

## Research Article

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# Prevalence and Awareness of Premature Ovarian Insufficiency Among Nigerian Women

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## Abstract

**Background:** Premature ovarian insufficiency (POI) is a reproductive endocrine disorder characterised by loss of ovarian function before the age of 40 years, leading to menstrual irregularities, infertility, and long-term health risks. Despite its impact, limited epidemiological data exist regarding its burden and public awareness among Nigerian women.

**Objectives:** To determine the prevalence of POI and assess the level of awareness among Nigerian women attending the Abia State University Teaching Hospital (ABSUTH), Aba, Nigeria.

**Materials and Methods:** A hospital-based descriptive cross-sectional study was conducted over three months among 300 Nigerian women aged 18–49 years recruited via systematic random sampling at the gynaecology outpatient clinic and wards of ABSUTH. Data were collected using a structured, pretested, interviewer-administered questionnaire covering socio-demographics, reproductive history, and POI awareness. Women with menstrual irregularities underwent hormonal assays to confirm POI diagnosis using ESHRE criteria. Data were analysed using SPSS version 26. Descriptive statistics summarised variables, while Chi-square and Pearson correlation tests evaluated associations. Logistic regression identified independent predictors of awareness. Statistical significance was set at  $p < 0.05$ .

**Results:** The mean age of participants was  $32.8 \pm 6.4$  years, with most being married (62.0%) and residing in urban areas (63.0%). The prevalence of confirmed POI was 1.33% (4/300), with a mean age at diagnosis of  $32.48 \pm 4.91$  years and mean FSH level of  $48.26 \pm 8.74$  IU/L. Awareness assessment revealed that 34.67% had poor awareness, 42.33% fair, and 23.0% good awareness. Higher educational level ( $p < 0.001$ ), urban residence ( $p = 0.005$ ), and younger age group ( $p = 0.005$ ) were significantly associated with better awareness. Years of formal education showed the strongest positive correlation with awareness score ( $r = 0.341$ ,  $p < 0.001$ ).

**Conclusion:** POI prevalence among Nigerian women in this tertiary hospital setting is low; however, awareness remains suboptimal, with only one in four women demonstrating good knowledge. Public health interventions focusing on reproductive health education, particularly targeting rural and less-educated women, are needed to improve early recognition and management of POI.

**Keywords:** premature ovarian insufficiency; reproductive health; follicle-stimulating hormone; early menopause

## Introduction

Premature ovarian insufficiency (POI), defined by oligo/amenorrhoea with menopausal-range gonadotropins before age 40, has moved from a rare clinical curiosity to a recognized public-health concern. Contemporary guidance from the joint ESHRE/ASRM/IMS/CRE-WHiRL group underscores that POI is a multisystem condition with reproductive, cardiometabolic, skeletal, cognitive, and psychosocial sequelae. Importantly, the 2024 evidence-based guideline revised key diagnostic elements: one elevated FSH  $>25$  IU/L in a compatible clinical context is now sufficient to make the diagnosis (with repeat testing and/or AMH used when uncertainty persists), and it strongly recommends

timely hormone therapy until the average age of natural menopause to mitigate long-term risks [1]. These changes reflect a broader shift toward earlier recognition and standardized care pathways.

Epidemiologically, the burden of POI is larger than long assumed. While classic texts often quoted  $\sim 1\%$  prevalence in women  $<40$  years, pooled analyses and expert consensus now indicate a global prevalence near 3–3.5% when broader and more accurate case definitions are applied [1,2]. This magnitude, coupled with the life-course health impacts and infertility implications, reframes POI as a substantial women's-health issue rather than a rarity.

The Nigerian and wider sub-Saharan African context adds urgency. Natural menopause tends to occur at a

slightly younger age than in many high-income settings, with multiple Nigerian studies locating the mean or median around ~48-50 years, albeit with local variability [3,4]. Earlier reproductive ageing compresses the interval between the “expected” menopausal years and the POI threshold (<40 years), potentially masking POI as “normal early menopause” and delaying diagnosis. Additionally, infectious and iatrogenic exposures (e.g., HIV and its treatments, chemotherapy/radiotherapy), genetic factors (such as FMR1 premutation), and autoimmune mechanisms contribute variably to risk profiles in African populations [3,4]. In Nigeria specifically, work from Jos suggests higher odds of early menopause among women living with HIV, highlighting how comorbidities can intersect with reproductive ageing trajectories [5].

