La Prensa
MedicaArgentina

Research Article

Investigating the Relationship between Self-Compassion and Occupational Stress of Nurses Working In Hospitals Affiliated To Tehran University of Medical Sciences In 2017

Shahaboddin Atharyan[1], Arpi Manookian[2]*, Shokoh Varaei[2] and Shima haghani[3]

Abstract

Introduction: The effect of occupational stress on quality of life and job performance of nurses necessitates the management of stresses in the workplace. Self-compassion is one of the main constructs in this regard, which in turn has attracted much attention as feature of resilience to stress, burnout, and emotional exhaustion in recent years.

Objective: The aim of this study was to determine the relationship between self-compassion and occupational stress among nurses working in hospitals affiliated to Tehran University of Medical Sciences in 2017.

Method: The present descriptive-correlational cross-sectional study was conducted on 430 nursing staff working in hospitals affiliated to Tehran University of Medical Sciences. The subjects were selected using stratified sampling, with appropriate allocation to the number of nurses employed in each hospital. The data collection tool was long 26- item form of the Self-Compassion Scale (SCS-LF) and a standard occupational stress questionnaire (Gray-Toft and Anderson, 1981). Data analysis was performed using descriptive and inferential statistics in SPSS ver. 16.

Findings: The majority of nurses (60.5%) had a moderate degree of self-compassion and high occupational stress (69.3%). The results of Pearson correlation test showed that there is a statistically inverse significant relationship between occupational stress and self-compassion (P<0.001), as well as all of their dimensions, with the exception of dimensions of "common humanity" and "conflict with physicians" (P<0.001). In other words, increased self-compassion level leads to a decrease in nurses' occupational stress and its dimensions.

Conclusion: The results of this study revealed a reverse relationship between self-compassion and occupational stress of nurses; therefore, policymakers and nursing authorities can take strides in moderating nurses' level of occupational stress and improving their professional performance by improving their self-compassion skill.

Keywords

Self-compassion; Occupational stress; Nursing; Self-kindness; Profession

Introduction

In today's stressful world, it is essential to have and strengthen some of the individuals' skills and attributes such as the ability to control negative emotions, self-adaptation, self-awareness and self-kindness to manage the tensions experienced while dealing with stressful living conditions [1-3]. Occupational stress is defined as the instability and lack of uniformity between job expectations and employee's skills that leads to emotional instability in nurses [4, 5]. The results of many studies have shown that nursing stress is associated with the changing needs of patients, their suffering and pain, long shifts, overtime, work-related conflicts, staff shortages, conflict with head nurses, discrimination and lack of organizational support, role ambiguity and job insecurity [6-9]. Regarding the stressful nature of nursing profession, it is vital to identify effective solutions and factors to reduce occupational stress and improve the mental health status of nurses. Considering that nurses often face critical life-related decisions, they need to use different solutions to cope with nursing-related tensions in order to make the right decisions and increase the quality of care [10]. The negative effects of occupational stress on the quality of life and nursing performance [11] indicate the necessity to manage the workplace stresses. Nurses face numerous stressors in the clinical settings. Many of these stressors are related to the nature and specific conditions of the nursing profession, such as long working hours, exposure to pain and death, emotional suffering, providing care for dying patients, and support for families [12,13]. Recently, other factors such as shortage of manpower, the presence of patients with complex problems, increased need for ever-dynamic knowledge and technology has led to an increase in the nursing stress [14]. This stress affects high-level cognitive functions, especially concentration and memory that in turn leads to great risks for nurses. Increase distraction rate will lead to serious consequences such as medication errors, lack of identification of life-threatening symptoms, and other issues related to the patient safety. On the other hand, given that nurses often have to make critical life-related decisions, they need to use different solutions to cope with nursing stressors, adopt appropriate decisions and enhance care quality [10]. One of the main relevant constructs is self-compassion, which in turn has attracted much attention as a tool for showing resilience against stress, burnout and emotional exhaustion in recent years. [15]. Self-compassion means unconditional self-kindness, self-acceptance and self-care and can be acquired and taught [16]. One of the hypotheses proposed in this regard indicates that individuals with higher levels of self-compassion are more prepared to deal with stressful conditions in case of stressors [17]. In addition to evaluating and eliminating negative emotions, individuals can be trained how to effectively deal with stresses and reduce the risk of disease by promoting positive emotional states such as self-compassion as a therapeutic strategy [18]. Also, individuals with higher levels self-compassion may be more motivated to take care of their own health by committing to a healthy lifestyle and pursuing health care programs [19]. Considering the important role of self-compassion in creating a balance in life, it seems that individuals who have higher levels self-compassion can better control negative and stressful feelings while encountering stressful daily events, including social stressful events such as stressful workplace environments [20]. Self-compassion can be beneficial to

