



NIGERIAN JOURNAL OF FAMILY PRACTICE

Vol. 5, Number 2B, October, 2014

ISSN: 2141 - 9884

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QUALITY OF LIFE IN PATIENTS WITH LOW BACK PAIN IN A NIGERIAN TERTIARY HOSPITAL.

¹Jiman AC, ¹Etukumana EA, ¹Ukot IA, ¹Udoh SB, ¹Akinbami SO

¹Department of Family Medicine University of Uyo Teaching Hospital, Uyo, Nigeria.

All correspondence to Dr Jiman AC E-mail: abduljiman@yahoo.com 08069200796

ABSTRACT

Background: Low back is a major musculo-skeletal problem in the society producing significant restriction on daily activities; hence decrease in overall quality of life. Low back pain has considerable negative impact on the quality of life of affected persons and on their families. This study was aimed at assessing health-related quality in patients with low back pain attending the General outpatient clinic of the University of Uyo Teaching Hospital, Uyo, Nigeria.

Method: A cross-sectional study of four hundred (400) adults aged eighteen (18) years and above, attending the General outpatient clinic of the University of Uyo Teaching Hospital, Uyo, was carried out from May to June 2011. The subjects were administered questionnaires (semi-structure) and WHOQOL-Bref which sought information on socio-demographic characteristic, presence or absence of low back pain as well as health-related quality of life. Data collected were analyzed using Epi Info statistical software version 3.2.2

Results: The mean age of the subjects was 38±14.2 years. There were 176 male and 224 female subjects with a ratio 1:1.3. Subjects who had low back pain in this study showed significant impairment in the overall quality of life ($X^2 = 153.60$, $P < 0.001$), general health satisfaction ($X^2 = 130.60$, $P < 0.001$), Psychological ($X^2 = 48.11$, $P < 0.0001$), Social relationship ($X^2 = 64.16$, $P < 0.0001$) and Physical ($X^2 = 81.67$, $P < 0.001$) domains of their health-related quality of life compared to subjects without low back pain.

Conclusion: There was significant impairment in the quality of life of subjects with low back pain in this study. Improvement in the health-related quality of life indices (psychological, social, physical and environmental) will enhance the overall positive quality of life in patients with low back pain.

Keywords: quality of life, low back pain, adults, uyo.

INTRODUCTION

Low back pain is a major musculo-skeletal problem in the society, producing significant restrictions on daily activities, hence decrease in overall quality of life.¹ Low back is defined as episode of pain or discomfort occurring in the region between the 12th rib and gluteal folds, that interrupts daily activities and/or requires treatment or consultation^{2,3}. Although low back pain attracts a lot of attention in medical literature researches seldom focus on assessing health-related quality of life in patients with the disorder. Patients with low back pain suffer myriad of psychological problems with impairment in dimensions of life directly affected by the overall state of health commonly referred to as health-related quality of life⁴.

Health-related quality of life (HRQOL) refers to how health impacts on an individual's ability to function and his or her perceived well-being in physical, mental and social domains of life⁵. The World Health Organization quality of life study group defines quality of life as an individual's perception of their position in life, in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns⁶. It is a concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationship and their relationship to salient features of the environment⁶.

Individual with low back pain might develop major physical, social and mental disruptions which could affect their occupation⁷. Physical impact include loss of physical function and deteriorated general health while social impact includes decreased participation in social activities. Psychosocial impacts are manifested through Insomnia, irritability, anxiety and depression⁸.

Studies on the impact of low-back pain on Health-related quality of life have shown that low back pain is significantly associated with lower scores in all domains(psychological, physical, social and environmental) of Health-related quality of life.^{9,14} In one study,¹⁵ it has been shown that low back pain impairs Health-related quality of life mainly through compensation and inappropriate medical care and that, in turn, impaired Health-related quality of life favors the condition becoming chronic.

Veresciagina, Ambrozaitis and Spakaukas using the Short Form 36 Health survey (SF-36), a generic health-related quality of life instrument in 100 patients with low back pain, reported considerably lower domain scores in these patients.¹⁰

In another study, the impact of low back pain on the quality of life of affected individuals and their families was reported.¹⁶ The study showed that patients with low back pain had low self-reported

quality of life especially regarding psychological functioning (e.g feeling at ease), physical status (a greater incidence of somatic complaints) and functional status (more impediments to leisure and daily activities). Family members of affected individuals also reported restrictions, especially in social life.

