

# The Impact of Psychological Empowerment of Nurses on their Job Involvement: A Descriptive Correlational Study



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## Abstract:

**Background:** Psychological empowerment and job involvement of employees are critical indicators of healthcare organizational performance. These two factors are essential when managing workplace changes, enhancing individual and overall organizational performance, and increasing the job security of nurses.

**Objective:** This study explored how nurses perceive their psychological empowerment and job involvement and the relationship between these two factors.

**Methods:** This descriptive-correlational research was conducted on nurses working in 3 hospitals affiliated with Hamadan University of Medical Sciences in 2023. The sampling method used was quota-random sampling. The data related to the study were collected from valid questionnaires related to Spreitzer's developed Psychological Empowerment and Kanungo's Job Involvement. The data analysis was also conducted at the descriptive and inferential statistics level using SPSS version 16 software.

**Results:** In this study, 65.9% (N=128) of the participants were female and 34.1% (N=66) were male. The results showed that the level of nurses' perception of psychological empowerment and job involvement was at an average level. Also, the results showed a significant relationship between the total psychological empowerment score and nurses' job involvement (P-value<0.001, r=0.587).

**Conclusions:** Based on the results, increasing each dimension of PE among nurses can significantly enhance their job involvement, subsequently improving the quality of patient care and reducing additional costs. Job involvement has been tied to nurse health and quality of care. Given the significant positive relationship between job involvement and psychological empowerment, attention must be given to empowering nurses psychologically.

**Keywords:** Psychological empowerment, Job involvement, Nurses, Hospitals, Employee.

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## 1. INTRODUCTION

In healthcare systems, providing quality care to patients has been one of the top priorities and fundamental challenges for managers from the past to the present [1]. Therefore, healthcare systems allocate significant resources to optimize nursing performance and improve patient care [2]. In general, individuals who are empowered and committed to the organization are most satisfied with their work, more responsible, and influential in their work environment [3]. Psychological empowerment (PE) is a process that reflects an individual's attitude towards their role and efforts within an organization [4]. In essence, PE is an interaction between individuals' personality traits and the organizational environment [5], consisting of 4 dimensions: competence (confidence in one's abilities), self-determination (the right to choose in performing tasks), impact, and meaning [6, 7].

This concept has recently gained remarkable popularity among nursing managers and academic researchers as a leading factor in enhancing the efficiency of nurses [3]. Furthermore, since individuals in the nursing profession face various challenges, such as mental stress and pressure [8], PE is considered an appropriate solution for them to cope with psychological pressures [9]. This innovative approach provides a platform for flourishing individuals' abilities and competencies, reducing job-related stress [4]. Research has shown that nurses with higher levels of PE demonstrate greater competence in patient care and healthcare services [10]. Moreover, enhancing PE in nurses can lead to increased work commitment, improved professional performance [11], higher job satisfaction [4], reduced job burnout [12], and decreased turnover rates [13].

Job involvement is a psychological state in which an individual is emotionally and mentally committed to their work, and it is considered a measure of an individual's engagement and dedication to their job [14]. It is essential to distinguish between job involvement and work engagement, as they are related but distinct concepts [15]. Work engagement refers to a positive, fulfilling, and energetic state. At the same time, job involvement is a more specific construct that focuses on the individual's emotional and psychological attachment to their job [16]. Employees with job involvement participate in decision-making, and this attachment can increase the shadow of authority in decision-making, responsibility, and the passage of time at work [17]. PE is a predictor of job involvement, as individuals with higher levels of PE tend to be more engaged and committed to their work [18].

In the healthcare system, fostering job involvement among nurses leads to increased physical and cognitive presence and greater engagement in their work, enabling them to achieve dynamic and comprehensive performance [19]. Also, identifying factors influencing the job involvement of nurses and enhancing it directly impacts the quality of care provided [17, 20]. One of the most influential factors affecting the job involvement of employees is paying attention to their individual,

motivational, and personality differences [21]. Given the direct and indirect effects of PE on the job involvement of nurses and the limited studies in this area, the predictive role of PE on job involvement is crucial. Thus, this study aimed to determine the level of PE and its relationship with job involvement among nurses in hospitals affiliated with Hamadan University of Medical Science.

