

## QUALITY OF LIFE AND ASSOCIATED FACTORS AMONG ADULTS IN A COMMUNITY IN SOUTH WEST NIGERIA

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### ABSTRACT

**Background:** Quality of life (QoL) is an important measure in the assessment of population well being and health status. However despite locally validated measuring tools, little is known about the quality of life and associated factors in Nigerian adults. **Objective:** This study therefore aimed to assess QoL and contributory factors among adults residing in a sub urban Nigerian community.

**Methods:** A descriptive cross-sectional study of 527 adults, in Oru community was conducted. An interviewer-administered questionnaire adapted from the WHO quality of life (WHOQOL-BREF) questionnaire was used to obtain information from respondents. Associations were explored with the chi square test; multivariate analysis was done with logistic regression at 5% level of significance.

**Results:** Respondents mean age was 33.3 ±8.1 years. In all, 46.5 % were currently married or cohabiting. Christianity was the dominant religion, 72.7%. In all, 81.6% had good QoL. Predictors of good QoL were respondents less than 25 years [OR: 3.5 (1.264-9.508)], having educational level that is secondary and above [OR: 4.2 (1.810-9.762)]. Being Unemployed [OR: 1.9 (1.099- 3.351)], living in flats and other bigger apartments [OR: 1.8 (1.121- 3.04)], currently ill [OR: 3.7 (2.096- 6.509)], and lack of involvement in religious activities [OR: 3.1 (1.166- 8.045)] were also shown to be predictors of good QoL.

**Conclusion:** The majority of those evaluated had good QoL. Further surveys involving larger samples sizes are required to explore the QoL in distinct sub-populations and in currently ill patients to strengthen the results of this study.

**Keywords:** quality of life, Nigeria, health, well-being.

### INTRODUCTION

Quality of life (QoL) is a term understood differently by workers in many professions for whom it is relevant. According to Costanza *et al*, “quality of life is the extent to which objective human needs are fulfilled in relation to personal or group perceptions of subjective well-being”.<sup>1</sup> QoL cannot be measured by a single variable and has substantial overlap with concepts such as social functioning, disability, social support and well-being.<sup>3</sup> Although the subjective nature of the quality of life assessment is regarded as problematic, it is still widely used, mainly to keep research costs low.<sup>2</sup>

QoL as a measure is important for: planning clinical care of patients; outcome measurement in clinical trials and health services management; health needs assessment of populations in descriptive studies; and

for resource allocation and health economics.<sup>3</sup> Of all these uses the most important are in health services research and as an outcome measure in clinical trials.<sup>4</sup> Health related Quality of Life is used to assess impact of chronic illnesses like cancers and asthma on health status of individuals with such conditions.<sup>5-7</sup> However, this definition misses the positive dimensions of well being as well as complexity of what is meant by the terms “perceived”, “subjective” or “evaluation”<sup>8-9</sup>

Little is known about the factors predictive of quality of life in Nigeria. This study therefore aimed to describe quality of life and factors associated with this in an adult population resident in a sub-urban community in South West Nigeria.

## MATERIALS AND METHOD

This study, which was part of a larger one, was a descriptive cross-sectional study of 527 consenting adults, males and females aged 18 years and above who have resided in Oru community for at least one year prior to study. Oru-Ijebu is a semi-urban town located in Ijebu North Local Government Area (LGA) of Ogun State. According to the 2006 national population census, it has a population of 27,000. Sampling was done using a cluster sampling method after four enumeration areas had been randomly selected from the 60 in the town. Each enumeration area has 15-30 houses and about 350-450 people. A survey of adults in the 4 enumeration areas yielded an adequate number of respondents.

The WHO quality of life (WHOQOL-BREF) questionnaire was used to measure physical health, psychological (mental) health, social relationship and relationship with features in their environment as a function of quality of life. This quality of life assessment tool has been validated in Nigeria.<sup>6-7, 10-12</sup> The WHOQOL-BREF has 26 items scored on a Likert scale of 1 to 5. Scores were scaled in a positive direction (i.e. higher scores denote higher quality of life). The scoring of negatively phrased questions (3, 4 and 26) were reversed (1=5, 2=4, 3=3, 4=2, 5=1) thus transforming them to positively phrased questions.<sup>8</sup> The higher the score on the WHOQOL-BREF, the better the quality of life.<sup>10</sup> Scores less than 78, which corresponds to an average response of 3 or below on each item were categorised as poor QoL while scores equal to and above 78 were categorised as good QoL.

