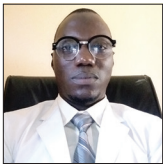


Original Article

Knowledge and attitude toward menopause among females' secondary school teachers in Northcentral, Nigeria

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Received: 09 September 2023

Accepted: 05 July 2024

Published: 26 August 2024

DOI

10.25259/GJHSR_72_2023

Quick Response Code:



ABSTRACT

Objectives: The objectives of the study were to assess the knowledge and attitude toward menopause among females secondary school teachers in Northcentral Nigeria. and to find out the statistically significance association between their level of knowledge and their selected sociodemographic variables.

Material and Methods: The research design used for this study was a descriptive survey design; a purposive sampling technique was used to select 50 respondents. Data were collected using a self-structured questionnaire to assess knowledge and attitude toward menopause among females secondary school teachers in Northcentral Nigeria. The data were analyzed using descriptive and inferential statistics with IBM Statistical Package for the Social Sciences Statistics version 26.0.

Results: The results showed that 8 (16.0%) of the respondents had good knowledge, 10 (20.0%) had average knowledge, and the majority 32 (64.0%) had poor knowledge of menopause. Therefore, the $H_{1.0}$ Hypothesis was accepted, while the $H_{1.1}$ Hypothesis was rejected. The majority of the respondents, 36 (68.0%), had a positive attitude, while 16 (32.0%) had negative attitude toward menopause. Therefore, the $H_{2.2}$ Hypothesis was rejected, while the $H_{2.2}$ Hypothesis was accepted. There was a statistically significance association between their level of knowledge of menopause and their selected sociodemographic variables such as age (≥ 50 years), educational qualification (MA/MEd/MSc), and previous history of menopause (yes), $P < 0.05$. Hence, the $H_{0.3}$ Hypothesis was rejected, while the $H_{1.3}$ Hypothesis was accepted.

Conclusion: Majority of the respondents had poor knowledge and a positive attitude toward menopause.

Keywords: Knowledge, Attitude, Menopause, Females secondary school teachers, Northcentral

INTRODUCTION

Menopause, also known as climacteric, is a permanent termination of the menstrual cycle caused by the loss of activity of ovarian follicle, which is enforced when experiencing amenorrhea to 12 months; the mean age for women to stop menstruating was 51.5 years. Causes of menopause are a decrease in ovarian hormones, when the ovaries stop working, and estrogen levels drop. A woman will experience several complaints, such as changes in menstrual patterns, somatic, vasomotor, cardiovascular disease, sexual disorders, sleeping disorders, urogenital disorders, psychological complaints, and osteoporosis.^[1]

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However, according to the World Health Organization, menopause has three stages. Include the premenopausal stage either to refer to the 1 or 2 years immediately before menopause or to encompass the entire reproductive period up to the first menstrual period; the post-menopausal stage is the period following the first menstrual period regardless of whether or spontaneous; the menopausal stage is a phase which incorporates perimenopause, but extends for a longer variable period before and after perimenopause and marks the transition from the reproductive to non-reproductive.^[2] Menopause symptoms affect women of rural middle-aged 40–60 years in Haryana, India.^[3] Worldwide, the age of menopause is 45 and 55 years; the symptoms of menopause are not only reflected in the genitals but also in the skeletal, cardiovascular, and psychological systems. Previous studies have shown that menopause signs and symptoms vary among women if different ethnics menopause signs and symptoms are not life-threatening. Menopause symptoms were found to be 87.7%, the majority of the study subjects had anxiety 80%, followed by physical and mental exhaustion, and the average age at natural menopause was reported to be 48.8 years globally, ranging from 47.2 years in Latin America to 51.3 years in Australia.^[4]

