

Original Article

A DESCRIPTIVE STUDY ON QUALITY OF LIFE OF NURSES WORKING IN SELECTED HOSPITALS OF UDUPI AND MANGALORE DISTRICTS KARNATAKA, INDIA

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Abstract :

Quality of life (QOL) is an important dimension of health. It is a subjective term which varies from person to person and depends on each individual's capacity to cope with a situation. It is important to know how satisfied nurses are with their QOL and jobs and what characteristics influence their quality of life. The main aim of this study was to determine the Quality of Life of nurses as measured by WHO Quality of Life questionnaire and to find the association between Quality of Life and selected demographic and work related variables. The study population consisted of 1040 registered nurses working in selected medical college hospitals and government hospitals of Udupi and Mangalore districts during the period of data collection. Purposive sampling was used to select the samples. Data were gathered by administering Background proforma, and scale on Quality of life (WHO QOL-BREF). Median score of QOL of nurses on overall perception of quality of life and health were equal. Significant association was observed between Quality of life and marital status, and monthly income, area of work, working hours and total years of experience.

Keywords : Nurses, Quality of life

Introduction :

Nurses are trained to consider patient's quality of care and life but seldom their own; they rarely consider that they themselves or others in the profession may need care. Quality of working life is a system of analyzing how people experience work, how the experience relates to job satisfaction, intent to leave, turnover rate, personality and work stress¹. It is now almost universally recognized that nursing is, by its very nature, a stressful occupation. Nursing was chosen as one of the occupations on which the International Labour Organization (ILO) has commissioned a manual on stress prevention². Due to insufficient staffing, nurses experience difficulties in meeting patient needs. They become frustrated about their inability to complete their work to their professional satisfaction and express wishes to

leave the nursing profession³. To cope with the challenges in the health care delivery system and to guarantee the quality of care rendered and client satisfaction on the care received, it is important to know how satisfied nurses are with their QOL and jobs and what characteristics influence their quality of life.

Ergun et al (2005) determined the quality of life of 89 oncology nurses from 12 different cities in Turkey. The study was descriptive and included Quality of life was assessed with the World Health Organization QOL Scale (WOQOL-BREF). Data were analyzed using descriptive statistics including Student *t* tests, analysis of variance, and the Scheffe test for post hoc analysis. Mean scores for QOL were 14.52 for the physical health domain, 14.3 for the psychological domain, 13.57 for the social relationships domain, and 11.78 for the environment domain. It has been concluded that providing care for patients with cancer has a negative impact on the QOL of oncology nurses⁴.

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According to World Health Organisation quality of life is defined as an individual's perception of his or her position in life in the context of the cultural and value system in which he or she lives and in relation to his or her goals, expectations, standards and concerns. Quality of life is a subjective satisfaction expressed by an individual in his physical, mental, social and spiritual situation. It is a term which varies from person to person and depends on each individual's capacity to cope with a situation (WHO, 1994). Considering the WHO concept of health as a state of physical, mental, and social wellbeing, the improvement in the quality of life of nurses becomes a very important since they have to play multiple roles in their lives.⁵

Objectives :

1. To determine the Quality of Life of nurses as measured by WHO Quality of Life Questionnaire (BREF).
2. To find the association between Quality of life and
 - 2.1 Demographic variables such as age, professional qualification, marital status, married status, number of children, type of family, and monthly income.
 - 2.2 Work place variables such as area of work, daily working hours, experience in Current area of work and total years of experience.

Materials and methods :

In view of accomplishing the research objectives descriptive survey approach was considered the best. The study population consisted of the registered nurses working in selected medical college hospitals and government hospitals of Udupi and Mangalore districts during the period of data collection in 2009-2010. Purposive sampling was used to select the samples from medical college hospitals, whereas all available samples were chosen from government hospitals as the population was comparatively very less in government hospitals. Total sample size was 1040.

The following criteria were set for the selection of the sample.