healthcare professionals, especially nurses, as it may play an important role in maintaining their mental health status. The results of previous researches also showed that self-compassion is related to showing compassion towards others and has a significant effect on the care outcome. Therefore, self-compassion development may be critical to preventing emotional exhaustion and promoting compassionate care [21]. Considering that the nursing profession can affect one's daily life, self-compassion and self-compassionate care are one of the essential needs of nurses in stressful work environments [22]. Accordingly, we decided to carry out a study on the relationship between occupational stress and self-compassion of nurses working in hospitals affiliated to Tehran University of Medical Sciences so that the findings can be used to reveal the reality of the relationship between occupational stress and self-compassion of nurses working in hospitals. Also, in the case of revealing a reverse relationship between occupational stress and self-compassion, the results of this research can be used in the management planning to enhance this skill, change lifestyle and improve the professional performance of nurses.

Methods

This cross-sectional descriptive-correlational study was conducted to determine the relationship between self-compassion and occupational stress among nurses working in hospitals affiliated to Tehran University of Medical Sciences in 2017. This study was started after obtaining permission from the Ethics Committee of Tehran University of Medical Sciences (IR.TUMS.FNM.REC.1396.3208). The research population included all nurses working in all departments and wards of hospitals affiliated to Tehran University of Medical Sciences. A total of 430 nurses who were working in these hospitals and met inclusion criteria were selected. The research subjects were selected using stratified sampling, with appropriate allocation to the number of nurses employed in each hospital. This means that the number of nurses in each of the hospitals surveyed was determined by the number of nurses employed in the same hospital. The inclusion criteria included having at least a bachelor's degree in nursing and having more than one year of clinical work experience (conscription law's conscripts, temporary-to-permanent, contractual, permanent) in the hospital. The self-reporting was used as data collection procedure in the present study. After subjects were explained about the study objectives and their informed consent form obtained, the data collection was carried out by a three-part questionnaire. The tool included: A) demographic information (age, gender, marital status, education, work experience, area of interest, employment status, work shift, hospital and the related ward, job position, simultaneous work at other centers, being native or non-native (based on the place of birth). This researcher-made questionnaire, which was developed based on library studies and reviews of domestic and foreign articles and related researches, was given to 10 faculty members of Nursing and Midwifery school of Tehran University of Medical Sciences so that its content validity is validated and their comments were used later on. B) Gray-Toft and Anderson's Nursing Stress Scale (NSS) which consists of 34 questions and describes the potentially stressful situations. This questionnaire consists of seven subsets, including suffering and death of the patient, conflicts with physicians , lack of sufficient preparation, lack of support, conflict with other nurses, workload and uncertainty about treatment, and is scored based on 5-point Likert scale including: Never, Sometimes, Often and Always stressful. The scores given ranged from 1 to 4. The lowest and highest scores are 34 and 136, respectively. A score of 68<, 69-103 and 104< indicate low, moderate, and high tension rates, respectively and the

score of each subset was individually calculated and analyzed. This tool was first developed by Gray-Toft and Anderson in 1981 and its Cronbach's α rate was reported to be 70% [23]. Also, the reliability of this tool has been reported to be over 70% in various previous studies in Iran [24]. C) Self-compassion scale that consists of 26 questions that evaluates self-compassion in the following six dimensions: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over-identification. In the above questionnaire, each question was scored based on the 5-point Likert scale (score 1 to 5). The score for each dimension was calculated separately and the overall self-compassion score was later calculated by averaging the score of questions related to each dimension. Three sub-scales of self-kindness, common humanity, and mindfulness are directly scored from 1 to 5, and 3 sub-scales of self-judgment, isolation, and over-identification were scored reversely from 5 to 1. A score of 1-2.5, 2.5-3.5 and 3.5 to 5 indicates low, moderate and high self-compassion levels, respectively. The results of the researches, which were carried out by Neff (2003) (tool designer) on 391 students, have shown high degree of reliability and validity. The internal consistency of total scale and separate sub-scales was obtained 0.92, 0.78, 0.77, 0.80, 0.79, 0.75, 0.81, respectively using Cronbach's alpha coefficient [25]. In a previous study in Iran, Cronbach Alpha was reported to be 0.72 for the total scale [26]. After being collected, data analysis was carried out using descriptive (frequency, mean) and analytical statistics (Pearson correlation coefficient, Chi-square) and in the SPSS ver. 16.