Moreover, in Nigerian, menopause usually occurs between age 45 and 52 years of age, but in rare cases, menopause occurs between ages 36 and 40; it is mostly acknowledged that the average age at menopause is about 51 years in industrialized nations; yet, in developing countries, it ranges from 43 to 49 years, 1990; there were around 46.7 million women aged ≥ 50 years in the world, this number is expected to increase to 1200 million in the year 2030, these figures imply that in the nearest future, there will be more menopausal women and need to promote health for this group.^[5] The menopausal period is critical and complex because the woman is subject to many challenges due to changes in her physical and emotional life. The way she reacts and manages the psychological, cultural, biological, and economic changes influences the rest of her life and her attitude in terms of menopausal events such as the transition into menopause, midlife, and aging.^[6]

In addition, female hormones play a central role in women's life; their rise triggers puberty, allows them to experience the joy of motherhood, and ensures cardioprotective functions and bone health. Even after the mid-forties, almost all women, irrespective of their cultural background and health conditions, begin to experience psychological, physical, and emotional disturbances.^[7] Another study result revealed that 30.2% of women had a low level of knowledge regarding menopause in Imo State of Nigeria.^[8] Therefore, the researcher felt the need and desire to carry out a research on knowledge and attitudes toward menopause among females secondary school teachers in Northcentral Nigeria.

Aim

The study aimed to assess the knowledge and attitude toward menopause among females secondary school teachers in Northcentral Nigeria and to find out the statistically significance association between their level of knowledge and their selected sociodemographic variables.

Research hypotheses

H_{0.1}: There was no significance knowledge of menopause among females secondary school teachers.

H_{1.2}: There was significance attitude toward menopause among female secondary school teachers.

H_{1.3}: There was a statistically significance association between their level of knowledge regarding menopause and their selected sociodemographic variables.

MATERIAL AND METHODS

Study design and population for the study

The research design used for this study was a descriptive survey design to assess the knowledge and attitude toward menopause among females secondary school teachers in Northcentral Nigeria.

Sample size and sampling technique

In this study, a purposive sampling technique was used to select 50 females secondary school teachers in Northcentral Nigeria. The sample size of this study was 50 teachers who are selected from the target population which are 50 females secondary school teachers in Northcentral Nigeria.

Inclusion criteria

Only females secondary school teachers in Northcentral Nigeria who were willing to participate and were available during the data collection were included in the study.

Exclusion criteria

Females secondary school teachers who were not willing to participate and were not available during data collection were excluded from this study.

Development and description of the tool

A structured questionnaire was developed by the researcher to obtain answers from the respondents. The tool used for the study was a self-structured knowledge questionnaire which was prepared to assess the knowledge and attitude toward menopause. The tool was formulated on the basis of the researcher's clinical experience, extensive literature

review, library research, and consultation with experts. The instrument for data collection was an open-ended questionnaire to suit the research objectives; it consisted of three sections: sections A, B, and C.

Section A

It consisted of demographic variables of students, including ten items such as age, marital status, religion, educational qualification, years of experience, area of residence, ethnicity, and previous knowledge of menopause.

Section B

It consisted of a structured knowledge questionnaire on knowledge of menopause. There were 20 knowledge questions; each question had multiple choices with four responses (a, b, c, and d). Each correct answer was given a score of one (1) mark, while the wrong answer and unanswered score were zero (0), with no negative marking.

Scoring

The knowledge of menopause was measured in terms of knowledge scores. Each correct answer was given a score of one (1) and an incorrect answer of zero (0). The maximum score is 20. To interpret the level of knowledge, scores were distributed as follows,

Scoring interpretation

The maximum score was 20 (100%), while the minimum was 0 (0%), no negative marking. The scoring were interpret as Good, Average, and Poor level of knowledge. $\geq 75\%$ were graded as Good level of knowledge. $\geq 50\% \leq 74\%$ were graded as average level of knowledge. $\leq 45\%$ were graded as poor level of knowledge.

Section C

It consisted of a self-structured questionnaire on attitudes toward menopause. There were ten questions; each question had multiple choices with two responses (yes/no). Each correct answer was given a score of one (1) mark, while the wrong answer and unanswered score were zero (0), with no negative marking.

Scoring

The attitude toward menopause was measured in terms of positive and negative. Each correct answer was given a score of one (1) and an incorrect answer of zero (0). The maximum score was 10. To interpret the level of attitude, scores were distributed as follows.