The reproductive implications are profound in a country where fertility remains socially salient and infertility carries significant stigma and psychosocial burden. Globally, infertility affects an estimated 17.5% of adults over the life course, and POI is a notable cause of diminished ovarian reserve and infertility in young women [6]. In settings with constrained access to specialized endocrinology, genetics, assisted reproduction, and long-term hormone care, women with POI can experience late presentation, fragmented care, and missed opportunities for fertility preservation or timely hormone therapy, exacerbating risks of osteoporosis, adverse cardiometabolic profiles, sexual dysfunction, and depressive/anxiety symptoms [1-3].

Awareness is a modifiable, system-level barrier. Although research on POI-specific awareness in Nigeria is scarce, studies from Nigerian urban centres show variable knowledge and attitudes toward menopause more generally, with gaps in symptom recognition, treatment options, and care-seeking pathways [7,8]. Given that POI presents years before the age most women expect menopause, limited awareness among women and first-contact providers likely contributes to diagnostic delay, under-use of indicated hormone therapy, and missed fertility counselling. International primary-care literature documents that such delays are common even in high-resource settings, reinforcing the need for context-tailored awareness strategies [4].

Against this backdrop, establishing robust local estimates of POI prevalence and measuring awareness levels among Nigerian women is both timely and actionable. Reliable prevalence data can calibrate

service planning for diagnostics (FSH/AMH testing), cascade genetic/autoimmune evaluation where indicated, and referral pathways to reproductive-endocrinology and fertility services. Awareness mapping can inform targeted health-education interventions (community and primary-care facing), clinician training on the 2024 diagnostic/management updates, and policy guidance on affordable access to hormone therapy and fertility options. Ultimately, a Nigerian evidence base will support earlier identification, reduce long-term morbidity, and align patient-centred care with contemporary international standards. This study, therefore, sought to determine the prevalence of POI and assess the level of awareness among Nigerian women.

## Materials and Methods

### Study Design

This study employed a hospital-based, descriptive cross-sectional design to determine the prevalence and assess the level of awareness of premature ovarian insufficiency (POI) among Nigerian women attending the Abia State University Teaching Hospital (ABSUTH), Aba, Nigeria. The cross-sectional approach was chosen as it allows the simultaneous measurement of exposure and outcome variables within a defined population at a single point in time.

### Study Area

The research was conducted at the Gynecology and Obstetrics Department of ABSUTH, located in Aba, Abia State, South-East Nigeria. ABSUTH serves as a major tertiary referral centre for women’s health in Abia State and neighbouring states, including Imo, Rivers, and Akwa Ibom. The hospital caters to an ethnically diverse population, with patients from both rural and urban communities. The Obstetrics and Gynecology outpatient clinic operates five days a week, providing antenatal, postnatal, gynaecological, infertility, and reproductive endocrinology services.

### Study Population

The study population comprised Nigerian women aged 18-49 years who presented at the gynaecology outpatient clinic or were admitted to the gynecology wards during the study period. The target group included women in the reproductive age bracket, as POI is defined as the cessation of ovarian function before the age of 40 years.

## Inclusion and Exclusion Criteria

### Inclusion Criteria

- Women aged 18-49 years.
- Nigerian citizens who have resided in Abia State for at least six months prior to the study.
- Those who gave written informed consent to participate.

### Exclusion Criteria

- Women with known surgical removal of ovaries or hysterectomy.
- Women with chronic systemic illnesses or malignancies that could confound ovarian function.
- Pregnant women at the time of recruitment.
- Women unable to respond to the questionnaire due to cognitive impairment or severe illness.

### Sample Size Determination

The sample size was calculated based on Cochran's formula for population proportion estimation, following the methodology described by Ezebuio et al. [9]:

$$n = \frac{Z^2(Pq)}{e^2}$$

The formula components are defined as follows:

- $n$  represents the minimum required sample size.
- $Z$  is set at 1.96, corresponding to a 95% confidence level.
- $P$  denotes the prevalence of POI in Nigerian women.
- $e$  signifies the allowable margin of error, fixed at 5% (0.05).
- $q = 1 - p$

A recent study conducted by Agaba et al. [5] reports the prevalence of POI in Nigerian women as 22.9%

$$P = 22.9\% = 0.229$$

$$q = 1 - 0.229$$

$$= 0.771$$

$$n = \frac{(1.96)^2(0.229 \times 0.771)}{(0.05)^2}$$

$$n = \frac{3.8416 \times (0.1766)}{0.0025}$$

$$n = \frac{0.6783}{0.0025} = 271.31$$

Although the initially calculated minimum sample size was 271, it was increased to 300 to accommodate an anticipated 10% rate of non-response.

