

**DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS THAT INFLUENCE
MENOPAUSAL SYMPTOMS AMONG AGING WOMEN IN OWERRI MUNICIPAL
COUNCIL AREA OF IMO STATE**

Maria Cherechi Asodike¹, Julia Ibebuiké¹, Bright Ohale², Eleonu Priscilla Chinedu³, Gloria Eberechukwu Echendu¹, Scholastica Ngozi Naze¹ and Emmanuel Ifeanyi Obeagu^{4*}

¹Department of Nursing Science, Faculty of Health Science, Imo State University, Owerri, Nigeria.

²Department of Social Research, University of Hull, Cottingham Rd, Hull Hu6 7RX, UK.

³Department of Public Health, Faculty of Health Science, Imo State University, Owerri, Nigeria.

⁴Department of Medical Laboratory Science, Kampala International University, Uganda.

*Corresponding Author: Emmanuel Ifeanyi Obeagu

Department of Medical Laboratory Science, Kampala International University, Uganda.

Article Received on 21/06/2023

Article Revised on 11/07/2023

Article Accepted on 01/08/2023

ABSTRACT

This study was done to determine the demographic and socio-economic factors that influence menopausal symptoms among aging women in Owerri Municipal Council Area, Imo State. The study adopted a descriptive cross-sectional design. A sample size of 400 women aged 42 – 65 years was drawn from the population of 8,350 aging women resident in Owerri Municipal Council Area using yaro Yamane formula. Multi-stage sampling procedure was used to select respondents finally used for the study. Data obtained were analyzed with the aid of Statistical Software Package for Social Science (SPSS) 21.0. Descriptive and inferential statistics were adopted. Probability less than 0.05 was considered statistically significant. Major findings of the study revealed menopausal mean age of 49.2 years. The major somatic symptom experienced by the women was joint and muscular discomfort with a mean of 1.75 ± 1.52 while that of psychological and urogenital menopausal symptoms were physical \ mental exhaustion and vaginal dryness with mean of 1.65 ± 1.41 and 1.08 ± 1.35 respectively. Findings revealed a significant influence between educational level and the experience of menopausal symptoms ($p < 0.05$) while marital status have no significant influence with the experience of menopausal symptoms ($p > 0.05$). Based on the findings, it is recommended that awareness be created on the phenomena so as to increase women's knowledge for a better approach in dealing with menopausal symptoms. Support groups should be created for interaction and counseling. This will help to keep open the channels of communication in sharing information that will help the aging women go through menopause. The need for the menopausal women to maintain healthy lifestyle cannot be overemphasized as it will help them to cope better with menopause and its challenges.

KEYWORDS: Demographic, socio-economic factors, menopausal symptoms, aging women.

INTRODUCTION

Poomalar and Arounassalame, asserted that 80 percent of women experience physical and psychological symptoms in the years when they approach menopause with various distresses and disturbances in their lives, leading to decrease in the quality of life, 2013.

The menopause transition is experienced by 1.5million women every year and often involves troublesome symptoms, including vaso motor symptoms, vaginal dryness, decreased libido, insomnia, fatigue and joint pain (Santoro *et al.*, 2016; Obeagu and Obeagu, 2016; Obeagu *et al.*, 2016; Nwadike and Obeagu, 2023). Thus, the menopausal period is an important sequence, especially as vasomotor complaint and other individual factors gather and show an added impact on quality of life (Syeda *et al.*, 2014).

In rare cases, menopause can occur in the early thirties of a woman's life and sometimes as late as when she is in her sixties (Ibraheem *et al.*, 2015).

The age range at which women experience menopause is 45-55 years (Stoppler, 2019). Menopause is more likely to occur at slightly earlier age in women who smoke, have never been pregnant or live at high altitude (Ifeanyi and Uzoma, 2018; Obeagu *et al.*, 2016; Ifeanyi, 2018).

In Nigeria, the average age at menopause was estimated at 49 years which is slightly lower than the typical age of 51 for many developed countries (Eze *et al.*, 2014).

