775	0.000	Significant
	Q14	0.686	0.000	Significant
Perceived Organizational Support	Q15	0.818	0.000	Significant
	Q16	0.911	0.000	Significant
	Q17	0.834	0.000	Significant
	Q18	0.564	0.000	Significant
	Q19	0.727	0.000	Significant
Job Embeddedness	Q20	0.703	0.000	Significant
	Q21	0.730	0.000	Significant
	Q22	0.840	0.000	Significant
	Q23	0.852	0.000	Significant
	Q24	0.905	0.000	Significant
	Q25	0.868	0.000	Significant
	Q26	0.696	0.000	Significant
	Q27	0.778	0.000	Significant
Innovative Work Behavior	Q28	0.561	0.000	Significant
	Q29	0.514	0.000	Significant
	Q30	0.791	0.000	Significant
	Q31	0.811	0.000	Significant
	Q32	0.736	0.000	Significant
	Q33	0.657	0.000	Significant
	Q34	0.791	0.000	Significant
	Q35	0.820	0.000	Significant
	Q36	0.791	0.000	Significant
	Q37	0.533	0.000	Significant

Hypotheses testing

Table 4 shows data-fitness assessment results. To verify the validity of the measurement models, three different goodness-of-fit indices were investigated. The first group included absolute indices, namely χ^2/df (2.169) and RMSEA (0.068). Wheaton et al. (1977) suggest that the X2 values < five are adequate. The RMSEA index also confirmed the satisfactory model's fit (Wheaton et al., 1977). The second group included relative indices, such as the comparative fit index (CFI = 0.906), the normed fit index (NFI = 0.839), and the incremental fit index (IFI = 0.906). Hu and Bentler (1999) suggest that CFI, NFI, and IFI with a score higher than 0.90 are satisfactory. The third type entails parsimony indices, including parsimony normed fit index (PNFI = 0.771) and parsimony goodness-of-fit index (PGFI = 0.704). The values of both of these indices are bigger than 0.50. The obtained fit indices confirmed the overall validity of the fitted model (Hu & Bentler, 1999).

Table 4. Fit indices of SEM model.

Indices	Index	Desired value	Model value
Absolute indices	χ^2	The smaller the better	926.051
	χ^2/df	<5	2.169
	RMSEA	<0.08	0.068
Relative indices	NFI	>0.90	0.839
	CFI	>0.90	0.906
	IFI	>0.90	0.906
Parsimony indices	PNFI	>0.50	0.771
	PGFI	>0.50	0.704

Figure 2 presents the fitted structural model. The path coefficients of three independent variables with JE are: TMX ($\beta = 0.21$), EL ($\beta = 0.04$), and POS ($\beta = 0.38$), as well as between JE and IWB is ($\beta = 0.35$).

