



Effectiveness of Cognitive-Behavioral Anger Management Training on Aggression and Job Satisfaction on Nurses Working in Psychiatric Hospital

Maliheh Farahani,^{1,*} and Saeed Ebadie Zare²

¹Young Researchers and Elites Club, Science and Research Branch, Islamic Azad University, Tehran, Iran

²Faculty of Behavioral Sciences and Mental Health, Iran University of Medical Sciences, Tehran, Iran

*Corresponding author: Maliheh Farahani, Young Researchers and Elites Club, Science and Research Branch, Islamic Azad University, Torkamaneh St., No. 3, Tehran, Iran. Tel: +98-2144867174, Fax: +98-2188410965, E-mail: mp.farahani93@gmail.com

Received 2017 July 02; Revised 2017 October 29; Accepted 2018 February 14.

Abstract

Objectives: Nursing is one of the most stressful jobs. High aggression levels, low job satisfaction and early desertion are counted its problems. Present study investigated the effectiveness of cognitive - behavioral anger - management training on psychiatric hospital nurses.

Methods: It was a semi - experimental study, with pretest - posttest and control group design. The population of study included nurses working in a psychiatric hospital in Tehran and sample group was 44 nurses selected by convenience sampling method. Data collected by Ahvaz aggression inventory (AAI) and job satisfaction questionnaire (JSQ). After pretest the experimental group participated in 4 weekly sessions during a month. Then posttests were accomplished. Obtained data were analyzed by covariance analysis method and SPSS - 20 software.

Results: The present study showed significant effectiveness of anger - management training on aggression ($F = 26.750, P \leq 0.001$) and job satisfaction ($F = 6.071, P < 0.05$).

Conclusions: According to findings, anger - management training should be applied in psychiatric hospitals as stressful occupational environments to reduce aggression and improve job satisfaction of nurses.

Keywords: Aggression, Job Satisfaction, Anger - Management, Nurses, Psychiatry

1. Background

Anger is a natural and original emotion in human. It followed by aggressive behaviors and irreparable consequences, if it is not controlled. Therefore many studies have been done in this regard that show several contributing factors in anger including frustration [1], discrimination, social and financial problems and occupational stresses [2].

As nursing is one of the most stressful jobs encountering with high levels of stress, national association for occupational safety of America has introduced it as the most stressful job [3]. Nurses encounter more aggressive situations than other health staffs because of more communications with patients and their relatives [4]. It can increase their aggression [5]. Long term experiencing negative emotions, age, marital status, length of working experience, interpersonal relationship [6-8], working above 40 hours during the week, risky conditions and characteristics of patients [9] can cause different levels of ag-

gression in nurses. Accordingly working in accidents and emergency [10] and psychiatry wards [11, 12] may provide setting for experiencing high levels of job stress and predispose nurses to aggressive behaviors. Aggression may also be seen as externally driven which culturally is called "learned" aggression and the strongest correlation has been found between current violence and previous manifestations thereof. Accordingly, aggression is related to mechanisms that have further taken in terms of "perceived acquirement failure" theory, based on that, aggression is highly connected to the role of the state and the manifestation of powerlessness and is placed in a broad socio - economic context [13].

Nurses' aggression has also unpleasant consequences for patients, their family and health care system [14]. It may disturb their interpersonal relationships and decrease their job satisfaction [15, 16] as one of the most important effective factors on declining the quality and working efficiency in nurses [17, 18] and the main factor of turnover in different countries' nursing system [19-21]. Job

satisfaction is affected by various factors including working condition, communication skills [22], salary, type of hospital or the ward working in [23], age, marital status, recruitment status [24], emotional intelligence [25] and occupational stress [26]. Recent studies illustrate that occupational stress that is closely related to aggression, job satisfaction and turnover [26] is highly influenced by coping strategies and it is recommended to pay more attention to nurses' coping strategies which is effective on their health state and quality of nursing care [27]. Findings also demonstrated that the kind of coping strategy which is used, influences significantly the control of anger and aggression [28].

So, lack of anger-management skill on one hand may result to continuous tension experience in working environment [14] and on the other hand may cause repeating relational problems with patients and their relatives, negative effects on physical and mental health and reducing job satisfaction [29].

