



Quality of Life of Nurses Working in Hospital: A Cross Sectional Study from Yazd, Iran

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Background: Back injury in nurses is one of the most common health problems. The chronic low back pain leads to several problems including disability, daily activities, physical and emotional problems and decreasing quality of life. The purpose of this study was to assess the quality of life of nursing staff with chronic nonspecific low back pain in Yazd, Iran.

Materials and Methods: This study was a descriptive-analytic study. A total of 119 nurses were selected with nonrandom purposive sampling method. Health-related quality of life of the participants was assessed using the 36-item short-form health survey questionnaire (SF-36) and analyzed through SPSS software version 20 by appropriate statistical tests.

Results: This study showed that there were significant differences between the quality of life of nursing staff with chronic low back pain and Iranian normal population in all aspects ($P < .0001$). It was revealed that only in the area of physical function there was a significant relationship between age and the quality of life ($P < .0001$).

Conclusion: The results confirmed the effect of income on dimensions such as physical role, bodily pain, mental health, and social function.

Keywords: Quality of life, Nursing staff, Chronic Nonspecific Low Back Pain

Introduction

Quality of life (QOL) is a challenging concept worldwide with different definitions from philosophical, political, and health point of view. When used in medical studies, the term includes various physical, psychological, social, and spiritual aspects (Pourhadi et al., 2014).

According to the World Health Organization (WHO), the quality of life is people's perception of their position in life in terms of their own culture, values system in which they live based on their goals, expectations, standards, and their priorities which are due to quite individual views (Pourhadi et al., 2014).

World Health Organization, stated the definition of health in 1948 based on several factors including complete physical, mental, and social welfare, so that-based on this definition-the attentions of health care scientists have been paid to the quality of life (Pourhadi et al., 2014).

Researches indicated that a desirable rate of the quality of life and overall well-being depends on work and family conditions and reaching to perfect satisfaction of life and perfect welfare is usually impossible. Working life forms an important part of the personal life. Pharrell defined job as one of the factors affecting the quality of life because work stress is an important factor affecting life quality (Jafari et al., 2013).

Chronic diseases are common health problems worldwide. People with chronic diseases suffer not only from physical complications but also from psychological problems which have a direct impact on their quality of life (Jafari et al., 2013).

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Bone and joint diseases are common diseases in developed and developing countries so that in an international action, the decade of 2000s to 2010 has been named as the decade of bone and joint diseases. Among these bone and joint diseases, low back pain is one of the most common public health problems worldwide.

According to the National Institutes of Health about 50-80% of the world population has experienced it in their life. If low back pain becomes chronic, it would have serious impact on the quality of life and produce social, personal, economic, and psychological problems for people (Afzalifard et al., 2006). In addition, the prevalence rate of low back pain is higher in some professions than other, for example, in construction workers, nurses, and drivers (Ramezani Badr et al., 2006).

Low back pain is the most common work-related musculoskeletal injury (Mohseni BandPey et al., 2007). Musculoskeletal disorders are the most important occupational problems between health service providers, and nursing is among the occupations in which the risk of getting musculoskeletal problems is high (Choobineh et al., 2012).

The increase in musculoskeletal disorders in nurses, causing varying degrees of disability, the impact on activities of daily life, physical and emotional problems, reduced job performance, and lack of tolerance. (Choobineh et al., 2012). Therefore, the need for special attention to this event is felt and showed that occupational stress was more in groups with low back pain than in control group, and there was a relationship between occupational stress and getting back ache. (Yip, 2001) also showed a significant relationship between low back pain and stress among nurses in Hong Kong.

Chronic Low back pain (CLBP) is one of the most prevalent medical, social, and economic problem in all countries worldwide which affects all life domains from fairly basic self-care actions to advanced social interactions, work, and leisure activities. This health related problem eventually has a profound impact on quality of life, because it has impact on all dimensions of health (Montazeri, Mousavi, 2010).