## 2. METHODS

### 2.1. Study Design

The present descriptive-correlational research was conducted on nurses working in 3 hospitals affiliated with Hamadan University of Medical Sciences in 2023. In this study, the inclusion criteria consisted of having one year of work experience, no unrelated psychological problems in the past six months, and complete satisfaction to participate in the study. The exclusion criteria for this study included recent exposure to severe stressors (such as loss of loved ones and divorce) and incomplete questionnaire responses.

### 2.2. Sampling

The sampling method used was quota-random sampling, where the sample size was determined proportionally to the number of nurses in each department and then randomly selected. Out of 235 questionnaires distributed among nursing staff in different shifts, 41 were excluded due to non-return or incomplete information. Ultimately, 194 completed questionnaires were included for analysis. The sample size was calculated using the Raosoft online calculator with a 95% confidence level, 5% margin of error, and 50% response distribution [22]. Considering that 390 nurses work in the mentioned three hospitals, the required sample size was 194 participants.

### 2.3. Measuring Instruments

Data were collected using a checklist containing demographic information (age, gender, work experience, marital status, and employment status), Spreitzer's developed Psychological Empowerment Questionnaire (PEQ), and Kanungo's Job Involvement questionnaire. The PEQ was first designed by Spreitzer in 1995 [23]. It consists of 12 items divided into four dimensions, each composed of three items. These include (1) meaning as "My work holds a special significance for me"; (2) competence as "I am self-assured in my capacity to complete my work effectively"; (3) self-determination as "I can choose how I tackle my responsibilities"; and (4) impact as "I have a significant influence on what happens in my department." These questions are scored on a 5-point Likert scale (1 = Very low, 2 = Low, 3 = Moderate, 4 = High, 5 = Very high). The final score of this questionnaire is determined by calculating the average scores assigned to each item. In simple terms, the final score for each questionnaire is derived by gathering the scores given for each item and then calculating the average of these scores. This rigorous process enables us to comprehensively understand the desired condition or characteristic indicated by the respondents [24]. Spreitzer

calculated the reliability of this tool in 1995 with a Cronbach's alpha coefficient of 0.74 [23]. Additionally, in Lashinger *et al.*'s study in 2002, this coefficient was calculated between 0.70 and 0.90 for dimensions [25]. The validity and reliability of the questionnaire were referenced in Abdollahi *et al.*'s study [26]. In the current research, the questionnaire's reliability was found to be 0.87 using Cronbach's alpha.

This study used Kanungo's Job Involvement questionnaire, which was designed in 1982 and consists of 10 items. The questionnaire is based on a 6-point Likert scale ranging from completely disagree (1) to agree (6). In this questionnaire, the scores presented for each item are collected to obtain the final score, and then the average of these scores is calculated [24]. The instrument has high internal consistency and reliability, with reported test-retest reliability coefficients of 0.74, 0.85, and 0.82 [27]. In the study by Fathizadeh and colleagues 2015, the reliability of the job involvement tool was reported using a Cronbach's alpha coefficient of 0.82 [28]. The Cronbach's alpha coefficient for the questionnaire in the present study is 0.81.

**2.4. Data Collection**

After obtaining informed consent from the participants, the study objectives were explained to them, and the questionnaires were distributed among nurses in different shifts. The confidentiality of the information of participants was ensured.

**2.5. Statistical Analysis**

Descriptive statistics (frequency, percentage, mean, and standard deviation) were used to analyze the data, test hypotheses, and determine demographic characteristics. Inferential statistics (Pearson's correlation coefficient and

linear regression analysis) were used to determine the relationship between PE and job involvement. All statistical tests were performed with a confidence level of 95%. For interpreting the results, the significance level of 0.05 was considered. SPSS version 26 was used for statistical analysis, and the normality of the data was confirmed using the Kolmogorov-Smirnov test.

**3. RESULTS**

The average age of the participating nurses in this study was  $34.5 \pm 3.65$  years, with the minimum and maximum age range being 23 to 50 years. The average work experience of the participants was  $12.34 \pm 3.41$  years, with a range of 1 to 27 years. Most of the participants were female (65.9%, 128 individuals), married (58.7%, 114), and had a bachelor's degree (94.8%, 124). Additionally, based on the type of employment, the highest frequency was related to contractual employment (51%), and the lowest was related to project-based employment (24.7%) (Table 1). Descriptive statistical methods, including frequency, percentage, mean, and standard deviation, were used in this table to simplify the demographic characteristics of the participants. Pearson's correlation test was also used to determine the relationship between these data and psychological ability and job attachment.