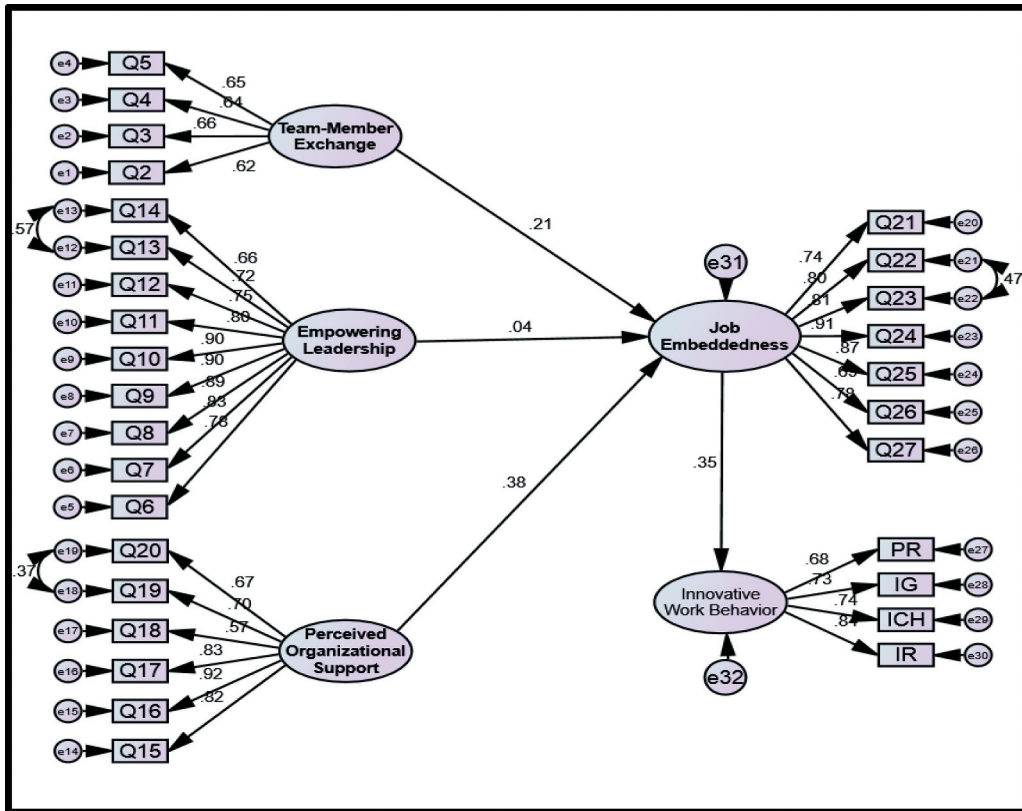


Figure 2. Final structural model.

Table 5 shows the results of direct hypotheses testing between three independent variables (TMX, EL and POS) and the dependent variable (IWB) through the mediating role of JE. It is obvious from the results that out of four direct hypotheses, three of them were statistically supported.

Table 5. Results of testing direct hypotheses.

Hypothesis	Path	Standardized beta	S.E	t-value	sig	Result
H1	Team member exchange → Job embeddedness	0.21	0.091	2.712	0.007	Support
H2	Empowering leadership → Job embeddedness	0.04	0.062	0.588	0.557	Reject
H3	Perceived organizational support → Job embeddedness	0.38	0.065	5.666	0.000	Support
H4	Job embeddedness → Innovative work behavior	0.35	0.046	4.696	0.000	Support

The squared multiple correlations revealed that about 19% of the changes in JE are due to changes in independent variables. This coefficient for IWB was 12%. Hypotheses 5 to 7 addressed the indirect effects. The bootstrap method was employed to test the fifth to seventh hypotheses about the mediating role of JE. The analysis results showed a significant indirect effect of TMX ($\beta = 0.073$, p -value = 0.033) and POS ($\beta = 0.133$, p -value = 0.004) on IWB. Therefore, hypotheses 5 and 7 are significant. The insignificant and indirect relationship of EL ($\beta = 0.012$, p -value = 0.720) and IWB rejects Hypothesis 6. Table 6 presents the indirect effects of these three hypotheses.

Table 6. Result of testing indirect hypotheses.

Hypothesis	Path	Standardized beta	S.E	t-value	sig	Result	Lower pc	Upper pc
H5	Team member exchange → Job embeddedness → Innovative work behavior	0.073	0.033	2.208	0.027	Support	.035	.167
H6	Empowering leadership → Job embeddedness → Innovative work behavior	0.014	0.021	0.642	0.520	Reject	-.008	.070
H7	Perceived organizational support → Job embeddedness → Innovative work behavior	0.133	0.028	4.635	0.000	Support	.033	.150

Discussions

This study investigated the effects of TMX, EL, and POS on nurses' JE, the effects of JE on IWB, and the role of JE as a mediator variable in the relationship between TMX, EL, and POS with IWB among nurses working in Iranian public hospitals. Further, the theoretical and practical implications of the findings are presented. Several theories, explained at the beginning of the section, were used to justify the important factors of nurses' JE and IWB. Contrary to the hypothesized positive relationship between EL and JE of hospital employees, the results did not show any significant positive relationship between these two variables (Erkutlu & Chafra, 2015). These findings are inconsistent with the literature finding that EL is a significant factor in JE strengthening. Due to administrative and cultural differences in Iran, the results of this study can enrich the existing literature. Hofstede's classification of culture as a 6-dimensional concept can be used to justify the lack of a significant correlation between EL and JE in Iran (2013) (Hofstede, 1984), Table 6.