All existed evidences and studies showed that health related quality of life (HRQOL) could be decreased in patients suffering from low back pain (LBP). The aim of treatment of orthopedic disease, including low back pain is often improving the

pain, functional ability and quality of life of the patient, and, therefore, health related quality of life should be considered as an important outcome in clinical trials investigating this problem (Montazeri & Mousavi, 2010).

Although, in recent years there has been a trend to measure of functional status and quality of life in low back pain patients, overall health related quality of life was rarely explored as primary end-point in researches of low back pain (Montazeri & Mousavi, 2010). Clinical trials showed that health related quality of life significantly improved after various modes of rehabilitation program, back education, exercise therapy, surgical treatments, and pharmacological treatment. Beliefs about back pain, pain catastrophizing, anxiety, depression, fear avoidance relating to work are important predictors of health related quality of life in patients with chronic LBP. The previous documents verified that stress has a profound effect on nurses' health and quality of life and the quality of providing nursing care (Montazeri & Mousavi, 2010).

Certainly nurses without having a good general health, especially the nurse who have lower health related quality of life due to their chronic low back pain will not be able to provide a good care such as physical and psychological support for patients (Atoof et al., 2013). Therefore, they must have a good quality of life to be able to provide good clinical care for patients, which is the main goal of improving nurses' health related quality of life (Yazdi moghaddam et al., 2009).

According the given importance, the nurse managers are responsible for checking the nurses' health status and their quality of life by using appropriate tools (Atoof et al., 2013). Studies on health-related quality of life in chronic diseases have revealed a majority of undesirable effects of the chronic disease on physical, mental, and social performance of the patients (Amirian et al., 2014). In other words, chronic disease could affect on all health dimensions of the individuals.

As yet, several studies have been conducted on the types of back pain, their treatment ways, and their effects on the quality of life. In Iran, many studies have been conducted on the effectiveness of the treatment methods associated with low back pain (Pourhadi et al., 2014).

As, there is no study surveying the quality of life of nursing staff with nonspecific chronic low back pain. So due to the increase in musculoskeletal disorders among nursing personnel and their effects on normal process of life, we decided to evaluate the quality of life of nurses with nonspecific chronic low back pain, working in hospitals in Yazd, Iran.

Methods

This study was a cross-sectional study conducted to determine the quality of life of nursing staff which suffering from chronic low back pain in four hospitals in Yazd, Iran. The three first hospitals were related to Shahid Sadooghi University of Medical Sciences and the last one was a private hospital named Mother Hospital specializing in obstetrics, gynecology and infertility. These all settings were geographically in different points of the Yazd city. The referees to these centers were from different socio economical characteristics. This study was conducted in spring 2014.

All ethical principals were considered in this study. The ethics committee of Tarbiat Modares University was approved the study. The ethical principles were adhered to throughout the study. Participants were provided informed consent, confirmed in writing, after explaining of the purpose and procedures of the study. They were advised of their right to withdraw at any point without any impact on their care being provided.

In order to maintain ethical principles, the researcher assured the participants of the confidentiality of the data they contributed to this study. Prior to entry into the study, eligibility was confirmed by first researcher.

In this study, a total of 119 nurses and nursing assistants/aides with nonspecific chronic low back pain were participated. Samples were selected based on nonrandom purposefully sampling method. The criteria for the participation in this study was work experience of at least six months and suffering from CLBP for twelve weeks alternately. If there were someone who was not satisfied to participate in the study, he /she excluded from the study.

The participants signed a consent form, and then they were requested to complete the questionnaires. The questionnaires were completed in the presence of the researcher to clear any ambiguity that the participants might encounter while answering the items.

Health-related quality of life was assessed by using the 36-Item Short-Form Health Survey questionnaire (SF-36). The reliability and validity of its Persian version has been confirmed in previous studies (Montazeri et al., 2006).