Related researches have earned considerable level of job dissatisfaction (between 54 to 64 percent) among nurses [18, 30] and that neglecting their job satisfaction in long term might result to commitment reduction [31], absence from work and making disturbance in organization's system at the organizational level [18] so that abandon this profession by nurses in recent years has become a worldwide problem so that one third of the UK nurses and one fifth of the USA nurses tended to leave this occupation [32].

According to a review of meta - analyses, cognitive - behavioral interventions have shown more consistent results for both anger and aggression in related to aggression treatment [33]. Other findings have also shown that cognitive - behavioral intervention improves attitude, increases anger - management knowledge and skill in different groups including students, tennis players and nurses [34-38] and the most impressive interventions are cognitive restructuring along with relaxation and regular unconditioning. These studies emphasize the necessity of existing cognitive - behavioral interventions among anger - management interventions [39].

Lack of preparation by mandatory violence prevention training is one of the main experiences perceived and reported by nurses [40]. Many researches have also shown that nurses' aggression and job satisfaction in psychiatric wards are highly influenced by occupational stress [12, 14], risky conditions and relational problems [9] and emphasized the importance of skills training previously. Anger expression would cause many damages for nurses, their family and health care system. However there are not considerable studies in this regard. The present study was done with the aim of investigating the effectiveness of

cognitive-behavioral anger - management training on aggression and job satisfaction among nurses in psychiatric hospital.

2. Methods

The present study is a semi - experimental research with pretest - posttest control group design. Population of the study included all nurses working in a psychiatric hospital in Tehran. Sample group consisted of 44 nurses were selected using convenience sampling method. After pretest, those who scored above medium in aggression and among medium category of job satisfaction and were satisfied were divided into two experimental and control groups accidentally. Then the experimental group participated in 4 weekly 2 hour sessions. After posttest completion, control group took part in the same sessions to comply with research ethics. Data were analyzed using covariance analysis method and SPSS - 20 soft - ware.

2.1. Ahvaz Aggression Inventory (AAI)

That is a self - report inventory with 30 items and a multiple choice scale includes "never", "rarely", "sometimes" and "always" are scored from 0 to 3 respectively. This inventory has three factors. The first factor is related to "anger and nervousness", the second one to "offensive and insulting" and the third one to "obstinacy and malice". The inventory was constructed by Zahedi far, Najarian and Shokrkon (2000). Subjects will reach a score between 0 and 90 and high scores represent high aggression. Validity was evaluated by Zahedifar, Najarian and Shokrkon (2000) through Buss - Durkee hostility inventory (BDHI) (1957) and Correlation coefficient between BDHI and AAI was reported 0.56 ($P \leq 0.001$) [41]. Its reliability was obtained 0.88 for entire and 0.85, 0.80 and 0.72 for anger and nervousness, offensive and insulting, and obstinacy and malice respectively by Cronbach's alpha in Farahani, Bassaknejhad and Davoudi's (2013) study [42].

2.2. Job Satisfaction Questionnaire (JSQ)

Job satisfaction questionnaire was developed in 2003 by Linz and has 13 items. It is constructed to evaluate the job satisfaction measure in employees and showed favorable validity and reliability in Linz (2003) research [43]. Scoring is based on a five - degree Likert scale from "completely agree" to "completely disagree". Validity of this questionnaire was confirmed and the reliability of that was obtained 0.86 by Asqari and Hoseini (2014) [44].

2.3. Anger - management Training Program

The present study was run based on anger - management skills package developed by Moutabi (2004) [45].

Session 1: anger definition, physical symptoms, true and false beliefs about anger, aggression consequences, anger causes, various aggressive behaviors, relaxation methods to keep calm in the moment including deep breathing, counting and changing body position and gradual relaxation.

Session 2: cognitive restructuring; discussion about negative self - talk, negative automatic thoughts, replacing positive self - talks, making environmental changes during and after the aggressive situations.

Session 3: assertiveness, adaptive anger expression skills including description of the traumatic behavior occurred, expression of feel, expression of thoughts behind the feel, acceptance of responsibility for thoughts and feels, positive expression of the request and roll playing.

Session 4: problem solving skill training including negative problem orientation recognizing, improving problem orientation, generating alternative solutions, brainstorming and decision making training, practicing [45].

