

Access this article online
Quick Response Code:

Website: www.jehp.net
DOI: 10.4103/jehp.jehp_239_20

The relationship between empowerment and job burnout in auxiliary health workers in 2019

Nasrin Shokrpour, Leila Bazrafkan¹, Marzieh Talebi

Abstract:

INTRODUCTION: Health-care workers in community service professions are the formerly candidate for occupation burnout. This study aimed to investigate the relationship between empowerment and job burnout among auxiliary health workers (behvarzan) at Fasa University of Medical Sciences.

MATERIALS AND METHODS: In this descriptive-analytical study, 120 auxiliary health workers were enrolled using the census. Spritzer's psychological empowerment and Maslach burnout inventory questionnaires were used to collect the data. Then, they were analyzed through the SPSS software, using descriptive analytical tests.

RESULTS: The findings of this study revealed that the auxiliary health workers' empowerment was in the range of 22–75 with a mean \pm standard deviation [SD] of 48.5 ± 9.71 , which is in a fairly high level considering the highest score (75) in this scale. Moreover, with respect to burnout (mean \pm SD of 58.03 ± 18.64), 36 participants (30%) had low level of burnout, 69 subjects (57.5%) were at the intermediate level, and 15 (12.5%) suffered high levels of job burnout. According to the results of this study, there were a high correlation and negative relationship ($r = 0.406$, $P > 0.001$) between psychological empowerment and job burnout among the auxiliary health workers. On the other hand, all empowerment components (competence, autonomy or independence, effectiveness, and trust) had a reverse and significant association with burnout.

CONCLUSION: Based on the results of this study, the auxiliary health workers (behvarzan) were in a good range of empowerment; also, the dimensions of empowerment were correlated with job burnout in Fasa university-affiliated hospitals' health workers. On the other hand, demographic features had no association with these two factors. It is suggested that health authorities should take measures to empower the workers and identify and remove the effects of the various dimensions of job burnout among the health workers in these hospitals.

Keywords:

Auxiliary health workers (behvarz), job burnout, psychological empowerment

Introduction

With the increasing complexity of today's societies, the mission of organizations to meet societal expectations has become more sensitive and important. Undoubtedly, efficient and spontaneous human resources can be most effective for their growth and development and achieving the planned goals of the organization. On the other hand, lack of employees' satisfaction leads to job

burnout that, according to Mudallal *et al.*, is a widespread phenomenon characterized by a reduction in the employees' energy that manifests in emotional exhaustion, lack of motivation, and feelings of frustration and may lead to reductions in work efficacy.^[1]

According to Buck *et al.*, the health workers' knowledge, education, and experiences in contact with the patients can lead to adopting healthy lifestyles by the patients, so they can be a good role model for the patients to adopt health behaviors.^[2] However, the

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: WKHLRPMedknow_reprints@wolterskluwer.com

How to cite this article: Shokrpour N, Bazrafkan L, Talebi M. The relationship between empowerment and job burnout in auxiliary health workers in 2019. *J Edu Health Promot* 2021;10:27.

Departments of English and ¹Medical Education, Shiraz University of Medical Sciences, Shiraz, Iran

Address for correspondence:

Prof. Leila Bazrafkan, Department of Medical Education, Shiraz University of Medical Sciences, Shiraz, Iran. E-mail: bazrafkan@gmail.com

Received: 18-03-2020

Accepted: 26-09-2020

Published: 28-01-2021

studies have shown that the health workers, especially auxiliary health workers (behvarzan) do not apply the WHO recommendations in their workplace for promotion of health sufficiently.^[3] On the other hand, job burnout among the health workers is the result of overwork and chronic stress over time that can lead to physical, emotional, behavioral, and interpersonal problems.^[4] Nursing health-care work in its nature can be one of those occupations that are prone to burnout and thus reduce the psychological health of the health workers.^[5] At present, due to covid-19 and the high load of work on the health workers, it is not clearly known how much they are suffering from burnout and also the extent of their empowerment and the components of empowerment which can predict their burnout should be clarified, so that we can empower them and prevent their burn out in this period of the spread of epidemic.