### Sampling Technique

A systematic random sampling technique was employed. Daily laboratory registers at Federal Medical Centre, Umuahia were used as the sampling frame, and every 3rd eligible participant was selected

until the required sample size was achieved. The sampling interval (3) was determined by dividing the average daily number of eligible patients by the daily recruitment target as described by Akwuruoha et al. [10].

### Sampling Method

A systematic random sampling method was employed. The outpatient register was used as a sampling frame. Based on the average daily clinic attendance, every 3rd eligible woman was invited to participate until the desired sample size was attained. For inpatients, eligible participants were recruited consecutively.

### Study Instrument

Data were collected using a structured, pretested, interviewer-administered questionnaire developed by the researchers after reviewing relevant literature on POI. The questionnaire consisted of four sections:

1. Socio-demographic characteristics (age, marital status, educational level, occupation, ethnicity, place of residence).
2. Reproductive and menstrual history (age at menarche, menstrual cycle regularity, parity, history of infertility, family history of early menopause).
3. Medical and surgical history relevant to ovarian function.
4. Awareness of POI, assessed using multiple-choice and true/false questions covering definition, causes, symptoms, diagnosis, complications, and prevention. Awareness scores were computed, and participants were categorised into "good," "fair," or "poor" awareness based on tertile cut-off values.

### Operational Definition of Premature Ovarian Insufficiency

For the purpose of this study, POI was defined as the presence of amenorrhea or oligomenorrhea for at least four months in a woman under the age of 40 years, with at least one documented elevated serum follicle-stimulating hormone (FSH) level (>25 IU/L) on two occasions at least four weeks apart, in accordance with ESHRE criteria.

### Data Collection Procedure

Data collection was carried out over a three-month period by a team of trained female research assistants fluent in English and Igbo. After obtaining informed consent, participants completed the questionnaire in a private setting to ensure confidentiality. For participants reporting menstrual irregularities or

amenorrhea, relevant hormonal assays (FSH, LH, estradiol, thyroid profile, and prolactin) were conducted at the ABSUTH laboratory to confirm or rule out POI.

### Quality Control

The questionnaire was pretested among 20 women in a different facility to ensure clarity and cultural appropriateness. Modifications were made based on feedback. Research assistants underwent a two-day training on interview techniques, ethical considerations, and confidentiality. Data entry was performed using double-entry verification in Microsoft Excel before exporting to SPSS to minimise transcription errors.

### Data Analysis

Data were analysed using the Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics were used to summarise socio-demographic and clinical characteristics, with results presented as frequencies, percentages, means, and standard deviations. The prevalence of POI was calculated as the proportion of participants meeting diagnostic criteria relative to the total sample. Awareness scores were computed, and bivariate analysis (Chi-square test or Fisher's exact test) was used to assess associations between awareness and socio-demographic variables.

Binary logistic regression was conducted to identify independent predictors of POI and good awareness. Statistical significance was set at  $p < 0.05$ .

### Ethical Considerations

Permission to conduct the study was granted by the Head of the Obstetrics and Gynecology Department. Participation was voluntary, and written informed consent was obtained from all participants. Confidentiality was maintained by de-identifying questionnaires and restricting access to the dataset to the research team only. Women diagnosed with POI were referred to the reproductive endocrinology unit for further evaluation and management.

### Results

The study involved 300 participants, most of whom were aged 35–39 years (24.67%), married (62.00%), had tertiary education (48.33%), were traders (29.67%), of Igbo ethnicity (76.00%), and resided in urban areas (63.00) (Table 1). In terms of reproductive history, the most common age at menarche was 12–13 years (46.33%), the majority had regular menstrual cycles (68.00%), and were nulliparous (30.67%). A history of infertility was reported by 22.33% of participants, while 17.67% had a family history of early menopause (Table 2).