Health-related quality of life in low back pain patients has been reported to correlate negatively with the severity of pain.¹³ The higher the severity of the pain, the lower the quality of life. Mngoma and colleagues⁹ in their study reported low back pain as significantly associated with a decrease in quality of life. They suggested rehabilitation and keeping active as ways of improving on the quality of life of patients with low back pain. One randomized study also reported the 'back school program'(a brief Outpatient program that uses health education approach to empower participating individuals with low back pain through a process of assessment, education and skill building) as an effective intervention that might improve quality of life in chronic low back pain.¹⁷

Of recent, there has been an increasing drive toward health-related quality of life studies in Africa. Several studies on quality of life have been carried out in the West African countries including Nigeria¹⁸⁻²⁰. One major reason for this increase in quality of life studies is because measuring quality of life allows for a more comprehensive understanding of the burden of an illness. This study was therefore aimed at assessing health-related quality of life in adults attending the General outpatient clinic of the University of Uyo Teaching Hospital, Uyo.

SUBJECTS, MATERIALS AND METHODS

This study was carried out at the General outpatient clinic of the University of Uyo Teaching Hospital, Uyo. A cross-sectional analytic design was used for

the study. Using 44% low back pain prevalence with 5% sampling error, the sample size of 400 subjects was obtained. Four hundred subjects aged 18 years and above were recruited using a systematic sampling technique. The study was approved by the Research and Ethical Committee of the University of Uyo Teaching Hospital. Written informed consent was obtained from the subjects. Two questionnaires were used: A semi-structured questionnaire which sought information on socio-demographic characteristics of the subjects, presence or absence of low back pain, and a World Health Organization quality of life questionnaire (WHOQOL-Bref) which assessed the quality of life of the subjects.

Each question on the WHOQOL-Bref was read to the subject along side the response options (there were 5 options on which the subjects were expected to respond on 5-point scale). The selected options were recorded. The WHOQOL-Bref produced a profile with four domain scores and two individually scored item about an individual's overall perception of quality of life and health^{21,22}. The four domain assessed were Physical, Psychological, Social relationship and Environment. Raw scores were calculated by straight forward summative scaling of the constituent item of each domain. These raw scores were then transformed to a linear 0-10 scale, where 0 is the worst score possible and 10 the best score possible²². Since scores for each WHOQOL Bref domain followed a normal distribution, categorization was done around the value mean + 1.96 standard deviation with good representing values greater than mean plus one standard deviation, and poor representing values less than the mean minus one standard deviation.

Data entry and analysis was done using Epi Info software version 3.2.2 CDC Atlanta, Georgia, USA. The mean, frequencies and statistical association of variables were ascertained.

RESULTS

Table I: Socio-Demographic Distribution of the Study Subjects

Variable	Frequency		Total (%)	95% CI
	Male n(%)	Female n(%)		
Age group (years)				
<20	11(6.3)	20(8.90)	31(7.8)	- - -
20-29	42(23.9)	70(31.3)	112(28.0)	23.7 – 32.7
30-39	46(26.1)	25(11.2)	71(17.6)	14.2 – 21.9
40-49	35(19.9)	41(18.3)	76(19.0)	15.3 – 23.3
50-59	27(15.3)	46(20.5)	73(18.3)	14.7 – 22.5
-	15(8.5)	22(9.8)	37(9.3)	6.7 – 12.6
Marital status				
Single	63(35.8)	84(37.5)	147(36.6)	32.1 – 41.7
Married	104(59.1)	101(45.1)	205(51.3)	46.2 – 56.2
Separated	3(1.7)	4(1.8)	7(1.8)	0.8 – 3.7
Divorced	0(0.0)	6(2.7)	6(1.5)	0.6 – 3.4
Widowed	6(3.4)	29(12.9)	35(8.8)	6.3 – 12.1
Level of education				
No. formal education	11(6.3)	17(7.6)	28(7.0)	4.8 – 10.1
Primary	45(25.6)	50(22.3)	95(23.8)	19.7 – 28.3
Secondary	73(41.5)	90(40.2)	163(40.8)	35.9 – 45.8
Tertiary	47(26.6)	67(29.9)	114(28.4)	24.2 – 33.2
Occupational status				
Unemployed	44(25.0)	80(35.7)	124(31.0)	26.5 – 35.8
Unskilled	91(51.70)	95(42.4)	186(46.5)	41.5 – 51.5
Semi-skilled	20(11.4)	28(12.5)	48(12.0)	9.1 – 15.7
Skilled	21(11.9)	21(9.4)	42(10.5)	7.8 – 14.0
Place of residence				
Urban	94(53.4)	120(53.6)	214(53.5)	48.5 – 58.5
Rural	82(46.6)	104(46.4)	186(46.5)	41.5 – 51.5

