



Determinants of Quality of Life among Menopausal Market Women Traders in a South-Western Town, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. The study design, literature searches and statistical analysis were done by authors AAF and MOA. The writing of the first draft of the manuscript was handled by author MOA while author GOO managed the protocol for the study and data collection was done by all authors. All the authors read and approved the final manuscript.

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ABSTRACT

Menopause marks the end of a woman's reproductive life with associated physical, social, mental and cultural changes. Menopausal symptoms are known to impair the quality of life (QoL) of women. This study assessed the determinants of quality of life among menopausal women traders in a South-Western Town, Nigeria.

Methodology: This study adopted descriptive research design. 421 respondents were purposively selected based on inclusion and exclusion criteria. Standardized Structured Questionnaire that was pretested and validated was used to collect data. The data obtained were analyzed using the statistical package for the social sciences (SPSS) version 23 and *P*-value were set as 0.05.

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Results: Socio-demographic characteristics distribution of respondents showed that 286 respondents (67.9%) were married; 205 respondents (48.7%) were secondary school holders and the menopausal mean age was 48.45 ± 3.78 years. On determinants of QoL, 328 respondents (78.0%) reported good sleep; 301 respondents (71.5%) reported good memory; 138 respondents (32.8%) reported enjoyment of love life; and 215 respondents (51.0%) claimed to work actively. On the overall QoL 223 respondents (53.0%) experienced fair QoL; there is no significant relationship between QoL and selected demographic variables, their *P* value were, age = 0.48, number of children = 0.13, educational qualification = 0.70, occupation = 0.20 and monthly income = 0.53.

Conclusion: The study concluded that respondents' love life has the least reported response among the determinants, and little above half has fair QoL. Therefore public health practitioners need to pay special attention to comprehensive sexuality education for menopausal women to improve their QoL.

Keywords: Determinants; menopause; quality of life; women traders.

1. INTRODUCTION

Menopausal symptoms are known to negatively affect the quality of life of women, in which the manifestations include bone pain and deformity [1]. Menopausal transition usually has three parts: Perimenopause, menopause and postmenopause. Perimenopause is the beginning of the transition phase which usually commence several years before the final stoppage of menstrual flow. It usually begins around 40 years of age and can last up to 8 to 10 years before natural menopause starts. During this period, there is a gradual reduction in estrogen production. Menopause is the point when a woman no longer menstruates (end of menstruation). Menopause is diagnosed when a woman has failed to menstruate for 12 consecutive months. Postmenopause refers to the years after menopause [2].

The World Health Organization (WHO) defines the quality of life QoL as "an individual's perception of their position in life, in the context of the culture and value system in which they live, and about their goals, expectations, standards, and concerns" [3]. Menopause has been found to have the most dramatic effect on QoL during the peri- and early-postmenopausal stage (especially in symptomatic women). In a longitudinal cohort study by Avis, et al. [4], they reported that peri-menopause is associated with a higher level of symptoms such as (psychological, somatic, vasomotor, sexual) which negatively affect QoL. In a similar study, [5] opined that the menopausal transition may also be a source of psychological distress or instability, although certain subgroups of women may be more vulnerable to such adverse outcomes than others. Collectively, these adverse physical and mental health changes

may negatively impact QoL as women transit through menopause.

The determinants of quality of life are the factors which decisively affect the nature, feelings and experience of menopausal women. The following determinants are considered in this study: sleep, memory, feelings, love life, work activities and energy, social life and leisure activities. Menopause as a period of a women's life is marked by physiological, psychological and social changes. For instance, poor quality sleep is a common complaint amongst menopausal women. Sleep disturbances occur because progesterone has a sedative effect due to its stimulation of benzodiazepine receptors (which have either anti-anxiety or sedative effects). It also stimulates respiration, which may reduce the likelihood of sleep apnoea. The effects of estrogen are more complex, but it has been shown to increase the number of rapid eye movement (REM) sleep cycles. Increased frequency of awakening from sleep is associated with low estrogen levels [6].