The age at menopause has not changed during the past centuries. However, life expectancy has risen among women in the world and women spend one-third of their

lives during menopause period (Taebi *et al.*, 2018). During this period, following the lowered activity of the ovaries and changes in hormone levels, symptoms such as headache, sleep disorder, mood swings, vasomotor symptoms such as hot flushes and night sweats and anxieties might occur (Ezemai *et al.*, 2023; Obeagu *et al.*, 2015; Nwosu *et al.*, 2014).

Menopausal symptoms, though well tolerated by some women, may be particularly troublesome in others. Several symptoms compromise overall quality of life for those experiencing them (Sultan *et al.*, 2017). Incidentally, menopausal symptoms occur at a time when other stresses are also present in a woman's life such as having to deal with caring for or the death of elderly parents, empty-nest syndrome, the birth of ground children and other mid-life adjustment leading to worsening of the woman's problems.

RESEARCH METHODS

Research Design

The descriptive cross-sectional design was used for this study.

Setting of the Study

The study was carried out in Owerri Municipal Council in Imo State.

Target Population

The target population comprised aging women of 42 – 65 years, residents of Owerri Municipal Council Area who were in their premenopausal, perimenopausal or menopausal stages. This Local Government Area was chosen because records from Gynecological Outpatient Department at Federal Medical Centre Owerri, showed increased attendees with complaints of menopausal symptoms from the Local Government. On the average about thirty cases were seen monthly from the local government, relating on complaints bordering on menopause. According to the health unit of the Local Government, aging women between the ages of 42-65 within the eleven (11) wards were eight thousand three hundred and fifty (8350).

Sample Size

The sample size was calculated using the Cochran's formula.

A minimum sample size of 385 was calculated using Cochran's formula.

$$n = \frac{z^2 pq^2}{d}$$

Where

n = desired sample size

Z = the standard normal deviation set at 1.96

p = the proportion in the population of which has the attribute in

Question.

$$q = 1 - p$$

d = the degree of accuracy desired, set at 0.05

$$n = \frac{(1.96)^2 (1.96) \times 0.5 \times 0.5}{0.05 \times 0.05} = 385$$

10% of the calculated sample size was added to make up the attribution, giving a total number of 422.

Criteria for Selection

Inclusion Criteria

People who met the inclusive criteria below were used:

- Female adults from 42 – 65 years
- Resident of Owerri Municipal Council Area, Imo State.
- Women with natural menopause
- Willingness to participate in the study
- Availability at the time of data collection

Exclusion Criteria

- Women below 42 years of age
- Women with surgical or induced menopause
- Women on hormonal replacement therapy

Sampling Technique

Aging women of 42 - 65 years were selected for the study. A two-staged sampling design was employed to select sample from the 11 wards of the LGA, which included Aladinma wards 1 and 2, Azuzi wards 1,2,3 and 4, GRA ward, Ikenegbu wards 1 and 2 and New Owerri wards 1 and 2.

First stage: categorization of respondents into the 11 wards of the LGA and random selection of 4 wards out of the 11 wards.

Second stage: random selection of four churches, one church from each of the four wards. The churches included Assumpta cathedral, St John's Anglican church, new Owerri, St Paul's Catholic Church douglas road and All Souls, Alvan Chaplaincy, Shell Camp. The study respondents were reached during their daily activities in their places of worship. Hundred (100) women in each institution who met the inclusion criteria were randomly selected for the study. The selection process was repeated till the sample size for each institution was achieved.

Instrument for Data Collection

The instrument for data collection was the researcher's self-developed questionnaire and a Modified Menopausal Rating Scale which comprised of three (3) sections.

Section A – Personal identification/demographic data containing 9 items.

Section B – Obstetric and Gynaecological history containing 8 items.

Section C – Contains 11 items on a list of symptoms – using a modified menopausal Rating Scale (MRS). The

responses in this section were subjective experiences and severity of menopausal symptoms assessed on a five points likert scale with a minimum score of 0 and maximum of 4. Each symptom was rated from 0 to 4 as “no symptom (0)”, “mild (1)”, “moderate (2)”, “severe (3)” and “very severe 4” respectively.