According to Hofstede's notion we can conclude that centralization and authoritarian leadership are at the center of Iran's hierarchical, administrative, and cultural structure. Moreover, the literature results (e.g., Den Dulk et al., 2011) suggest that the management style in the western countries is completely different

from that of the eastern countries in flexibility, reliability, and decentralization (Den Dulk et al., 2011; Farivar et al., 2016). As a result, the traditional style of management is considered a factor of production. Therefore, organizational hierarchy reduces the delegation shown by leaders and top managers of Iranian organizations, such as hospitals. This results in a reciprocal relationship gap between senior managers and employees. Unpleasant workplace conditions may inhibit employees to create an active connection with their organization and reduce their JE due to distrust and jeopardized resources.

According to Banks et al. (2014), the high-quality of TMX can build trust and simplify the exchange of information and resources. In conclusion, interpersonal communication between the employees in service-based organizations, such as hospitals, improves the understanding and performance of the employees through cooperation, knowledge sharing, and division of tasks. As the SET posits, mutual communication results in a feeling of confidence in individuals that fit them well with their jobs, improving IWB because of the higher levels of JE. In this study, a mediating role was assumed for JE in the relationship between TMX and the independent variable. It is a significant contribution to the literature.

According to SET, it is argued organizational support can improve the employees' understanding of the different aspects of their job, thereby encouraging them to try further to promote their organization. Organizational support also encourages employees to invest a considerable deal of their time and money. In other words, they would work harder in favor of their organization, which is a JE's dimension. The results showed that POS can strengthen hospital employees' embeddedness and enhance their IWB. These results are consistent with the findings of Akgunduz (2017).

The discovered relationship between JE and IWB is consistent with the findings of Ng and Feldman (2010). According to their findings, employees with higher degrees of JE would be more eager to work in favor of organizational goals, offer novel ideas, and try to solve challenges facing the organization. These attempts would contribute to organizational competitiveness, procedure efficiency, and higher customer satisfaction.

Lastly, the results revealed the mediating role of JE in the relationship between TMX, EL, and POS with IWB among hospital employees. These results not only are consistent with the results found by Mitchell et al. (2001) but also support the literature results on the mediating role of JE (Harris et al., 2011; Karatepe, 2016). Due to specific cultural, administrative, and economic conditions in Iranian contexts, the employees may show a higher level of JE as a result of higher levels of TMX and POS. In conclusion, a higher level of JE would result in better IWB.

Practical implications

Currently, the private and public hospitals account for 18% and more than 70% of all healthcare centers in Iran, respectively. Therefore, public hospitals are expected to improve the quality of their healthcare services. Nurses, in particular, are supposed to strengthen their JE to enhance IWB. This professional development may cause nurses to offer higher quality and more relevant services.

As was mentioned earlier, the results showed that TMX and POS enhanced the JE and IWB of employees in all studied hospitals. However, the hypothesized role of EL was not confirmed, which can be attributed to different reasons. First, since the dominant organizational culture in Iran, in which the emphasis is on centralization, is different from that of the western countries, EL cannot be achieved. In other words, hospital management in Iran does not allow for delegating responsibilities to improve embeddedness and thus the nurses' IWB reduces. Therefore, hospital administrators and senior supervisors should be engaged in solving the problems of patients by encouraging the employees through innovative ideas. Second, field studies have shown that most hospitals, especially their emergency rooms, are dealing with the crowding problem. To meet such growing emergency needs properly, organizational support, entrusting senior management, and using specialized working groups are essential factors. To this end, organizational structure should fix the workplace conditions aiming to fill the gap between senior managers and nurses. In this way, nurses' JE would strengthen and they may

demonstrate more IWB. Moreover, nurses' sense of interpersonal support, including TMX and POS, plays a role in enhancing their innovative behavior. As a result, the domination of bilateral relationships in the hospital setting causes nurses to feel they fit their organization, make stronger relationships with the organization, feel the organization supports them, have a lower sense of risk, and have the desire to come up with innovative ideas.