Some traits in individuals can prevent them from getting tired. Psychological empowerment leads to strength and increases self-esteem and provokes one's voluntary activism and willingness to pursue a career.^[6,7] Among nurses and health workers, it also leads to organizational trust and commitment, job satisfaction, productivity, participation in decision making, high quality care, patient satisfaction, self-sufficiency, sense of independence, self-confidence, responsibility, and job control, resulting in a decrease in the job stress.^[8] Furthermore, psychological empowerment has a positive effect on the nurses' job satisfaction^[9] and patients' satisfaction.^[10] Rezaei Kelidbari *et al.* showed that employees' psychological empowerment led to organizational commitment.^[11]

Thus, the need to nurture the employees who have self-management abilities has made human resource empowerment a new intellectual framework attracting the attention of many experts.^[12] In other words, empowering human resources as a new, intrinsic motivational approach to the job means freeing up the internal forces of employees as well as providing the context and creating opportunities for individuals to develop their talents, abilities, and competencies.^[13] On the other hand, psychological empowerment is a key element which gives the employees the freedom to practice their work. It is a process that, according to Spritzer, has four dimensions: competence, i.e., the degree to which a person can perform job tasks skillfully; autonomy, i.e., the right to choose and have the freedom to act in determining the activities necessary for the performance of work duties.

Nursalam *et al.* in 2018 conducted a study on burnout syndrome and quality of nursing work life showing that empowerment decreased burnout syndrome in nurses. In turn, burnout syndrome, as the indicator of

personal achievement, could affect the quality of life of the nurses.^[14] Therefore, empowerment of the workers is a constant move, and its importance is ever-increasing these days.^[15]

Since long-term stresses in occupations such as nursing and well-being lead to job burnout and a decrease in their efficiency and empowerment, it is particularly important to conduct research on stress and job burnout as well as staff empowerment, especially in those working in hospitals and health services, including nurses and health workers.^[16] The findings of another researcher show that there is a significant relationship between psychological ability and perceived stress reduction.^[17]

Job burnout is a psychological process caused by job stress and is associated with high levels of emotional exhaustion, high personality depersonalization, and low self-efficacy.^[18] Emotional fatigue refers to a reduction in one's emotional ability in which one does not have enough energy to perform the tasks. In depersonalization, one also loses his job and disregards his job, performance, and colleagues. Inadequate self-efficacy also reduces one's perception of work abilities, in which case the individual is no longer able to perform his/her duties as before.^[19] Therefore, job burnout can decrease job performance and interaction with others, increase absenteeism, quit work,^[20] increase job dissatisfaction,^[21] and decrease job commitment.^[22]

In this regard, Kawusz and Demir found that psychological empowerment has a positive relationship with emotional exhaustion and a negative relationship with self-efficacy.^[23] Studies have emphasized the role of human resources management in burnout, aiming to increase health-care systems performance and efficiency. In this regard, Papathanasiou *et al.* came to the conclusion that motivation, leadership, empowerment and confidence are the significant factors which are suggested to be considered by health authorities because they are strongly related with burnout levels.^[24]

Always working with people and the environment can affect mental health and cause or promote quality of work. Job burnout is a pathological response, the symptoms of which include severe fatigue, reduced self-esteem, feelings of inadequacy and job dissatisfaction, and vague and unrecognizable physical complaints, irritability, decreased focus, and reduced performance.^[25]

Job burnout is more prevalent in employees who need to work calmly and efficiently in crisis and chaotic situations. Rescuers, emergency departments of hospitals, or crisis intervention consultants are in this situation.^[26]

Most of the studies on burnout have been done on nurses in hospitals, indicating that psychological capital could be an appropriate executive strategy to reduce job burnout.^[27]

In another study, it was found that there was a significant correlation between psychological empowerment and perceived stress with job burnout, as well as between psychological empowerment and perceived stress.^[28] Even studies on students have shown that psychological empowerment can lead to the lower levels of burnout.^[29]

However, a study conducted in 2010 revealed that there was a negative relationship between psychological empowerment and job burnout, and that psychological empowerment could not act as an independent predictor of job burnout.^[30] Therefore, review and recognition of empowerment and its relationship with job burnout and its dimensions can be an important step in staff empowerment.

The present study can be of significance since in the studies conducted up to now the researchers have studied on the nurses, not other sectors of health work, with a focus on burnout in general; also, the relationship between the variables included in the Maslach and Spritzer's models and the contribution of each dimension to burnout have not been investigated yet; moreover, in spite of the significant role the health workers (behvarzes) play in the health of patients, this is the first study on this group of healthcare team. In this study, due to the high work load on the health workers, behvarzan, who work in Fasa hospitals due to Covid-19 and lack of studies in this field, we aimed to assess job burnout among them and determine its relationship with their level of empowerment. Furthermore, we aimed to determine the relationship between demographic features and empowerment and job burnout among the health-care workers.

