

The Correlation between Psychological Empowerment and Job Burnout in Midwives Working in the Labor Ward of Hospitals

Abstract

Background: Job Burnout (JB) is a multifactorial psycho-cognitive syndrome that leads to physical and psychological problems and declines the efficiency and productivity. Psychological Empowerment (PE) indicates that an individual feels motivated and competent to fulfill work expectations actively. This study assessed the correlation between PE and JB in midwives. **Materials and Methods:** This cross-sectional correlational study was conducted on 282 midwives working in labor wards of hospitals in Isfahan (Iran). Convenience sampling was used. Psychological Empowerment Questionnaire (PEQ) with four domains (meaning, competence, autonomy, and impact) and Maslach Burnout Inventory (MBI) with three domains (emotional exhaustion, depersonalization, and personal accomplishment) were used. Partial correlation and regression analysis were used to analyze the data. $p < 0.05$ was considered significant. **Results:** None of the demographic variables had a significant association with PE and JB. There were no significant correlations between the total scores of PE and three domains of JB. However, personal accomplishment was positively correlated with the domains of meaning and competence ($r = 0.16$, $p = 0.02$; $r = 0.27$, $p < 0.001$, respectively). Autonomy was the only significant predictive variable for emotional exhaustion and depersonalization, respectively ($\beta = 0.17$, $t_{235} = 2.34$, $p = 0.020$, $\beta = 0.09$, $t_{249} = 1.29$, $p = 0.020$); also, competency was the only significant predictive variable for personal accomplishment ($\beta = 0.29$, $t_{263} = 4.20$, $p < 0.001$). The domains of PE were significant predictors of variance of JB in personal accomplishment domain ($R^2 = 0.10$, $F_6 = 4.85$, $p < 0.001$). **Conclusions:** Meaning and competence could be promoted through attendance in continuous training programs to increase personal accomplishment. In addition, it is suggested to promote midwives' authority to decline their emotional exhaustion and depersonalization.

Keywords: Burnout, empowerment, Iran, labor, midwife, psychological

Introduction

Job Burnout (JB) is defined as a widespread job-related problem characterized by decreasing energy, power, and resources in the presence of excessive demands that manifests in the feeling of frustration (low personal accomplishment), emotional exhaustion, and the lack of motivation (depersonalization). It can influence the efficiency and productivity of the workers and staff in various fields. Moreover, burnout syndrome may decrease job satisfaction and increase the risk of medical conditions.^[1,2] It may lead to a number of symptoms and manifestations including depression, exhaustion, fatigue, anxiety, concentration and memory problems, tension headaches, sleep disorders, irritability, gastrointestinal

problems, muscle aches, and sometimes alcohol or drug abuse. Furthermore, burnout is associated with downregulation of immune function, elevated risk of arteriosclerotic disease, potentially more serious chronic metabolic diseases, increased absenteeism due to self-reported illnesses such as common cold, flu-like symptoms, and gastroenteritis.^[3,4] A positive relationship has been demonstrated in some studies between burnout and intention to leave the organization. It can decrease professional performance, a higher rate of malpractice, increased employee tardiness and absenteeism, and difficulty in recruiting and retaining staff.^[3] Many factors could affect JB such as moral distress, years in the profession, shifts worked, how many women with multiple psychosocial issues were included in the midwife's workload

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Janighorban M, Dadkhahtehrani T, Najimi A, Hafezi S. The correlation between psychological empowerment and job burnout in midwives working in the labor ward of hospitals. *Iranian J Nursing Midwifery Res* 2020;25:128-33.

Submitted: 28-Apr-2019. **Revised:** 04-Aug-2019.

Accepted: 23-Dec-2019. **Published:** 24-Feb-2020.