The study's results showed that among the demographic characteristics, age and work experience had a significant positive correlation with PE ( $P < 0.05$ ). Furthermore, job involvement was negatively correlated with age, work experience, and education level ( $P < 0.05$ ). The average total score for PE was  $4.23 \pm 1.47$ , and for job involvement was  $3.43 \pm 1.14$ , both of which were in the moderate range. The mean and standard deviation of PE and job involvement are presented in Table 2. Also, this table shows the minimum and maximum mean scores for PE, each of its dimensions, and job involvement.

**Table 1. The frequency of demographic characteristics of the participants based on the score of PE and job involvement.**

Variable	-	n (%)	PE	P-value	Job involvement	P-value
			Mean $\pm$ SD		Mean $\pm$ SD	
Gender	Male	66 (33.1)	4.20 $\pm$ 0.89	0.15	3.37 $\pm$ 1.24	0.06
	Female	128 (65.9)	4.26 $\pm$ 1.32		3.49 $\pm$ 1.32	
Age	< 30	55 (28.4)	3.87 $\pm$ 0.78	0.02*	3.91 $\pm$ 1.16	< 0.001**
	30-40	85 (43.8)	4.11 $\pm$ 1.43		3.33 $\pm$ 1.22	
	> 41	54 (27.8)	4.32 $\pm$ 0.52		3.15 $\pm$ 1.06	
Work experience (y)	< 10	55 (28.4)	3.59 $\pm$ 1.04	< 0.001**	4.11 $\pm$ 0.98	0.04*
	20-Oct	111 (57.2)	4.67 $\pm$ 1.34		4.05 $\pm$ 1.14	
	> 20	28 (14.4)	4.34 $\pm$ 1.34		3.58 $\pm$ 1.06	
Marital status	Single	73 (37.7)	4.20 $\pm$ 1.18	0.07	3.65 $\pm$ 1.32	0.22
	Married	114 (58.7)	4.24 $\pm$ 1.38		3.85 $\pm$ 1.21	
	Divorced	7 (3.6)	4.02 $\pm$ 1.16		3.23 $\pm$ 1.12	
Education	Bachelor	184 (94.8)	4.21 $\pm$ 1.76	0.24	4.25 $\pm$ 0.95	< 0.001**
	Master's degree	10 (5.3)	4.25 $\pm$ 1.48		3.23 $\pm$ 1.17	
type of employment	Permanent	68 (35.0)	4.19 $\pm$ 0.88	0.09	3.47 $\pm$ 1.17	0.39
	Temporary	99 (51.0)	4.21 $\pm$ 0.96		3.39 $\pm$ 1.09	
	Project-based	27 (14.0)	3.89 $\pm$ 1.09		3.43 $\pm$ 1.24	

**Abbreviation:** SD: Standard Deviation.

**Table 2. Mean and standard deviation of dimensions of PE and job involvement.**

Variable	Dimensions	Mean ± SD	Min	Max
PE	Meaning	4.76 ± 1.72	2.88	4.83
	Competence	4.46 ± 1.85	2.44	4.69
	Self-Determination	3.67 ± 1.36	1.77	4.12
	Impact	3.76 ± 1.87	2.24	4.53
-	Total score	4.23± 1.47	2.67	4.74
Job involvement	-	3.43 ±1.14	1.89	4.23

**Abbreviation:** SD: Standard Deviation.

**Table 3. Correlation coefficients of dimensions of PE with job involvement.**

Variable	Dimensions	Job involvement
		r (P-value)
PE	Meaning	r = 0.575 (P<.001)
	Competence	r = 0.221 (P=.231)
	Self-Determination	r = 0.415 (P<.001)
	Impact	r = 0.551 (P<.001)
	PE	r = 0.587 (P<.001)

