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Quality of Life among Hospital Nurses in the North of Jordan and its Associated Factors

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Abstract

Awareness of the importance of quality of life is increasingly being recognized as an important outcome measure among nurses. The objective of this study is to describe quality of life among Jordanian hospital nurses. The Short Form health survey (SF-36, version 2.0) version 2 was designed to assess health- related quality of life among 331 hospital nurses (160 males and 171 females). The SF-36 is composed of 36 items compromising eight health profiles, cover physical components and mental components. Scores for all profiles are expressed on a scale ranged between 0-100, where higher scores indicate more positive health and better quality of life. Descriptive statistics including percentages, frequencies, means, and standard deviations for each study variable were used. Multivariate analysis was performed to test the association of socio-demographic characteristics with study variables.

Findings: The mean (SD) of SF-36 total score was 44.6 (SD = 26.4). Male nurses had better quality of life than female nurses in physical function, bodily pain, general health, and social functioning. Nurses alternating shifts had better quality of life in bodily pain than nurses only day shift. Nurses with health problems had lower score in role physical, bodily pain, general health, and role emotional than nurses without health problems.

Keywords: Jordan; Nurses; Quality of life; Short Form -36

Introduction

Occupational health is the promotion and maintenance of the highest degree of physical, psychological and social well-being of workers in all occupations [1]. Nursing is a stressful profession that deals with intense human aspect of health and illness [2] that might affect their quality of life. Quality of life has become a topic of growing interest in medical and nursing practice [3]. Awareness of the importance of quality of life is increasingly being recognized as an important outcome measure in diverse health populations including workers in stressful working conditions [3]. Quality of life is a broad concept measures person's physical health, psychological status, social relationships, and his/her environment [4]. Nurses are susceptible to have physiological and psychological health problems [5]. Physical health problems including headaches, muscle tension and stiffness, diarrhea or constipation, nausea, dizziness, insomnia, chest pain, rapid pulse, weight gain or loss, heart disease, hypertension, irritable bowel syndrome, back and joint pain, duodenal ulcers [5,6]. The psychological health problems including anxiety, depression, insomnia, memory problems, poor judgment, indecisiveness, inability to concentrate, seeing the negative side of an issues, loss of objectivity, anxious, racing thoughts and feelings of inadequacy [5,6]. This study was designed to address the following questions:

- What is the level of quality of life among nurses in the north of Jordan?

- What is the relationship between socio-demographic variables and health- related quality of life among nurses in the north of Jordan?

Methods

Research Design and Sample

A cross-sectional study was conducted among 331 hospital nurses work at the King Abdullah University Hospital (KAUH) in Irbid in the north of Jordan over a period of two months. The overall response rate was 82.8%. KAUH is a referral hospital where the medicine and nursing students of Jordan University of Science and Technology receive their education and training courses. Inclusion criteria for this study were nurses and midwives who registered at the Union of Nurses and Midwives of Jordan (UNMJ). These nurses had bachelor or diploma degree who provide patient care that meets the standards of professional nursing practice and hospital policies and procedures of UNMJ. Nurses in management positions were excluded from the study. Prior conducting the study, the Institutional Review Board was obtained from the Jordan University of Science and Technology Research committee. Informed consent was obtained from participants who agreed to participate in this study. The questionnaire took about 10 minutes to complete.

Instruments

A self-administered questionnaire includes demographic characteristics and short form health survey (SF-36) [7-9] version 2 was used for this study. The demographic data was designed to collect information regarding gender, marital status, level of education, age, years of experience in nursing, length of shift, job description, general health status, clinical setting worked, type of shift worked, average of number patients of received per shift. The Short Form health survey (SF-36, version 2.0) [7-9] version 2 was designed to assess Health- related quality of life. The SF-36 is composed of 36 items compromising eight health profiles. Of these 8 profiles, four health profiles cover Physical Component Scores (PCS), including Physical Functioning (PF), Rol-Physical (RP), Bodily Pain (BP) and General health (GH). The other four profiles that cover the mental component scores (MCS) include: Vitality (VT), Social Functioning (SF), Role-Emotional (RE), and Mental Health (MH). All profiles are independent of each other. Scores for all profiles are expressed on a scale ranged between 0-100, where higher scores indicate more positive health and better quality of life [7-9]. Previous research from Jordan [10] assessed the psychometric properties of the Short Form 36 Health Survey using the Arabic version among 511 general population of north Jordan. Cronbach alphas for all 8 SF-36 scales exceeded 0.70. All items passed the tests for item internal consistency and item discriminate validity. The SF-36 is a valid and reliable instrument for measuring quality of life among Jordanians.

