Original Article

The Relationship Between Sonic Nuisance and Self-efficacy Among Nurses in Behbahan

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Abstract

Background: Sound integral component of human life, but it seems the development of technology, sound in the hospital environment increased beyond the level of international standards. Voice Above Limit, the negative effects on the health of employee will have and it can affect the quality of service and efficiency. This study aimed to 'determine the relationship between Sonic Nuisance and self-efficacy among nurses in Behbaha' was performed in 2014. **Methods:** In this cross-sectional study, the population of nurses in PA and on the basis of a sample of 151 nurses were randomly classified using the proportional allocation of the 3 hospitals were enrolled. Data collection tools of self-efficacy questionnaire Sherer and questionnaires Sonic Nuisance that level of personal sensitivity to noise was the sound measures. Data Software SPSS (IBM.com/software/analytics/spss) 16 using analysis of variance, correlation coefficient Pearson analysis and $P < 0/05$ was considered significant. **Results:** 25/8% male nurses and 74/2% were female. The mean score of self-efficacy was 60/89 ± 6/58, and the mean sensitivity to sound and Sonic Nuisance of the 63/7 ± 22/98 and 56/52 ± 22/68, respectively. Between self-efficacy and sensitivity to sound ($P = 0/005$, $r = -0/22$), and Sonic Nuisance ($P = 0/001$, $r = 2212–0/22$) had a significant negative relationship. **Conclusions:** This study showed that with increased sensitivity and Sonic Nuisance, reduced self-efficacy nurses. Therefore, strategies to reduce noise pollution in hospitals seem to be a step towards creating a healthier work environment and increase the self-efficacy of our nurses.

Key words: Nurses, self-efficacy, Sonic Nuisance

Introduction

Noise pollution is psychologically sound undesirable, unpleasant or unwanted. In terms of noise quantity, a mixture of different sound with different wavelengths and intensities of the specific compound is unpleasant to listen.[1] The psychological effects of noise in terms of personality, the type of work and time of the day that can be heard is different, but in general it can be said noisy environment disrupt a conversation and understand the contents, loss of brain activity and disharmony of physical activities, on the other hand, the power of learning reduce and number of errors increases.[2] Hospital is one of the most important institutions for provider of healthcare with facilities. The facilities in restoring physical and mental health patients and quiet environment plays an important role, is one of the main problems in hospitals.[3] However, in the hospital, there are sound sources, including medical devices and equipment, heating and cooling systems, pager, voice of people, pulling the Trolleys, the sound of vehicles in the streets adjacent to the hospital etc., Hence, could sound with low-frequency that sound is an important factor causing Sonic Nuisance, produce. Recent studies have shown that this type of sounds uncomfortable, and in occupations such as nursing that requires mental focus and resulting in a negative impact on the performance of employees.[2] Some of the adverse effects of noise and noise pollution in long-term health of employees influences that include: (a) The emotional and psychological responses such as: Fatigue, irritability, mood disorders, anxiety, sleep disorders and feelings

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of hopelessness (b) communication changes, including difficulty in understanding conversations (c) changes in the performance of the staff, including: Decentralization, reduce action speed, inattention to detail, reducing the skills to perform delicate tasks, reduce speed of decision-making, discomfort and reduced job satisfaction.[4,5]

Christensen in their study showed that sound can have a negative impact on the performance of the duties of nurses interfere creation and efficiency.[6] People with higher efficiency in the face of challenges, the most influential people in the nursing profession are considered to be which is always the possibility of unforeseen situations and challenges; there is better performance is required.[7]

One of the factors associated with each individual job believe in your strengths and weaknesses and the effective functioning; to believe in the skill and ability to perform the skills required.[8] Self efficacy is assurance that the person feels about certain activities, this concept, the effort and level of performance has overshadowed.[9,10] Persons with low self-efficacy may believe that the situation be resolved and the belief that stress, depression, poor vision to provide relief.[11] Because nurses in restoring the patient's physical and mental health, play an important role relative efficiency of particular importance and recognition of the effects of noise pollution on self-efficacy direction, self-efficacy promotion plan for the future of those it seems. This study was aimed to 'determine the relationship Sonic Nuisance and self-efficacy among Nurses in Behbahan city of Iran'.