Ethical Consideration

An introductory letter from the head, Department of Nursing Sciences, Imo State University (IMSU), Owerri, a summary of the research proposal and an application letter for ethical approval were submitted to the Ethics Committee of Federal Medical Centre, Owerri for an approval to carry out the study. The study commenced when approval was given by the committee. An approval to collect data was also obtained from the health department of Owerri Municipal Council Headquarters at Ama J. K, Owerri.

The main ethical implications in this research were informed consent, confidentiality and anonymity of participants. The essence of this research was not to infringe on the rights, privileges and privacy of the respondents; hence their consent was duly sought before data collection.

Procedure for Data Collection

The researcher recruited two research assistants who were trained for the study. Before the data collection, initial visits were carried out by the researcher and the research assistants to various institutions involved in the

study for the introduction and sensitization of the prospective participants. They began by introducing themselves and establishing rapport with the women. There was adequate sensitization of the prospective participants to eliminate ambiguity and waste of man hour. Clear explanation about the nature, aim and purpose of study was provided to the women who met the study (inclusive) criteria. Each woman was informed that participating in this study was voluntary.

Subsequently, a research package which consisted of the instrument (questionnaire), cover letter and consent form were distributed to the study participants by the researcher and the research assistants in the study area. The questionnaire were explained to the illiterate ones. The respondents were given time to read the questionnaire before filling in their responses. The researchers later collected the completed questionnaire and repeated calls were made to those who were not able to return theirs on the spot. The data collection lasted for four weeks.

Method of data analysis

The data collected were collated and analyzed with the aid of statistical software package for Social Sciences (SPSS) 21.0. Descriptive statistics such as **frequency, tables, percentages, mean, bar and pie charts were used** to analyze the demographic data while inferential statistics used included chi-square (X^2). $P < 0.05$ was considered to be significant.

RESULTS

Table 1: Demographic and Socio-Economic Characteristics of Respondents.

Variables	Age Bracket (in years)	Number of Respondents	Percentage (%)
	42 – 47	84	21
	48 – 53	133	33.3
	54 – 59	116	29
	60 – 65	67	16.8
Ethnicity			
	Igbo	376	94
	Yoruba	7	1.8
	Hausa	17	4.3
Employment Status			
	Employed	230	57.5
	Retired	35	8.75
	Unemployed	55	13.75
	Others (housewives) Traders, etc	80	20
Marital Status			
	Married	344	86
	Widowed	1	3
	Separated	15	3.8
	Divorced	23	5.8
	Single	17	4.3
Educational Level			
	Tertiary	125	31.5
	OND/NCE	89	21.6
	O’level	86	21.5
	FSLC	57	14.3

Non Formal Education	43	10.8
Monthly Income (₦)		
10,000 – 50,000	70	17.5
51,000 – 150,000	200	50
151,000 – 250,000	105	26.25
251,000 – 500,000	25	6.25

Table 1 shows that 84 (21%) of the respondents fall within the age bracket of 42 – 47 years. A greater percentage (33.3%) were of the age range of 48 – 53 years while 116 (29%) and 67 (16.8%) were in the age range of 54 – 59 and 60 – 65 respectively.

The table also shows that 17(4.3%) were single, 344 (86%) were married, 15(3.8%) were separated, 23 (5.8%) were divorced and 1 (3%) were widowed. More than one quarter of the respondents 125 (31.5%) had tertiary education, 89 (21.6%) had OND/NCE, 86 (21.5%) had O'level education, 57 (14.3) had FSLC while 43 (10.75%) had no formal education.

The table also shows that half of the respondents, 200 (50%) had monthly income within the range of ₦51,000 – ₦150,000, 105 (26.25%) had monthly income in the neighbourhood of ₦151,000 – ₦250,000, 70 (17.5%) earn between ₦10,000 – ₦50,000 while 25 (6.25%) had their monthly income within the range of ₦251,000 – ₦500,000.