Female nurses who were:

- registered with state nursing council
- working as staff nurses

- involved in direct patient care
- employed at the hospital at least six months
- working in respective units at least six months

The instruments used to collect the data were Background proforma and Quality of life questionnaire (WHO QOL-BREF). Background proforma had 11 items such as age, professional qualification, marital status, married status, type of family, number of children, monthly income, area of work, daily working hours, experience in current area of work and total years of experience as a nurse. The WHO, QOL- BREF is a 26-item, cross-cultural, and self-administered scale that covers four domains of QOL (psychological, physical, social relationships and environmental). The WHOQOL-BREF contains a total of 26 questions. In addition, two items from the Overall quality of Life and General Health facet have been included, among which question one asks about an individual's overall perception of quality of life and question two asks about an individual's overall perception of their health. The four domain scores denote an individual's perception of quality of life in each particular domain. The options for the items are as follows: Item no.1&15: Very poor, Poor, neither poor nor good, Good, Very good. Item no.2 & 16 - 25: Very satisfied, Dissatisfied, Neither satisfied nor dissatisfied, Satisfied, Very satisfied. Items 3- 9: Not at all, A little, Moderate amount, Very much, An extreme amount. Items 10-14: Not at all, A little, Mostly, Completely. Item no. 26 Never, Seldom, Quite often, Very often, and Always. The scoring was 1, 2, 3, 4, and 5 for all the items except items 3, 4 and 26 which had reverse scoring.

Procedure for data collection :

The data were collected from the registered nurses of various hospitals in Udupi and Mangalore. The nurses were contacted and administered the questionnaires in their respective wards during different shifts according to their convenient time. The institutions which had continuing nursing education programme (CNE) nurses were met and data were collected soon after the CNE sessions.

Ethical considerations :

Written permission was obtained from Dean, Manipal College of Nursing Manipal, Manipal University and also from the administrators of the institutions selected for the study. The study proposal was presented to the PhD committee of the Manipal University and ethical committee members of Kasturba hospital, Manipal and ethical clearance was sought. Permission was also sought from the administrators of the institutions from where the subjects were selected on the days of data collection, the researcher introduced herself and the purpose of the study was explained to the subjects and written consent was taken. Subject information was also provided to them. The subjects were assured of the confidentiality of the information given.

Results :

The gathered data were first coded and summarized in a master sheet and then analyzed using SPSS 16. Association between Quality of life and demographic variables and work place variables was determined by computing Kruskal-Wallis test, and Mann-Whitney (Z) test.

Description of Sample characteristics :

The sample characteristics are described in terms of frequency and percentage in table 1 and 2.

Description of Quality of life :

This section describes the Quality of life of nurses. The WHO QOL-BREF produces a quality of life profile. Four domain scores are derived from the data. There are two items that are examined separately: question one asks about an individual's overall perception of quality of life and question two asks about an individual's overall perception of health. The four domain scores denote an individual's perception of quality of life in each particular domain. The mean score of items within each domain is used to calculate the domain score. Obtained raw scores are converted to transform scores as per the norms suggested by WHO. Advanced analysis is carried out to find the median scores of nurses in QOL dimensions with regard to demographic and work variables. The findings are

presented in tables 3 - 7.

Association between Quality of life and selected variables

As age was a continuous variable and did not follow normality, Spearman's rho was computed between Quality of life and age .The Spearman Rho calculated was 0.082 with p value of 0.008. Even though the correlation is statistically significant, the magnitude of the correlation coefficient is very close to zero. There is significant association between Quality of life and marital status ($p < 0.001$). Significant association is also observed between quality of life and monthly income ($p < 0.001$). Significant association is observed between Quality of life and area of work, daily working hours and total years of experience ($p < 0.05$). Findings are presented in tables 8 and 9.

Table 1: Frequency and percentage distribution of sample characteristics with regard to demographic variables n=1040

Demographic variables	Frequency (f)	Percentage (%)
Age in years		
21- 30	730	70.2
31- 40	218	21.0
41- 50	69	6.6
51- 56	23	2.2
Professional qualification		
General Nursing & Midwifery	906	87.1
Basic BSc Nursing	105	10.1
Post Certificate BSc Nursing	29	2.8
Marital status		
Single	555	53.4
Married	485	46.6
Married status		
Staying with spouse	326	67.22
Staying away from spouse for job purpose	142	29.28
Divorced	6	1.24
Widowed	11	2.26
Type of family		
Nuclear	858	82.5
Joint	182	17.5
No. of children		
None	84	17.32
One	164	33.81
Two	214	44.13
Three or more	23	4.74
Monthly income in Rupees		
<5000	255	24.5
5001-9000	532	51.2
9001-13000	155	14.9
<13000	98	9.4