Methods

In this cross-sectional study was conducted in 2014 by community nurses in the Behbahan on the basis of a sample size of 150 nurses have been recruited and since it was in a hospital Behbahan 3 classification method with proportional allocation was used. Shahid-Zadeh hospital 189, Farideh Behbehani Hospital 102, the Social Security Organization hospital 74 were nurses, from these hospital respectively 78, 42 and 30 nurses, randomly after the explanation of the objectives of the study were collected through a questionnaire the standard measure of the sensitivity and Sonic Nuisance and general self-efficacy questionnaire was Sherer.

Self-efficacy questionnaire consisted of 17 questions in areas such as non-submission problems, the ability to deal with problems, the ability to achieve the goals of stability and is activities for each question based on the Likert scale ranging from strongly disagree to strongly agree, set is. If the grading scale of 1 to 5 points each awarded the maximum score that a person can obtain a scale score of 85 and a minimum score of 17. Higher scores indicate self-efficacy stronger, and lower scores indicate self-efficacy weaker is the study of Heydari *et al*.[12] Internal consistency with Cronbach's alpha test tool 81/0 and the study of Bayrami 0/79 was obtained.[13] Moreover, reliability, this tool has been reported in several studies 0/74 and 0/84.[14]

To measure the amount of Sonic Nuisance, the standard questionnaire used in the study used Golmohammadi and Aliabadi and reliability with 0/99,[15] as well as in the study of peasant culture and co-workers have confirmed its validity and reliability.[16] The questionnaire has 14 questions in the context of an individual's susceptibility to noise environment is concerned that the level of received voice and the subjects were asked to rate sensitivity to the sound environment of 0 to 10. The devoted and the 14 questions, in terms of the level of noise is an annoyance. Grading to the annoyance of the noise was from 0 to 10. Finally, scores of sensitivity to sound and Sonic Nuisance turned to the percentage of the total score between 0 and 100, respectively. Data analysis software and Pearson correlation coefficient and significant SPSS(IBM.com/software/analytics/spss) 16 $P > 0.05$ was considered significant.

Results

A total of 151 nurses enrolled 39 person (25/8%) were male and 112 were female (74/2%) had a mean score of self-efficacy 60/89 ± 6/58, respectively. In Table 1, the mean age and work experience, sensitivity to sound and noise annoyance and their relationship with self-efficacy expression, and the results show a significant relationship between self-efficacy with age and experience, there is direct effect between self-efficacy and sensitivity to sound (P = 0/005, r = −0/22), and Sonic Nuisance (P = 0/001, r = −0/27) had a significant negative relationship [Table 1].

Distribution of demographic characteristics and comparison of self-efficacy in the level of education, gender, marital status and type of employment can be seen in Table 2. The mean score of self-efficacy at various levels of education, employment status and marital status were not significantly different but mean of self-efficacy is a significant difference between males and females and in men more than women [Table 2].

Discussion

The purpose of this study was to 'determine the relationship between Sonic Nuisance and self-efficacy among Nurses in Behbahan'. By searching reputable sites, online resources did not found related article review the relationship Sonic Nuisance with self-efficacy nurses it in this part of the study; we will refer to the studies. The studies have been told that self-efficacy important indicator in determining the behaviour of nurses in the position and the real situation.[17] In the present

Table 1: Average score variables studied and to determine their relationship with self-efficacy

Self-efficacy		Variables studied	
r	*P*	Mean±SD	Variable
0/16	0/03	33/48±8/74	Age
0/25	0/002	8/74±5/19	Work experience
−0/22	0/005	63/7±22/98	Sensitivity to sound
−0/27	0/001	56/52±22/68	Sonic Nuisance