There were 230 (57.5%) employed, 36 (8.75%) retired, 55 (13.75%) unemployed while others such as housewives, traders, etc. were 80 (20%).

Table 2: Reproductive and Menopause Characteristics.

S/No	Variables	Category	F	Percentage (%)
1.	Number of children	0 child	-	0%
		1 child	7	1.75%
		2 children	23	5.75%
		3 children	70	17.5%
		4 children ,	210	52.5%
		Above 4 children	90	22.5%
2.	Age of menarche (in years)	11 – 13	144	36%
		14 – 15	250	62.5%
		Above 15	6	1.5%
3.	Age of marriage (In years)	< 20	28	7%
		20 – 30	252	63%
		31 – 40	108	27%
		41 and above	12	3%
4.	Menstruation status	Premenopausal	78	19.5%
		Perimenopausal	167	41.75%
		Menopausal	155	38.75%
5.	Average age of onset of menopause	42 – 47	13	3.25%
		48 – 53	187	46.75%
		54 – 59	95	23.75%
		No response (menopausal women)	45	11.25%
6.	How they viewed menopause	Positive	335	83.75%
		Negative	65	16.25%
7.	Use of Hormonal replacement therapy (in the last 3 months)	Yes	3	0.75%
		No	397	99.25

In table 2, none of the respondent was childless, 7(1.75%) had 2 children, 70 (17.5%) had 3 children while 210 (52.5%) and 90 (22.5%) had 4 and above 4 children respectively. Majority of the respondents 250 (62.5%) had their menarche between 14 – 15 years, 144 (36%) had theirs between 11 – 13 years while 6 (1.5%) had menarche above 15 years.

Total of 28 respondents, representing (7%) married below 20 years. A large proportion of the respondents 252 (63%) married between 20 – 30 years, 108 (27%)

married between 31 – 40 years. Those who married between 41 years and above were 12 (3%). 78 (19.5%) were premenopausal 167 (41.75%) perimenopausal and 155 (38.75%) menopausal. The average age of onset of menopause within the range of 42 – 47 was 13 (3.25%), that of the ranges of 48 – 53 and 54 – 59 were 187 (46.75%) and 95 (23.75%) respectively. 15% represented 60 respondents within the age bracket of 60-65 years, while 45 (11.25) did not respond.

Perception of menopause as positive was observed in 335 (83.75%) of the respondents while 65 (16.25%) had negative perception of the phenomena. Only 3 (0.75%)

had used Hormonal Replacement therapy in the last 3 months. A whopping number 397 (99.25%) declined its usage in the last 3 months.

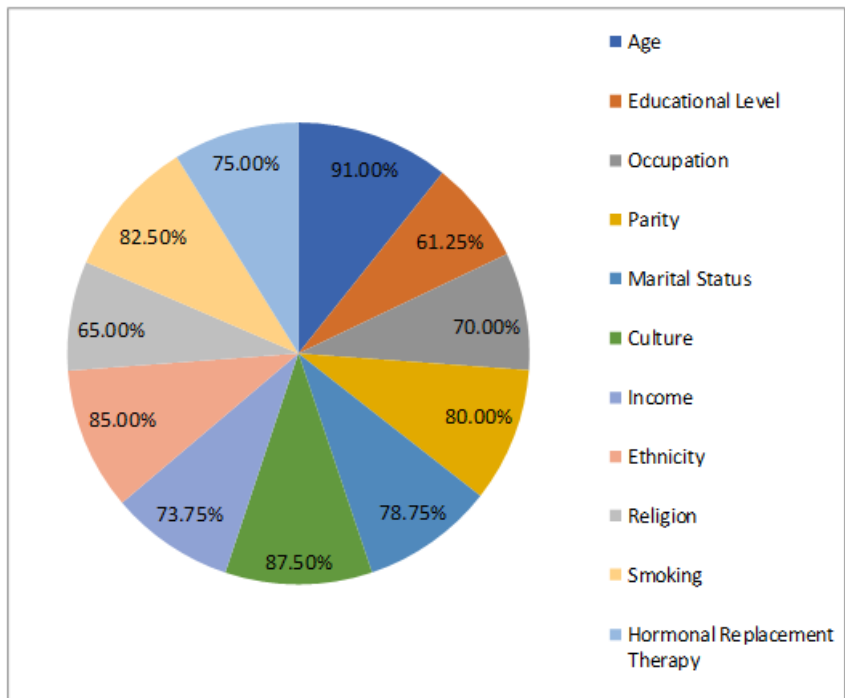


Fig. 1: Demographic and Socio-economic Factors that Influence Menopausal Symptoms.