Data Analysis

The data was analyzed using statistical package for social sciences (SPSS, Windows version 17). Descriptive statistics including percentages, frequencies, means, and standard deviations for each study variable were used. Multivariate analysis was performed to test the association of socio-demographic characteristics with study variables. The adjustments were performed by generalized linear model. The confusion variables considered were the following: age, gender, experience, type of shift, number of patients, having any health problems, and marital status. Partial correlation was used to identify the relationship between nursing job stress and health related quality of life. Assumptions for each statistical measure were met and an alpha level of 0.05 was established.

Results

Participants' Characteristics

This study included 331 hospital nurses (160 males and 171 females). The mean (S.D.) age of the participants was 26.5 (4.1) years, ranged from 23 to 49 with the median 25 years. Socio-demographic characteristics of participants are shown in (Table 1).

Variables	No. of respondents	%
Gender		
Males	160	48.3
Females	171	51.7
Age		
≤ 25 years	179	54.1
> 25 years	152	45.9
Experience		
≤2 years	155	46.8
> 2 years	176	53.2
Marital Status		
Single	194	58.6
Married	137	41.4
Type of shift		
Alternating shifts (Day&Nite)	160	48.3
Day only	171	51.7
Clinical setting		
Medical	66	19.9
Surgical	70	21.1
Obstetric & Gyn.	35	10.6
Pediatrics	20	6
Critical care unit	106	32

Having health Problems		
Yes		13.60%
No	286	86.40%

Table 1: Socio-demographic, relevant and job-related characteristics of the participants) (N = 331).

The Level of Quality of Life Among Nurses in the North of Jordan

The mean scores for the 8 dimensions of the short form 36 health survey (SF-36, version 2.0) are shown in (Table 2). The mean (SD) of SF-36 total score was 44.6 (SD = 26.4); the highest mean (SD) was 55.2 (SD=21.3) for general health, and the lowest mean (SD) was 36.5 (SD= 16.0) for physical function.

	Dimension	Range Score	Mean(SD)
Physical Functioning (PF)	10	0-100	36.5(61.0)
Role-Physical (RP)	4	0-100	44.8(38.7)
Bodily Pain (BP)	2	0-100	49.4(25.7)
General Health (GH)	6	0-100	55.2(21.3)
Vitality (VT)	4	0-100	39.5(21.1)
Social Functioning (SF)	2	0-100	43.7(24.7)
Role-Emotional (RE)	3	0-100	43.3(42.0)
Mental Health (MH)	5	0-100	44.3(21.6)
Overall score	36	0-100	44.6(26.5)

Table 2: The Mean scores for the 8 dimensions of the short form 36 health survey (SF-36, version 2.0) (N = 331).

The relationship between socio-demographic variables and health- related quality of life among nurses in the north of Jordan?

Multivariate analysis of the association between socio-demographics characteristics and health-related quality of life are shown in table 3. Gender, type of shift and having health problems were the only significant factors associated with quality of life. Gender of participants was significantly associated with physical function, bodily pain, general health, and social functioning. Male nurses had better quality of life quality of life than female nurses in physical function (P= 0.0 45), bodily pain (P= 0.001), general health (P= 0.024), and social functioning (P= 0.001). Type of shift was significantly associated with bodily pain. Nurses work most of the time alternating shifts had better quality of life in bodily pain (P = 0.013) than nurses work most of the time only day shift. Having health problems was significantly associated with role physical, bodily pain, general health, and role emotional. Nurses with health problems had less quality of life than nurses without health problems in role physical (P= 0.015), bodily pain (P= 0.0005), general health (P= 0.0.0005), and role emotional (P= 0.019). Age, experience years, marital status, and clinical work setting were not significantly associated with any dimension of quality of life.