**Table 1:** Socio-Demographic Characteristics of Participants.

Variable	Frequency (n = 300)	Percentage (%)
<b>Age Group (Years)</b>		
18-24	47	15.67
25-29	58	19.33
30-34	66	22.00
35-39	74	24.67
40-45	55	18.33
<b>Marital Status</b>		
Single	79	26.33
Married	186	62.00
Divorced/Separated	21	7.00
Widowed	14	4.67
<b>Educational Level</b>		
No formal education	12	4.00
Primary	41	13.67
Secondary	102	34.00
Tertiary	145	48.33
<b>Occupation</b>		
Unemployed	58	19.33
Trader	89	29.67
Civil servant	74	24.67
Artisan	46	15.33
Professional	33	11.00
<b>Ethnicity</b>		

Igbo	228	76.00
Yoruba	27	9.00
Hausa	21	7.00
Others	24	8.00
Residence		
Urban	189	63.00
Rural	111	37.00

**Table 2:** Reproductive and Menstrual History of Participants.

Variable	Frequency (n = 300)	Percentage (%)
Age at Menarche (Years)		
≤11	46	15.33
12-13	139	46.33
14-15	91	30.33
≥16	24	8.00
Menstrual Cycle Regularity		
Regular	204	68.00
Irregular	96	32.00
Parity		
Nulliparous	92	30.67
1-2 children	87	29.00
3-4 children	85	28.33
≥5 children	36	12.00
History of Infertility		
Yes	67	22.33
No	233	77.67
Family History of Early Menopause		
Yes	53	17.67
No	247	82.33

Clinically, 7.33% reported amenorrhea lasting at least four months before age 40, 3.00% had elevated FSH on two occasions, and 1.33% met the diagnostic criteria for premature ovarian insufficiency (POI).

The mean age at diagnosis was  $32.48 \pm 4.91$  years, with a mean FSH level of  $48.26 \pm 8.74$  IU/L (Table 3).

**Table 3:** Clinical Profile and Prevalence of POI.

Variable	Frequency (n = 300)	Percentage (%)
Reported amenorrhea ≥4 months (under age 40)	22	7.33
Elevated FSH on ≥2 occasions	09	3.00
Confirmed POI diagnosis (meets criteria)	04	1.33
Mean age at diagnosis (years)	-	$32.48 \pm 4.91$
Mean FSH level (IU/L)	-	$48.26 \pm 8.74$

Awareness assessment showed that 63.33% correctly agreed or strongly agreed that POI is the cessation of ovarian function before 40 years, and 68.33% recognized hot flushes and irregular periods as symptoms. However, knowledge about hormone

therapy as a management option was lower, with only 38.33% agreeing or strongly agreeing (Table 4). Overall, 34.67% had poor awareness, 42.33% fair awareness, and 23.00% good awareness (Table 5).

**Table 4:** Awareness of POI by Knowledge Items.

Awareness Item	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly Agree n (%)
POI is cessation of ovarian function before 40 years	21(7.00)	32(10.67)	57(19.00)	114(38.00)	76(25.33)
Family history can increase POI risk	34(11.33)	48(16.00)	69(23.00)	96(32.00)	53(17.67)

Hot flushes and irregular periods are symptoms	28(9.33)	25(8.33)	42(14.00)	121(40.33)	84(28.00)
Hormone therapy can help manage POI symptoms	46(15.33)	61(20.33)	78(26.00)	72(24.00)	43(14.33)
POI can affect fertility	19(6.33)	27(9.00)	51(17.00)	112(37.33)	91(30.33)

**Table 5:** Overall Awareness Classification.

Awareness Level	Frequency (n = 300)	Percentage (%)
Poor Awareness	104	34.67
Fair Awareness	127	42.33
Good Awareness	69	23.00

Chi-square analysis revealed significant associations between awareness level and age group ( $p = 0.005$ ), educational level ( $p < 0.001$ ), residence ( $p = 0.005$ ), and family history of early menopause ( $p < 0.001$ ), but not marital status ( $p = 0.090$ ) (Table 6). Pearson's

correlation showed that awareness score was positively associated with years of formal education ( $r = 0.341$ ,  $p < 0.001$ ) and negatively associated with age ( $r = -0.142$ ,  $p = 0.012$ ), parity ( $r = -0.215$ ,  $p < 0.001$ ), and FSH level ( $r = -0.172$ ,  $p = 0.003$ ) (Table 7).

**Table 6:** Chi-Square Analysis of Awareness Level and Selected Variables.

Variable	$\chi^2$ value	df	p-value
Age group	14.82	4	0.005
Educational level	28.17	3	<0.001
Residence (urban/rural)	7.91	1	0.005
Marital status	6.48	3	0.090
Family history of early menopause	12.33	1	<0.001

**Table 7:** Correlation Analysis between Awareness Score and Selected Continuous Variables.

Variable	Pearson's r	p-value
Age	-0.142	0.012
Age at menarche	0.103	0.067
Parity	-0.215	<0.001
Years of formal education	0.341	<0.001
FSH level (IU/L)	-0.172	0.003

## Discussion

The socio-demographic profile of participants in this study reflects a well-distributed age range among Nigerian women of reproductive age, with a substantial proportion (61%) falling within the 25-39-year range. Most participants were married (62%), had tertiary education (48%) and were predominantly urban dwellers (63%). These characteristics are in line with prior Nigerian reproductive health surveys [11,12], which also tend to include more educated, urban cohorts, suggesting our findings may most accurately reflect the awareness landscape within this demographic.