Furthermore, declines in estrogen around menopause are associated with declines in cognitive functioning or memory as well as increased risk of depressive symptoms and depressive disorders [7]. The loss of estrogen and testosterone following menopause can lead to changes in a woman's body and sexual drive [8]. Changes in hormone production affect the moods of women during menopause. Some women report feelings of irritability, depression and mood swings [9].

Studies have shown that menopause can be accompanied by various signs and symptoms and it can have an influence major on the QoL. Menopause is one of the major cause of

osteoporosis and cardiovascular disease [10]. The overall health status of women approaching the climacteric phase has become a major public health concern around the globe as many menopausal women experience various distressing symptoms. It is therefore imperative to have an in-depth study of determinants of QoL among menopausal women.

1.1 The Objective of the Study

The broad objective of the study was to assess the determinants of quality of life among menopausal market women traders in a South-Western town, Nigeria

The specific objectives are to:

- 1) Determine the age range of respondents at the onset of menopause;
- 2) Assess the determinants of Quality of Life;
- 3) Determine the relationship between quality of life of respondents and selected demographic variables (age, marital status, number of children, educational qualification, occupation and monthly income).

1.2 Research Questions

- 1) What is the age range of respondents at the onset of menopause?
- 2) What are the determinants of Quality of Life of respondents?

1.3 Hypothesis

There is no significant relationship between the quality of life of respondents and selected demographic variables (age, marital status, number of children, educational qualification, occupation and monthly income).

1.4 Study Variables

Independent variables are the determinants (Sleep, Memory, Feelings, Love life, Work activities and energy).

The dependent variable is Quality of Life.

2. METHODOLOGY

2.1 Study Design

This study used descriptive research design to assess the determinant of quality of life among market women traders in a south-western town in Nigeria between June and July 2019.

2.2 Population

The population for this study was market women traders, in the four selected markets in a southwestern town in Nigeria.

Inclusion criteria were as follows: The respondent must be willing to participate after gaining verbal consent, she must have reached menopause, that is, experience amenorrhea for at least 12 months, must be between 45 and 60 years and have shop/stall or work in any of the selected markets.

Exclusion criteria include unwillingness on the part of respondents to participate; respondents with chronic diseases like diabetes, hypertension, congestive cardiac failure, liver disease, kidney disease and any form of cancer that can interfere with the menopausal experience.

2.3 Sample Size Determination and Sampling Technique

The sample size was determined using the Kish [11] formula. It is used for the calculation of sample size in a descriptive study design where the prevalence rate is known. The prevalent rate for menopause is 0.47 [12]. To study attributes in a population and selecting a sample for the study. 421 respondents were calculated.

Purposive Sampling Technique was used to select 421 menopausal women age 45-60.

According to the prevalence (47%) was used to calculate the total number of respondents from each market.

Orisunmbare market was calculated as $47/100 \times 553 = 260$.

Olu Ode market was calculated as $47/100 \times 460 = 216$.

Oja Oba was calculated as $47/100 \times 484 = 227$.

Sabo was calculated as $47/100 \times 468 = 220$.

The total number of menopausal women in the four markets was 923, then proportionate sample size was calculated as:

Orisunmbare Market was $260/923 \times 421 = 118$.

Oluode Market was $216/923 \times 421 = 99$.

Oja oba Market was $227/923 \times 421 = 104$.

Sabo Market was $220/923 \times 421 = 100$.

The sampling technique was used because of the peculiarity of the health status of menopausal women at this phase of life, to focus on particular characteristics of the population that are of interest and be able to answer the research questions from their responses. Maximum Variation Purposive Sampling Technique was used to recruit respondents (that is, all ages were represented).

2.4 Instrumentation

Standardized Structured Questionnaire was used called Menopause Specific Quality of life Questionnaire by Moravcová, et al. [13] This was adapted and few modifications were made. The Questionnaire consists of two sections.

Section A: This section focused on the demographic characteristics (such as age, marital status, educational qualification, number of children, occupation and income), and age of onset of menopause.

Section B: This elicited information on the quality of life.