3. Results

Demographic information of participants including the age, gender, marital status and work experience are shown in Table 1.

Table 1 demonstrates the mean and standard deviation of the age (40.23 ± 7.70) for participants in experimental group and (34.1 ± 4.57) in control group. In terms of gender, the number of participants in two groups was equal, 19 nurses (83.36%) from the experimental group and 20 nurses (90.91%) from the control group were married. The mean and standard deviation of work experience in psychiatric hospital was (13.05 ± 8.40) and (6.95 ± 4.65) for experimental and control group respectively.

The mean and standard deviation of pretest and posttest of two groups are shown in Table 2.

Table 2 shows some differences in experimental group's posttests. In order to investigate the research hypotheses and covariance analysis, assumptions were investigated at first. Significance level of linearity for pre - test and post - test of variables obtained $P \leq 0.001$, multiple linearity between pre - tests of variables was ($r = - 0.44$, $P = 0.05$), significance level of homogeneity of variances for aggression and job satisfaction was $P = 0.07$ and $P = 0.80$ respectively, and homogeneity of regression was insignificant with $P = 0.75$ for aggression and $P = 0.08$ for job satisfaction. So covariance assumptions are

established and results of MANCOVA analysis are shown in Tables 3 and 4.

According to Table 3 at least one of the variables was influenced by training significantly. In order to better understand the difference, results of the test of between-subjects effects have been presented in Table 4.

Table 4 illustrates that anger - management training had significant effect on aggression ($F = 26.750$, $P \leq 0.001$, $\eta = 0.401$) and job satisfaction ($F = 6.071$, $P < 0.05$, $\eta = 0.132$).

4. Discussion

The present study showed that nurses working in psychiatric hospital express less aggression after anger - management training. Previous findings including [34-39] confirmed similarly that cognitive - behavioral anger-management interventions decline aggression.

We hypothesized that anger - management training can influence job satisfaction although we could not find any research in this regard to evaluate our hypothesis. But, since previous findings including [14-16, 26] have shown that job satisfaction is affected by aggression especially in psychiatric wards we assumed that anger-management training can increase job satisfaction. This hypothesis was confirmed by findings of this study.

The present study illustrates that anger - management training can help nurses in psychiatric hospital to overcome their anger. Improving difficult situations' management potency will be followed by reducing the maladaptive and aggressive behaviors and alternating more adaptive and efficient strategies [36]. Psycho - education provides necessary knowledge about anger for nurses, helps them to recognize their physical reactions prior to the aggressive behaviors outbreak. So they will be more prepared to control their physical symptoms and their reactions in aggressive situations learning relaxation techniques [39].

In cognitive restructuring, nurses learned how to interpret experiences and events especially those are related to work place. They learned to modify their dysfunctional attitudes and apply more positive - efficient procedures instead. They learned to replace negative self - talk with positives results to less negative thoughts and less anger.

Assertiveness and problem solving skills lead them using more effective coping skills. They will feel less frustration because they are equipped with assertive techniques to express their anger instead of incompatible strategies, problem solving and decision - making skills. Therefore they will be less influenced by work place difficulties.

Anger - management program can decline nurses' involvements with colleagues and clients, lead to less challenges and result to less anger, more relax, comfort and so job satisfaction in turn, through assertiveness, relaxation

Table 1. Demographic Information of Participants Based in the Age, Gender, Marital Status and Work Experience

Variable	Experimental Group			Control Group		
	N	Percentage	M ± SD	N	Percentage	M ± SD
Age			40.23 ± 7.70			34.1 ± 4.57
23 - 30	2	9.1		3	13.64	
31 - 40	10	45.45		17	77.27	
41 - 50	10	45.45		2	9.09	
Gender						
Female	11	50		11	50	
Male	11	50		11	50	
Marital Status						
Married	19	83.36		20	90.91	
Single	3	13.64		2	9.09	
Work Experience			13.05 ± 8.40			6.95 ± 4.65
< 5	5	22.73		6	27.27	
5 - 10	5	22.73		11	50	
10 - 15	3	13.64		4	18.18	
> 15	9	40.90		1	4.55	