The research instrument was translated to Yoruba, the predominant local language (in the community) for ease of communication and to ensure proper understanding. It was then back-translated to English to ensure the original meaning was retained. The research instrument was pre-tested in Ago-Iwoye (a semi-urban community in Ijebu-North Local Government) which is similar to the study site in terms of geographical location, culture, beliefs and lifestyle of the people. Twenty questionnaires were pretested and appropriate amendments were then made after the pre-test. Data was entered and analyzed using SPSS version 17. Relevant frequencies, percentages, means and appropriate diagrams were generated. Chi square test was used to assess associations between categorical variables. Predictors of good QoL was determined with logistic regression analysis. Significance was set at 5%.

Ethical approval for this study was sought from the joint UI/UCH Ethical Review Committee and

permission to conduct the study obtained from the Medical Officer of Health, Ijebu-North Local Government. Informed consent was obtained from participants before administering questionnaires. Respondents were informed that participation was voluntary and that they would not suffer any consequences if they chose not to participate or to withdraw from the study at any point.

## RESULTS

Respondents mean age was 33.3 ± 8.1 years, over half [286 (54.3%)] were in the 25-34 year age group. One hundred and thirty six (25.8%) were currently married or cohabiting and Christianity was the dominant

Variable	n (%)
<i>Age (years)</i>	
< 25	61 (11.6)
25-34	286 (54.3)
35-44	134 (25.4)
≥45	46 (8.7)
Mean ±SD	33.3 ± 8.1
<i>Sex</i>	
Male	320 (60.7)
Female	207 (39.3)
<i>Marital status</i>	
Currently married/ cohabiting	136 (25.8)
Not currently Married	391 (74.2)
<i>Religion</i>	
Christianity	383 (72.7)
Islam	144 (27.3)
<i>Housing</i>	
One room winged apartment	254(48.2)
Flat & others*	273(51.8)
<i>Educational status</i>	
No formal education	13(2.5)
Primary	18 (3.4)
Secondary	190 (36.1)
Tertiary Education	306(58.1)
<i>Occupation</i>	
Professional	141 (26.8)
Skilled worker	68 (12.9)
Unskilled worker	152(28.8)
Student	122(23.1)
Unemployed	44 <sup>21</sup>
<i>Current Health problems**</i>	
Yes	209(39.7)
No	318(60.3)
<i>Religious activity</i>	
Yes	467(88.6)
No	60(11.4)

\* Bungalows, duplexes

\*\*These were Malaria (86%), Typhoid (7%), Common cold (6%) and Stress (1%).

**Table 1:** Socio demographic and medical characteristics of respondents

religion, 383(72.7%). In all 254(48.2%) lived in one room apartment winged type of accommodation (Table 1). The majority 496(94.1%) of the study population attained at least secondary education with 31(5.9%) reporting primary or no formal education and (31.5%) of respondents were unemployed. Table 1 shows some other social and medical characteristics of respondents. Current health problems such as malaria, typhoid, common cold and stress were reported by 209(39.7%). Involvement in religious activities was documented for 467(88.6%) respondents. In all 427(81%) were Yorubas, 57(11%) were Ibos, and 43(8%) were Hausas

### **Quality of Life (QoL) Profile of Respondents**

Table 2 summarises positive responses to questions on the WHOQOL-BREF. In all, 415 (78.7%) rated their overall quality of life as good (based on response to question 1). Using the aggregate scores from the administration of the WHOQOL-BREF 430(81.6%) had good QoL by scoring equal to and above 78.

### **Association between Respondent Characteristics and Quality of Life**

The association between respondents' personal and social variables and QoL is shown in Table 3.