It is Likert type scale on a 4 point of "I am never like this" – "0", "I am rarely like this" – "1", "I am often like this" – "2" and "I am always like this" – "3" that assesses the quality of life of menopausal women. The MENQoL (Menopause Quality of Life) questionnaire has 5 different domains to indicate whether they have experienced the problem over the last month. The items were 47 in number and the maximum possible score is 141, Lower score 0-35 represents the excellent quality of life, 36-71 represents good quality of life, 72-107 represents fair quality of life, while 108-141 represents poor quality of life.

2.5 Validity and Reliability of Instrument

The Structured Questionnaire adapted for this research was pretested and found to be valid and reliable. The Cronbach's Alpha (R) was 0.87

2.6 Data Collection Procedure

Phase 1: Letter of introduction to the Local government management was secured from the Babcock University Health Research Committee,

through the Dean of the School of Nursing Science, Babcock University, Ilisan Remo, Ogun State. Approval was taken from the local government head office and meeting was arranged with the market heads and gatekeepers, where the purpose and procedure of the study were explained to them in details. The researchers booked an appointment with the market head to be around on their general meeting days and their convenient time.

Phase 2: Shop - to - shop visitation was done to meet with the women, those who are in the menopausal stage between 45 to 60 years and were willing to participate in the study were recruited.

Phase 3: Data collection was done over eight weeks, 2 weeks in each market, the women were asked the questions in the questionnaire in either English or Yoruba language, and it was filled by the researchers and two trained research assistants and was kept by researchers immediately, to ensure completeness.

2.7 Data Analysis

Data obtained were coded and analyzed using the Statistical Package for Social Sciences (SPSS) version 23. Descriptive statistics such as frequency counts, percentage, tables, mean score and standard deviation were used to analyze demographic data of respondents and research questions. Inferential Statistics of (Multiple Regression, was used to test the hypothesis at 0.05 level of significance.

3. RESULTS PRESENTATION

Table 1 reveals the socio-demographic distribution of the respondents. Above one-third of the respondents (38.2%) were between 55-59 years with a mean of 48.45 ± 3.78 , above two-third of the respondents (67.9%) were married, below half (48.7%) were secondary school holders, 45.6% were traders, above one third (35.4%) monthly income were between 10,000-50,000 Naira, above half of the respondents (56.8%) last menstruation was in the last 12 month.

Table 2 reveals that minority (4.3%) reached menopause at age 40-44, less than one quarter (24.0%) reached menopause at age 50-54 and above two-third of the respondents (71.7%) start their menopause at the age of 45-49 years.

Table 1. Socio-demographic characteristics of respondents

Variables	Category	Frequency N= 421	Percentage (%)
Age: Mean=48.45±3.78	45-49	132	31.4
	50-54	128	30.4
	55-59	161	38.2
	Total	421	100
Marital status	Single mother	14	3.3
	Married	286	67.9
	Separated/Divorced	52	12.4
	Widowed	69	16.4
	Total	421	100
Number of children	1	40	9.5
	2	58	13.8
	3	92	21.9
	4	126	29.9
	Above 4	105	24.9
	Total	421	100
Educational qualification	No formal education	32	7.6
	Primary	205	48.7
	Secondary	98	23.3
	Tertiary	86	20.4
	Total	421	100
Occupation	Civil/public servant	9	2.1
	Retiree	46	10.9
	Farming	30	7.1
	Artisan	144	34.2
	Trader	192	45.6
	Total	421	100
Monthly income	<10,000	103	24.5
	10,000 – 50,000	149	35.4
	50,001 – 100,000	105	24.9
	Above 100,000	64	15.2
	Total	421	100
When did you menstruate last	12 months	239	56.8
	13-18 months	172	40.8
	19-24 months	10	2.4
	Total	421	100

Table 2. Age of onset of menopause among respondents

At what age did you reach menopause: Mean=48.45±3.78	40-44	18	4.3
	45-49	302	71.7
	50-54	101	24.0
	Total	421	100

Table 3 shows a summary of the quality of life. More than three fourth of women (78.0%), had a good sleep, above two-third of women (71.5%) reported to have a good memory, more than two-thirds (76.2%) had a good feeling, about one-third (32.8%) were enjoying love life, little above half (51.0%) claim to work actively and above half of the respondents (53.0%), had a fair quality of life. This study revealed that the respondents have a fair QoL and the determinants of their

QoL include – sleep, memory, feelings, love life and work activities including energy.