Scoring interpretation

The maximum score was 10 (100%), while the minimum was 0 (0%), no negative marking. The scoring were interpret as Positive, and Negative Attitude. $\geq 50\%$ were graded as Positive Attitude. $\leq 40\%$ were graded as Negative Attitude.

Ethical consideration

This study was conducted after the approval of the Ethical Committee of Nasarawa State Ministry of Health Lafia, Nigeria, and consent was also obtained from the School's Principals and the Teachers of Government Secondary School Tudun Gwandara, and Government Secondary School Akuruba, Lafia. The respondents were assured of the confidentiality of their responses.

Method of data analysis

The data were analyzed using descriptive and inferential statistics with the aid of IBM Statistical Package for the Social Sciences (SPSS) Statistics version 23. Sample criteria were analyzed by frequency and percentage, and Chi-square was used to find out the statistically significance association between their level of knowledge and their selected sociodemographic variables.

RESULTS

Table 1 scoring key for knowledge questionnaire. The questionnaire comprised 20 questions on knowledge of menopause. The maximum score was 20 marks, while the minimum score was 0, no negative marking.

Table 2 level of knowledge score. The level of knowledge was graded as good, average, and poor level of knowledge. 75% to 100% (15 to 20 score) were graded as good level of knowledge. 50% to 74% (10 to 14 score) were graded as average level of knowledge. 0% to 45% (0 to 9 score) were graded as poor level of knowledge.

Table 3 scoring key for attitude questionnaire. The questionnaire comprised ten questions on attitude towards menopause. The maximum score was ten marks, while the minimum score was zero mark, no negative marking.

Table 4 level of attitude score. The level of attitude was graded as positive and negative attitude. 50% to 100% (5 to 10 score) were considered as positive attitude. 0% to 40% (0 to 4 score) were considered as negative attitude.

Table 5 shows that the age range of the respondents is between 20 and 29 years, 30 and 39 years, 40 and 49 years, and ≥ 50 years which accounted for 9 (18.0%), 27 (54.0%), 10 (20.0%), and 4 (8.0%), respectively. In terms of marital status sixteen (32.0%) are unmarried, 22 (44.0%) married, 8 (16.0%) divorcee, and 4 (8.0%) widow. In religion practice, 30 (60.0%) are practicing

Table 1: Scoring key for knowledge questionnaire.

Q. No.	Maximum score	Minimum score
1-20	20	0

Table 2: Level of knowledge score.

Level of knowledge	Score	Percentage
Good	15–20	75–100
Average	10–14	50–70
Poor	0–9	0–45

Table 3: Scoring key for attitude questionnaire.

Q. No.	Maximum score	Minimum score
1–10	10	0

Table 4: Level of attitude score.

Level of attitude	Score	Percentage
Positive	5–10	50–100
Negative	0–4	0–40

Christianity, 10 (20.0%) Islam, and 10 (20.0%) other regions. According to educational qualification, 16 (32.0%) had NCE, 18 (36.0%) had a BEd/BSc, and 12 (24.0%) had a PhD. According to years of experience, 1–10 years had 25 (50.0%), 11–20 years had 20 (40.0%), 21–30 years had 3 (6.0%), and ≥31 years had 2 (4.0%). The majority, 35 (70.0%) of the respondents are residing in rural, while the minority, 13 (26.0%), are in urban areas. The majority, 22 (44.0%) of the respondents, are Eggon, followed by Fulani 9 (18.0%), Koro 8 (16.0%), Others 7 (14.0%), and Tiv 4 (8.0%) representing the minority. Thirty-seven (74.0%) had previous knowledge of menopause, while 12 (24.0%) had no previous knowledge of menopause.

Table 6 shows that, out of 50 (100%) respondents, 8 (16.0%) had good knowledge, 10 (20.0%) had average knowledge, while the majority 32 (64.0%) had poor knowledge of menopause.

Table 7 shows that a minority of the respondents, 36 (68.0%), had a positive attitude, while 16 (32.0%) had a negative level of attitude toward menopause.