Limitations and recommendations

This study has some limitations. First, the correlational data obtained from 14 public hospitals in a specific area in Iran may only be cautiously generalized to nurses in other hospitals in Iran. Second, employees' perceptions were measured only at a specific time. Third, the effects of TMX, EL, and POS on IWB were examined through the JE's mediating role that quite a stretch to evaluate a mediating argument with data all collected in one sitting. Further, same source bias is obviously a concern. The conduction of further longitudinal research, using the proposed model, may produce more accurate results. Similar to any other study, this study could not consider all the variables with probable effect on the relationship between independent variables, JE, and the dependent variable. As a result, some moderating variables of these relationships and their subsequent outcomes may remain untouched. For instance, differences in various cultures and organizational structures may differently moderate the relationship between JE and IWB.

Considering all the different parts of the situation together, the results highlight the need for further studies on all possible antecedents and outcomes of JE. Based on the literature on the outcomes of JE (Holtom et al., 2012), it is needed to examine other variables, such as competitive advantage, using the AHP (Holtom et al., 2012). It is also recommended to investigate different independent variables of leadership, such as narcissist leadership, which depend on cultural differences. The effects of cultural differences in different contexts and cultural impacts on JE are also recommended to be investigated.

Note

1. Link of OSF page: <https://osf.io/3xnw4>

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No potential conflict of interest was reported by the author(s).

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Data availability statement

The data described in this article are openly available in the Open Science Framework at <https://doi.org/10.17605/OSF.IO/TPA6U>.

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This article has earned the Center for Open Science badge for Open Materials. The materials are openly accessible at <http://doi.org/10.17605/OSF.IO/9EJMC>.