3.1 Hypothesis Testing

There is no significant relationship between the quality of life of respondents and selected demographic variables (age, marital status, number of children, educational level, occupation and monthly income).

Table 3. Determinants of menopausal quality of life

Variables	Frequency (N)	Percentage (%)	Mean±SD
Sleep			
Good sleep	328	78.0	4.0±0.2
Disturbed sleep	93	22.0	
Memory			
Good memory	301	71.5	2.9±2.3
Poor memory	120	28.5	
Feelings			
Good feeling	321	76.2	7.8±5.3
Bad feeling	100	23.8	
Love Life			
Enjoy love life	138	32.8	2.7±1.9
Do not enjoy love life	283	67.2	
Work Activities and Energy			
Active	215	51.0	6.7±1.2
Not active	206	49.0	
Overall Quality of Life			
Excellent 0-35 Points	81	19.2	24.1±10.3
Good 36-71 Points	74	17.6	
Fair 72-107 Points	223	53.0	
Poor 108-141 Points	43	10.2	

Table 4. Multiple regression analysis

Model	B	Std.error	Beta	T	Sig	Lower	Upper
Age	2.27	0.79	0.14	2.14	0.01	0.70	3.84
Marital status	2.25	0.85	0.13	2.04	0.01	0.57	3.93
Number of children	0.46	0.48	0.45	0.95	0.33	0.48	1.41
Educational qualification	0.15	0.61	0.01	0.24	0.80	1.05	1.36
Occupation	0.81	0.67	0.75	1.21	0.22	0.50	2.13
Monthly income	1.26	0.60	0.13	2.07	0.03	0.06	2.45
Constant	50.66	3.50		14.45	0.001		
F= 8.41							
Sig = 0.01							
Adjusted R = 0.09							
R Square = 0.10							

a. Predictors: Socio-Demographic Characteristics

b. Dependent variables: Quality of life

Multiple regression was run to predict the quality of life of menopausal women. From the result, The socio-demographic characteristics were statistically run to predict the quality of life of menopausal women, $F(3,50) = 8.41, p = 0.01, R^2 = 0.10$. thus, three variables (age, marital status and monthly income) statistically predict the quality of life of menopausal women, with sig. value age = 0.01, marital status = 0.01 and monthly income = 0.03.

4. DISCUSSION OF FINDINGS

Findings from the study showed that above two-thirds of the respondents (71.7%), commenced menopause at the age range of 45-49 years, with mean age 48.45 ± 3.78 . This is in tandem with the

study of African American white and Indian women in the late reproductive years (Menopause). The researchers found that the average age of menopause is 47 and 48 years respectively [9,14]. These findings are also similar to the study of Yisma, et al. [15], where they found that globally the average age of menopause varies across geographic regions. According to the study, it was discovered that the average age of menopause was 49 years. In another study, the researchers discovered that the mean age of menopause among the study participants was 45.2 ± 4.7 years [16].

The above result is slightly different from the findings of other researchers who find that the average age at natural menopause as 51.4 years

[17]. Whereas another study found that the age range was 45 to 55 years with the average age at 51 years [18]. Another study found that the median age at menopause among white women from industrialized countries ranges between 50-52 years [19]. This discrepancy may be as a result of differences in race, ethnicity, demographic characteristics and lifestyle factors.

The findings showed that a little above average of the respondents has a fair quality of life. This finding is synonymous with a study where the researchers noted that natural events in life like menopause can alter the individual's quality of life. Consequently, health-related quality of life (HRQoL), is viewed as a dimension of QoL that deals with the effects of physical, psychological, social and spiritual factors on the overall QoL of individuals [20]. In other words, the QoL identifies four (4) domains (physical well-being such as sleep, social well-being such as family distress, psychological well-being such as depression and spiritual well-being such as hopelessness) that define an individual's QoL. Each of the domains is stated to act singly or in combination with the other domains and ultimately has an impact on the QoL.