Results

To determine the relationship between occupational stress and self-compassion, a total of 430 nurses were selected, 73.7% and 26.3% of whom were female and male, respectively. Also, married, single and divorced subjects made up 64.9%, 33.7% and 1.4% of the total participants, respectively. The mean age of nursing staff was 31.69 ± 6.74 with the age range of 22-48 years. A total of 92.3% and only 7.7% of nurses had undergraduate and master's degree in nursing, respectively. The mean, minimum and maximum years of work experience was 8.85, 1 and 25 years, respectively. Most of the contracts were permanent (49.1%). Most nurses were employed in the internal medicine (40%), followed by surgery (23.3%) and ICU (21.6%) wards. The majority of the nurses were in the fixed morning shifts (38.6%), followed by rotational shiftwork (24%). A total of 28.4% of nurses worked elsewhere at the same time. The average working hours of nurses was 230.84 hours per month. A total of 62.1% of the nurses were indigenous residents in Tehran (the Iran capital) and 37.9% were non-indigenous.

Most of the nurses had moderate level of self-compassion. The average self-compassion score was 2.83, which indicates that nurses have moderate self-compassion level. (Table 1) shows the nurses' level of self- compassion. The self-kindness (2.98) and over-identification (2.64) subscales had the highest and lowest mean scores among the studied nurses, respectively. Given that the mean scores of all dimensions are between 2.5 and 3.5, it can be concluded that the self-compassion criterion and its dimensions are also at moderate level. (Table 2) lists numerical indexes of the self-compassion and its dimensions.

The occupational stress of most nurses was high (69.3%), with the mean score of 106.52, which indicates the high occupational stress of the nurses under study. (Table 3) shows the occupational stress of the research subjects. The highest and lowest mean was obtained for "suffering and death of the patient" (3.26) and "lack of support"(2.85) subscales as the

Table1: Frequency distribution, mean and standard deviation of self- compassion.

Self- compassion	Frequency	Precentage
Low (1-2.5)	111	25.8
Moderate (2.5-3.5)	260	60.5
High (3.5-5)	59	13.7
Total	430	100
Standard deviation ± average	2.83 ± 0.70	
Max-Min	4.31-1.16	

Table 2: Mean data of nurses' self-compassion.

Self-compassion	Mean	Standard deviation
Self- Kindness	2.98	0.83
Judgment	2.68	0.82
Common humanity	2.90	0.90
Isolation	2.87	0.86
Mindfulness	2.91	0.85
Over-identification	2.64	0.82
Self-compassion	2.83	0.70

Table 3: Frequency distribution, mean and standard deviation of occupational stress.

Occupational stress	Frequency	Percentage
Low (less than 68)	10	2.3
Moderate(69-103)	122	28.4
High (more than 104)	298	69.3
Total	430	100
Mean ± SD	106.52±13.97	
Max-Min	136-56	

Table 4: Mean data of nurses' occupational stress.

Occupational stress	Mean	Standard deviation
Suffering and death of the patient	3.26	0.53
Conflict with physicians	3.21	0.52
Insufficient awareness	2.87	0.51
Lack of support	2.85	0.65
Conflict with other nurses	3.14	0.53
Workload	3.18	0.55
Uncertainty about treatment	3.11	0.61
Occupational stress	106.52	13.97

occupational subclasses. The results of investigating the mean of occupational stress dimensions show that the dimensions of "insufficient awareness" and "lack of support" are at moderate level and the remaining dimensions are at high level. (Table 4) examines the numerical indexes of occupational stress and its dimensions. According to the results of Pearson correlation test, which are presented in (Table 5), it can be seen that there is a statistically significant inverse correlation between occupational stress and self-compassion (P<0.001) as well as all their dimensions, except for "common humanity" and "conflict with physicians" dimensions (P<0.001). In other words, a decrease in self-compassion and its dimensions leads to an increase in the occupational stress and its dimensions. The mean self-compassion-occupational stress correlation was 0.47. The highest and lowest correlation between self-compassion and occupational stress dimensions was observed in case of "lack of support" (0.44) and "conflict with physicians" (0.28), respectively. The highest and lowest correlations between occupational stress and self-compassion dimensions were obtained in case of the "over identification" and "common humanity" with coefficients of 0.47 and 0.24, respectively. The study on the dimensions of self-compassion and occupational stress showed that the highest correlation existed between the "lack of support" dimension of the occupational stress and the "self-kindness" dimension of the self-compassion with a correlation coefficient of 0.41. There was no significant relationship between the occupational stress and self-compassion criteria of nurses with any of the demographic variables.