The questionnaire has 36 questions measuring eight domains of health. These dimensions were consisted of physical function (PF), role limitations due to physical problems (RP), bodily pain (BP), general health (GH), vitality (VT), social function (SF), role limitations due to emotional problems (RE) and mental health (MH).

The raw score of each of the eight SF-36 dimensions was derived by summing the items scores and converted to a value dimension from 0 (the worst possible health state) to 100 (the best possible health state). General information collected through questionnaire was on age, sex, height, weight, occupation, level of education, income, marital status, and suffering from sciatica.

All data were entered into the SPSS version 23, and analyze through descriptive and analytical tests. For describing the data frequency and percent of the variables were measured. For the eight dimensions of the SF-36 questionnaire, Mean (SD) were calculated and compared with Mean (SD) of general population through T-tests.

Results

In total the data of 119 nurses who were eligible and took part in the study were analyzed. Of these participants, 93 nurses were female (78.2%) and 26 nurses were male (21.8%). About 59.7% of the participants (N = 71) were in age range of 33-42 years old. The results of the rest demographic characteristics analysis are shown in Table 1.

The comparison of the quality of life of the participants of this study and quality of life of Iranian general population are shown Table 2. According this Table, in all eight dimensions of quality of life, the scores of the nurses who participated in this study were significantly lower general population. All P values are < 0.001. The difference between mean scores of mental health of studied nurses and general population was significant at level of (P < 0.05).

Table 1. Demographic characteristics of nurses with low back pain (N = 119)

Variable	Number	Percent
Age groups 23-32	26	21.8
33-42	71	59.7
43-52	19	16
53-62	3	2.5
Gender Male	26	21.8
Female	93	78.2
Marital status Married	108	90.8
Single	9	7.6
Widowed/divorced	2	1.7
Education Academy (associate and above)	58	48.7
Non-academic (diploma and lower)	61	51.3
Occupation nurse and supervisor	51	42.8
Paramedic and practical nurse	68	57.2
Income High	4	3.3
Average	85	71.4
Low	30	25.2
History of sciatica Yes	37	31.1
No	82	68.9

Table 2. The quality of life of nurses with back pain compared with general population

Dimensions	Nurses (N = 119) Mean (SD)	General population (N = 4163) Mean (SD)	p-value (t-test)
Physical function (PF)	58.61 (20.69)	85.3 (20.8)	$P < .0001$
Role limitations due to physical problems (RP)	35.92 (34.84)	70 (38.0)	$P < .0001$
Bodily pain (BP)	41.78 (17.15)	79.4 (25.1)	$P < .0001$
General health (GH)	52.12 (18.31)	67.5 (20.4)	$P < .0001$
Vitality (VT)	59.45 (17.25)	65.8 (17.3)	$P < .0001$
Social function (SF)	55.04 (22.27)	76 (24.4)	$P < .0001$
Role limitations due to emotional Problems (RE)	42.85 (44.49)	65.6 (41.4)	$P < .0001$
Mental health (MH)	62.95 (19.97)	67 (18)	.029

As this Table shows, the most studied nurses (59.7%) were in age group between 33 and 42 years old. Furthermore, most of them were female (78.2%) and married (90.8%). The majority of the nurses were suffering from low back pain without sciatica.

Discussion

This study was done to explore the quality of life of nursing staff with chronic nonspecific low back pain working in hospitals in Yazd.

The results of the present study showed significant differences between the quality of life of nursing staff suffering from chronic low back pain and Iranian normal population (as an estimate of general population) in all aspects ($P < .0001$). The results are in accordance to other studies conducted in Iran (Jafari et al., 2013; Montazeri et al., 2006) and the study that was done in Taiwan (Su et al., 2009). In other words, the quality of life of nursing staff suffering from chronic low back pain were significantly lower

and worse than the rest of the general population.

This finding of the present study indicated that the nursing who suffered from low back pain had quality of life lower general population, so they might suffered from more functional and psychosocial disability to care the patients in an acceptable manner.