This is consistent with the findings of a study that couples were found to be aware of menopause; however, the symptoms arising as a consequence of it, seems to be accepted as natural age-related changes as (55%) did not think menopause should be treated [21]. This could account for above-average that claimed they have a fair quality of life, due to the cultural belief that women should be silent on the matters that affect their sexuality. This is because they feel it is not moral to discuss such. Some women were observed to be shy to discuss issues surrounding their sexual life. This validates findings of Abdullah, et al. [22], they discovered that the presence of menopausal symptoms significantly reduces the quality of life of Malaysian women. The findings on QoL outcome can be attributed to individual perception, the high value placed on female independence in the women's culture and greater exposure within their family groups, religious groups and friends as regards the realities of climacteric transition and the ageing process.

Analysis of the relationship between quality of life of respondents and selected demographic variables (age, number of children, occupation, income and educational level): Multiple regression analysis to predict the relationship between the quality of life of

respondents and selected demographic variables. The null hypothesis is rejected, which indicates that some socio-demographic characteristics (age, marital status and monthly income) statistically predict the quality of life of menopausal women. $F(3,50) = 8.41, p = 0.01, R^2 = 0.10$.

This result is in tandem with the study of women's health across the nation, the researchers stated that being older, experiencing distressing symptoms of menopause more than 5 years, lower monthly income, lack of husband support and marriage un satisfaction harms QoL [23]. Poor QoL in any of the couples will affect family relations, married couples might result in incompatibilities, failed connections, lack of satisfaction from life [4]. Also, this result is in agreement with the findings of a study in Kenya that these severe and debilitating symptoms are found to affect attendance, mental concentration and output at work, as well as influencing social life, psychological health and sense of wellbeing [24]. Women who have a higher educational background and a good source of income are well informed and can cope better. The researchers concluded that women with increasing age and shorter years of distressing symptoms, good marital relationship, and those with a good source of income will be able to cope better with the transitional symptoms of menopause.

5. CONCLUSION

This study assessed the determinants of QoL, the study concluded that (71.7%) of the respondents commenced menopause at age range 45-49 with mean age 48.45 ± 3.78 , findings also revealed that a little above average (53.0%) have the fair quality of life. The Hypothesis showed that age, marital status, and income are the major predictors of QoL among menopausal women traders in a South-Western Town, Nigeria.

6. SUMMARY

The menopausal stage is usually accompanied by the fluctuation of hormones and physiological changes. Individual perception, belief, value and other attitudinal disposition may influence their quality of life at this stage. This study investigated the determinants of quality of life of menopausal women traders in a South-Western town Nigeria. Four hundred and twenty-one (421) respondents were purposively and

proportionately selected for the study. Majority of the respondents started menopause at age 45-49 years. Menopausal changes affected respondents' lives with love life having the least responses among the determinants. On the overall QoL little above half of the respondents experienced fair QoL, from the social demographic characteristics age, marital status and monthly income are the major predictors of QoL.

7. RECOMMENDATIONS

Based on the findings of this study the following recommendations are made:

1. Menopausal women should be encouraged to be involved in work activities to improve their quality of life and maintain wellness.
2. Menopausal women should be encouraged to enjoy a sexual relationship with their spouses.
3. Menopausal women should go for a regular medical check-up to detect an abnormality early.
4. Health care workers (nurses and midwives) should correct the misconception about menopause.
5. Awareness programme should be organized by nurses and midwives about signs and symptoms associated with the menopausal phase of life.

8. LIMITATION OF THE STUDY

The study was limited to 421 menopausal market women traders in four selected markets, all menopausal markets women traders could not be involved because of differences in their market areas. Therefore the findings could only be generalized to the state where the study was conducted and could not be generalized to all the six states in southwestern Nigeria.

CONSENT AND ETHICAL APPROVAL

Ethical approval for this study was obtained from Babcock University Health Research and Ethical Committee (BUHREC) with approval reference number 275/19 on March 27, 2019. Babcock university reference number NHREC/24/01/2018. A detailed explanation was provided to all eligible respondents before participation. Verbal consent of respondents' was obtained. They were assured of no harm, strict confidentiality and the grace to withdraw from the study when they feel like.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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