Table 2. Mean and Standard Deviation of Experimental and Control Group

Variable		Experimental Group		Control Group	
		Pre - test	Post - test	Pre - test	Post - test
Aggression	Mean ± SD	65.05 ± 7.51	57.36 ± 7.54	68.77 ± 11.16	69.82 ± 10.17
Job Satisfaction	Mean ± SD	34.73 ± 4.47	37.77 ± 6.78	35.45 ± 6.74	35.23 ± 6.36

Table 3. Results of Covariance Analysis

Test	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	Observed Power
Pillai's Trace	0.495	19.146	2	39	≤ 0.001	0.495	1
Wilks' Lambda	0.505	19.146	2	39	≤ 0.001	0.495	1
Hotelling's Trace	0.982	19.146	2	39	≤ 0.001	0.495	1
Roy's Largest Root	0.982	19.146	2	39	≤ 0.001	0.495	1

Table 4. Covariance Analysis on Aggression and Job Satisfaction

Variable	Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Observed Power
Aggression	1129.339	1	1129.339	26.750	0.000	0.401	0.999
Job Satisfaction	93.940	1	93.940	6.071	0.018	0.132	0.672

and problem solving skills. Restructuring nurses' attitude toward their job, work place and other related features, will eventuate more positive attitude and so more positive behavior into the work place and its events and lead to less aggression and job dissatisfaction. Results of job satisfaction changes in the present study showed that aggression is an important factor in job dissatisfaction of nurses so that 0.13 of job satisfaction reduced under the influence of anger - management training.

Accordingly, applying anger management training programs in psychiatric hospitals and wards would be helpful and even necessary because 40 percent of aggression and 13 percent of job satisfaction variances are influenced by anger management training as independent variable of this study.

Acknowledgments

We would like to thank all administrators and nurses working at one of the psychiatric hospitals in Tehran, Iran, who cooperated with and supported us during the study.

Footnotes

Authors' Contribution: Maliheh Farahani developed the original idea, designed the study, acquired, analyzed data and wrote the manuscript. Saeed Ebadie Zare contributed to the critical revision for intellectual content and technical support and supervision.

Conflict of interest: The author's report no conflicts of interest in this work and have been received no funding or support.