Mojgan
Janighorban¹,
Tahmineh
Dadkhahtehrani¹,
Arash Najimi²,
Samira Hafezi³

¹Midwifery and Reproductive Health Department, Nursing and Midwifery Care Research Center, Nursing and Midwifery Faculty, Isfahan University of Medical Sciences, Isfahan, Iran, ²Medical Education Department, Medical Education Research Center, Isfahan University of Medical Sciences, Isfahan, Iran, ³Student Research Committee, School of Nursing and Midwifery, Isfahan University of Medical Sciences, Isfahan, Iran

Address for correspondence:
Mrs. Tahmineh Dadkhahtehrani,
Midwifery Department, Nursing
and Midwifery Research
Center, School of Nursing and
Midwifery, Isfahan University of
Medical Sciences, Isfahan, Iran.
E-mail: tdahmineh@gmail.com

Access this article online

Website: www.ijnmrjournal.net

DOI: 10.4103/ijnmr.IJNMR_100_19

Quick Response Code:



and the midwife's uptake of physical exercise. Those midwives who had spent longer in the profession and exercised, scored low burnout levels.^[5,6]

A study showed that Psychological Empowerment (PE) was associated with JB.^[7] PE is a motivational orientation composed of four cognitions including meaning (find their jobs meaningful), competence (feel competent to successfully perform job tasks), autonomy (feel they have sufficient autonomy at work), and impact (believe their actions can impact their work environment). PE indicates that an individual feels motivated and competent to actively accomplish job tasks, and therefore, represents a job adjustment indicator.^[1,2]

The midwifery profession involves great dangers and it is impossible to make a mistake or make a wrong decision. Midwives give care and advice for pregnant women during the pregnancy, labor, and postpartum period. They have to assist at birth individually and care the newborn babies. All mothers in labor are entitled to receive respect, correct information, guidance, and the patient answers for their questions. Midwifery is a very critical profession because in the labor-room the precise observation of the mother's/baby's health and assessment of labor progress need constant and careful attention to make the correct decision, as well as, a great skill to manage the critical situations. Therefore, midwives are at high risk for job burnout.^[5,8]

Reduction of child mortality and improvement of maternal health are two components of third-millennium development goals and midwives are one of the most significant health practitioners to give services to mothers and children at first line. Hence, the detection of factors relating to their job burnout is necessary to improve their psychological status and prevent their burnout to improve the quality of their services. There are some studies on the association of JB with demographic factors in midwives but there is no published study about correlation of JB and PE (accessible studies have conducted among nurses, teachers, healthcare providers, and so on). Thus, the present study was designed and conducted to assess the correlation between JB and PE in midwives working in the labor ward of hospitals.

Materials and Methods

This is cross-sectional correlational research study conducted on 282 midwives working in the labor ward of all hospitals in Isfahan (Iran) from 5 January to 10 February 2018. All private ($n = 8$) and governmental hospitals ($n = 11$) both educational and noneducational ones were included the study. The sample size was calculated as 257 with a two-tail α set at 0.05 and β set at 0.90 and probability at 0.20. Considering an estimated 10% dropout rate, 282 participants were included the study. Inclusion criteria were; having at least 1 year of work experience in labor ward, having any certification in midwifery, having no history of chronic or acute systemic/psychological diseases

according her declares, having no history of stressing events such as family members/husband death, and divorce as she feels stress based on Holmes-Rahe stress inventory.

The participants were enrolled through convenient sampling. The participants with incomplete questionnaires were excluded ($n = 2$). The data were collected using a self-administered three-section questionnaire including demographic information, Spreitzer's Psychological Empowerment Questionnaire (PEQ), and Maslach Burnout Inventory (MBI).