The findings of this study support the idea that chronic low back pain is not only a symptom but also something beyond a symptom or a syndrome. Chronic Low Back Pain is associated with reduction in health-related quality of life. Furthermore, if not treated properly, chronic low back pain will have detrimental effects on all aspects of health-related quality of life because of its commonality in this occupational group (Montazeri, et al.2005).

All existed evidences and studies showed that health related quality of life (HRQOL) could be decreased in individuals suffering from low back pain (LBP). Therefore, the aim of treatment of orthopedic disease, including low back pain is often improving the pain, functional ability and quality of life of the patient, and, therefore, health related quality of life should be considered as an important outcome in clinical trials investigating this problem (Montazeri & Mousavi, 2010).

In this study, no significant relationships between education levels as well as the work position of the nurses with their quality of life were observed. These results are in accordance with the findings of other studies conducted in Turkey (Ergun et al., 2005) and in Iran (Jafari et al., 2013).

However, other factors which might be present in all educational levels of nursing groups, might also affect on the quality of life of nurses who took part in this study.

The sociodemographic factors like job stressors, working tensions, lack of job security, low income and other social/environmental factors in the workplace might reduce the quality of life of the nurses. However, these factor did not assessed in the present study.

Although the nurses had professional skills and academic education, however, Iranian nurses are not always in proper job/ financial conditions in their worksites. The stresses in work places could be effective in quality of life of the studied nurses that were not assessed in this study. The previous researchers showed that people especially medical

doctors consider the nurses as physicians' assistants not as an independent profession, so this professional situation of the nurses would be a stressful condition for the nurses (Khani et al., 2008).

Therefore, these misunderstanding could lead to lower social function/lower vitality and mental health among nurses. In existed documents, it has been evidenced that the prevalence rate of low back pain is higher in some professions than other, for example, in construction workers, nurses, and drivers that may be due to hard physical/mental conditions of these professions (Ramezani Badr et al., 2006).

Low back pain is the most common work-related musculoskeletal injury (Mohseni BandPey et al., 2007). Musculoskeletal disorders are the most important occupational problems between health service providers, and nursing is among the occupations in which the risk of getting musculoskeletal problems is high (Choobineh et al., 2012).

Although this study has strength points, but there are some limitations that should be mentioned.

The main limitation in conducting this study was impatience and carelessness of the participants while filling out the questionnaire that might affect the accuracy of collected data. The hard duties of the nurses in the crowded wards prevent them to fill the questionnaires without any difficulty. Therefore, for future researchers, it is recommended that the questionnaire be filled in shift works while there is lower workload.

Even though, many studies in Iran have been done on the effectiveness of the different treatment methods associated with low back pain or evaluation of the quality of life in nurses generally, but there are no such studies that evaluate the status of the quality of life of nursing staff with nonspecific chronic low back pain. Thus, further researches with larger sample size are necessary for acquiring more information in this field. However, for confirming the results of this study, doing more researches in this field in multicenter settings are recommended strongly.

Although there are many studies which assessed the relationships between demographic characteristics and duality of life of nurses with low back pain, in this stud, the authors did not evaluate the demographic characteristics like age, gender

and income that may impact on quality of life. Thus, it is recommended in further studies these variables be studied among several larger sample size to be able to confirm the results. Being self-report that may interfere the results of this study, is another limitation of this study that could be considered in future researches.

Conclusion

The results of this study confirmed that nursing suffering from low back pain had lower health related quality of life compared with general population. Therefore, improving low back pain among nurses who working in hospitals is strongly recommended.

Conflict of Interest

There is no conflict of interest for this study.

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Author contribution

MGH; Study implementation, data collection and analysis, writing the first draft of Paper.

SST, AH, MGH; study design and data analysis, editing and confirming the final draft of the paper.

SST, AH, MGH; study design, confirming the final draft of the paper.

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