Variable	(N=527) n (%)
1. How would you rate your quality of life?	415 (78.7)
2. Satisfied with your health	360 (68.3)
3. Feeling of incapacitation by pain	326 (61.9)
4. Medical treatment is needed to function in your daily life	274(52.0)
5. How much do you enjoy life?	471(89.4)
6. Your life is meaningful	475(90.1)
7. Able to concentrate	495(93.9)
8. Feel safe in your daily life	485 (92.0)
9. Physical environment is healthy	458 (86.9)
10. Adequate energy for everyday life	464 (88.0)
11. Able to accept your bodily appearance	480 (91.1)
12. Adequate money to meet your needs	300(56.9)
13. Adequate information for daily living	377 (71.5)
14. Opportunity for leisure activities	423 (80.3)
15. How well are you able to get around?	308 (58.4)
16. Satisfaction with your sleep	377 (71.5)
17. Satisfaction with your ability to perform your daily living activities	380 (72.1)
18. Satisfaction with your capacity for work	379 (71.9)
19. Satisfied with yourself	412 (78.2)
20. Satisfaction with your personal relationships	379 (71.9)
21. Satisfaction with your sex life	332 (63.0)
22. Satisfaction with support from your friends	257 (48.8)
23. Satisfaction with the conditions of your living place	269 (51.0)
24. Satisfaction with your access to health services	249 (47.2)
25. Satisfaction with your transport	196 (37.2)
26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?	372 (70.6)

**Table 2:** Proportion of positive responses to questions on the WHOQOL

<b>Variables</b>	<b>Good</b>	<b>Poor</b>	<b><math>\chi^2</math> (p value)</b>
<b>Age (years)</b>			
<25	51 (83.6)	10 (16.4)	9.21 (0.027)
25-34	236 (82.5)	50 (17.5)	
35-44	113 (84.3)	21 (15.7)	
$\geq 45$	30 (65.2)	16(34.8)	
<b>Sex</b>			
Male	256(80.0)	64 (20.0)	1.38(0.240)
Female	174 (84.1)	33 (15.9)	
<b>Marital status</b>			
Single/never married	161 (81.3)	37 (18.7)	1.18 (0.552)
Currently married/ cohabiting	197 (80.4)	48(19.6)	
Separated/divorced/widowed	72 (85.7)	12 (14.3)	
<b>Educational level</b>			
Primary & below	15(48.3)	16(51.7)	24.18(<0.001)
Secondary & above	415(83.7)	81(16.3)	
<b>Employment status</b>			
Employed	284(78.7)	77(21.4)	6.52(0.011)
Unemployed	146(87.9)	20(12.1)	
<b>Housing</b>			
One room winged apartments	194 (76.4)	60(23.6)	8.88(0.003)
Flat & others	236(86.4)	37(13.6)	
<b>Currently ill</b>			
Yes	190 (90.9)	19 (9.1)	20.01(<0.001)
No	240(75.5)	78(24.5)	
<b>Religious activities</b>			
Yes	375(80.3)	92(19.7)	4.57(0.032)
No	55(91.7)	5(8.3)	

**Table 3:** Factors affecting QoL among respondents

<b>Variables</b>	<b>Odds ratio</b>	<b>P-Value</b>	<b>95% Confidence Interval</b>	
			<b>Upper</b>	<b>Lower</b>
<b>Age (years)</b>				
<25	3.466	0.16	1.264	9.508
25-34	1.980	0.87	0.906	4.329
35-44	2.221	0.67	0.946	5.215
$\geq 45$	1			
<b>Educational level</b>				
Secondary & above	4.204	0.001	1.810	9.762
Primary & below	1			
<b>Employment status</b>				
Unemployed	1.919	0.022	1.099	3.351
Employed	1			
<b>Housing</b>				
Flat & others	1.846	0.016	1.121	3.04
One room winged apartments	1			
<b>Currently ill</b>				
Yes	3.695	<0.001	2.097	6.509
No	1			
<b>Religious activities</b>				
No	3.062	0.023	1.166	8.045
Yes	1			

**Table 4:** Predictors of good QoL among respondents

Among respondents 45 years or older 65.2% had good QoL while it was more (above 80%) in each of the other age groups ( $p < 0.05$ ). A higher percentage of female respondents had good QoL 84.1% compared to 80% of males ( $p > 0.05$ ). Similarly there was no significant association between marital status or family background and QoL. A higher proportion of those with secondary or higher levels of education (83.4%) had good QoL when compared to individuals with only primary or no formal education ( $p < 0.05$ ).