PEQ has been designed in 1995 by Spreitzer. This questionnaire consists of 12 items and four domains including meaning (find their jobs meaningful), competence (feel competent to successfully perform job tasks), autonomy (feel they have sufficient autonomy at work), and impact (believe their actions can impact their work environment) (3 items in each domain). Each item scores 1–5 and the mean of the total score of the questionnaire is 12–60 (12–27: low, 28–43: intermediate, 44–60: high) and total score of each domain is 3–15 (3–6: low, 7–10 intermediate, 11–16 high).^[4] The tool was first applied in Iran by Eskandari *et al.* after taking permission from the creator and translating to Persian. They reported the tool's validity and reliability indices as 0.92 and 0.73, respectively.^[9] Ghaniyoun, after giving the questionnaire to 30 research units, reported the questionnaire's reliability using Cronbach's alpha 0.83, 0.84, 0.83, and 0.83 for meaning, competence, independence (autonomy), and impact domains, respectively.^[10] The internal consistency coefficient of the four subscales ranged from 0.83 to 0.90 in a study in China.^[11] In the present study, Cronbach's alpha was 0.85.

Burnout was measured with Maslach Burnout Inventory (MBI) including 22 items with a seven-option rating scale (0–6) and three domains including emotional exhaustion (9 items, score range: 0–54), depersonalization (5 items, score range: 0–30), and personal accomplishment (8 items, score range: 0–48). Emotional exhaustion subscale describes the feelings of being emotionally overextended and exhausted by one's work. Depersonalization subscale describes an unfeeling and impersonal response towards recipients of one's care or service. Personal accomplishment subscale describes feelings of competence and successful achievement in one's work with people.

High scores in emotional exhaustion and depersonalization along with the low score in personal accomplishment demonstrate the high levels of JB. Each domain scores separately and the total score was not calculated.^[12]

In emotional exhaustion domain, the scores of ≤ 16 , 17–26, and ≥ 27 indicate low, intermediate, and high levels, respectively. In depersonalization domain, mean scores of ≤ 6 , 7–11, and ≥ 12 suggest low, intermediate, and high

levels, respectively. In personal competence domain, the scores of ≤ 31 , 32–38, and ≥ 39 suggest low, intermediate, and high levels, respectively. The developers of the scale calculated the reliability for the domains as 0.9, 0.79, and 0.71 for emotional exhaustion, depersonalization, and personal accomplishment, respectively.^[12] In the present study, internal consistency was calculated by Cronbach's alpha 0.88 indicating acceptable reliability.

The normal distribution of the data was assessed and approved by the Kolmogorov-Smirnov test. Partial correlation was used to assess the correlation between PE and JB. Linear regression analysis was used to detect the predictors of JB. The data were analyzed using SPSS v22 (IBM, Armonk, NY, United States of America). $p < 0.05$ was considered as significant level.

Ethical consideration

The present research was approved by the Ethical Committee of Isfahan University of Medical Sciences (IR.MUI.REC.1396.3.619). The researcher explained the objectives of the study. Participation in the study was voluntary and the participants signed an informed written consent form. The questionnaires were anonymous and the researcher gave them assurance of confidentiality.

Results

Two participants with incomplete questionnaires were excluded and two other ones were substituted. Data analysis were conducted on 282 participants. Mean (SD) age of the participants was 34.75 (8.22) years. Most of them had bachelor of science degree ($n = 255$, 90.40%), were married ($N = 206$, 73%), had contractual employment ($n = 163$, 57.30%), and were living in intermediate distance from workplace ($n = 142$, 50.30%) [Table 1].

Total PE and two domains of meaning and competence were at a high level whereas two domains of autonomy and impact were at intermediate level [Table 2]. Regarding the domains of JB, emotional exhaustion and accomplishment were at the intermediate level and depersonalization was at a low level [Table 2]. None of the demographic variables had a significant association with PE and JB.

There were statistically positive correlations between personal accomplishment with meaning and competence ($r = 0.16$, $p = 0.020$; $r = 0.27$, $p < 0.001$, respectively). The correlation was stronger between personal accomplishment and competence [Table 3]. Autonomy was the only significant predictive variable for emotional exhaustion and depersonalization, respectively ($\beta = 0.17$, $t_{235} = 2.34$, $p = 0.020$; $\beta = 0.09$, $t_{249} = 1.29$, $p = 0.020$) as well as competency was the only significant predictive variable for personal accomplishment ($\beta = 0.29$, $t_{263} = 4.20$, $p < 0.001$) [Table 4].