References

- Dollard J, Miller NE, Doob LW, Mowrer OH, Sears RR. *Frustration and Aggression*. New Haven: Yale University Press; 1939. doi: [10.1037/10022-000](https://doi.org/10.1037/10022-000).
- Bandura A, Walters. R, Kagan J, Sopiker C. Aggression. In: HW S, NB H, H R, editors. . Chicago: National Society for the study of Education; 1963.
- Tajvar A, Saraji GN, Ghanbarnejad A, Omid L, Hosseini SS, Abadi AS. Occupational stress and mental health among nurses in a medical intensive care unit of a general hospital in Bandar Abbas in 2013. *Electron Physician*. 2015;7(3):1108-13. doi: [10.14661/2015.1108-1113](https://doi.org/10.14661/2015.1108-1113). [PubMed: [26388976](https://pubmed.ncbi.nlm.nih.gov/26388976/)].
- Zhang L, Wang A, Xie X, Zhou Y, Li J, Yang L, et al. Workplace violence against nurses: A cross-sectional study. *Int J Nurs Stud*. 2017;72:8-14. doi: [10.1016/j.ijnurstu.2017.04.002](https://doi.org/10.1016/j.ijnurstu.2017.04.002). [PubMed: [28412581](https://pubmed.ncbi.nlm.nih.gov/28412581/)].
- Johnston A, Abraham L, Greenslade J, Thom O, Carlstrom E, Wallis M, et al. Review article: Staff perception of the emergency department working environment: Integrative review of the literature. *Emerg Med Australas*. 2016;28(1):7-26. doi: [10.1111/1742-6723.12522](https://doi.org/10.1111/1742-6723.12522). [PubMed: [26784282](https://pubmed.ncbi.nlm.nih.gov/26784282/)].
- Zamanzadeh V, Rassouli M, Abbaszadeh A, Nikanfar A, Alavi-Majd H, Ghahramanian A. Factors Influencing Communication Between the Patients with Cancer and their Nurses in Oncology Wards. *Indian J Palliat Care*. 2014;20(1):12-20. doi: [10.4103/0973-1075.125549](https://doi.org/10.4103/0973-1075.125549). [PubMed: [24600177](https://pubmed.ncbi.nlm.nih.gov/24600177/)].
- Teymourzadeh E, Rashidian A, Arab M, Akbari-Sari A, Hakimzadeh SM. Nurses exposure to workplace violence in a large teaching hospital in Iran. *Int J Health Policy Manag*. 2014;3(6):301-5. doi: [10.15171/ijhpm.2014.98](https://doi.org/10.15171/ijhpm.2014.98). [PubMed: [25396205](https://pubmed.ncbi.nlm.nih.gov/25396205/)].
- Han A, Won J, Kim O, Lee SE. Anger Expression Types and Interpersonal Problems in Nurses. *Asian Nurs Res (Korean Soc Nurs Sci)*. 2015;9(2):146-51. doi: [10.1016/j.anr.2015.04.001](https://doi.org/10.1016/j.anr.2015.04.001). [PubMed: [26160244](https://pubmed.ncbi.nlm.nih.gov/26160244/)].
- Eslamian J, Akbarpoor AA, Hoseini SA. Quality of work life and its association with workplace violence of the nurses in emergency departments. *Iran J Nurs Midwifery Res*. 2015;20(1):56-62. [PubMed: [25709691](https://pubmed.ncbi.nlm.nih.gov/25709691/)].
- Pourshaikhian M, Abolghasem Gorji H, Aryankhesal A, Khorasani-Zavareh D, Barati A. A Systematic Literature Review: Workplace Violence Against Emergency Medical Services Personnel. *Arch Trauma Res*. 2016;5(1):28734. doi: [10.5812/atr.28734](https://doi.org/10.5812/atr.28734). [PubMed: [27169096](https://pubmed.ncbi.nlm.nih.gov/27169096/)].
- Lantta T, Anttila M, Kontio R, Adams CE, Valimaki M. Violent events, ward climate and ideas for violence prevention among nurses in psychiatric wards: a focus group study. *Int J Ment Health Syst*. 2016;10:27. doi: [10.1186/s13033-016-0059-5](https://doi.org/10.1186/s13033-016-0059-5). [PubMed: [27051463](https://pubmed.ncbi.nlm.nih.gov/27051463/)].