In examining menstrual and reproductive history, the mean age at menarche (predominantly between 12-13 years) and parity distribution were similar to previous regional reports. For example, a study in Southern Nigeria found average age at menarche around 13 years, irregular cycles in roughly a third, and similar

parity patterns among women attending tertiary healthcare centers. The 22% reporting a history of infertility and the 17.7% with a family history of early menopause are higher than in some community samples, but reflect the selective bias of health-seeking populations.

Clinical profiling revealed a prevalence of POI (confirmed diagnosis based on amenorrhea and elevated FSH) of 1.33%, with mean age at diagnosis ~32 years and mean FSH of ~48 IU/L. This aligns closely with the estimated global prevalence of around 1% by age 40, though meta-analyses suggest figures as high as 3.7% [13,14]. The slightly higher upper bound may reflect our selective sample or ethnic variation. Characterizing POI in Nigeria remains rare in the literature, but our result echoes global epidemiology. Awareness analysis shows that just over 60% of participants correctly understood key clinical aspects of POI, its definition, familial risk, symptomatology, fertility impact, although fewer recognized hormone

therapy efficacy (~38%). Overall, 23% had “good” awareness, 42% “fair,” and 35% “poor.” These findings resonate with global studies in related contexts, studies on stroke and other women’s health issues in Nigeria often report around 30-40% of participants having good awareness levels, often linked to age, education, or urban residency [15,16]. Chi-square analysis revealed significant associations between awareness and age ( $p = 0.005$ ), education ( $p < 0.001$ ), residence ( $p = 0.005$ ) and family history of early menopause ( $p < 0.001$ ), with marital status showing no statistical link. These findings are consistent with numerous Nigerian and international KAP studies, which consistently underscore that older age, higher education, and urban residency are predictors of better reproductive health awareness [15,16].

Continuously, correlation analysis identified modest yet significant direct associations between education years and awareness score ( $r = +0.341$ ,  $p < 0.001$ ), and negative associations for age ( $r = -0.142$ ), parity ( $r = -0.215$ ), and FSH level ( $r = -0.172$ ). The positive impact of education corroborates the KAP research stream; women with more formal years of schooling demonstrated higher levels of awareness. Conversely, higher age, parity, and biologically poorer ovarian reserve (higher FSH) were linked to lower awareness, suggesting diminished health literacy among older, multiparous women.

International studies paint a similar picture: a Tehran-based population study revealed POI prevalence (~3.5%) and identified low body mass index as a determinant [2]. A global meta-analysis confirmed POI prevalence ranges between 1-3.7% [13,14]. Yet little work has captured awareness levels: most KAP studies in Nigeria focus on stroke, breast cancer, and cervical cancer awareness, showing moderate levels of disease understanding with similar sociodemographic predictors [15,16]. Our study thus fills a critical void by profiling both prevalence and awareness of POI directly.

By highlighting that nearly one third of women have poor POI awareness, irrespective of reproductive age, education, or residence, this study unveils a significant health literacy gap. Given POI’s profound implications on fertility, bone health, cardiovascular risk, and psychological well-being, addressing this deficiency is urgent. Prior studies in Nigeria showed that targeted educational interventions significantly improved awareness, for instance, stroke education in adolescents yielded lasting gains [17].

## Conclusion

This study documents a POI prevalence consistent with global estimates, while unveiling a gap in public awareness strongly influenced by education, age, residence, and family history. These insights should guide Nigerian policymakers, reproductive health advocates, and clinicians in tailoring interventions aimed at fostering timely recognition, counseling, and management, ultimately improving women’s reproductive and long-term health outcomes.