Discussion

The findings of the present research, which aimed to determine the correlation between self-compassion and occupational stress of nurses working in hospitals affiliated to Tehran University of Medical Sciences in 2017, showed that the majority of nurses had a moderate level of self-compassion and high levels of occupational stress. Also, the results of this study indicate that there is a significant and reverse relationship between self-compassion and occupational stress among nurses working in hospitals affiliated to Tehran University of Medical Sciences. In most previous domestic and foreign studies, the nurses had moderate levels of self-compassion. For example, Mohammadi et al. [27] conducted a study entitled "Self-compassion in ICU nurses" on 118 nurses working in NICU, CCU, ICU and dialysis departments in

Table 5: Relationship between self-compassion and occupational stress.

Occupational stress / Self-compassion	Suffering and death of the patient	Conflict with physicians	Insufficient awareness	Lack of support	Conflict with other nurses	Workload	Uncertainty about treatment	Occupational stress
Self- kindness	r= -0.27 p<0.001	r= -0.17 p<0.001	r= -0.40 p<0.001	r= -0.41 p<0.001	r= -0.34 p<0.001	r= -0.31 p<0.001	r= -0.23 p<0.001	r= -0.40 p<0.001
Judgment	r= -0.33 p<0.001	r= -0.35 p<0.001	r= -0.29 p<0.001	r= -0.38 p<0.001	r= -0.40 p<0.001	r= -0.29 p<0.001	r= -0.31 p<0.001	r= -0.45 p<0.001
common humanity	r= -0.13 p=0.006	r= -0.07 p=0.13	r= -0.26 p<0.001	r= -0.26 p<0.001	r= -0.17 p<0.001	r= -0.21 p<0.001	r= -0.20 p<0.001	r= -0.24 p<0.001
Isolation	r= -0.32 p<0.001	r= -0.31 p<0.001	r= -0.35 p<0.001	r= -0.36 p<0.001	r= -0.26 p<0.001	r= -0.30 p<0.001	r= -0.27 p<0.001	r= -0.41 p<0.001
Mindfulness	r= -0.24 p<0.001	r= -0.14 p<0.001	r= -0.37 p<0.001	r= -0.40 p<0.001	r= -0.37 p<0.001	r= -0.31 p<0.001	r= -0.21 p<0.001	r= -0.38 p<0.001
Over-identification	r= -0.40 p<0.001	r= -0.35 p<0.001	r= -0.32 p<0.001	r= -0.38 p<0.001	r= -0.33 p<0.001	r= -0.35 p<0.001	r= -0.32 p<0.001	r= -0.47 p<0.001
Self-compassion	r= -0.34 p<0.001	r= -0.28 p<0.001	r= -0.40 p<0.001	r= -0.44 p<0.001	r= -0.38 p<0.001	r= -0.36 p<0.001	r= -0.31 p<0.001	r= -0.47 p<0.001