There was a significant association between type of housing and QoL ( $p < 0.05$ ). While 76.4% of those who lived in one room winged type of accommodation reported good QoL, this was significantly lower than 86.4% observed among people who occupied better housing units like flats. Three seventy five (80.3%) respondents involved in religious activities had good QoL compared to 92 (19.7%) of those who were not involved ( $p < 0.05$ ). Among participants with current medical problems, 190/209 (90.9%) had good QoL, while 240/318 (75.5%) of those without current medical problem had good QoL ( $p < 0.05$ ). A slightly higher number of employed respondents 77 (21.4%) reported poor QoL compared to unemployed respondents 20 (12.1%), ( $p < 0.05$ ).

### **Predictors of good Quality of Life among the respondents**

The predictors of good QoL are shown in table 4. Binary logistic regression analysis showed that predictors of good QoL were respondents less than 25 years [OR: 3.5 (1.264- 9.508)], having educational level that is secondary and above [OR: 4.2 (1.810- 9.762)]. Being Unemployed [OR: 1.9 (1.099- 3.351)], living in flats and other bigger apartment [OR: 1.8 (1.121- 3.04)], currently ill [OR: 3.7 (2.096- 6.509)], and lack of involvement in religious activities [OR: 3.1 (1.166- 8.045)] were also shown to be predictors of good QoL.

### **DISCUSSION**

In this work, factors associated with good QoL on bivariate analysis were age less than 45 years, educational level from secondary and above, being unemployed, good housing. Other associated factors of good QoL included currently ill and no involvement in religious activity. Gender and marital status were found not to be associated with QoL in this study.

Logistic regression analysis revealed that age less than 25 years, secondary educational level and above, being unemployed, good housing, currently ill and no involvement in religious activities were significant predictors of good QoL.

Younger respondents in this study were found to have better QoL. Young people have fewer responsibilities to think about as they are being catered for most times by their parents. The health problems and subsequent decrease in functional capacity that affects old age are not usually present in younger people.<sup>11</sup> The finding of no significant association between marital status and quality of life in this work is at variance with what has been reported.<sup>13</sup> However, gender as shown in other studies did not have significant association with QoL.<sup>14-15</sup> Participants who engaged in religious activities reported poorer quality of life. This result is also at variance with what has been documented that individuals involved in significant social networks like religious organizations, have access to social resources such as assistance and support.<sup>15</sup> The reason for this picture in the study population is not immediately clear but a possible explanation could be due to the passive attitude to life adopted by some religious people who believe all the affairs of their lives are controlled by God and thus may not strive to develop themselves or improve their quality of life.<sup>16</sup>

Contrary to available evidence, this work showed a poorer QoL among those employed compared to those unemployed.<sup>17-18</sup> This could be as a result of the communal style of living in the population studied where an employed person has other people outside his/her family to take care of; an employed person may thus rate his/her quality of life low. Another possible reason for this observation could be the fact that about half of the respondents classified as 'unemployed' were students who could have rated their QoL as good if they were satisfied with the support they received from their sponsors. Indices related to better social standing and living conditions such as higher educational levels and good accommodations were shown to positively impact QoL in this study. Similar evidence was observed in previous studies.<sup>19-20</sup>

Current illness was found as a predictor of good QoL. This could occur since non-chronic and curable illnesses were reported among the respondents. QoL have been used in previous studies to assess the impact of chronic health states and it has been shown that Presence of chronic diseases like Diabetes, Hypertension, Depressive disorder, Functional disability, Visual impairment and Dementia could lead to poor QoL.<sup>6-7, 10, 12</sup> In this study, illnesses reported by respondents where acute, transient, and curable (eg malaria, typhoid) whose effects on QoL need further evaluation.

### **CONCLUSION**

The majority of the community dwellers had good QoL. Factors such as higher education and living in

flats and other bigger apartments and lack of involvement in religious activities contributed positively to QoL. Further studies to explore the QoL in distinct sub-populations and the contribution of acute illnesses to QoL will be required to deduce a full picture of health status in communities like the one studied.