Table 2: Frequency and percentage distribution of sample characteristics with regard to work variables n=1040

Work variables	Frequency (f)	Percentage (%)
Area of current work		
Medical	334	32.1
Surgical	183	17.6
Operation Theatre (OT)	111	10.7
Intensive Care Unit (ICU)	154	14.8
Casualty	85	8.2
Special ward	52	5.0
Paediatrics	42	4.0
Obstetrics and Gynaecology	56	5.4
Dialysis	23	2.2
Daily working hours		
8	785	75.5
10	195	18.8
12 and more	60	5.7
Total years of experience		
1-5	592	56.92
6-10	196	18.85
11-15	106	10.19
16-20	92	8.85
>20	54	5.19
Experience in current area of work		
<One year	390	37.5
1-3 years	348	33.46
3-5 years	164	15.77
>5years	138	13.27

Table 3: Mean, Median, SD, Minimum and Maximum score of overall perception of Quality of life and health of nurses. n=1040

Items	Mean	Median	SD	Minimum Score	Maximum score
How do you rate your quality of life?	3.87	4	0.62	1	5
How satisfied are you with your health?	3.91	4	0.65	1	5

Table 4: Domain wise Median, SD, Minimum and Maximum score of Quality of life of nurses n=1040

Domains	Median	SD	Minimum Score	Maximum score
Physical	26	3.2	11	35
Psychological	22	3.1	7	29
Social	12	1.4	5	15
Environmental	26	3.8	5	38

Table 5: Domain wise Means of transformed score of the Quality of the life of nurses n=1040

Domains	Raw score	Transformed score (4-20)	Transformed Score(0-100)
Physical	25.8	14.7	67.3
Psychological	21.5	14.4	64.9
Social	11.6	15.5	71.6
Environmental	26.5	13.5	59.4

Table 6: Median scores of nurses in Quality of life dimensions by demographic variables n=1040

Demographic variables	Quality of life dimension, Median (IQR)			
	Physical	Psychological	Social	Environmental
Age in years				
21- 30	26 (24,28)	22 (19,24)	11 (11,12)	26 (24,29)
31- 40	27 (27,28)	22 (21,24)	12 (12,13)	27 (24,30)
41- 50	26 (24,28)	21 (19,23)	12 (11,13)	26 (23,28)
51- 56	27 (25,28)	23 (21,24)	12 (12,12)	28 (25,30)
z	14.01	13.79	50.85	8.72
p	0.003	0.003	<0.0001	0.03
Professional qualification				
General Nursing and Midwifery	26 (24,28)	22 (19,24)	12 (11,12)	26 (24,29)
Basic BSc Nursing	26 (24,28)	22 (20,24)	11 (11,12)	27 (24,30)
Post Certificate BSc Nursing	26 (24,28)	23 (20,24)	12 (11,12)	27 (25,30)
z	0.81	4.79	15.27	9.36
p	0.67	0.09	<0.0001	<0.0001
Marital status				
Single	26 (24,28)	22 (20,24)	11 (11,12)	26 (24,29)
Married	26 (24,28)	22 (20,24)	12 (12,13)	26 (24,29)
z	2.135	1.184	14.368	-0.785
p	0.03	0.24	<0.0001	0.43
If married (Married status)				
Staying with spouse	26 (25,28)	22 (20,24)	12 (12,13)	27 (24,29)
Staying away from spouse for job purpose	26 (24,28)	22 (19,24)	12 (12,13)	26 (24,29)
Divorced	27(24,28.25)	22.5 (20,25.25)	12 (11.5,13)	26.5(24.25,29.75)
Widowed	26 (22,29)	20 (18,24)	11 (10,12)	25 (22,30)
z	0.54	2.94	7.43	2.81
p	0.91	0.40	0.06	0.4