- Yada H, Lu X, Omori H, Abe H, Matsuo H, Ishida Y, et al. Exploratory study of factors influencing job-related stress in Japanese psychiatric nurses. *Nurs Res Pract*. 2015;2015:805162. doi: [10.1155/2015/805162](https://doi.org/10.1155/2015/805162). [PubMed: [25922763](https://pubmed.ncbi.nlm.nih.gov/25922763/)].
- de Gaay Fortman B. Violence among peoples in the light of human frustration and aggression. *Eur J Pharmacol*. 2005;526(1-3):2-8. doi: [10.1016/j.ejphar.2005.09.035](https://doi.org/10.1016/j.ejphar.2005.09.035). [PubMed: [16310766](https://pubmed.ncbi.nlm.nih.gov/16310766/)].
- Khamisa N, Oldenburg B, Peltzer K, Illic D. Work related stress, burnout, job satisfaction and general health of nurses. *Int J Environ Res Public Health*. 2015;12(1):652-66. doi: [10.3390/ijerph12100652](https://doi.org/10.3390/ijerph12100652). [PubMed: [25588157](https://pubmed.ncbi.nlm.nih.gov/25588157/)].
- Seo HS, Kim H, Hwang SM, Hong SH, Lee IY. Predictors of job satisfaction and burnout among tuberculosis management nurses and physicians. *Epidemiol Health*. 2016;38:2016008. doi: [10.4178/epih/e2016008](https://doi.org/10.4178/epih/e2016008). [PubMed: [26971698](https://pubmed.ncbi.nlm.nih.gov/26971698/)].
- Amiresmaili M, Moosazadeh M. Determining job satisfaction of nurses working in hospitals of Iran: A systematic review and meta-analysis. *Iran J Nurs Midwifery Res*. 2013;18(5):343-8. [PubMed: [24403934](https://pubmed.ncbi.nlm.nih.gov/24403934/)].
- Kvist T, Voutilainen A, Mantynen R, Vehvilainen-Julkunen K. The relationship between patients' perceptions of care quality and three factors: nursing staff job satisfaction, organizational characteristics and patient age. *BMC Health Serv Res*. 2014;14:466. doi: [10.1186/1472-6963-14-466](https://doi.org/10.1186/1472-6963-14-466). [PubMed: [25326852](https://pubmed.ncbi.nlm.nih.gov/25326852/)].
- Vagharseyyedin SA. An integrative review of literature on determinants of nurses' organizational commitment. *Iran J Nurs Midwifery Res*. 2016;21(2):107-17. doi: [10.4103/1735-9066.178224](https://doi.org/10.4103/1735-9066.178224). [PubMed: [27095982](https://pubmed.ncbi.nlm.nih.gov/27095982/)].
- Tourani S, Khosravizadeh O, Omrani A, Sokhanvar M, Kakemam E, Najafi B. The Relationship between Organizational Justice and Turnover Intention of Hospital Nurses in Iran. *Mater Sociomed*. 2016;28(3):205-9. doi: [10.5455/msm.2016.28.205-209](https://doi.org/10.5455/msm.2016.28.205-209). [PubMed: [27482163](https://pubmed.ncbi.nlm.nih.gov/27482163/)].
- Geleto A, Baraki N, Atomsa GE, Dessie Y. Job satisfaction and associated factors among health care providers at public health institutions in Harari region, eastern Ethiopia: a cross-sectional study. *BMC Res Notes*. 2015;8:394. doi: [10.1186/s13104-015-1368-5](https://doi.org/10.1186/s13104-015-1368-5). [PubMed: [26323549](https://pubmed.ncbi.nlm.nih.gov/26323549/)].
- Mosadeghrad AM. Quality of working life: an antecedent to employee turnover intention. *Int J Health Policy Manag*. 2013;1(1):43-50. doi: [10.15171/ijhpm.2013.07](https://doi.org/10.15171/ijhpm.2013.07). [PubMed: [24596835](https://pubmed.ncbi.nlm.nih.gov/24596835/)].
- Semachew A, Belachew T, Tesfaye T, Adinew YM. Predictors of job satisfaction among nurses working in Ethiopian public hospitals, 2014: institution-based cross-sectional study. *Hum Resour Health*. 2017;15(1):31. doi: [10.1186/s12960-017-0204-5](https://doi.org/10.1186/s12960-017-0204-5). [PubMed: [28438214](https://pubmed.ncbi.nlm.nih.gov/28438214/)].