Characteristics	PF Mean(SD)	RP Mean(SD)	BP Mean(SD)	GH Mean(SD)	VT Mean (SD)	SF Mean(SD)	RE Mean(SD)	MH Mean(SD)
Gender								
Male	76.5(21.7)	51.3(40.0)	57.6(26.1)	59.9(20.8)	44.0(2.1)	50.6(25.0)	49.4(44.2)	48.2(21.1)
Female	69.0(20.8)	38.7(36.5)	41.7(22.8)	50.9(20.9)	35.2(2.0)	37.2(22.6)	37.6(39.0)	40.6(21.6)
P-Value	* 0.045	0.116	*0.0005	* 0.024	0.052	* 0.001	0.201	0.107
Age								
≤25 years	72.8(21.1)	45.8(38.9)	50.7(26.3)	56.3(20.1)	40.0(2.0)	46.2(24.0)	41.8(42.3	45.6(20.9)
> 25 years	72.8(21.1)	45.7(38.6)	47.8(25.0)	53.9(22.6)	38.9(2.3)	43.1(25.5)	41.8(41.6)	42.7(22.4)
P-Value	0.734	0.869	0.114	0.092	0.419	0.081	0.671	0.068
Experience								
≤2 years	73.7(21.7)	46.2(37.3)	49.5(26.0	55.3(18.1)	40.1(2.0)	43.5(23.9)	42.0(41.8)	45.2(21.0)
>2 years	72.6(21.5)	43.2(38.2)	49.2(25.5)	55.1(23.8)	39.0(2.2	43.9(25.4)	44.5(42.3)	43.4(22.2)
P-Value	0.595	0.07	0.173	0.175	0.634	0.524	0.966	0.762
Marital Status								
Married	69.4(20.8)	40.1(37.0)	45.8(24.3)	52.5(21.1)	36.7(2.1)	42.7(24.6)	42.3(40.9)	42.7(20.8)
Single	75.0(21.9)	48.1(39.6)	51.9(26.4)	57.1(21.2)	41.5(2.1)	44..4(24.8)	44.0(42.8)	45.3(22.2)
P-Value	0.108	0.081	0.453	0.505	0.116	0.657	0.712	0.898

Shift time								
Night	74.3(21.4)	43.3(38.4)	51.7 (26.0)	55.8 (21.7)	37.7(2.0)	43.0(24.3)	41.0(40.8)	43.4(22.3)
Day	71.1(21.7)	46.2(39.0)	47.2 (25.2)	54.6 (21.0)	41.2(2.2)	44.4(25.0)	45.4(43.0)	45.0(21.0)
P-Value	0.072	0.935	*0.013	0.266	0.383	0.864	0.663	0.564
Having health problems								
Yes	66.2(19.6)	25.6(32.6)	34.2(16.8)	40.9(17.0)	33.8(1.6)	35.0(21.6)	25.9(34.7)	35.6(15.1)
No	73.7(21.7)	47.8(38.7)	51.8(26.0)	57.5(21.0)	40.4(2.2)	45.1(24.9)	46.0(42.4)	45.6(22.2)
P-Value	0.193	* 0.015	* 0.0005	* 0.0005	0.447	0.114	*0.019	0.096
Setting								
Medical	73.5(20.7)	45.8(40.8)	49.1(23.9)	54.9(21.8)	43.6(2.2)	44.9(23.9)	39.4(44.9)	46.0(21.9)
Surgical	71.3(23.8)	36.1(37.3)	46.9(23.8)	53.5(21.3)	35.9(1.9)	40.0(21.8)	43.3(41.4)	42.7(20.2)
Obstetrics & Gynecology	67.6(18.5)	32.9(35.2)	36.1(21.6)	47.7(16.7)	31.0(2.0)	35.4(26.9)	39.0(38.3)	36.3(22.2)
Pediatrics	73.0(22.3)	55.0(39.4	41.4(25.5)	51.6(25.9)	39.0(2.5)	41.9(25.7)	45.0(40.9)	46.8(21.9)
Critical care unit	73.7(22.5)	47.2(38.6	53.7(27.4)	57.3(19.0)	39.0(2.1)	45.2(24.6	41.8(41.4	44.9(22.4)
Others	75.7(18.0)	59.6(35.4)	59.8(25.1)	62.7(26.0)	49.4(1.9)	54.0(26.4)	58.8(42.7)	49.0(20.0)
P-value	0.898	0.222	0.157	0.574	0.111	0.534	0.325	0.183
* Significant correlated at 0.05 levels.								
* Higher scores indicate better quality of life.								

Table 5: Table 2 Health related quality of life for participants according to their socio-demographic characteristics, work related factors and relevant characteristics (n = 331).