References

- Agarwal, U. A. (2014). Examining the impact of social exchange relationships on innovative work behaviour: Role of work engagement. *Team Performance Management*, 20(3/4), 102–120. <https://doi.org/10.1108/TPM-01-2013-0004>
- Akgunduz, Y., & Sanli, S. C. (2017). The effect of employee advocacy and perceived organizational support on job embeddedness and turnover intention in hotels. *Journal of Hospitality and Tourism Management*, 31, 118–125. <https://doi.org/10.1016/j.jhtm.2016.12.002>
- Åmo, B. W. (2006). Employee innovation behaviour in health care: The influence from management and colleagues. *International Nursing Review*, 53(3), 231–237. <https://doi.org/10.1111/j.1466-7657.2006.00455.x>
- Ampofo, E. T., Coetzer, A., & Poisat, P. (2017). Relationships between job embeddedness and employees' life satisfaction. *Employee Relations*, 39(7), 951–966. <https://doi.org/10.1108/ER-10-2016-0199>
- Amundsen, S., & Martinsen, Ø. L. (2014). Empowering leadership: Construct clarification, conceptualization, and validation of a new scale. *The Leadership Quarterly*, 25(3), 487–511. <https://doi.org/10.1016/j.leaqua.2013.11.009>
- Babakus, E., Yavas, U., & Karatepe, O. M. (2008). The effects of job demands, job resources and intrinsic motivation on emotional exhaustion and turnover intentions: A study in the Turkish hotel industry. *International Journal of Hospitality & Tourism Administration*, 9(4), 384–404. <https://doi.org/10.1080/15256480802427339>
- Banks, G. C., Batchelor, J. H., Seers, A., O'Boyle, E. H., Pollack, J. M., & Gower, K. (2014). What does team–member exchange bring to the party? A meta-analytic review of team and leader social exchange. *Journal of Organizational Behavior*, 35(2), 273–295. <https://doi.org/10.1002/job.1885>
- Blanco-Donoso, L. M., Garrosa, E., Moreno-Jiménez, B., de Almeida, E. C., & Villela-Bueno, S. M. (2017). Social job resources as sources of meaningfulness and its effects on nurses' vigor and emotional exhaustion: A cross-sectional study among Spanish nurses. *Current Psychology*, 36 (4), 755–763. <https://doi.org/10.1007/s12144-016-9463-x>
- Blau, P.M. (1964). Social exchange theory. *John Wiley & Sons, New York*.
- Bobbio, A., Bellan, M., & Manganelli, A. M. (2012). Empowering leadership, perceived organizational support, trust, and job burnout for nurses: A study in an Italian general hospital. *Health Care Management Review*, 37(1), 77–87. <https://doi.org/10.1097/HMR.0b013e31822242b2>
- Chang, H. T., Hsu, H. M., Liou, J. W., & Tsai, C. T. (2013). Psychological contracts and innovative behavior: A moderated path analysis of work engagement and job resources. *Journal of Applied Social Psychology*, 43(10), 2120–2135. <https://doi.org/10.1111/jasp.12165>
- Chen, Z., Eisenberger, R., Johnson, K. M., Sucharski, I. L., & Aselage, J. (2009). Perceived organizational support and extra-role performance: Which leads to which? *The Journal of Social Psychology*, 149(1), 119–124. <https://doi.org/10.3200/SOCP.149.1.119-124>
- Choi, J. S., & Kim, K. M. (2015). Job embeddedness factors as a predictor of turnover intention among infection control nurses in Korea. *American Journal of Infection Control*, 43(11), 1213–1217. <https://doi.org/10.1016/j.ajic.2015.06.017>
- Collins, A. M., Hislop, D., & Cartwright, S. (2016). Social support in the workplace between teleworkers, office-based colleagues and supervisors. *New Technology, Work and Employment*, 31(2), 161–175. <https://doi.org/10.1111/ntwe.12065>
- Crossley, C. D., Bennett, R. J., Jex, S. M., & Burnfield, J. L. (2007). Development of a global measure of job embeddedness and integration into a traditional model of voluntary turnover. *Journal of Applied Psychology*, 92(4), 1031. <https://doi.org/10.1037/0021-9010.92.4.1031>
- De Jong, J., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19 (1), 23–36. <https://doi.org/10.1111/j.1467-8691.2010.00547.x>

