



## QUALITY OF LIFE AMONG PATIENTS WITH LOW BACK PAIN

## Nursing

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## ABSTRACT

**INTRODUCTION:** Low back pain (LBP) can cause greater disability and can reduce the quality of life (QoL). LBP affects all the people from children to older group. LBP is a disabling disease which restricts the QoL.

**AIM:** To assess the QoL among patients with LBP.

**MATERIAL AND METHODS:** The cross-sectional descriptive design was adopted. Using non-probability convenience sampling technique, 120 patients with LBP were recruited from Out Patient Department (OPD), Sri Ramachandra Hospital (SRH), Chennai. A structured interview was conducted with the tool, SF-36 to obtain the data on QoL.

**RESULTS:** The results of the study depicted that 79.2% patients had poor QoL. The data on dimensions of QoL depicted that higher mean percentage score was noted in the mental health aspect (51.50%) and the body pain dimension had a low mean percentage score (29.78%). The mean percentage of composite summaries of QoL was low: physical (43.18), mental (47.10) and global (44.43) indicating a low QoL in all its spheres. A statistically significant association was noted between the mean score of QoL and type of exercise at  $p < .05$ .

**CONCLUSION:** The present study makes evident that majority of the patients with LBP suffers poor QoL and LBP affects all dimensions of QoL.

## KEYWORDS

low back pain, quality of life, RAND-36.

## INTRODUCTION

LBP is a very common health problem worldwide. It can be acute, sub-acute, or chronic. One of the most common problems of patients seeking medical care is pain and it has been recognized by the World Health Organization as a problem of global importance. LBP is a significant medical, community, financial and communal health problem distressing the residents at random (Bindra, Sinha & Benjamin, 2015). QoL reflects the way a person's mental and physical well-being is evident in their day to day life. LBP causes physical changes and functional limitation such as walking, running, lifting, bending, kneeling, bathing and dressing. It also affects the psychological status resulting in sleep pattern disturbances. Also, increasing age and the level of disability affect the QoL (Ogunlana et al., 2012). Nurses are closely involved in caring patients with LBP visiting OPD. Hence, the investigator decided to carry out this study to assess the QoL with an ultimate aim to devise strategies to combat LBP.

## MATERIAL AND METHODS

The research design used was a cross-sectional descriptive design. The study adopted the concepts of the Wiedenbach's Helping Art of Clinical Nursing theory. The samples consisted of patients diagnosed with LBP and attending the Orthopaedic OPD at SRH, Chennai. Adopting non probability convenience sampling technique, 120 patients who fulfilled the sampling criteria were selected.

The structured interview technique was used to collect the data. The tool consisted of two sections: Section- A on background variables which consisted of two parts: Part-1 assessment of demographic variables (age, gender, education, occupation, family income and residence) and Part-2 clinical variables (comorbidity, BMI, pain score, duration of pain, and type of exercise). The section-B was a standardized Ware et al. (1993) Research and Development (RAND)-36 Item Short Form Health Survey (SF-36) questionnaire to assess the QoL among patients with LBP which consisted of 36 questions. The questions were focused on eight dimensions which include: physical function, physical role, body pain, general health, mental health, emotional role, vitality, and social function. The dimensions are grouped into three composite summaries: physical, mental and global. The QoL score demonstrates that the higher scores show the good QoL and lower scores the poor QoL. The content validity was obtained from the experts in the field of Nursing. The reliability of the QoL tool was established by the split half method and the 'r' value obtained was .85. The necessary permissions were obtained. The data were collected for a period of one month from the patients after obtaining written informed consent from them. The collected data were analyzed using SPSS version 18 for windows.