Table 1: Demographic characteristics of participants

Variables	N (%)
Education level	
Technician	7 (2.50)
Bachelor	255 (90.40)
Master	20 (7.10)
Job type	
Official employment	119 (42.30)
Contractual employment	163 (57.70)
Marital status	
Married	206 (73.00)
Single	76 (27.00)
Distance between home and work place	
Far	40 (14.20)
Intermediate	142 (50.30)
Close	100 (35.50)
Variables	Mean (SD)
Age (year)	34.78 (8.22)
Job experience (year)	10.09 (8.09)
Number of shifts in a month	26.15 (4.11)
Number of night shifts in a month	6.53 (2.46)

Table 2: Descriptive statistics of psychological empowerment and job burnout domains in participants

Variables	Mean (SD)
Psychological Empowerment (total)	46.98 (2.09)
Meaning	13.53 (0.55)
Competence	13.08 (0.54)
Autonomy	10.05 (0.93)
Impact	10.26 (0.84)
Job Burnout	
Emotional Exhaustion	18.77 (12.61)
Depersonalization	5.41 (6.70)
Personal Accomplishment	34.80 (11.34)

The results revealed that domains of PE were significant predictors of the variance of JB only in the domain of personal accomplishment ($R^2 = 0.10$, $F_6 = 4.85$, $p > 0.001$) [Table 5]. It is noticeable that the distribution of main variables was normal.

Discussion

In the present study, emotional exhaustion and personal accomplishment of midwives were at the intermediate level and their depersonalization was at a low level. Besides, the highest frequencies of job burnout domains were for the low levels of emotional exhaustion and depersonalization, and high levels of personal accomplishment that are nearly in accordance to findings of a study by Esfahani *et al.* (2011) conducted in Isfahan on midwives. They reported emotional exhaustion at an intermediate level, depersonalization at a low level, and personal accomplishment at a high level; also, they showed that the highest frequencies of job burnout domains were for the low levels of emotional exhaustion

and depersonalization, and high levels of personal performance (accomplishment).^[13] Comparison of results showed that the midwives of two studies were similarly at a low level for depersonalization and intermediate level for emotional exhaustion but its mean score was higher in the present study. Moreover, the midwives were at the intermediate level for personal accomplishment in the present study and at a high level in that study.^[13] Several factors may explain these differences. Firstly, the mean age and work experience of the midwives were lower in our study; secondly, they were in contractual employment situation more frequent than the abovementioned study that could result in higher emotional exhaustion and lower personal accomplishment. To justify these various results, Maslach stated that several factors could induce or influence job burnout such as individual personality, attitude toward work, the factors related to the type of work, the stressors related to work including workload, time limitation, and organization characteristics.^[14]

In our study, total PE and two domains of meaning and competence were at a high level and two domains of autonomy and impact were at the intermediate level. Based on mean and standard deviation, the order of the domains from higher to lower was meaning, competence, autonomy and impact, respectively. In congruent with our study, another study in Iran on 340 nurses showed that total score

of PE was in high level and the order of four domains was competence, meaning, autonomy and impact, respectively from higher to lower^[15] and this order supports the findings of yet another study.^[16]

A systematic review in Iran reported that the order of four domains was competence, meaning, impact, and autonomy, respectively from higher to lower.^[17] Another study in Iran showed that out of four domains of PE, competence had the most significant role in PE.^[18] Based on the results of various studies, it seems that among domains of PE, meaning and competence gain higher scores that our findings support them.

The findings showed that JB had no significant relationship with demographic variables including marital status, age, job years, the level of education, the number of shifts in a month, the number of night-shifts in a month, and the distance between workplace and home. This finding was consistent with another study on midwives of Isfahan that reported no significant relations between JB domains and the variables of marital status, the number of children, the level of education, and residential status, although, they found a significant inverse correlation between age and depersonalization.^[13]

To our knowledge, the present study is the first research about the correlation between PE and JB among midwives; so, we must compare our findings with some studies on nurses.