Materials and Methods

The current research is an applied descriptive-analytical study. The participants consisted of 120 auxiliary health workers, (behvarz) at Fasa University of Medical Sciences. Due to the limited number of the target population, the sampling method used was census, and all health workers were recruited in this study.

The instruments used in this study were two questionnaires: Empowerment Scale and Job Burnout Scale. The empowerment scale was developed by Spritzer^[6] and contains 15 items in four dimensions of psychological empowerment, namely competence (questions 1–3), autonomy (questions 4–6), effectiveness (questions 7–9), meaningfulness or significance (questions 10–12),

and trust (questions 13–15). The items are scored in a seven-point Likert scale ranging from completely agree to completely disagree. Each item is scored one point. The total score is obtained by adding the scores of all items in the questionnaire, and the higher the score, the more the ability. The scores range from 1 to 7, with 1 the least level of empowerment and 7 the highest level.

The second instrument used was burnout scale developed by Maslach in 1985 and frequently used in research studies. The questionnaire consists of 22 questions in three dimensions of emotional exhaustion [questions 1, 2, 3, 6, 8, 13, 14, 16, and 21], depersonalization [questions 5, 10, 11, 15, and 22], and personal performance [questions 4, 7, 9, 12, 17, 18, 19, and 20]. In the emotional exhaustion dimension, scores over 40 show high, 26–29 moderate, and under 25 low levels of exhaustion; in depersonalization dimension scores over 15 show severe, 7–14 moderate and under 6 low level of depersonalization. In personal performance dimension, scores under 36 show high, 37–43 moderate and over 44 low level of personal inefficiency. It is especially used to measure the phenomenon of job burnout in professional groups such as doctors, teachers, and so on.^[31] These 22 items are scored based on a 7-point Likert scale (never 0, very rarely 1, relatively low 2, sometimes 3, medium 4, most often 5, and always 6). The final score of the participants' burnout is obtained by summing the scores of each item; the total score is 56.

In this study, the questionnaires used were standard; however, the validity of burnout questionnaire was confirmed by the professors of medical education in our department and that of the empowerment questionnaire was verified locally by Abdollahi and Abdul Rahim (2006)^[13] and in other countries by Spritzers.^[6] Furthermore, the reliability of this scale has also been favorably reported in another study conducted in Iran by Mirkamali and Nastizae (2011).^[32]

The reliability of burnout questionnaire has been reported in many researches. However, the reliability of the questionnaires used in this study as a pilot study was assessed using the Cronbach's alpha. The results showed that the reliability coefficients of Maslach burnout tools and Spritzers empowerment in this study were 0.89 and 0.87, respectively. These values confirm the high reliability of the tools used in this study.

The questionnaires were distributed among the workers, and we asked them to return them within 1 week. One hundred and sixteen questionnaires were returned completely. The participants were ensured that they were free to withdraw from the study any time they wanted and the study was approved by the ethics committee of Shiraz University of Medical Sciences with the code

number of IR.SUMS.REC1398.1364. To consider ethical principles, we obtained the informed consent forms from all the participants.

Data analysis

In this study, data analysis was done in two descriptive and inferential statistics sections. In the descriptive statistics section, the participants' demographic features, including age, sex, and job status, and also the mean and standard deviation (SD) of the scores on burnout and empowerment questionnaires were measured. In the inferential section, we tested the research questions using the Pearson correlation coefficient test to determine the relationship between the variables under the study and multiple regression test to examine the predictive power of job burnout dimensions for empowerment. We also performed two independent *t*-tests to find the significance of the differences in the demographic features. We used the SPSS software version 22 to analyze the data.

Ethical considerations

To observe ethical principles, we obtained the participants' written informed consent forms and all of them participated in the study willingly. The study was approved by the ethics committee of Shiraz University of Medical Sciences with the code of IR.SUMS.REC.1398.1364.

Results

In the first part of this study, we performed descriptive statistics. The frequency distribution of health workers indicated that 36.9% of the respondents were men and 63.1% were women. The age range of the workers was 22–58 years with a mean of 35.16 years. The research findings also showed that 15 health workers (12.5% of health workers) were single and 102 (85.8% of health workers) of them were married. The majority of health workers ($n = 68$, 56.7%) were employed, 41 (34.2%) of them were working under contract, and 5 (4.2%) were in other employment states.