**Table 4. The effect of PE on job involvement using multiple regression analysis.**

Independent Variables	Unstandardized Coefficients B (SD)	Standardized Coefficients β	t	P
Fixed coefficient	5.364 (1.54)	-	6.184	< 0.001**
Meaning	0.421 (0.212)	0.394	3.721	< 0.001**
Competence	0.082 (0.076)	0.071	0.723	0.341
Self-Determination	0.537 (0.053)	0.412	2.154	0.045*
Impact	0.625 (0.089)	0.542	3.841	< 0.001**
Total PE	0.416 (0.106)	0.404	3.251	< 0.001**

**Note.** B: F = 17.437; R<sup>2</sup> = 0.426; Adj. R<sup>2</sup> = 0.418, P<0.001.

The coefficient estimate; R<sup>2</sup>: regression coefficient; Adj. R<sup>2</sup>: adjusted R<sup>2</sup>; F: F-test (ANOVA); \*Statistically significant at P ≤0.05.

The highest average score for PE was related to the dimension of meaning (4.76 ± 1.72), while the lowest score was related to self-determination (3.67 ± 1.36).

The results showed a significant correlation between the dimensions of psychological empowerment (meaningfulness, self-determination, and impact) and job involvement (Table 3). Additionally, statistical analysis indicated a significant correlation between the total score of PE and job involvement (Table 3).

Linear regression analysis was used to predict the effect of the independent variable (psychological empowerment) on the dependent variable (job involvement). The results showed a significant correlation between the dimensions of psychological empowerment, including meaningfulness, self-determination, impact, and job involvement (P< 0.05). The statistics and beta coefficients of the variables are presented in Table 4. According to this table, for every one-unit increase in the dimensions of meaningfulness, self-determination, and impact, job involvement increases by 0.39, 0.41, and 0.40 units, respectively.

Table 4 presents a multiple regression analysis

examining the relationship between psychological empowerment dimensions and their association with job involvement. The results indicate that around 41.8% of the explained variance of job involvement can be predicted by PE, with the model showing significant (F = 17.437, P < .001).

#### 4. DISCUSSION

The results revealed a positive and significant correlation between PE and job involvement, which aligns with the findings of previous studies, such as those by Yaquobi [18] and Jose & Mampilly [24]. Abou Hashish *et al.* also showed a positive and significant correlation between nurses' perception of psychological empowerment and job involvement [3]. Similarly, Imam (2015) showed that psychological empowerment had a notable positive effect on work engagement, positively affecting the satisfaction of nurses [29]. Therefore, it can be said that nurses with higher psychological readiness and psychological empowerment experience more energy, feel more engaged with their duties, and consider themselves fully prepared to cope with their job demands [3]. Additionally, increasing the psychological empower-

ment of individuals reduces their psychological pressures and job stress. In such circumstances, individuals have higher decision-making power, which increases their motivation [9]. Consequently, the sense of success and satisfaction of individuals with their profession rises, and in addition to job attachment, it provides appropriate conditions for their professional advancement [30].

In the present study, some dimensions of PE included meaningfulness, self-determination, and effective relationship with job involvement among nurses. The survey by Meng & Sun indicated a positive and meaningful correlation between PE and all dimensions of work engagement [31], which is consistent with our findings. However, Alotaibi *et al.* found no significant correlation between PE and job involvement among nurses [32]. Nurses who have confidence in their ability to perform their professional duties and access available resources and autonomy from authorities appear to develop a more innovative and flexible attitude. Providing these conditions makes them feel supported by their colleagues and managers, leading to greater attachment and satisfaction in their profession [33].

The present study reported the average PE score of nursing staff, which was consistent with the study's findings by Permarupan *et al.* [34]. A study in America reported a high level of PE among intensive care nurses [35]. Additionally, studies by Alharbi and Alrwaitey [36] and Arshadi Bostanabad *et al.* [37] reported high PE among nurses. Variations in the sample size, research population, average age, and work experience of the study participants may explain these differences.

In the current study, the highest average score of the PE dimensions was related to the meaningfulness dimension, indicating that nurses who evaluate their job goals and intrinsic interests and value them possess more fantastic abilities to perform their duties. In the study by Dehnabi *et al.*, the highest score was also related to the meaningfulness dimension, which aligns with our study findings [38]. Similarly, a qualitative study in Sweden revealed that nurses with higher PE, especially in the meaningfulness dimension, gain more confidence in their abilities and perform their tasks with greater mastery [39]. In our study, the lowest average score belonged to the self-determination dimension, consistent with the findings of Ebrahimi *et al.* [40]. Therefore, considering the importance of nurses' psychological empowerment as an internal motivator leads to their meaningful participation in the work involvement and increased productivity [5]. Furthermore, as a critical factor in promoting job involvement, nursing managers can plan to expand the psychological empowerment of employees to improve the quality of nursing care and increase patient safety, which should be prioritized in action.