South Khorasan hospitals. The mean self-compassion score ranged from 1 to 5 (3.86 ± 0.67) and was moderate, which is consistent with the results of the present study. Among the different dimensions of self-compassion, over-identification and isolation have the highest and lowest mean of (4.4 ± 0.7) and (3.2 ± 0.96), respectively [27]. However, the results of the present study showed that self-kindness and over-identification obtained the highest (2.98 ± 0.83) and the lowest mean (2.64 ± 0.82) among nurses, respectively. This difference may be due to differences in the type of subjects and nurses' work environment in the two studies. In a study titled "Self-compassion and emotional intelligence of nurses", Heffernan et al. obtained the total self-compassion mean score of 1 to 5 (3.49 ± 0.60) that is consistent with the results of the present study [28]. They investigated the above dimensions and showed that, as in the present study, the highest and the lowest mean was related to the self-kindness (3.37 ± 0.81) and over-identification (2.49 ± 0.85) dimensions, respectively. Self-kindness refers to the tendency to support and sympathize with ourselves when confronting personal shortcomings rather than criticizing them harshly. This is due to our mistakes and errors with understanding, tolerance and recognizing the fact that perfection is inaccessible. Self-compassion is, in essence, optimistic and encouraging attitude, not cruel one [29]. Duarte and Pinto-Gouveia [30] examined "the relationship between nursing empathy, self-compassion and quality of professional life of nurses" dimensions. They concluded that the overall mean self-compassion score was equal to 83.74 ± 13.12. The kindness and isolation dimensions had the highest and lowest effect with mean score of 15.10 ± 3.25 and 10.61 ± 2.96, respectively [30]. Considering that the self-compassion scores range between 26-130, the self-compassion score reported by Duarte and Pinto-Gouveia is thus at moderate level, which is consistent with the results of the present study. The kindness dimension had the highest effect in both studies, but the difference in the results on the least effect in the two studies could be due to the different cultures of the two countries and the different working conditions for nurses in Iranian and Portuguese hospitals. Evidence has shown that the type of occupation played a major role in the development of nervous tensions in people. Job transformations such as organizational changes, wages and salary and job promotion each impose pressure on individuals in some ways and make them feel disturbed, anxious, and worried [31].Based on the well-known theory of Karasek's demand-control theory, occupations such as nurses who have high psychological demands and low decision-making domains have high job stress [32]. Rezaee et al. [24] conducted a correlational study titled "the relationship between occupational stress and social support of nurses". The research population included 373 nurses working in various health centers affiliated to University of Medical Sciences in Iran who were solely clinical nurses and had no managerial responsibilities and had at least six months of nursing work. Taft Gary Anderson questionnaire was used to determine the occupational stress. The results showed that different job positions caused high, moderate and low stress levels to 59%, 37% and 7% of the subjects. The results of investigating the above dimensions showed that the suffering and death of the patient (23.31 ± 4.06) and the lack of support had the highest and lowest mean (7.85 ± 2.68), respectively [24]. Similarly, in the present study, the "suffering and death of the patient" and" lack of support " obtained the highest and lowest mean in nurses; therefore it can be said that the suffering and death of the patient is one of the most stressful situations in nursing profession that causes the most negative effects on the individual's spirits and emotions.

Conclusion

The results of this study indicated that the self-compassion level of nurses working in different wards of hospitals of Tehran University of Medical Sciences was moderate and this variable is related to the occupational stress experienced by these nurses. Psychological interventions, including training of self-compassion promotion mechanisms can be helpful in moderating the nurses' level of stress. Considering the harmful effect of the occupational stress on nurses, the authorities are recommended to take steps to reduce stressors such as: lack of satisfaction with salaries and benefits, high workload, role ambiguity and lack of support, and pay more attention to stressors such as conflict and role conflict, ambiguity of duties and lack of social support .In addition, these solutions can help to reduce the stresses associated with nursing profession by utilizing strategies of reasonable and optimistic exposures and led to professional performance improvement, job satisfaction and quality of life.

References

1. Leary MR, Tate EB, Adams CE, Batts Allen A, Hancock J (2007) Self-compassion and reactions to unpleasant self-relevant events: the implications of treating oneself kindly. J Pers Soc Psychol 92: 887.

2. Neely ME, Schallert DL, Mohammed SS, Roberts RM, Chen YJ (2009) Self-kindness when facing stress: The role of self-compassion, goal regulation, and support in college students' well-being. Motiv Emot 33: 88-97.

3. Mehri Y, Ghorbani N, Langroudi SAM (2012) Relationship between Basic Psychological Needs Satisfaction, Integrative Self-Knowledge, Mindfulness, Self-Compassion, Self-Control, Mental Health Indicators (Depression, Anxiety, Stress) and Teachers' Job Performanc. J Occup Organ Psychol 3: 9-20.

4. Rodrigues VM, Ferreira AS (2011) Stressors in nurses working in Intensive Care Units. Revista latino-americana de enfermagem 19: 1025-1032.

5. Azizollah A, Zaman A, Omeidi K (2013) The relation-ship between Job stress and performance among the hospitals Nurses. Sci World J 2: 223-255.

6. García-Izquierdo M, Ríos-Rísquez MI (2012) The relationship between psychosocial job stress and burnout in emergency departments: An exploratory study. Nursing outlook 60: 322-329.

7. Higazee MZ (2015) Types and Levels of Conflicts Experienced by Nurses in the Hospital Settings. Health Sci J 9: 1-7.

8. Rayan A, Qurneh A, Elayyan R, Baker O (2016) Developing a policy for workplace violence against nurses and health care professionals in Jordan: A plan of action. Am J Public Health Res 4: 47-55.