- Den Dulk, L., Peper, B., Černigoj Sadar, N., Lewis, S., Smithson, J., & Doorne-Huiskes, V. (2011). Work, family, and managerial attitudes and practices in the European workplace: Comparing Dutch, British, and Slovenian financial sector managers. *Social Politics: International Studies in Gender, State & Society*, 18(2), 300–329. <https://doi.org/10.1093/sp/jxr009>
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42. <https://doi.org/10.1037/0021-9010.86.1.42>
- Erkutlu, H., & Chafra, J. (2015). Empowering leadership and organizational job embeddedness: The moderating roles of task interdependence and organizational politics. *Procedia-Social and Behavioral Sciences*, 210, 3–10. <https://doi.org/10.1016/j.sbspro.2015.11.321>
- Farivar, F., Cameron, R., & Yaghoubi, M. (2016). Work-family balance and cultural dimensions: From a developing nation perspective. *Personnel Review*, 45(2), 315–333. <https://doi.org/10.1108/PR-09-2014-0196>
- Farr, J. L., & Ford, C. M. (1990). *Individual innovation*. In M. A. West and J. L. Farr (eds), *Innovation and Creativity at Work: Psychological and Organizational Strategies*, 63–80. Chichester: Wiley.
- Gilbert, S., Laschinger, H. K., & Leiter, M. (2010). The mediating effect of burnout on the relationship between structural empowerment and organizational citizenship behaviours. *Journal of Nursing Management*, 18(3), 339–348. <https://doi.org/10.1111/j.1365-2834.2010.01074.x>
- Han, C.-Y., Lin, C.-C., Barnard, A., Hsiao, Y.-C., Goopy, S., & Chen, L.-C. (2017). Workplace violence against emergency nurses in Taiwan: A phenomenographic study. *Nursing Outlook*, 65(4), 428–435. <https://doi.org/10.1016/j.outlook.2017.04.003>
- Harris, K. J., & Kacmar, K. M. (2018). Is more always better? An examination of the nonlinear effects of perceived organizational support on individual outcomes. *The Journal of Social Psychology*, 158(2), 187–200. <https://doi.org/10.1080/00224545.2017.1324394>
- Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2011). The mediating role of organizational job embeddedness in the LMX–outcomes relationships. *The Leadership Quarterly*, 22(2), 271–281. <https://doi.org/10.1016/j.leaqua.2011.02.003>
- Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied Psychology*, 50(3), 337–421. <https://doi.org/10.1111/1464-0597.00062>
- Hobfoll, S. E. (2002). Social and psychological resources and adaptation. *Review of General Psychology*, 6(4), 307. <https://doi.org/10.1037/1089-2680.6.4.307>
- Hofstede, G. Hofstede, G. H. (1984). *Culture's consequences: International differences in work-related values* (Vol. 5). sage.
- Holtom, B. C., Burton, J. P., & Crossley, C. D. (2012). How negative affectivity moderates the relationship between shocks, embeddedness and worker behaviors. *Journal of Vocational Behavior*, 80(2), 434–443. <https://doi.org/10.1016/j.jvb.2011.12.006>
- Holtom, B. C., & Inderrieden, E. J. (2006). Integrating the unfolding model and job embeddedness model to better understand voluntary turnover. *Journal of Managerial Issues* 18 (4), 435–452. <https://www.jstor.org/stable/40604552>
- Holtom, B. C., & O'neill, B. S. (2004). Job embeddedness: A theoretical foundation for developing a comprehensive nurse retention plan. *Journal of Nursing Administration*, 34(5), 216–227. <https://doi.org/10.1097/00005110-200405000-00005>
- Howes, L. M., & Goodman-Delahunty, J. (2015). Predicting career stability and mobility: Embeddedness and boundarylessness. *Journal of Career Development*, 42(3), 244–259. <https://doi.org/10.1177/0894845314548722>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Hughes, F. (2006). Nurses at the forefront of innovation. *International Nursing Review*, 53(2), 94–101. <https://doi.org/10.1111/j.1466-7657.2006.00463.x>
- Karatepe, O. M. (2012a). The effects of coworker and perceived organizational support on hotel employee outcomes: The moderating role of job embeddedness. *Journal of Hospitality & Tourism Research*, 36(4), 495–516. <https://doi.org/10.1177/1096348011413592>
- Karatepe, O. M. (2012b). Perceived organizational support, career satisfaction, and performance outcomes: A study of hotel employees in Cameroon. *International Journal of Contemporary Hospitality Management*, 24(5), 735–752. <https://doi.org/10.1108/09596111211237273>
- Karatepe, O. M. (2013). High-performance work practices, work social support and their effects on job embeddedness and turnover intentions. *International Journal of Contemporary Hospitality Management*, 25(6), 903–921. <https://doi.org/10.1108/IJCHM-06-2012-0097>
- Karatepe, O. M. (2016). Does job embeddedness mediate the effects of coworker and family support on creative performance? An empirical study in the hotel industry. *Journal of Human Resources in Hospitality & Tourism*, 15 (2), 119–132. <https://doi.org/10.1080/15332845.2016.1084852>
- Karatepe, O. M., & Karadas, G. (2012). The effect of management commitment to service quality on job embeddedness and performance outcomes. *Journal of Business Economics and Management*, 13(4), 614–636. <https://doi.org/10.3846/16111699.2011.620159>