From the data analysis, there are basically 11 demographic/socio-economic factors that influence menopausal symptoms within the study area. In all age has the highest percentage effect on menopausal symptoms therefore age is a major contributor (91%) to menopausal symptoms in aging women. Similarly, there are other factors deduced from the data analysis such as educational level, occupation and marital status. These

factors attend the percentage of 62.2%, 70% and 78.75% respectively from the analysis. Additionally, ethnicity, income, religion and smoking are also corresponding factors to these factors in women. HRT, culture and parity are also determinant factors in these symptoms. From the analysis the HRT has percentage of 75% while that of ethnicity is 85% and parity has a percentage influence of 80%.

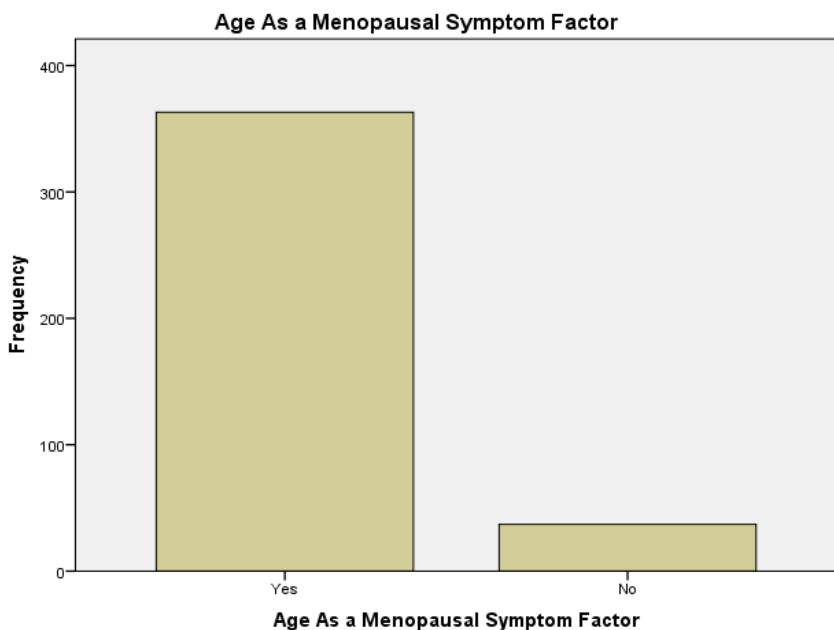


Fig. 2a

Yes - 365
No - 35

Whooping number 365 (91%) said Yes – that age is menopausal factor while the remaining 35 (8.75%) had a contrary view of the opinion.