9. Han K, Kim NS, Kim JH, Lee KM (2004) [Influencing factors on symptoms of stress among hospital staff nurses]. Taehan Kanho Hakhoe chi 34: 1307-1314.

10. Pipe TB, Bortz JJ, Dueck A, Pendergast D, Buchda V, et al. (2009) Nurse leader mindfulness meditation program for stress management: a randomized controlled trial. J Nurs Admin 39: 130-137.

11. Mosadeghrad AM, Ferlie E, Rosenberg D (2011) A study of relationship between job stress, quality of working life and turnover intention among hospital employees. Health Serv Manag Res 24: 170-181.

12. Aiken LH, Clarke SP, Sloane DM, Sochalski JA, Busse R, et al. (2001) Nurses' reports on hospital care in five countries. Health affairs 20: 43-53.

13. Decker FH (1997) Occupational and nonoccupational factors in job satisfaction and psychological distress among nurses. Res Nurs Health 20: 453-464.

14. Twigg D, McCullough K (2014) Nurse retention: a review of strategies to create and enhance positive practice environments in clinical settings. IJNS 51: 85-92.

15. Raab K (2014) Mindfulness, self-compassion, and empathy among health care professionals: A review of the literature. J Health Care Chaplain 20: 95-108.

16. Allen AB, Goldwasser ER, Leary MR (2012) Self-compassion and well-being among older adults. Self and Identity 11: 428-453.

17. Allen AB, Leary MR (2010) Self-Compassion, stress, and coping. Soc Personal Psychol Compass 4: 107-118.

18. Breines JG, Thoma MV, Gianferante D, Hanlin L, Chen X, et al. (2014) Self-compassion as a predictor of interleukin-6 response to acute psychosocial stress. Brain Behav Immun 37: 109-114.

19. Terry ML, Leary MR (2011) Self-compassion, self-regulation, and health. Self and Identity 10: 352-362.

20. Leary MR, Tate EB, Adams CE, Batts Allen A, Hancock J (2007) Self-compassion and reactions to unpleasant self-relevant events: the implications of treating oneself kindly. J Pers Soc Psychol 92: 887.

21. Wiklund Gustin L, Wagner L (2013) The butterfly effect of caring–clinical nursing teachers' understanding of self-compassion as a source to compassionate care. Scand J Caring Sci 27: 175-183.

22. Norman I (2013) The nursing practice environment. Int J Nurs Stud 50: 1577-1579.

23. Gray-Toft P, Anderson J (1981) The nursing stress scale: Development of an instrument. J Psychopathol Behav Assess 3: 11-23.

24. Rezaee N, Behbahany N, Yarandy A, Hosseine F(2006) Correlation between Occupational Stress and Social Support among Nurses. Iran J Nurs 19: 71-78.

25. Neff KD (2003) The development and validation of a scale to measure self-compassion. Self and identity 2: 223-250.

26. Yazdani MR, Momeni KH (2016) The Role of Life Style and Toleration in Predicting Mental Health and Self-Empathy among the Students of Razi University in Kermanshah, 2014 . J Clin Res Paramed Sci 5: 115-124.

27. Mohammadi S, Borhani F, Roshanzadeh M (2016) Self-compassion in critical care nurses. Quart J Nurs Managt 2: 45-49.

28. Heffernan M, Griffin QMT, Mcnulty SR, Fitzpatrick JJ (2010) Self-compassion and emotional intelligence in nurses. Int J Nurs Pract 16: 366-373.

29. Neff KD (2012) The science of self-compassion. Compassion and wisdom in psychotherapy 1:79-92.

30. Duarte J, Pinto-Gouveia J, Cruz B (2016) Relationships between nurses' empathy, self-compassion and dimensions of professional quality of life: A cross-sectional study. Int J Nurs Stud 60: 1-11.

31. Khosravi M (2003) Job related stress factors for the librarians of university libraries administered by the ministry of Science and Technology in Tehran; librarians point of view. Tehran: Iranian center of Information and scientific documents 99.

32. Rezaei SH, Hosseini MA, Falahi M (2006) Effect of communication skills teaching in job stress level among nurses occupying in rehabilitation center. TUMJ 64: 21-26.

Author Affiliations **Top**

¹*School of Nursing & Midwifery, Tehran University of Medical Sciences, Tehran, Iran*

²*Assistant professor, School of Nursing & Midwifery, Tehran University of medical sciences, Tehran, Iran*

³*Nursing Care Research Center, Iran University of Medical Sciences, Tehran, Iran*