- Karatepe, O. M., & Shahriari, S. (2014). Job embeddedness as a moderator of the impact of organisational justice on turnover intentions: A study in Iran. *International Journal of Tourism Research*, 16(1), 22–32. <https://doi.org/10.1002/jtr.1894>
- Kessel, M., Hannemann-Weber, H., & Kratzer, J. (2012). Innovative work behavior in healthcare: The benefit of operational guidelines in the treatment of rare diseases. *Health Policy*, 105(2–3), 146–153. <https://doi.org/10.1016/j.healthpol.2012.02.010>
- Khorakian, A., Nosrati, S., & Eslami, G. (2018). Conflict at work, job embeddedness, and their effects on intention to quit among women employed in travel agencies: Evidence from a religious city in a developing country. *International Journal of Tourism Research*, 20(2), 215–224. <https://doi.org/10.1002/jtr.2174>
- Kiazad, K., Holtom, B. C., Hom, P. W., & Newman, A. (2015). Job embeddedness: A multifoci theoretical extension. *Journal of Applied Psychology*, 100(3), 641. <https://doi.org/10.1037/a0038919>
- Kim, S. Y., Kim, J. K., Jung, M. S., Kim, E. K., & You, S. J. (2017). A literature review of team effectiveness on hospital nursing units. *Journal of Korean Academy of Nursing Administration*, 23(1), 18–31. <https://doi.org/10.1111/jkana.2017.23.1.18>
- Knol, J., & Van Linge, R. (2009). Innovative behaviour: The effect of structural and psychological empowerment on nurses. *Journal of Advanced Nursing*, 65(2), 359–370. <https://doi.org/10.1111/j.1365-2648.2008.04876.x>
- Lee, D., Lee, K., & Jo, N. (2012). The influence of team-member exchange on self-reported creativity in the Korean information and communication technology (ICT) industry. *Intelligent Information and Database Systems*, 47–54. https://doi.org/10.1007/978-3-642-28493-9_6
- Lee, T. W., Mitchell, T. R., Sablinski, C. J., Burton, J. P., & Holtom, B. C. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal*, 47 (5), 711–722. <https://doi.org/10.5465/20159613>
- Liao, F.-Y., Yang, L.-Q., Wang, M., Drown, D., & Shi, J. (2013). Team-member exchange and work engagement: Does personality make a difference? *Journal of Business and Psychology*, 28(1), 63–77. <https://doi.org/10.1007/s10869-012-9266-5>
- Lorinkova, N. M., Pearsall, M. J., & Sims, H. P. (2013). Examining the differential longitudinal performance of directive versus empowering leadership in teams. *Academy of Management Journal*, 56(2), 573–596. <https://doi.org/10.5465/amj.2011.0132>
- McSherry, R., & Douglas, M. (2011). Innovation in nursing practice: A means to tackling the global challenges facing nurses, midwives and nurse leaders and managers in the future. *Journal of Nursing Management*, 19(2), 165–169. <https://doi.org/10.1111/j.1365-2834.2011.01241.x>
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work-family conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32 (5), 689–725. <https://doi.org/10.1002/job.695>
- Mitchell, T. R., Holtom, B. C., Lee, T. W., Sablinski, C. J., & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal*, 44(6), 1102–1121. <https://doi.org/10.5465/3069391>
- Ng, T. W., & Feldman, D. C. (2010). The impact of job embeddedness on innovation-related behaviors. *Human Resource Management*, 49(6), 1067–1087. <https://doi.org/10.1002/hrm.20390>
- Pearce, C. L., & Sims, J. H. (2002). Vertical versus shared leadership as predictors of the effectiveness of change management teams: An examination of aversive, directive, transactional, transformational, and empowering leader behaviors. *Group Dynamics: Theory, Research, and Practice*, 6(2), 172. <https://doi.org/10.1037/1089-2699.6.2.172>
- Rahimnia, F., Eslami, G., & Nosrati, S. (2019). Investigating the mediating role of job embeddedness: Evidence of Iranian context. *Personnel Review*, 48(3), 614–630. <https://doi.org/10.1108/PR-11-2017-0348>
- Reitz, O. E. (2014). The job embeddedness instrument: An evaluation of validity and reliability. *Geriatric Nursing*, 35(5), 351–356. <https://doi.org/10.1016/j.gerinurse.2014.04.011>
- Reitz, O. E., Anderson, M. A., & Hill, P. D. (2010). Job embeddedness and nurse retention. *Nursing Administration Quarterly*, 34(3), 190–200. <https://doi.org/10.1097/NAQ.0b013e3181e702b7>
- Schuh, S. C., Zhang, X. A., Morgeson, F. P., Tian, P., & van Dick, R. (2017). Are you really doing good things in your boss's eyes? Interactive effects of employee innovative work behavior and leader-member exchange on supervisory performance ratings. *Human Resource Management*, 56(4), 673–691. <https://doi.org/10.1002/hrm.21794>
- Seers, A. (1989). Team-member exchange quality: A new construct for role-making research. *Organizational Behavior and Human Decision Processes*, 43(1), 118–135. [https://doi.org/10.1016/0749-5978\(89\)90060-5](https://doi.org/10.1016/0749-5978(89)90060-5)
- Shih, H.-A., Shih, H.-A., Wijaya, N. H. S., & Wijaya, N. H. S. (2017). Team-member exchange, voice behavior, and creative work involvement. *International Journal of Manpower*, 38(3), 417–431. <https://doi.org/10.1108/IJM-09-2015-0139>
- Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of Management Journal*, 49(6), 1239–1251. <https://doi.org/10.5465/amj.2006.23478718>
- Staw, B. M. (1980). The consequences of turnover. *Journal of Occupational Behaviour* 1 (4), 253–273. <https://www.jstor.org/stable/3000143>
- Thakur, S. J., & Bhatnagar, J. (2017). Mediator analysis of job embeddedness. *Employee Relations*, 39(5), 718–731. <https://doi.org/10.1108/ER-11-2016-0223>