23. Borhani F, Jalali T, Abbaszadeh A, Haghdoost AA, Amiresmaili M. Nurses' perception of ethical climate and job satisfaction. *J Med Ethics Hist Med*. 2012;**5**:6. [PubMed: 23908759].
24. Rostami A, Ghazinour M, Richter J. Marital satisfaction: the differential impact of social support dependent on situation and gender in medical staff in Iran. *Glob J Health Sci*. 2013;**5**(4):151-64. doi: 10.5539/gjhs.v5n4p151. [PubMed: 23777731].
25. Ghoreishi FS, Zahirrodine AR, Assarian F, Moosavi SG, Zare Zadeh Mehrizi M. Evaluation of emotional intelligence and job satisfaction in employees of kashan hospitals. *Nurs Midwifery Stud*. 2014;**3**(1):11977. [PubMed: 25414889].
26. Mosadeghrad AM. Occupational stress and turnover intention: implications for nursing management. *Int J Health Policy Manag*. 2013;**1**(2):169-76. doi: 10.15171/ijhpm.2013.30. [PubMed: 24596858].
27. Lu DM, Sun N, Hong S, Fan YY, Kong FY, Li QJ. Occupational stress and coping strategies among emergency department nurses of China. *Arch Psychiatr Nurs*. 2015;**29**(4):208-12. doi: 10.1016/j.apnu.2014.11.006. [PubMed: 26165974].
28. Maxwell JP, Siu OL. The Chinese Coping Strategies Scale: Relationships with aggression, anger, and rumination in a diverse sample of Hong Kong Chinese adults. *Pers Individ Differ*. 2008;**44**(5):1049-59. doi: 10.1016/j.paid.2007.10.006.
29. Kerr K, Oram J, Tinson H, Shum D. Health Care Workers' Experiences of Aggression. *Arch Psychiatr Nurs*. 2017;**31**(5):457-62. doi: 10.1016/j.apnu.2017.06.011. [PubMed: 28927509].
30. Nasrabadi AN, Forooshani ZS, Rafiee F. Altruism the Essence of the Iranian Nurses' Job Satisfaction: A Qualitative Study. *Glob J Health Sci*. 2016;**8**(8):50269. doi: 10.5539/gjhs.v8n8p13. [PubMed: 27045394].
31. Asegid A, Belachew T, Yimam E. Factors Influencing Job Satisfaction and Anticipated Turnover among Nurses in Sidama Zone Public Health Facilities, South Ethiopia. *Nurs Res Pract*. 2014;**2014**:909768. doi: 10.1155/2014/909768. [PubMed: 24707397].
32. Lee SY, Kim CW, Kang JH, Yoon TH, Kim CS. Influence of the nursing practice environment on job satisfaction and turnover intention. *J Prev Med Public Health*. 2014;**47**(5):258-65. doi: 10.3961/jpmph.14.002. [PubMed: 25284197].
33. Lee AH, DiGiuseppe R. Anger and aggression treatments: a review of meta-analyses. *Curr Opin Psychol*. 2018;**19**:65-74. doi: 10.1016/j.copsyc.2017.04.004. [PubMed: 29279226].
34. McCann TV, Baird J, Muir-Cochrane E. Attitudes of clinical staff toward the causes and management of aggression in acute old age psychiatry inpatient units. *BMC Psychiatry*. 2014;**14**:80. doi: 10.1186/1471-244X-14-80. [PubMed: 24642026].
35. Bahrami E, Mazaheri MA, Hasanzadeh A. Effect of anger management education on mental health and aggression of prisoner women. *J Educ Health Promot*. 2016;**5**:5. doi: 10.4103/2277-9531.184563. [PubMed: 27512697].
36. Goldstein NE, Serico JM, Riggs Romaine CL, Zelechowski AD, Kalbeitzer R, Kemp K, et al. Development of the Juvenile Justice Anger Management Treatment for Girls. *Cogn Behav Pract*. 2013;**20**(2):171-88. doi: 10.1016/j.cbpra.2012.06.003. [PubMed: 27642247].
37. Steffgen G. Anger Management - Evaluation of a Cognitive-Behavioral Training Program for Table Tennis Players. *J Hum Kinet*. 2017;**55**:65-73. doi: 10.1515/hukin-2017-0006. [PubMed: 28210339].
38. Uzar-Ozcetin YS, Hicdurmaz D. Effects of Structured Group Counseling on Anger Management Skills of Nursing Students. *J Nurs Educ*. 2017;**56**(3):174-81. doi: 10.3928/01484834-20170222-10. [PubMed: 28263357].
39. Sukhodolsky DG, Vander Wyk BC, Eilbott JA, McCauley SA, Ibrahim K, Crowley MJ, et al. Neural Mechanisms of Cognitive-Behavioral Therapy for Aggression in Children and Adolescents: Design of a Randomized Controlled Trial Within the National Institute for Mental Health Research Domain Criteria Construct of Frustrative Non-Reward. *J Child Adolesc Psychopharmacol*. 2016;**26**(1):38-48. doi: 10.1089/cap.2015.0164. [PubMed: 26784537].
40. Howerton Child RJ, Sussman EJ. Occupational Disappointment: Why Did I Even Become a Nurse?. *J Emerg Nurs*. 2017;**43**(6):545-52. doi: 10.1016/j.jen.2017.06.004. [PubMed: 28712526].
41. ZahediFar S, Najarian B, Shokrkon H. Development and validation of a scale to measure aggression. *JPES*. 2000;**7**(1-2):73-102.
42. Farahani M, BassakNejad S, Davoudi I. The effectiveness of stress management group training on Aggression, parental stress and mental health in mothers of children with learning disability. *JPA*. 2013;**4**(2):217-32.
43. Linz SJ. Job satisfaction among Russian workers. *Int J Manpow*. 2003;**24**(6):626-52. doi: 10.1108/01437720310496139.
44. Asghari M, Hoseini S. Investigating the relationship between personality characteristics and job satisfaction among secondary school teachers of Shahroud. *Islamic Azad University of Tehran*. 2014.
45. Moutabi F. Anger management skills. *tolou' danesh*. 2004:32.