Based on the results of this study, the mean scores of health workers' job burnout and emotional exhaustion, based on the Maslach burnout scale (18–116), were 55.65 and 24.21 out of 56 (SD = 10.64), respectively. Furthermore, the mean score and SD of the depersonalization dimension were 9.55 ± 4.07 out of 24 and those of individual inefficiency were 21.97 ± 7.64 out of 44. The results also showed that 36 health workers (30%) had low burnout, 69 of them had (57.5%) moderate burnout, and 15 (12.5%) also suffered from severe burnout.

The results of the descriptive statistics performed on empowerment scores showed that the mean score of

empowerment in the health workers, based on Spritzer Empowerment Scale, was 58.03 (range = 22–75); therefore, the health workers were at a relatively high level of empowerment. The mean score and SD of the 116 selected responses on the competency component were 13.16 ± 2.36 . Furthermore, regarding the autonomy dimension, the mean score and SD were 12.66 ± 2.12 . Moreover, the mean and SD of self-efficacy were 11.04 ± 2.65 . The mean score and SD of significance component were 11.24 ± 2.30 and those of the trust component were 10.10 ± 3.17 .

In the inferential statistics section of this study, we used Pearson correlation test [Table 1].

The Pearson correlation coefficient and the significance level shown in Table ($r = -0.406$, $P = 0.001$) indicate that there is a negative and significant correlation between the level of empowerment of the health workers and their job burnout. In other words, as the level of burnout among health workers increases, their level of empowerment decreases and vice versa. As to the components of burnout, there was a significant negative correlation between job burnout and all of the empowerment components, including competence ($r = -0.234$, $P = 0.011$), autonomy or independence ($r = -0.201$, $P = 0.031$), significance ($r = -0.432$, $P = 0.001$), effectiveness ($r = -0.388$, $P = 0.001$), and trust ($r = -0.332$, $P = 0.011$). Job burnout rate among Fasa University of Medical Sciences health workers had the lowest and highest negative correlation with significance and autonomy components, respectively.

To answer the second research question in this study (Can the dimensions of burnout predict the empowerment of health workers in Fasa University of Medical Sciences?), first we used Pearson correlation test. The results are presented in Table 2.

It was shown that there was a negative significant relationship between job burnout and its components (emotional exhaustion, depersonalization, and personal

Table 1: The relationship between the levels of empowerment of health workers and their job burnout

Variables	Mean±SD	Correlation coefficient	Significance level
Job burnout	55.66±18.64	-0.406**	0.001
Empowerment	58.03±9.71		
Competence	13.16±2.36	-0.234*	0.011
Autonomy	12.66±2.12	-0.201*	0.031
Significance	11.24±2.30	-0.432**	0.001
Effectiveness (116)	11.04±2.65	-0.388*	0.001
Trust	10.10±3.17	-0/332*	0.001

**That the correlation coefficient is significant at 0.01 level, *That the correlation coefficient is significant at 0.05 level. SD=Standard deviation

inefficiency) with the empowerment of health workers. In other words, higher job burnout led to reduction in their empowerment at work.

Further, in order to investigate the predictive power of the components of job burnout (emotional exhaustion, depersonalization, and personal inefficiency) for the health workers' empowerment, we used multiple regression analysis, and the results are displayed in Table 3.

The results shown in Table 3 reveal that among the three dimensions of job burnout, emotional exhaustion as the first and foremost, and personal inefficiency in the second place of importance are the predictors of health work empowerment significantly (0.01 and 0.05) and could significantly predict the empowerment of health workers. Furthermore, the components of job burnout explained the empowerment of health workers (40.8). The depersonalization dimensions had no significant contribution in predicting the empowerment of health workers.

To find out if there is any significant difference between job burnout and empowerment of male and female, single and married, and health workers in different ages, we performed independent *t*-test; it was revealed that there was no significant difference between male and females' job burnout ($P = 0.615$, $t = 0.505$) and empowerment ($P = 0.279$, $t = 1.09$). Furthermore, there was no significant difference between single and married participants' job burnout ($t = 1.604$, $P = 0.109$) and empowerment ($t = 1.448$, $P = 0.150$). The result of Pearson correlation test showed that there was no correlation between age and job burnout ($r = 0.147$, $P = 0.151$) and also between age and empowerment of the participants ($r = 0.079$, $P = 0.445$).