Table 8 shows that there was a statistically significant association between their level of knowledge score regarding menopause with their selected sociodemographic variables such as age (≥ 50 years), educational qualification (MA/MEd/MSc), and previous history of menopause (yes), $P < 0.05$.

DISCUSSION

Alharthi *et al.* conducted a cross-sectional on knowledge and perception toward menopause among Saudi women

attending Primary Care Clinics in Riyadh, Saudi Arabia. The result revealed that out of 374 women, about 89.2% had inadequate knowledge of menopause, whereas 98.9% were not aware of treatment available for menopausal symptoms.^[9]

A study conducted by Binazir *et al.* on the knowledge, attitude, and practice of women aged 45–60 years about menopausal health. The convenience sampling method was used to collect from 242 women using a standardized questionnaire. The data were analyzed using SPSS version 16. The result revealed that the mean knowledge, attitude, and practice score was 22.52 ± 3.21 (in the range of 0–5) in multiple regression analysis.^[10]

In another study conducted by Krzyzanowska on women’s knowledge on the menopausal transition in relation to socio-demographic status. The result showed that there was an association between the level of knowledge with their area of residence, level of education, and alternative therapy $P < 0.05$.^[11]

The key findings of this study showed that:

The age range of the respondents is between 20 and 29 years, 30 and 39 years, 40 and 49 years, and ≥50 years which accounted for 9 (18.0%), 27 (54.0%), 10 (20.0%), and 4 (8.0%), respectively. In terms of marital status sixteen (32.0%) unmarried, 22 (44.0%) married, 8 (16.0%) divorcee, and 4 (8.0%) widow. In religion practice, 30 (60.0%) practice Christianity, 10 (20.0%) Islam, and 10 (20.0%) other regions. According to educational qualification, 16 (32.0%) had National Certificate of Education/Diploma, 18 (36.0%) had BA/BEd/BSc, 12 (24.0%) had MA/MEd/MSc, and 4 (8.0%) had PhD. According to years of experience, 1–10 years had 25 (50.0%), 11–20 years had 20 (40.0%), 21–30 years had 3 (6.0%), and ≥31 years had 2 (4.0%). The majority, 35 (70.0%) of the respondents, are residing in rural, while the minority, 13 (26.0%) are in urban areas. The majority, 22 (44.0) of the respondents, are Eggon, followed by Fualni 9 (18.0), Koro 8(16.0), others 7(14.0), and Tiv 4(8.0) representing the minority. Thirty-seven (74.0%) had previous knowledge of menopause, while 12 (24.0) had no previous knowledge of menopause.

The results showed that 8 (16.0%) of the respondents had good knowledge, 10 (20.0%) had average knowledge, and while majority 32 (64.0%) had poor knowledge of menopause. Therefore, the $H_{1.0}$ Hypothesis was accepted, while the $H_{1.1}$ Hypothesis was rejected. This conforms with a cross-sectional study which was conducted by Alharthi *et al.* conducted a cross-sectional on knowledge and perception toward menopause among Saudi women attending Primary Care Clinics in Riyadh, Saudi Arabia. The result revealed that out of 374 women, about 89.2% had inadequate knowledge of menopause, whereas 98.9% were not aware of treatment available for menopausal symptoms.^[9]

The study results revealed that the majority of the respondents, 36 (68.0%), had a positive attitude, while 16 (32.0%) had

Table 5: Respondents sociodemographic variables ($n=50$).