Discussion

Studies addressing issues of nurses' quality of life are scarce worldwide including Arab countries. Up to our knowledge, there is no reliable data about quality of life of Jordanian nurses. The findings of the current study showed that nurses had poor quality of life. These findings indicated the highest total mean score for SF-36 was for the general health scale (55.2) and the lowest total mean score was for the Physical function scale (36.5). Khader et al**.** [10] studied quality of life using SF-36 among the general population in the north Jordan. The authors found the highest total mean score for SF-36 was for the Physical function scale (66.5) and the lowest total mean score was for the Bodily Pain scale (56.4), indicating respondents of general population had better quality of life than nurses at KAUH. Wong et al. [11] who found that more than one-third of Chinese nurses had poor mental health. In contrast in the same country, Joseph [12] reported that the overall mean score of the nurses rated their health as good.

The findings of the current study showed that male sex was significantly associated better quality of life in physical function, bodily pain, vitality and social functioning. These results could be explained by the fact that female nurses are more anxious about their health and therefore are more likely to over- report their symptoms and to show their deficiencies than male nurses. In Jordan, Khader et al. [10-12] found that women had lower physical functioning and role emotional scores than men.

The present study findings showed that nurses who work alternating shifts had better quality of life in bodily pain than nurses who work only day shift. Our finding is incongruent with previous studies in Egypt and USA [13,14]**.** Arafa et al.[13] Found that nurses who worked on alternating shifts recorded a significantly higher rate of moderate to severe psychological symptoms compared to those working only day shifts. Brown et al. [13] found that working two or more double shifts/ month was associated with increased risk for all mental health indicators.

Nurses with health problems scored their overall quality of life less than nurses without health problems. This finding is congruent with the finding of Khader et al. [10] and Lerner et al. [15] who found that people with health problems were likely to have poor quality of life. In China, Lambert et al**.** [16] found there was a positive correlation between physical health and mental health. In USA, Puksta [17] found that high quality of life was associated with physical independence. In Egypt, Arafa et al [13] found that nurses who reported moderate to severe psychological symptoms had one or more frequent physical symptoms. The irritable colon was the most frequently mentioned symptom (35%), followed by arthritis (29%), headache (24%), difficulty in sleep

(19.6%) and poor appetite (16%). Our data showed that age, length of experience, marital status was not significantly associated with quality of life. Even though the correlations were not statistically significant, in this study younger nurses with shorter length of experience reported higher quality of life than older nurses with longer length of experience. This finding consistent with Landa et al**.** [18] who found that youngest Spanish nurses with shorter length of service would have better health than older nurses with longer length of experience. These results could be explained by that older individuals have a high risk for health disorders either physically or mentally [19-21]. In Egypt, Arafa et al.[13] showed that fewer years of experience as found in younger age groups was significantly associated with psychological ill health of nurses (t = 4.11, p=0.000). In China, Joseph [12] found that junior nurses reported more job stress than their senior counterparts. Khader et al. [10] found that increased age was significantly associated with decreased general health score. Married nurses had lower quality of life than single nurses. This finding is consistent with those findings of Khader et al. [10] who found that Jordanian married women had lower role physical score than single women. This result could be explained by the fact that married individuals can the existence of marital problems, problems with work, and other daily activity owing to physical health [18]. However, Landa et al. [18] found that Spanish nurses who are married reported better general health than single nurses. In the current study, type of shift and clinical work setting were not significantly associated with any dimensions of SF-36. In Egypt, Arafa et al.[13] Found that nurses had moderate to severe psychological symptoms among those working in ICUs (25.93%), followed by those working in internal medicine departments (25.87%), and those working in operating theatres.

Limitations

Although this study adds important information on quality of life of nurses; there are some limitations that need to be noted. First, the sample was limited to the staff worked in one clinical setting. Therefore, the findings generated cannot be generalized for all Jordanian hospital nurses. Second limitation to be considered is that a cross-sectional design with a single period of data collection only provides view of points of participants' responses at that time. Finally, the study used self-reporting to obtain information; this method may be characterized by highly subjectivity of the respondents at the time of data collection.