Table 3: Correlation between domains of psychological empowerment and domains of job burnout in participants

Variables	Burnout domains						
	Emotional exhaustion		Depersonalization		Personal accomplishment		
	<i>r</i>	<i>p</i> value	<i>r</i>	<i>p</i> value	<i>r</i>	<i>p</i> value	
Psychological Empowerment (total and domains)	Total Psychological Empowerment	-0.02	0.770	-0.10	0.840	0.10	0.130
	Meaning	-0.10	0.140	-0.08	0.230	0.16	0.020
	Competence	-0.06	0.390	-0.08	0.230	0.27	<0.001
	Autonomy	0.90	0.150	0.07	0.270	-0.006	0.920
	Impact	-0.05	0.440	-0.01	0.890	-0.02	0.700

r: correlation coefficient

Table 4: Linear regression of psychological empowerment and job burnout

Domains of Job Burnout	Domains of Psychological Empowerment	β	Confidence Interval 95%		<i>t</i>	<i>p</i>
			Lower Bound	Upper Bound		
Emotional Exhaustion	Meaning	-0.11	-5.86	0.87	-1.46	0.150
	Competence	-0.03	-4.33	2.79	-0.42	0.670
	Autonomy	0.17	0.38	4.47	2.34	0.020
	Impact	-0.08	-3.43	1.09	-1.02	0.310
Depersonalization	Meaning	-0.06	-2.40	1.03	-0.79	0.430
	Competence	-0.14	-3.46	0.07	-1.89	0.060
	Autonomy	0.09	-0.36	1.70	1.29	0.020
	Impact	0.04	-0.87	1.45	0.49	0.630
Personal Accomplishment	Meaning	0.06	-1.47	4.14	0.94	0.350
	Competence	0.29	3.32	9.18	4.20	<0.001
	Autonomy	-0.05	-2.31	1.10	-0.70	0.480
	Impact	-0.13	-3.69	0.09	-1.88	0.060

Table 5: Model summary of regression analysis for selected variables (meaning, competence, autonomy, impact) predicting job burnout status

Burnout domains	Predictors	Sum of squares	F	df	p	R	R ²	Adjusted R ²
Emotional exhaustion	Meaning	1386.70	1.47	6	0.180	0.19	0.04	0.01
	Competence							
	Autonomy							
	Impact							
Depersonalization	Meaning	338.13	1.29	6	0.270	0.17	0.03	0.007
	Competence							
	Autonomy							
	Impact							
Personal accomplishment	Meaning	3620.97	4.85	6	<0.001	0.32	0.10	0.08
	Competence							
	Autonomy							
	Impact							

The results of present study showed no significant correlation between total mean score of PE and three domains of JB that was in contrast to some studies in China,^[19] Egypt,^[2] Iran,^[20] and the USA^[4] that reported significant negative association between PE and JB among nurses; as higher PE was associated with lower JB. Moreover, our results do not support the findings of the study that showed PE program based on psychodrama increased PE and decreased the levels of JB in oncology nurses.^[21] Also, our finding was inconsistent with a study that showed PE had significant “net effects” on JB and PE may partially mediate the relationship between resilience and JB.^[11] A study on 285 operational staff of Tehran emergency center showed a significantly strong negative correlation between JB and all four subscales of PE including competence, self-determination (autonomy), impact, and meaning.^[10]

In the present study, the only personal accomplishment was positively correlated with two domains of meaning and competence. Also, personal accomplishment had a stronger correlation with competence. This finding supports another study that presented positive relations between personal accomplishment with meaning and competence.

Correspondingly, they reported significant negative relations between meaning and competence with two domains of the emotional exhaustion and depersonalization of burnout.^[2] Similarly, a meta-analysis reported a weak correlation between the total score of PE and emotional exhaustion.^[22] Our findings do not completely support that because we found insignificant negative correlations between meaning, competence, and impact with emotional exhaustion and depersonalization.