Variables	Quality of life dimension, Median (IQR)			
	Physical	Psychological	Social	Environmental
Type of family				
Nuclear	22 (24,28)	26 (20,24)	12 (11,12)	27 (24,29)
Joint	26 (24,28)	21 (19,24)	12 (11,12)	26 (24,28)
z	1.97	1.06	1.37	1.00
p	0.05	0.29	0.17	0.31
No. of children				
None	26 (25,28)	22 (19,24)	12 (12,13)	26 (24,29)
One	26 (24,28)	22 (20,24)	12 (12,13)	26.5 (24,30)
Two	26 (24,28)	22 (20,24)	12 (12,13)	27 (24,29)
Three or more	28 (24,29)	23 (21,24)	12 (12,13)	27 (25,29)
z	5.13	2.11	1.72	1.51
p	0.16	0.55	0.63	0.67
Monthly income in Rupees				
<5000	25 (23,28)	21 (19,24)	11 (10,12)	26 (24,28)
5001-9000	26 (24,28)	22 (20,24)	12 (11,13)	27 (24,29)
9001-13000	26 (25,28)	22 (19,24)	12 (11,13)	27 (24,29)
>13000	27 (25,28)	22 (20,25)	12 (12,12.75)	27 (27,30.75)
z	17.61	9.83	57.12	9.86
p	0.001	0.02	<0.0001	0.02

Table 7: Median scores of nurses in Quality of life dimensions by work variables
n=1040

Work variables	Quality of life dimensions, Median(IQR)			
	Physical	Psychological	Social	Environmental
Area of current work				
Medical	26 (24,28)	22 (19,24)	12 (11,12)	27 (24,29)
Surgical	26 (23,28)	22 (19,24)	11 (11,12)	27 (24,30)
Operation Theatre(OT)	27 (25,29)	22 (20,24)	11 (11,12)	27 (25,30)
Intensive Care Unit (ICU)	26 (25,28)	21 (20,23)	12 (11,13)	25.5 (24,28)
Casualty	26 (24,27)	21 (20,22)	12 (11,12)	26 (24,28.5)
Special ward	25 (22.25,27)	21 (19,23.75)	12 (11,12)	26 (24,28.75)
Paediatrics	26.5(23.75,30)	22 (19,24)	12 (11,13)	26.5 (24,30.25)
Obstetrics and Gynaecology	27 (25,28)	23 (20,25)	12 (11,13)	28 (25,29.75)
Dialysis	27 (24,28)	23 (21,24)	11 (10,1)	27 (26,30)
z	32.77	13.71	14.77	18.45
p	<0.0001	0.09	0.06	0.01
Daily working hours				
8	26 (24,28)	22 (20,24)	12 (11,12)	27 (24,29)
10	25 (23,27)	21 (19,23)	11 (11,12)	26 (23,28)
12 and more	25 (23,28)	21 (19,23)	11 (10,12)	26 (23,28)
z	18.28	10.68	10.134	9.35
p	<0.0001	0.005	0.006	0.009
Total years of experience				
1-5	26 (23,28)	22 (20,24)	11 (11,12)	26 (24,29)
6-10	26 (25,28)	21 (19,23.75)	12 (11,13)	26 (24,28)
11-15	27 (25,28)	22 (21,24)	12 (11,13)	28 (25,30)
16-20	27 (25,29)	22 (20,24)	12 (11.25,13)	27 (24,30)
>20	26 (24,28)	21 (20,24)	12 (11,12)	26 (24,29)
z	20.81	8.55	67.27	8.91
p	<0.0001	0.07	<0.0001	0.06

Work variables	Quality of life dimensions, Median(IQR)			
	Physical	Psychological	Social	Environmental
Experience in current area of work				
<One year	26 (26,28)	22(20,24)	11 (11,12)	26 (24,29)
1-3 years	26 (24,28)	22 (19,24)	11 (11,12)	27 (24,29)
3-5 years	27 (24,28)	22 (20.25,24)	12 (11,13)	26 (24,29)
>5years	26 (25,28)	22 (20,24)	12 (11,12.25)	27 (24,29)
z	4.14	4.97	20.22	0.91
p	0.25	0.17	<0.0001	0.82

Table 8: Median, IQR, Test statistic, df and p value of Quality of life and demographic variables of nurses
n=1040

Demographic variables	Median	Inter quartile range	Test statistic & df	p value
Professional qualification				
GNM	86	80-91		
BBSsc	87	80-91.5	2.79	0.25
PCBSc	88	82.5-93	2	
Marital status				
Single	85	79-90	3.52	<0.001
Married	88	82-92.25	1	
If married(Married status)				
Staying with spouse	88	82-92.25		
Staying away from spouse	85.5	81-92	3.005	0.39
Divorced	89	79.25-96	3	
Widowed	81	75-93		
Type of family				
Nuclear	86	80-91	0.04	0.97
Joint	85	80-92	1	
No.of children				
None	87	81.25-94		
One	87	81-93.75	3.32	0.35
Two	87	80-91	3	
Three or more	85	79-90		
Monthly income in Rs				
<5000	84	78-90		
5001-9000	86.5	81-92	19.12	<0.001
9001-13000	87	79-92	3	
>13000	85	80-91.25		