Table 2: Pearson correlation coefficient between job burnout and its components with health workers' empowerment

Variable	Health workers empowerment	Significance level
Job burnout	-0.436**	0.001
Emotional exhaustion	-0.374**	0.001
Depersonalization	-0.222*	0.016
Individual inefficiency	-0.345**	0.001

**That the correlation coefficient is significant at 0.01 level, *That the correlation coefficient is significant at 0.05 level

Table 3: Multiple regression with simultaneous login to examine the predictive power of job burnout dimensions for empowerment

Model	β	β standard	Error	<i>R</i>	<i>R</i> ²	<i>t</i>	Significant
Constant	69.28		2.65	0.166	0.408	26.14	0.000
Emotional exhaustion	-0.245	-0.273	0.091			-2.69	0.008
Depersonalization	0.060	0.026	0.248			0.242	0.809
Personal inefficiency	-0.113	-0.215	0.133			-2.01	0.046

Discussion

Based on the results of this study, the participants have generally experienced a moderate level of burnout and their burnout status in each of the dimensions indicates that they suffer from the highest and lowest levels of burnout in the components of personal inefficiency and depersonalization, respectively. As to empowerment, the participants have a relatively high level in this regard. The highest score belonged to trust and the lowest to competence. Also, there was a negative and significant correlation between the level of empowerment of health workers and their job burnout; more specifically, all empowerment components had significant and inverse correlation with job burnout variables. Furthermore, the rate of job burnout among the participants had the lowest and highest negative correlation with the empowerment dimensions of significance and autonomy, respectively. The results of some studies in this field were somehow in the same line with those of the present study. For example, Asghari *et al.* showed that there was a significant correlation between psychological empowerment and perceived stress with a coefficient of -0.56 . However, they worked on nurses rather than health workers and focused on perceived stress rather than all the components of burnout.^[28] The results of our study are also consistent with those of several other studies.^[23,30,33]

The results of multiple regression analysis with simultaneous entry showed that the components of job burnout, namely emotional exhaustion and personal performance were able to significantly predict the empowerment of health workers. In this regard, Kawusz and Demir's research finding is partly consistent with our results because in their study empowerment had a negative relationship with emotional exhaustion and personal performance.^[23] Furthermore, Archers' results^[34] on the effect of lack of autonomy and independence (as one of the dimensions of psychological empowerment) on the increase in the teachers' job burnout is perfectly coordinated with the results of this study. Another result of the present study was the insignificant contribution of depersonalization to the staff empowerment, which was not observed in Kawusz and Demir's research on empowerment and depersonalization of communicative personality.^[23] In another study, Wang and Liu also

examined the effect of psychological empowerment on job stresses, suggesting that psychological empowerment can be influenced by personal emotion; preparing the environment can also prevent many disabilities and causes of stress in the workplace.^[35]

Moreover, there was no significant relationship between burnout and empowerment with demographic variables of health workers. In fact, psychological abilities significantly serve as effective coping strategies to deal with erosive and stressful factors, causing them to do their job more effectively and efficiently. As a result, these factors cause health workers to suffer from lower levels of job burnout. In the same line with our study, Akashe *et al.* found no relationship between demographic characteristics of the participants and their empowerment and burnout. The results of other studies are also consistent with our findings in this regard.^[33,36,37] In Akashe *et al.*'s study, there was only a difference with our study and that was the significant difference between single and married participants' burnout level, which was not found in our study. The reason might be the fact that the single health workers in our study (behvarzan) have reached an emotional stability, and are financially independent, as compared to the students in Akashe *et al.*'s study. Furthermore, unlike our study, Hajjhasani found that there was a significant and inverse relationship between job burnout and age and marital status.^[38] As Chunming *et al.* recommends, further understanding of the social and contextual determinants of burnout is essential toward identifying solutions to reduce and prevent burnout.^[39] Even in other fields such as educational contexts, burnout has been considered as an educational complication and promotion barrier which can be reduced through empowerment of the students, the fact that must be considered by authorities, whether in educational contexts, or health-care settings.^[40,41]

Conclusion

Based on the results of this study, although the auxiliary health workers (behvarzan) were mostly at a good level of empowerment, most of them suffered from burnout. Therefore, due to the inverse and negative correlation between these two factors, it is suggested that the authorities of the health systems should take measures to increase the abilities of this sector of health work and empower them so that burnout level is reduced among them. Moreover, it is recommended that the researchers should investigate the relationship between job burnout level and health work empowerment on the one hand and job satisfaction on the other.