### Limitation

The cross-sectional nature of the survey did not allow for inferences to be drawn as to causal relationship among variables. Oru community is peculiar due to the presence of a higher institution and international refugee camp. Surveys involving larger sample sizes are required to strengthen the findings of this study.

### REFERENCES

1. **Costanza**, Fisher B, Ali S, Beer C, Bond L, Boumans R. An integrative approach to quality of life measurement, research, and policy. *SAPI EN S Surveys and Perspectives Integrating Environment and Society*. 2008;1(1).
2. **Jacobson AM**, De Groot M, Samson JA. The effects of psychiatric disorders and symptoms on quality of life in patients with type I and type II diabetes mellitus. *Quality of Life Research*. 1997;6(1).
3. **Albrecht G**, Fitzpatrick R. A sociological perspective on health-related quality of life research. *Quality of life in health care*. 1994;5:1-21.
4. **Spilker B**. *Quality of life and pharmacoeconomics in clinical trials*: Lippincott-Raven Philadelphia; 1996.
5. **Naumann V**, Byrne G. WHOQOL-BREF as a measure of quality of life in older patients with depression. *Int Psychogeriatr*. 2004;16:159-173.
6. **Gureje O**, Ogunniyi A, Kola L. The profile and impact of probable dementia in a sub-Saharan African community: results from the Ibadan Study of Ageing. *Journal of psychosomatic research*. 2006;61(3):327-333.
7. **Gureje O**, Kola L, Afolabi E. Epidemiology of Major Depressive Disorder in the Ibadan Study of Ageing. *Lancet*. 2007;370(9591):957.
8. **Patrick DL**, Erickson P. *Health status and health policy: quality of life in health care evaluation and resource allocation*: Oxford University Press, USA; 1993.
9. **Ryff CD**. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of personality and social psychology*. 1989;57(6):1069-1081.
10. **Gureje O**, Ogunniyi A, Kola L, Afolabi E. Functional disability in elderly Nigerians: results from the Ibadan Study of Ageing. *Journal of the American Geriatrics Society*. 2006;54(11):1784-1789.
11. **Gureje O**, Kola L, Afolabi E, Olley B.O. Determinants of quality of life of elderly Nigerians: results from the Ibadan study of ageing. *African journal of medicine and medical sciences*. 2008;37(3):239.
12. **Bekibele CO**, Gureje O. Impact of self-reported visual impairment on quality of life in the Ibadan study of ageing. *British Journal of Ophthalmology*. 2008;92(5):612.
13. **Cohen S**. Psychosocial models of the role of social support in the etiology of physical disease. *Health psychology*. 1988;7(3):269-297.
14. **Femi O**. Fatoye, Morenikeji A. Komolafe, Benjamin A. Eegunranti, Abiodun O. Adewuya, Samuel K. Mosaku, Fatoye. Gk. Cognitive Impairment And Quality of Life Among Stroke Survivors in Nigeria. *Psychological Reports*. 2007;100(3):876-282.
15. **Ghazinour M**, Richter J, Eisemann M. Quality of Life Among Iranian Refugees Resettled in Sweden. *Journal of Immigrant Health*. 2004;6(2):71-81.
16. **Cohen M**, Azaiza F. Health-promoting behaviors and health locus of control from a multicultural perspective. *Ethnicity and Disease*. 2007;17(4):636.
17. **Blalock AC**, McDaniel JS, Farber EW. Effect of Employment on Quality of Life and Psychological Functioning in Patients With HIV/AIDS. *Psychosomatics*. 2002;43(5):400-404.
18. **O'Neill J**, Hibbard MR, Broivn M, Jaffe M, Sliwinski M, Vandergoot D. The effect of employment on quality of life and community integration after traumatic brain injury. *The Journal of Head Trauma Rehabilitation*. 1998;13(4):68.
19. **Jelsma J**, Mkoka S, Amosun S. Health-related quality of life (HRQoL) domains most valued by urban isiXhosa-speaking people. *Quality of Life Research*. 2008;17(1):137-145.
20. **Knight SJ**, Latini DM, Hart SL, Sadetsky N, Kane CJ, DuChane J, Carroll PR, the Ca PI. Education predicts quality of life among men with prostate cancer cared for in the department of Veterans affairs. *Cancer*. 2007;109(9):1769-1776.