According to the findings of the current study, among demographic characteristics, PE was only significantly and positively related to age and work experience. Browning also demonstrated a direct relationship between PE and individuals' age [35]. Furthermore, the results of the study by Dehnabi *et al.* indicated a significant positive relation-

ship between psychological capability and age [38]. However, in the survey by Faulkner and Laschinger, no relationship was observed between PE and demographic characteristics, such as age and work experience [41], which could be attributed to the lower average age and work experience of individuals in that study. In the present study, there was no significant relationship between PE and gender, level of education, and marital status, consistent with the findings of Khoshmehr *et al.* [9].

Based on the findings, the average job involvement score among nurses was reported to be moderate, consistent with the study by Saeed *et al.* [42]. Abd Elmohsen *et al.* also stated that half of the nurses have a moderate level of job involvement, aligning with our study results [43]. Abdi *et al.* demonstrated moderate job involvement among emergency staff [44]. In contrast, Haghighi *et al.* reported weak job involvement among nurses and midwives [45], possibly due to rewards, recognition, job characteristics, organizational support, and supervision influencing job involvement. However, a positive work environment with a supportive organizational approach and leadership styles are among the factors that effectively impact employees' work engagement [46]. Furthermore, the difference in job attachment among nurses may be related to the challenging working conditions and perceived risks. Physical and psychological pressures can significantly reduce the job engagement of nurses, decreasing job satisfaction and quality of care and increasing nurse turnover [47].

Regarding the demographic characteristics of nurses, a significant negative relationship was observed between age, individual education level, and job involvement. Consistent with our study findings, Abdi *et al.* showed an inverse relationship between education level and job involvement, suggesting that as individuals' education level increases, their demands for benefits increase, leading to a decrease in job involvement due to unmet expectations [44]. Marshall *et al.* stated a significant negative relationship between age and job involvement in their study [48], aligning with our results. Additionally, Eslami Panah *et al.* considered nurses nearing the end of their service period as a factor for lower job involvement among experienced nurses than less experienced ones [20]. In contrast, Saeed *et al.* reported a significant relationship only between gender and job involvement, with no significant relationships found for other variables, such as age, marital status, education, and work experience [42], possibly due to differences in the age conditions and hospital work environments.

## 5. LIMITATIONS

Among the limitations and shortcomings of this study are its cross-sectional nature and the non-cooperation of some nurses in the department. Another limitation was the use of self-report measures, where inaccurate answers could influence responses; hence, participants were assured of the confidentiality of the questionnaires. Additionally, the limited research population of nurses in government hospitals in Hamadan city was another constraint of this study that might impact the generalizability of its results.

## CONCLUSION

Based on our study results, PE can be considered a predictor of job involvement. Therefore, increasing each dimension of PE among nurses can play a significant role in enhancing their job involvement, subsequently improving the quality of patient care and reducing additional costs. Further, our study results indicate a low level of self-determination among nurses, suggesting that managers should empower their staff to have more autonomy in decision-making. Lastly, managerial behavior influences the psychological well-being of personnel and consequently increases their job involvement.

## AUTHORS' CONTRIBUTIONS

It is hereby acknowledged that all authors have accepted responsibility for the manuscript's content and consented to its submission. They have meticulously reviewed all results and unanimously approved the final version of the manuscript.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Approval was obtained from the Ethics Committee of Hamadan University of Medical Sciences with the code (IR.UMSHA.REC.1401.859).

## HUMAN AND ANIMAL RIGHTS

All procedures performed in studies involving human participants were in accordance with the ethical standards of institutional and/or research committee and with the 1975 Declaration of Helsinki, as revised in 2013.'

## CONSENT FOR PUBLICATION

The informed consent of the participants was assured.

## STANDARDS OF REPORTING

STROBE guidelines were followed.

## AVAILABILITY OF DATA AND MATERIALS

The data and supportive information are available within the article.

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## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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