Limitations of the study

Every research has a number of limitations and this study is no exception. Since it was done on the health workers

of a hospital in Fasa, we cannot generalize the current research results to other areas of medical sciences in other universities and provinces. Furthermore, because we selected our subjects from a governmental institution and there was much supervision by the authorities, data collection, and completing the questionnaires were difficult.

Acknowledgment

We would like to thank all the health workers in Fasa hospital affiliated to the Fasa University of Medical Sciences for the participation in this study.

Financial support and sponsorship

This study was not financially supported by any organization.

Conflicts of interest

There are no conflicts of interest.

References

1. Mudallal RH, Othman IW, Al Hassan NF. Nurses' Burnout: The influence of leader empowering behaviors, work conditions, and demographic traits. *Inquiry* 2017;54:46958017724944.
2. Buck KD, Roe D, Yanos P, Buck B, Fogley RL, Grant M, *et al.* Challenges to assisting with the recovery of personal identity and wellness for persons with serious mental illness: Considerations for mental health professionals. *Psychosis* 2013;5:134-43.
3. WHO Report. Global Health Risks Mortality and Burden of Dis-Ease Attributable to Selected Major Risks; 2009. Available from: http://www.who.int/healthinfo/global_burden_disease/GlobalHealthRisks_report_full.pdf. [Last accessed on 2014 Jun 25].
4. Pardakhtchi M, Ahmadi GH, Arezoomandi F. Survey of the relationship between the quality of life on work and job burnout in managers and teachers in Takestan schools. *QJ Educ Leadersh Adm* 2011;3:25-50.
5. Heidari M, Hassani P, Ghodusi M. Investigation of the correlation of burnout with mental health in medical staff of the Valyazr Hospital in Borujen. *J Hosp* 2015;14:137-44.
6. Spritzer GM. Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Acad Manag J* 1995;38:1442-65.
7. Wang G, Lee P. Psychological empowerment and job satisfaction: An Analysis of Interactive Effects. *Group Organ Manag* 2009;34:271-96.
8. Abili KH, Nastezaie N. Surveying the relationship between psychological empowerment and organizational commitment in nursing staff. *Toloo-E-Behdasht* 2010;26:1-14.
9. Yang J, Liu Y, Chen Y, Pan X. The effect of structural empowerment and organizational commitment on Chinese nurses' job satisfaction. *Appl Nurs Res*. 2014;27:186-91.
10. Kuokkanen L, Leino-Kilpi H, Numminen O, Isoaho H, Flinkman M, Meretoja R. Newly graduated nurses' empowerment regarding professional competence and other work-related factors. *BMC Nurs*. 2016;15:22.
11. Rezaei Kelidbari HR, Bagher Salimi S, Falahi SH. The role of psychological empowerment in improving the organizational commitment among Rasht Medical Science University staff with respect to their education levels. *J Dev Evol Manag* 2013;15:23-9.
12. Thomas KW, Velthouse BA. Cognitive element of empowerment: An interpretive model of intrinsic task motivation. *Acad Manage Rev* 1990;15:53-63.