Another study in Canada indicated that healthcare workers with higher meaning and competence experienced less JB. They found out only the meaning cognition had consistent main effects on the three burnout symptoms once the

demographic variables and stressors were controlled. They stated that individuals who had a sense of competence and meaning in their job would be less likely to experience JB, beyond the effects of stressors.^[1]

We did not find a significant association between impact and autonomy with three domains of JB. In contrast, another study demonstrated that all four PE cognitions would exert a significant main effect on all three domains of JB which would hold beyond the effects of controls and stressors.^[1] Based on a study, PE was found as another significant factor affecting emotional exhaustion and personal accomplishment.^[2] In the present study, linear regression analysis showed that autonomy was the only significant predictive variable for emotional exhaustion and depersonalization; also, competence was the only significant predictive variable for personal accomplishment. In contrast, the meaning cognition significantly predicted cynicism (depersonalization) based on another study.^[1] Model summary of regression analysis revealed that the domains of PE were significant predictors of the variance of JB only in the domain of personal accomplishment. The partial correlation coefficient was calculated with controlling for age, job experience, number of shifts in a month, and number of night shifts in a month.

In the present study, linear regression analysis showed that the domains of PE could predict 4%, 3%, and 10% of JB variance in domains of emotional exhaustion, depersonalization, and personal accomplishment respectively. Consistent with us, a study in Iran showed that PE could predict 29% of professional burnout variance and PE could explain 54% of JB variance indirectly with the mediator role of perceived stress.^[23]

The discrepancy between the findings of the present study with other similar studies is somehow reasonable. Firstly, the research samples in similar studies are nurses and healthcare workers but the nature of midwifery is different

from nursing and other professions in terms of diagnosis and management. Secondly, the sample size could affect the significance level of correlation; hence, repetition of study with more samples may result in different findings. Lastly, the various structures and policies of different organizations as well as different religions and spiritual/moral values could result in different results. In the present study, convenience sampling was a limitation which could decline generalizability of the findings.

Conclusion

According to the results, to increase personal accomplishment (to decline job burnout), meaning and competence could be promoted. Hence, health policymakers, the managers of hospitals, and education deputy of midwifery colleges should take some measures to improve their meaning cognition of job and competence such as the provision of sufficient opportunities for achieving professional competence through attendance in continuous training programs.

Furthermore, considering that sense of autonomy was the only significant predictive variable for emotional exhaustion and depersonalization, it is necessary to promote the authority and professional situation of midwives.

Acknowledgments

This article has been derived from a thesis research project. We would like to appreciate the Research Deputy of Isfahan University of Medical Sciences for approval of this research (approval code: 396619) as well as the managers of the hospitals and the midwives for their cooperation.

Financial support and sponsorship

Research Deputy of Isfahan University of Medical Sciences

Conflict of interest

Nothing to declare.