S. No.	Variable	Frequency	Percentage
1.	Age		
	20–29 years	9	18.0
	30–39 years	27	54.0
	40–49 years	10	20.0
2.	≥50	4	8.0
	Marital status		
	Unmarried	16	32.0
	Married	22	44.0
3.	Divorcee	8	16.0
	Widow	4	8.0
	Religion		
	Christianity	30	60.0
4.	Islam	10	20.0
	Others	10	20.0
	Educational Qualification		
	National Certificate of Education/Diploma	16	32.0
5.	BA/BEd/BSc/Higher National Diploma	18	36.0
	MA/MEd/MSc.	12	24.0
	PhD	4	8.0
	Years of experience		
6.	1–10 years	25	50.0
	11–20 years	20	40.0
	21–30 years	3	6.0
	≥31 years	2	4.0
7.	Area of residence		
	Urban	35	70.0
	Rural	13	26.0
8.	Ethnicity		
	Eggon	22	44.0
	Fulani	9	18.0
	Koro	8	16.0
	Tiv	4	8.0
	Others	7	14.0
8.	Previous knowledge of menopause		
	Yes	37	74.0
	No	12	24.0

BA: Bachelor of Art, BEd: Bachelor of Education, BSc: Bachelor of Science, MA: Master of Art, MEd: Master of Education, MSc: Master of Science, PhD: Doctor of Philosophy.

Table 6: Respondents knowledge of menopause ($n=50$).

S. No.	Level of knowledge	Score range	Frequency	Percentage
1.	Good	15–20	8	16.0
2.	Average	10–14	10	20.0
3.	Poor	0–9	32	64.0

Table 7: Respondents attitude toward menopause ($n=50$).

S. No.	Level of practice	Score range	Frequency	Percentage
1.	Positive	5–10	36	68.0
2.	Negative	0–4	16	32.0

Table 8: Association between their level of knowledge regarding menopause with their selected sociodemographic variables ($n=50$).

S. No.	Variables	P-value
1.	Age ≥50 years	0.017 ^s
2.	Educational Qualification MA/MEd/MSc.	0.003 ^s
3.	Previous knowledge of menopause Yes	0.001 ^s

MA: Master of Art, MEd: Master of Education, MSc: Master of Science, ^sindicate significant P-values.

a low level of attitude toward menopause. Therefore, the H_{0.2} Hypothesis was rejected, while the H_{2.2} Hypothesis was accepted. This conforms with a study conducted by Binazir

et al. on the knowledge, attitude, and practice of women aged 45–60 years about menopausal health. A convenience sampling method was used to collect from 242 women using a standardized questionnaire. The data were analyzed using SPSS version 16. The result revealed that the mean knowledge, attitude, and practice score was 22.52 ± 3.21 (in the range of 0–5) in multiple regression analysis.^[10]

The results showed that there was a statistically significant association between their level of knowledge regarding menopause with their selected sociodemographic variables such as age (≥ 50 years), educational qualification (MA/MED/MSc), and previous history of menopause (yes), $P < 0.05$. Hence, the $H_{0.3}$ Hypothesis was rejected, while the $H_{3.3}$ Hypothesis was accepted. This is in conformity with a cross-sectional study conducted by Krzyzanowska on women's knowledge on the menopausal transition in relation to their socio-demographic status. The result revealed that out of 374 women, about 89.2% had inadequate knowledge of menopause, whereas 98.9% were not aware of treatment available for menopausal symptoms.^[11]

Recommendations

In view of this study findings, the researcher recommends that a similar study to be conducted on knowledge and attitude towards menopause among females secondary school teachers using different setting for generalization of the findings. A pre-experimental study can also be conducted on knowledge and attitude towards menopause among females secondary school teachers using different setting.

CONCLUSION

The results showed that the majority of the respondents had poor knowledge and a positive attitude toward menopause. There was an association between their level of knowledge with their selected sociodemographic variables (age, educational qualification, and previous knowledge of menopause) $P < 0.05$.

Ethical approval

Ethical approval has been obtained from Nasarawa State Ministry of Health Lafia, Nigeria. With Ref No.: NSMH/NHREC/018, dated 7 Feb. 2022.

Declaration of patient consent

The authors certify that they have obtained all appropriate participant consent.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript, and no images were manipulated using AI.

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How to cite this article: Umar S, Bilyaminu YB. Knowledge and attitude toward menopause among females' secondary school teachers in Northcentral, Nigeria. *Glob J Health Sci Res.* 2024;2:115-20. doi: 10.25259/GJHSR_72_2023