13. Abdollahi B, Abdul Rahim A. *Empowering Staff: The Golden Key*. Tehran: Human Resource Management; 2006.
14. Nursalam N, Fibriansari RD, Yuwono SR, Hadi M, Efendi F, Bushy A. Development of an empowerment model for burnout syndrome and quality of nursing work life in Indonesia. *Int J Nurs Sci*. 2018;5:390-5.
15. Niari M, Nasrabadi M. Empowering the employees based on human capital strategy. *Tadbir J*. 2008;203:131-9.
16. van Bogaert P, Timmermans O, Weeks SM, van Heusden D, Wouters K, Franck E. Nursing unit teams matter: Impact of unit-level nurse practice environment, nurse work characteristics, and burnout on nurse reported job outcomes, and quality of care, and patient adverse events A cross-sectional survey. *Int J Nurs Stud* 2014;51:1123-34.
17. Khammarnia M, Ravangard R, Asadi H. The relationship of psychological empowerment and readiness for organizational changes in health workers, Lorestan, Iran. *J Pak Med Assoc* 2014;64:537-41.
18. Halbesleben JR, Buckley MR. Burnout in organizational life. *J Manage* 2004;30:859-79.
19. Rostami A, Noroozi A, Zarei A, Amiri M, Soleimani M. The relationship between job burnout and mental health with gender controlling role and resilience among elementary teachers. *Iran Occup Health Q* 2008;5:68-75.
20. Neveu JP. Jailed resources: Conservation of resources theory as applied to burnout among prison guards. *J Organ Behav* 2007;28:21-42.
21. Rimmerman A. Burnout among beginning rehabilitation workers in Israel and its relationship to social support, supervision, and job satisfaction. *Rehabil Couns Bull* 1989;32:243-7.
22. Lemkau J, Rafferty J, Gordon R Jr. Burnout and career-choice regret among family practice physicians in early practice. *Fam Pract Res J* 1994;14:213-22.
23. Kawusz MF, Demir Y. The impacts of structural and psychological empowerment on burnout: A research on staff nurses in Turkish state hospitals. *Can Soc Sci* 2010;6:63-72.
24. Papathanasiou IV, Fradelos EC, Kleisiaris CF, Tsaras K, Kalota MA, Kourkouta L. Motivation, leadership, empowerment and confidence: Their relation with nurses' burnout. *Mater Sociomed* 2014;26:405-10.
25. Schmitz N, Neumann W, Oppermann R. Stress, burnout and locus of control in German nurses. *Int J Nurs Stud* 2000;37:95-9.
26. Welch D, Medeiro SD, Tate G. *Beyond Burnout*. New Jersey: Prentice Hall Inc; 1982.
27. Nezamii A, Givarian H. An investigation of the effect of psychological capital on the burnout of nurses in a military hospital in Tehran. *Ebnesina IRIAF Health Administ* 2016;18:44-51.
28. Asghari F, Ghasemi Jubaneh R, Salimi H. Correlation between psychological empowerment and job burnout with the mediating role of perceived stress in nurses. *Qom Univ Med Sci J* 2017;11:92-102.
29. Tomaszewski-Barlem JG, Lunardi VL, Lunardi GL, Barlem EL, da Silveira RS, Vidal DA. Burnout syndrome among undergraduate nursing students at a public university. *Rev Lat Am Enfermagem* 2014;22:934-41.
30. O'Brien JL. *Structural Empowerment, Psychological Empowerment and Burnout in Registered Staff Nurses Working in Outpatient Dialysis Centers*. Rutgers State University of New Jersey-Newark. Unpublished Doctoral Dissertation; 2010.
31. Maslach C, Jackson SE. The measurement of experienced burnout. *J Occup Behav* 1981;2:99-113.
32. Mirkamali M, Nastizae N. The relationship between psychological empowerment and job satisfaction among nurses. *J Nurs Midwifery* 2011;8:104-9.
33. Akashe J, Sepehrmanesh Z, Ahmadvand A. The prevalence of job burnout among senior medical students in Kashan University of Medical Sciences. *Q Univ Med Sci J* 2010;4:37-41.
34. Arches J. Social structure, burnout, and job satisfaction. *Soc Work* 1991;36:202-6.
35. Wang S, Liu Y. Impact of professional nursing practice environment and psychological empowerment on nurses' work engagement: Test of structural equation modelling. *J Nurs Manag* 2015;23:287-96.
36. Bijari B, Abbasi A, Askari M. Job burnout and general health in medical students in Birjand University of Medical Sciences. *Teb Va Tazkieh* 2017;1:19-28.
37. Backović DV, Zivojinović JI, Maksi-Mović J, Maksimović M. Gender differences in academic stress and burnout among medical students in final years of education. *Psychiatr Danub* 2012;24:175.
38. Hajihassani M, Farhbakhsh K, Soleimani S. Determining the contribution of marriage conflicts, self, isolation, job stress, and control source in prediction of job burnout. *Cogn Anal Psychol Q* 1391;3:9-23.
39. Chunming WM, Harrison R, MacIntyre R, Travaglia J, Balasooriya C. Burnout in medical students: A systematic review of experiences in Chinese medical schools. *BMC Med Educ* 2017;17:217.
40. Chehrzad M, Ghanbari A, Sadat-Ebrahimi SR. Academic burnout as an educational complication and promotion barrier among undergraduate students: A cross-sectional study. *J Educ Health Promot* 2019;8:201.
41. Heshmati H, Shakibazadeh E, Foroushani AR, Sadeghi R. A comprehensive model of health education barriers of health-care system in Iran. *J Educ Health Promot* 2020;9:106.