- Tsai, C.-H. (2013). The effects of perceived organisational support, social capital, and health promotion on job satisfaction of employees in hospitals. *International Journal of Electronic Customer Relationship Management*, 7(2), 135–160. <https://doi.org/10.1504/IJECRM.2013.056511>
- Varma, A., & Russell, L. (2016). Women and expatriate assignments. *Employee Relations*, 38(2), 200–223. <https://doi.org/10.1108/ER-02-2015-0019>
- Welbourne, T. M., Johnson, D. E., & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal*, 41(5), 540–555. <https://doi.org/10.5465/256941>
- Wen, J., Wen, J., Li, Y., Li, Y., Hou, P., & Hou, P. (2016). Customer mistreatment behavior and hotel employee organizational citizenship behavior: The mediating role of perceived organizational support. *Nankai Business Review International*, 7(3), 322–344. <https://doi.org/10.1108/NBRI-02-2016-0009>
- Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. F. (1977). Assessing reliability and stability in panel models. *Sociological Methodology*, 8 (1), 84–136. <https://doi.org/10.2307/270754>
- Yasir, M., & Majid, A. (2019). Boundary integration and innovative work behavior among nursing staff. *European Journal of Innovation Management*, 22(1), 2–22. <https://doi.org/10.1108/EJIM-02-2018-0035>
- Zhao, X., Sun, T., Cao, Q., Li, C., Duan, X., Fan, L., & Liu, Y. (2013). The impact of quality of work life on job embeddedness and affective commitment and their co-effect on turnover intention of nurses. *Journal of Clinical Nursing*, 22(5–6), 780–788. <https://doi.org/10.1111/j.1365-2702.2012.04198.x>