Table 9: Median, IQR, Test statistic, df and p value of Quality of life and work variables of nurses
n=1040

Work variables	Median	Inter quartile range	Test statistic & df	p value
Area of work				
Medical	86	79-91	22.04	0.005
Surgical	86	79 0-91	8	
Operation theatre	88	812-93		
Intensive care unit	85	78.50-89		
Casualty	85	81 -90.25		
Special ward	84	78 -91		
Paediatrics	88	77.50-95.50		
OBG	90	82. -94		
Dialysis	88	83-92		

Work variables	Median	Inter quartile range	Test statistic & df	p value
Daily working hours				
8	87	81-92	19.38	<0.001
10	84	77-89	2	
12 and more	83	78-88.75		
Total years of experience				
1-5	85.5	79-90	17.39	0.002
6-10	85	79.25-91	4	
11-15	88	82.75-93		
16-20	89	81.25-93		
>20	87	81-92.50		
Experience in current area of work				
<1	85	79-91	4.72	0.2
1-3	86	80-91	3	
3-5	86	81-92		
>5	87	81-92		

Discussion :

In the present study median scores (4) of nurses' overall perception of quality of life and general health were equal with the mean score 3.87 ± 0.62 and 3.91 ± 0.65 respectively. Similar finding is reported by Ergun (2005) where mean scores of QOL were $2.07 + 0.69$ for perceived general QOL and 3.34 ± 0.78 for perceived general health. Supportive findings are also reported by Cimet (2003) who conducted a study to determine whether there is a relation between job satisfaction and quality of life with the mean score of 2.8 and 3.22 for the perceived general QOL and perceived general health respectively⁶. The reason for having similar findings may be because all these three studies used the same standardized tool (WHOQOL-BREF).

In the present study with raw score of quality of life of nurses, environmental domain obtained the highest score (26.5 ± 3.8) and social domain obtained the lowest score (11.6 ± 1.4), whereas in the transformed score within the range of 4-20, social domain obtained the highest (15.5 ± 1.85) score while the environmental domain had the lowest score (13.5 ± 1.93). The physical and psychological domain scores were 14.74 ± 1.86 , and 14.4 ± 2.1 respectively. This finding is in agreement with Lee J I et.al (2004) who identified correlations between fatigue and quality of life in clinical nurses and found highest score in the social domain of Quality of life followed by physical, psychological, and environmental domains⁷. This reveals that nurses in these studies are satisfied with their personal

relationship, sex life and support from their friends. Like in the present study QOL was assessed in this study by using the same QOL scale.

In the study conducted by Alfaia dos Santos, Beresin (2009)⁸ the environmental domain obtained the highest score (27.08) and social domain obtained the lowest score (11.37), which supports the present study. With transformed score of QOL also environmental domain obtained the highest score (19.33) and psychological domain obtained the lowest score (13.99), which is contrary to the present study findings. The study being referred to was done among only Operation room (OR) nurses with the sample of 24. The hospital in this study was a large private hospital with a qualified modern structure that offers its employees some benefits, such as health care plan, transport service, day care facilities for employees' children etc, whereas none of these facilities except health care plan in few hospitals were available for the population under present study. The pay received by the nurses under present study is comparatively less than the salary of the nurses in other countries. Due to the severe shortage of nurses, the subjects in the present study are not in a position to take their break or leisure time during duty

Study conducted by Ergun (2005) tallies with the present study finding where environmental domain (11.8 ± 1.94) had the lowest score. The highest score was in physical domain (14.52 ± 2.18) which differs from the finding of

present study. Study conducted by Cimete (2003)¹⁶ also agrees with the present study for the minimum score in environmental domain (11.2).

In the present study significant association was found between quality of life and marital status, monthly income, area of work, working hours and total years of experience ($p < 0.05$). Similar findings are reported by Cimete (2003) who found significant association between quality of life

and age, economic level, marital status, and duration of working life. Present study finding did not show any significant association between QOL and age.

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