Conclusions, Implications and Recommendations

The quality of life of Jordanian hospital nurses was low. Female gender, having health problems, and alternate shift were associated with lower quality of life of Jordanian nurses. Identifying factors affecting quality of life in clinical setting could increase the awareness of policymakers in management program and could be resulted in increase quality of the work environment, quality of care and improve nurses' quality of life. Further researches are required using a larger sample, a wider geographic distribution, and random sampling methods. Longitudinal studies are needed to provide a more accurate measurement of the change in health-related quality of life. Intervention studies assessing the methods for improving quality of life and for fostering effective coping strategies should be considered, to enhance Jordanian nurse's physical and mental health.

References

1. The National Institute of Occupational Safety and Health (NIOSH) [online]. 2018: [cited 20018 February3].
2. Sheward L, Hunt J, Hagen S, Macleod M, Ball J (2005) The relationship between UK hospital nurse staffing and emotional exhaustion and job dissatisfaction. Journal of Nursing Management 13: 51-60.
3. Katching H, Krautgartner M (2002) Quality of life: A new dimension in mental health care John Wiley & Sons Ltd. pp. 171-191.
4. WHOQOL Group (1995) The World Health Organization Quality of Life assessment (WHOQOL): position paper from the World Health Organization. Soc Sci Med 41: 1403-1409.
5. Tully A (2004) Stress, sources of stress and ways of coping among psychiatric nursing students. J Psychiatr Ment Hlt 11: 43-47.
6. Hopman WM, Towheed T, Anastassiades T, Tenenhouse A, Poliquin S, et al. (2000) Canadian normative data for the SF-36 health survey. Canadian Multicentre Osteoporosis Study Research Group. CMAJ 163: 265-271.
7. Ware JE Jr: The SF-36 Health Survey (1996) In: Quality of Life and Pharmacoecoeconomics in Clinical Trials Secondth edition. Edited by: Spilker B. Philadelphia: Lippincott-Raven Publishers 337-345.
8. Ware JE Jr (1997) SF-36 Health Survey Manuel and Interpretation Guide. Second printing. Boston, Massachusetts: The Health Institute, New England Center.
9. Ware JE Jr (1994) SF-36 Physical and Mental Health Summary Scales: A User's Manuel, 5th printing. Boston, Health Assessment Lab, New England Center.
10. Khader S, Hourani MM, Al-Akour N (2011) Normative data and psychometric properties of short form 36 health survey (SF-36, version 1.0) in the population of north Jordan. Eastern Mediterranean Health Journal 17: 368- 374.
11. Wong D, Leung S, So C, Lam D (2006) mental health of Chinese nurses in Hong Kong: The Roles of Nursing Stresses and Coping Strategies OJIN 6.
12. Joseph L (2003) Job stress, coping and health perception of Hong Kong primary care nurses. Int J Nurs Pract 9: 86-91.
13. Arafa MA, Nazel MW, Ibrahim NK, Attia A (2003) Predictors of psychological well-being of nurses in Alexandria, Egypt. Int J Nurs Pract 9: 313-320.
14. Brown J, Muntaner C, Lipscomb J, Trinkoff A (2006) Demanding work schedules and mental health in nursing assistants working in nursing homes. Work and Stress 8: 292-304.

15. Lerner DJ, Levine S, Malspeis S, D'Agostino RB (1994) Job strain and health-related quality of life in a national sample. Am J Public Health 84: 1580-1585.

16. Lambert V, Lambert C, Petrini M, Li X, Zhang Y (2007) Workplace and personal factors associated with physical and mental health in hospital nurses in China, Nurs Health Sci 9: 120-126.

17. Puksta N (1995) Quality of life in relation to stressful life events, daily hassles, and coping responses among midlife, female Navy nurses [dissertation]. Catholic University of America.

18. Landa J, Zafra E, Martos M, Luzon M (2008) The relationship between emotional intelligence, occupational stress and health in nurses: A questionnaire survey. I J Nur Stu 45: 888-901.

19. Al-Akour N, Khader YS, Shatnawi NJ (2010) Quality of life and associated factors among Jordanian adolescent with type 1 diabetes mellitus. J Diabetes Complicat 24: 43-47.

20. Arif AA, Rohrer JE (2006) The relationship between obesity, hyperglycemia symptoms, and health related quality of life among Hispanic and non- Hispanic White children and adolescents. BMC Family Practice 7: 1-3.

21. Hoey H, Aanstoot H, Chiarelli F, Daneman D, Danne T, et al. (2001) Good metabolic control is associated with better quality of life in 2,101 adolescents with type 1 diabetes. Diabetes Care 24: 1923-1928.