## References

1. Panay, N., Anderson, R. A., Bennie, A., Cedars, M., Davies, M., et al. (2024). Evidence-Based Guideline: Premature Ovarian Insufficiency. *Human Reproduction Open*, 4:hoae065.
2. Rostami Dovom, M., Bidhendi-Yarandi, R., Mohammad, K., Farahmand, M., Azizi, F., et al. (2021). Prevalence of Premature Ovarian Insufficiency and Its Determinants in Iranian Populations: Tehran Lipid and Glucose Study. *BMC Women's Health*, 21:79.
3. OlaOlorun, F., Lawoyin, T. (2009). Age at Menopause and Factors Associated with Attainment of Menopause in An Urban Community in Ibadan, Nigeria. *Climacteric: The Journal of the International Menopause Society*, 12(4):352-363.
4. Ande, A. B., Omu, O. P., Ande, O. O., Olagbuji, N. B. (2011). Features and Perceptions of Menopausal Women in Benin City, Nigeria. *Annals of African Medicine*, 10(4):300-304.
5. Agaba, P., Meloni, S., Sule, H., Ocheke, A., Agaba, E., et al. (2017). Factors Associated with Early Menopause Among Women in Nigeria. *Journal of Virus Eradication*, 3(3):145.
6. Choudhary, P., Dogra, P., Sharma, K. (2025). Infertility and Lifestyle Factors: How Habits Shape Reproductive Health. *Middle East Fertility Society Journal*, 30:14.
7. Ikeanyi, E. M., Ikobho, E. H. (2021). Age at Menopause and The Correlates of Natural Menopause Among Urban and Rural Women in The Southern Nigeria. *International Journal of Reproduction, Contraception, Obstetrics and Gynecology*, 10(4):1266-1271.

8. Kesharwani, D. K., Mohammad, S., Acharya, N., Joshi, K. S. (2022). Fertility with Early Reduction of Ovarian Reserve. *Cureus*, 14(10):e30326.
9. Ezebuiro, E. I., Abali, I. O., Akenroye, S.G., Onyemereze, C. O., Airaodion, A. I. (2025). The Role of Male Involvement in Family Planning and Contraceptive Use in Nigeria. *Journal of Counselling and Family Therapy*, 7(1):30-37.
10. Akwuruoha, E. M., Onwube, O. C., Akwuruoha, C. U., Airaodion, A. I. (2025). Prevalence, causes and psychological effects of miscarriage among women in Abia State University Teaching Hospital, Aba, Nigeria. *American Journal of Biomedical Science & Research*, 27(5):850-856.
11. Akwuruoha, E. M., Ezirim, E. O., Onyemereze, C. O., Abali, I. O., Airaodion, A. I. (2025). Awareness and Level of Usage of Intermittent Preventive Treatment for Malaria among Pregnant Women Attending Antenatal Clinics in Rural Communities in Abia State, Nigeria. *International Journal of Research and Reports in Gynaecology*, 8(1):81-93.
12. Airaodion, A. I., Onyemereze, C. O., Eze, A. K., Adesina, O. O., Abali, I. O., et al. (2024). Predictors of Vaginal Bleeding and Birth Outcome Among Expectant Mothers in A Tertiary Health Facility in Southeast Nigeria. *International Journal of Clinical Gynaecology and Obstetrics*, 4(2).
13. Golezar, S., Ramezani Tehrani, F., Khazaei, S., Keshavarz, Z., Azizi, F. (2019). The Global Prevalence of Primary Ovarian Insufficiency and Early Menopause: A Meta-Analysis. *Climacteric*, 22(4):403-411.
14. Federici, S., Rossetti, R., Moleri, S., Munari, E. V., Frixou, M., et al. (2024). Primary Ovarian Insufficiency: Update on Clinical and Genetic Findings. *Frontiers in Endocrinology*, 15:1464803.
15. Obembe, A. O., Olaogun, M. O., Bamikole, A. A., Komolafe, M. A., Odetunde, M. O. (2014). Awareness of Risk Factors and Warning Signs of Stroke in A Nigeria University. *Journal of Stroke and Cerebrovascular Diseases: The Official Journal of National Stroke Association*, 23(4):749-758.
16. Okonkwo, U. P., Uzuh, F. N., Nwankwo, M. J., Okoye, E. C., Ummuna, J. O., et al. (2021). Awareness of The Risk Factors of Stroke Among Non-Teaching Staff of The Nnamdi Azikiwe University, Nnewi Campus, Anambra State, Nigeria. *Bulletin of Faculty of Physical Therapy*, 26(1):1-8.
17. Komolafe, M. A., Olorunmoteni, O. E., Fehintola, F. O. (2020). Effect of Health Education on Level of Awareness and Knowledge of Nigerian In-School adolescents on Stroke and Its Risk Factors. *Journal of Stroke and Cerebrovascular Diseases: The Official Journal of National Stroke Association*, 29(5):104757.

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