N=400

The socio-demographic distribution of the study subjects is as shown in table 1. The mean (SD) age of the subject was 38 ± 14.2 years. A significant proportion (53.4%) of the subjects were below 40 years of age. There were 176 males and 224 females in ratio 1:1.3. Majority, 276 (69.0%) were employed and 184 (46.5%) of the employed were unskilled

workers. Majority of the subjects (93%) were educated with 28.4% having tertiary education. Two hundred and five (51.3%) of the study subjects were married while 53.5% resided in the urban areas. One hundred and twenty four (31%) out of the four hundred study subjects had low back pain while 69% did not have low back pain.

Table II: Quality of Life Rating among Subjects with and Without Low Back Pain

Quality of Life rating	Low pain back		X ²	p-value
	Yes n(%)	No n (%)		
Overall quality of life				
Good	22(17.7)	228(82.6)	153.60	<0.0001
Poor	102(82.3)	48(17.4)		
General Health Satisfaction				
Good	18(14.5)	209(75.7)	130.60	<0.001
Poor	106(85.5)	67(24.3)		
Domain 1 (Physical Health)				
Good	24(19.3)	188(68.1)	81.67	<0.001
Poor	100(80.7)	88(31.9)		
Domain 2 (Psychological)				
Good	44(35.4)	199(72.1)	48.11	<0.0001
Poor	80(64.6)	77(27.9)		
Domain 3 (Social relationship)				
Good	32(25.8)	190(68.8)	64.16	<0.0001
Poor	92(74.2)	86(31.2)		
Domain 4 (Environment)				
Good	58(46.8)	124(44.9)	0.12	0.731
Poor	66(53.2)	152(55.1)		

The quality of life rating among subjects with or without low back pain is shown in table 2. Significantly higher proportion of the subjects with low back pain reported poor rating in their overall quality of life compared with those without low back pain who also reported poor rating in their overall quality of life ($X^2 = 153.60$, $P < 0.0001$). A higher proportion of subjects with low back pain reported poor rating in their general health satisfaction compared to those subjects without low back pain who also reported poor rating in their general health satisfaction ($X^2 = 130.60$, $P < 0.001$). Significantly higher proportion of subjects with low back pain reported poor rating in their physical health-related quality of life compared to subjects without low back pain who reported poor rating in their physical health-related quality of life ($X^2 = 81.67$, $P < 0.001$). A higher proportion of subject with low back pain reported poor rating in their psychological health-related quality of life compare to those without low back pain who also reported poor rating in their psychological health quality of life ($X^2 = 48.11$, $P < 0.0001$).

DISCUSSION

Low back pain was associated with negative health-related quality of life among subjects in this study. Subjects with low back pain reported negative overall quality of life, general health satisfaction, physical, psychological, and social relationship

domains of their health-related quality of life. This finding was similar to that reported in previous studies^{9,10,13,15,16}.

Verescigina, Ambrozaitis and Spakaukas,¹⁰ in a study using short form 36 survey form (SF-36), a generic health-related quality of life instrument in one hundred (100) patients with low back pain reported considerable lower domain scores in these patients. Joke et al¹⁶ in another study reported that low back pain impacts negatively on the quality of life of affected individuals and their families. According to the study, patients with low back pain had low quality of life especially in the psychological and physical domain of health-related quality of life.

Mngoma et al⁹ in a study of short-term quality of life among patients with low back pain on physiotherapy, reported that low back pain is significantly associated with decreased quality of life. They suggested keeping active as a way of improving on the quality of life of patients with low back pain. Similarly, Kovacs et al¹³ in their study reported that low back pain is associated with decreased quality of life. Another study by Joel et al¹⁵ on the prognosis of and quality of life among patients with acute low back pain reported that low back pain impairs health-related quality of life mainly through compensation and inappropriate medical care and that in turn

impaired health-related quality of life favors the condition becoming chronic.

From the above findings, low back pain has substantial negative impact of the health-related quality of life of affected individuals.

This study was hospital-based, and the responses given by the subjects on their perceived quality of life were subjective. A low back pain specific tool that assesses quality of life in patients with low back pain may give a more objective assessment. These were the limitations of this study.

CONCLUSION

This study has highlighted that there was significant impairment in the overall quality of life, general health satisfaction, physical, psychological and social relationship domain of quality of life of subjects identified with the low back pain. Improvement in the health-related quality of life indices (psychological, social, physical and environmental) will enhance the overall positive quality of life in patients with low back pain.

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