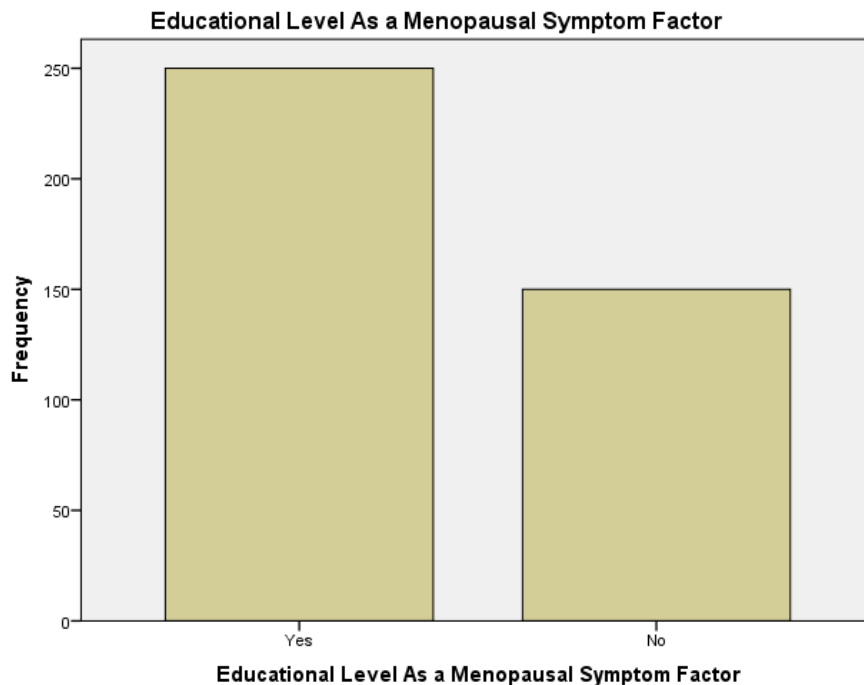


Fig.2b:

Yes - 250,
No - 150

About 250 (62.5) responded in the affirmative. The remaining 150 (37.5) disagreed with the position of those who voted yes that educational level has an influence on menopausal factor.

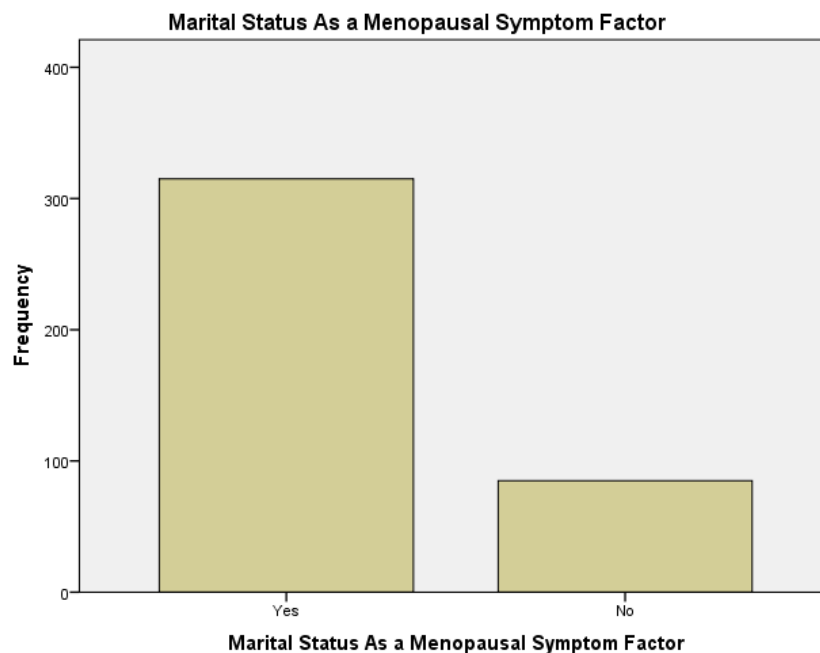


Fig. 2c:

Yes	-	315 (78.75%)
No	-	85 (21.25%)

About 315 (78.75%) were strongly of the opinion that marital status had a reasonable influence on the experience of menopausal symptoms among women in Owerri Municipal Council Area, while a paltry 85 respondents that accounted for (21.25%) thought differently.

DISCUSSION

In our study, the commonest somatic symptom was joint/muscular discomfort while that of psychological and urogenital problems were physical and mental exhaustion and vaginal dryness respectively. However, the experience of menopausal symptoms is found to be less common in societies where menopause is viewed as positive rather than negative. This may have explained why our respondents had mild symptoms.

A total of 172 (43%) reported symptoms of hot flushes/sweating while the remaining representing 228 (57%) had no symptoms of hot flushes /sweating. The symptoms were more severe in the age brackets of 48-53 and 54-59 years.