Table 2: Distribution of demographic characteristics, comparison of the self-efficacy

Demographic	*n* (%)	Self-efficacy (mean±SD)	*P*
Sex			
Male	39 (25/8)	62/56±6/09	0/05
Female	112 (74/2)	60/31±6/66	
Education			
Associate degree	22 (14/6)	61/8±7/71	0/15
BS	111 (73/5)	62/28±6/36	
Master degree	9 (6)	61/77±3/45	
Marriage			
Married	75 (49/7)	61/36±5/96	0/38
Single	76 (50/3)	60/43±7/14	
Recruitment			
Official	61 (40/4)	61/36±7/42	0/67
Contractual	58 (38/4)	60/84±5/94	
Contract	32 (21/2)	60/09±6/07	

SD: Standard deviation

study, the mean score was moderate to high self-efficacy and suggest that the self-efficacy of nurses is above average in this regard the study of Rezayat and Dehgannayeri nursing students self-efficacy were higher than average were reported.[18] In Masoudnia study, self-efficacy has been the majority of medium to high.[19]

In this study, self-efficacy with age and work experience had a direct relation and with increasing age and work experience had increased self-efficacy. In the field of study of Borhani *et al*.,[17] Lim *et al*.[20] were the same. In this study self-efficacy was significantly higher in the men than women had such a justification may be based on culture of Iran, because Women are more subjective concerns about of focus on home and bringing up children at work, therefore, reduced self-efficacy, although the results of Masoudnia[19] and McConville and Lane.[21]

In this study, between self-efficacy and sensitivity to sound and Sonic Nuisance inverse relationship has existed, which means that with increased sensitivity to environment noise and increasing Sonic Nuisance the self-efficacy declined.

Although the main concern about exposure to Sonic Nuisance hearing is, should not be aware about or other physical and psychological effects, in the workplace. Whatever complicated task then increased individual sensitivity and Sonic Nuisance towards sound disorder and this will be leads to the increasing number of errors and reduce the speed of a job.[16]

However, some studies, the amount of noise using sound level meter devices have been tested in some hospitals[2,3,5,22,23] and noise pollution have reported higher than standard but is the sensitivity to sound and Sonic Nuisance in nurses has not been investigated. In this study was the measurement and the mean score of sensitivity to sound and Sonic Nuisance was both above average and this data confirms studies in manufacturing jobs, such studies culture is a Dehghan *et al*.[16]

The Sonic Nuisance is often proportional to the degree of interference which can cause by noise in daily activities.[16] Studies have shown that hospitals are centres, which sound, as they have a detrimental factor and excessive noise in hospital environments in addition to physiological and psychological effects, will be lead to errors in the medical staff including the nurses.[2]

Considering the harmful effects of sound on favourable results in patients and its negative effects on efficiency nurses felt the necessity of reducing noise pollution and researchers believe that most sources of noise in the hospital is controllable and prevention.[24]

Moreover, in this fields to apply the principles of technical, engineering and management would be useful, for example, can has used for air intake and outlet valves and standard channels facilities, so that their voices are at the limit and the use of materials such as stone walls and floors that echo in the room or in the hallway of the hospital patients, should be avoided, as well as the regulations governing the sector can be prevented of significant amount of undesirable noise and the sound.[2]

Limitations of the present because this study has been done among nurses Behbahan Hospitals generalize to other groups, do research with larger sample sizes and in multiple centres in a wider geographic area are recommended.

Conclusion

The present study showed that with increased sensitivity and the Sonic Nuisance, nurses' self-efficacy is reduced. Therefore, use strategies to reduce of noise pollution in hospitals and take a step towards creating a healthier work environment and increase self-efficacy of nurses.

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Conflicts of interest

There are no conflicts of interest.

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