References

- Boudrias JS, Morin AJ, Brodeur MM. Role of psychological empowerment in the reduction of burnout in Canadian healthcare workers. *Nurs Health Sci* 2012;14:8-17.
- El Dahshan MEA, Dorgham LS. The effect of structural and psychological empowerment on occupational burnout in staff nurses working in Shebin El-Kom hospitals, Menoufiya governemate, Egypt. *Life Sci J* 2013;10:3447-56.
- Trbojević-Stanković J, Stojimirović B, Soldatović I, Petrović D, Nešić D, Simić S. Work-related factors as predictors of burnout in serbian nurses working in hemodialysis. *Nephrol Nurs J* 2015;42:553-61.
- O'Brien JL. Relationships among structural empowerment, psychological empowerment, and burnout in registered staff nurses working in outpatient dialysis centers. *Nephrol Nurs J* 2011;38:475-82.
- Mollart L, Skinner VM, Newing C, Foureur M. Factors that may influence midwives work-related stress and burnout. *Women Birth* 2013;26:26-32.
- Zolala S, Almasi-Hashiani A, Akrami F. Severity and frequency of moral distress among midwives working in birth centers. *Nurs Ethics* 2018;26:2364-72.
- Çavus MF, Demir Y. The impacts of structural and psychological empowerment on burnout: A research on staff nurses in Turkish state Hospitals. *Canadian Soc Sci* 2010;6:63-72.
- Safaei M, Abedian Z, Hoseini S, Mazloun S. The effectiveness of aerobic training in leisure time on burnout of midwives: A randomized clinical trial. *Iran J Obstet Gynecol Infertil* 2014;17:16-22.
- Eskandari F, Pazargadi M, Tafreshi M, Majd H. The survey of relationship between structural and psychological empowerment and organizational commitment in Zanjan Province Hospital nurses. Tehran: Shahid Beheshti University of Medical Sciences and Health Services; 2010.
- Ghaniyoun A, Shakeri K, Heidari M. The association of psychological empowerment and job burnout in operational staff of Tehran emergency center. *Indian J Crit Care Med* 2017;21:563-67.
- Tian X, Liu C, Zou G, Li G, Kong L, Li P. Positive resources for combating job burnout among Chinese telephone operators: Resilience and psychological empowerment. *Psychiatry Res* 2015;228:411-5.
- Maslach C, Jackson SE. The measurement of experienced burnout. *J Organizational Behav* 1981;2:99-113.
- Esfahani MS, Mirzaee M, Boroumandfar K, Abedi MR. Job burnout and its relation with personality traits among the midwives working in Isfahan, Iran. *Iran J Nurs Midwifery Res* 2012;17:220-4.
- Maslach C, Schaufeli WB, Leiter MP. Job burnout. *Ann Rev Psychol* 2001;52:397-422.
- Bonyad Karizme T, Rahimi Pordanjani T, Mohamadzadeh Ebrahimi A. The relationships between structural and psychological empowerment and job satisfaction among nurses. *J Hayat* 2016;22:201-15.
- DiNapoli JM, O'Flaherty D, Musil C, Clavelle JT, Fitzpatrick JJ. The relationship of clinical nurses' perceptions of structural and psychological empowerment and engagement on their unit. *J Nurs Admin* 2016;46:95-100.
- Royan S, Alikhani M, Mohseni M, Alirezaei S, Khosravizadeh O, Moosavi A. Nurses' psychological empowerment in Iran: A systematic review and meta-analysis. *Ann Trop Med Public Health* 2017;10:1558.
- Ebrahimi P, Malmoon Z, Zaboli R. Nursing workloads and psychological empowerment in hospitals: Structural equations modeling. *Hospital Pract Res* 2017;2:84-9.
- Chen Y-M, Fang J-B. Correlation between nursing work environment and nurse burnout, job satisfaction, and turnover intention in the western region of Mainland China. *Hu Li Za Zhi* 2016;63:87.
- Rashidazar S, Alimohammadzadeh K, Akhyani N. Investigation of the relationship between structural empowerment and reduction of nurses' occupational stress and job burnout (case study: Nurses of public hospitals in Tehran). *Revista Latinoamericana de Hipertension* 2018;13:547-53.
- Özbaş AA, Tel H. The effect of a psychological empowerment program based on psychodrama on empowerment perception and burnout levels in oncology nurses: Psychological empowerment in oncology nurses. *Palliat Supportive Care* 2016;14:393-401.
- Zhang X, Ye H, Li Y. Correlates of structural empowerment, psychological empowerment and emotional exhaustion among registered nurses: A meta-analysis. *Appl Nurs Res* 2018;42:9-16.
- Asgari F, Jobaneh RG, Salimi H. Investigation of the correlation between psychological empowerment and professional burnout with mediator role of perceived stress among nurses. *Qom Univ Med Sci J* 2018;11:92-102.