Some studies have associated earlier age a natural menopause with lower social class as mentioned by the woman's educational attainment or by her husband's occupation. This is in contrast to our study which showed later mean at menopause and its corresponding higher socioeconomic status. Increasing parity particularly among women of higher socioeconomic status has been associated with later age at menopause. This is in consistent with the theory that natural menopause occurs after oocytes have been sufficiently depleted although some have reported no familial relationship/ This is however in line with our study where 300(75%) of our respondents had parity of three and above with relatively high socioeconomic status.

As the educational level is increasing the severity of most of the menopausal symptoms also increases. However educational level did not influence the experience of anxiety ($p = 999$). Studies have shown that if a woman is educated, she can cope better with menopausal symptoms. This was corroborated in a study by Syeda (2014) when they noted a significant difference between educated and non-educated women due to awareness.

CONCLUSION

The most prevalent somatic symptoms experienced by menopausal women are joint and muscular discomfort 280 (70%). The intensity of menopausal symptoms was high with the educated women compared to the uneducated women. The prevalence of heart discomfort was high within the age bracket of 48-53. The higher the age, the more severe the menopausal symptoms. There was significant influence of educational level on the

experience of menopausal symptoms, therefore the null hypothesis was rejected at 0.05 alpha level. Marital status was not statistically significant to the experience of menopausal symptoms, therefore the null hypothesis was not rejected at 0.05 level of significance.

REFERENCES

1. Poomalar S.K. The Quality of Life during and after Menopause among Rural Women. *Journal of Clinical and Diagnostic Research*, 2013; 7(1): 135-139.
2. Santen, R. J.; Stuenkel, C. A.; Davis, S. R. Managing menopausal symptoms and associated clinical issues in breast cancer survivors. *The Journal of Clinical Endocrinology and Metabolism*, 2017; 102(10): 3647-3661.
3. Syeda, F. B.; Yasmeen, S. and Mansoor, G. *Perception of menopausal symptoms among educated versus non-educated women by using menopausal rating scale*. Open Journal of Nursing, 2014; 4: 602 – 607.
4. Obeagu, E. I., & Obeagu, G. U. A review on haematological profile in menstruating, premenopausal and menopausal women. *International Journal of Advanced Research in Biological Sciences*, 2016; 3(11): 92-108.
5. Obeagu, E. I., Obarezi, H. C., Ochei, K. C., Okafor, C. N., Iwegbulam, C. P., Obeagu, G. U., & Esseini, U. C. Evaluation of Variations of Haematological Profile of Menopausal Women in Umuahia, Nigeria. *Scholars Academic Journal of Biosciences (SAJB)*, 2016; 4(12): 1109-1112.
6. Nwadike, C. N., & Obeagu, E. I. Association of Acute Phase Protein with Diurnal Variation of Blood Pressure among Post Menopausal Women with Hypertension. *Newport International Journal of Public Health and Pharmacy (NIJPP)*, 2023; 3(1): 1-8.
7. Ibrahim O.M, Oyewele O.C and Olaseha I.O *Experiences and Perceptions of menopause among Women in Ibadan SouthEast Local Government Area, Nigeria*. African Journal of Biomed. Res., 2015; 18: 81- 94.
8. Stoppler, M. C. Premature menopause symptoms causes and treatment at www.medicinenet.com/primature-menopause-medical-procedural-causes/article.htm, 2017.
9. Eze, U. A., Wodi, C., Danborn, B. abd Adebisi, B. *Demographic and reproductive characteristics of menopausal Nigerian women*, 2014.
10. Taebi, M.; Abdollahian, S.; OZgoli, G. & Ebadi, A. Strategies to improve menopausal quality of life: A systematic review. *Journal of Education and Health Promotion*, ncbi.nlm-nili.gov 7(1)93001:104103 /rehp. pehp, 2018; 137 -17.
11. Sultan, Sharma, Hain Knowledge Attitude and Practices about Menopause and Menopausal Symptoms among Midlife, School of Teachers, *International Journal of Reproduction Conception, Obstetrics and Gynecology*, 2017.