## RESULTS

The results revealed that more than half of them were females (64.2%), unemployed (41.7%), married (82.5%), nuclear family (54.2%), monthly income  $\leq$  Rs. 10,000 (47.5%), hypertension and diabetes mellitus (65.8%) and BMI over weight (50%). With regard to level of LBP, 4.2% patients had mild pain, 27.5% had moderate pain and 68.3% had severe pain. With regard to level of QoL (Figure 1), majority of the patients (79.2%) attending OPD had poor QoL. The data on dimensions of QoL (Table 1) depicted a higher mean percentage score in the mental health aspect (51.50%) followed by social function (45.94%), physical function (45.67%), emotional role (44.44%), physical role (44.38%), vitality (43.46%) and general health (42.80%). The body pain dimension had a low mean percentage score (29.78%). The mean percentage of composite summaries of QoL was low indicating a poor QoL in all its spheres. The mean percentage of physical, mental and global composite summaries (Table 2) was 43.18, 47.10 and 44.43 respectively. The data on comparison of present health status to a year ago showed that 60.8% of the patients experienced their health status as somewhat worse now than one year ago and 19.2% of them stated that their health was much worse now than one year ago due to LBP.

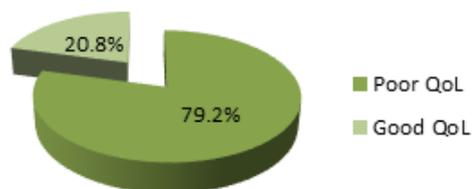
There was a statistically significant association noted between mean scores of QoL and type of exercise at  $p < .05$ . The mean scores of QoL were high among the patients who performed cycling (1882.50) followed by walking (1696.38) and running (1262.50).

Table 1. Mean Scores of Dimensions of QoL (N=120)

Dimensions of QoL	Max. Score	Mean	SD	Mean %
Physical Function	1000	456.67	117.204	45.67
Physical Role	400	177.50	97.414	44.38
Body Pain	200	59.54	25.643	29.78
General Health	500	213.96	48.377	42.80
Emotional Role	300	133.33	70.214	44.44
Vitality	400	173.83	38.961	43.46
Mental Health	500	257.50	39.879	51.50
Social Function	200	91.88	26.561	45.94
Overall	3500	1565.125	268.34	44.71

Table 2. Mean Scores of Physical, Mental and Global Composite Summaries of QoL (N=120)

Composite summary	Max. score	Mean	SD	Mean %
Physical	2100	907.67	198.519	43.18
Mental	1400	659.38	119.48	47.10
Global	3600	1599.58	304.933	44.43



**Figure.1. Distribution of patients with low back pain according to their level of QoL**

## DISCUSSION

LBP affects the day to day activities of a patient such as mobility, personal care, functional abilities and psychological status. In the present study, majority of the patients (79.2%) had poor QoL. Similarly in a study conducted by Al- Diosky et al. (2015), the prevalence of LBP was 48% and their QoL was poor. Another study conducted by Ahdhi et al. (2016) found out that the prevalence of LBP as 42% with poor QoL among 72% of women.

The mean percentage of dimension of QoL were physical function (45.67), physical role (44.38), body pain (29.78), social function (45.94) and emotional role (44.44) depict that the maximum percentage were not achieved, hence there exists disability among patients. The mean percentage of these three dimensions (general health 42.80, vitality 43.46 and mental health 51.50) were lower than that of the maximum scores indicating not just the presence of disability, but the absence of a positive state of health.

The mean scores of composite summary of QoL the mean percentage was high in the mental composite (47.10) with the mean score of 659.38 (total score: 1400) when compared to physical composite (43.18) with the mean score of 907.67 (total score: 2100). Similarly, a study conducted by Ono et al. (2012) revealed that the mean percentage scores of composite summary physical was 49.2 and mental was 48.0.

The mean scores of QoL and type of exercise depicted a statistically significant association at  $p < .05$ . This may be due to the effect of exercises on overall wellbeing of patients. In the study by Panahin et al. (2016) results revealed a statistically significant relationship between daily exercises and their QoL in terms of physical ( $p < .001$ ) and mental ( $p < .01$ ) dimensions.

## CONCLUSION

The present study makes evident that majority of the patients with LBP has poor QoL and its affects all the dimensions of QoL; viz. physical, mental and global composite summary QoL.

## RECOMMENDATIONS FOR FURTHER RESEARCH

1. Prevalence of LBP can be studied
2. This study can be replicated on a larger scale in other settings
3. Correlation between LBP and QoL can be studied

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