

Knowledge and Attitude towards Obstetric Epidural Analgesia among Pregnant Women in Southeast Nigeria

CO Onyemereze¹, EO Ezirim¹, EM Akwuruoha¹, OO Adesina², FC Alumona³, IO Abali⁴, SN Ikegwuonu⁵, KK Mba⁶, CJ Mba⁶ and AI Airaodion^{7*}

¹Department of Obstetrics and Gynaecology, Abia State University, Uturu, Nigeria

²Department of Medical Laboratory Science, Babcock University, Ilishan, Ogun State, Nigeria

³Department of Obstetrics and Gynaecology, University of Port Harcourt Teaching Hospital, Rivers State, Nigeria

⁴Department of Surgery, Abia State University, Uturu, Nigeria

⁵Medical Laboratory Scientist, Nosmaris Medical Diagnostics Ltd, Aguda, Surulere, Lagos State, Nigeria

⁶Department of Physiology, Abia State University, Uturu, Nigeria

⁷Department of Biochemistry, Lead City University, Ibadan, Oyo State, Nigeria

*Corresponding Author: AI Airaodion, Department of Biochemistry, Lead City University, Ibadan, Oyo State, Nigeria.

Received: October 25, 2024; Published: November 04, 2024

Abstract

Background: Obstetric epidural analgesia (OEA) is an effective method for pain relief during labor, yet its utilization remains limited in Nigeria, potentially due to inadequate awareness and misconceptions. This study aims to assess the knowledge and attitude towards OEA among pregnant women attending antenatal clinics in Southeast Nigeria.

Materials and Methods: A descriptive cross-sectional study was conducted in five states within Southeast Nigeria. A total of 417 pregnant women attending antenatal clinics in both public and private health facilities participated. The sample was selected using a multistage sampling technique. Data were collected using a structured questionnaire covering socio-demographic characteristics, knowledge, attitudes, and barriers to the use of OEA. Data analysis was conducted using SPSS version 26, with results presented in frequencies and percentages.

Results: Among the 417 participants, 29.74% had heard of OEA, with health facilities being the most common source of information (7.43%). However, only 28.3% understood its use for labor pain relief, while 70.98% were unaware of its benefits. Regarding attitudes, 38.85% were willing to consider using OEA, while fear of side effects (52.27%) and lack of information (11.47%) were common reasons for hesitancy. Cultural and religious beliefs also contributed to reluctance (8.27%). A majority (80.34%) felt comfortable with the idea of being awake but pain-free during labor.

Conclusion: The study revealed low awareness and understanding of OEA among pregnant women in Southeast Nigeria. Increased education and counseling from healthcare providers could improve acceptance rates and address misconceptions surrounding OEA.

Keywords: Obstetric Epidural Analgesia; Knowledge; Attitudes; Pregnant Women; Southeast Nigeria; Pain Relief; Cultural Beliefs

Introduction

Obstetric epidural analgesia (OEA) is widely recognized as one of the most effective pain relief methods during labor and delivery, offering significant benefits in terms of maternal comfort and control over labor [1]. Despite its proven efficacy and safety, there remains a considerable disparity in its utilization across different regions and socioeconomic groups. The uptake of OEA in many low- and middle-income countries, including Nigeria, remains low due to various factors such as limited access, cultural beliefs, lack of awareness, and misconceptions regarding its safety [2].

Globally, the use of OEA varies significantly. In high-income countries such as the United States, the United Kingdom, and Canada, epidural analgesia is widely used, with rates reaching up to 60 - 70% of women who give birth in hospitals [1]. This high uptake is attributed to well-established healthcare systems, increased awareness, and the prioritization of patient comfort during childbirth. Research from these regions demonstrates that OEA significantly reduces labor pain, increases maternal satisfaction, and improves childbirth experiences [3].

However, in many developing countries, the adoption of OEA is limited. A study by Kuti, *et al.* [4] in Southwestern Nigeria revealed that only 13.5% of women were aware of epidural analgesia, and less than 2% had utilized it during labor. These statistics highlight the significant gap in knowledge and utilization in regions with less developed healthcare systems, where misconceptions about pain management and concerns about potential complications are prevalent [5].

Nigeria, with its diverse cultural and ethnic groups, presents unique challenges and opportunities in maternal healthcare. The maternal mortality rate remains one of the highest globally, at 512 deaths per 100,000 live births [6], and pain management during labor is often neglected in many healthcare settings. While the World Health Organization emphasizes the importance of respectful maternal care, including access to pain relief options during labor [7], Nigeria's healthcare infrastructure and policies have not fully integrated such options.

In Southeast Nigeria, specifically, traditional beliefs and cultural practices play a significant role in shaping women's attitudes toward labor and delivery. Labor pain is often seen as an inevitable and even necessary part of childbirth, and many women may resist the idea of medical interventions to relieve pain, believing that experiencing pain is an essential part of becoming a mother [2]. Furthermore, there are persistent myths that epidurals can lead to paralysis, prolonged labor, or complications in future pregnancies [5]. These misconceptions contribute to low levels of acceptance and demand for epidural analgesia, despite the availability of trained personnel and resources in some tertiary hospitals.

Knowledge and attitudes toward OEA are crucial determinants of its utilization. Several studies have shown that inadequate knowledge about epidural analgesia significantly impacts women's willingness to consider it as an option for pain relief during childbirth [8]. In many parts of Nigeria, women's decisions about pain relief during labor are also influenced by family members, especially spouses and mothers-in-law, who may perpetuate cultural beliefs and fears about epidurals [2]. Healthcare providers also play a vital role in shaping knowledge and attitudes, as their willingness to discuss pain relief options and dispel myths is critical to increasing acceptance [5].

The attitudes of healthcare professionals, including obstetricians and midwives, toward OEA have been mixed. Some studies indicate that healthcare workers in Nigeria often prioritize medical interventions for the safety of mother and child over patient comfort, potentially limiting discussions about pain management options [8]. Additionally, the availability of anesthetists who are trained in providing epidural analgesia is limited, especially in rural areas, further compounding the problem [5].

Southeast Nigeria, known for its rich cultural heritage, faces distinct challenges in maternal healthcare. The region has a predominantly rural population, and access to healthcare services, including specialized pain management options like epidural analgesia, is limited in many areas [2]. Many pregnant women in this region rely on traditional birth attendants, who often lack the training or resources to provide comprehensive maternal care, including pain relief during labor [5].

A study conducted by Obuna., *et al.* [5] in Southeast Nigeria revealed that while some women expressed interest in receiving pain relief during labor, a majority were unaware of the availability of OEA and believed that labor pain was something to be endured. The study also highlighted that women with higher levels of education were more likely to be aware of epidural analgesia and consider it as an option. This underscores the importance of education and awareness campaigns in changing perceptions and increasing the utilization of OEA.

While some studies have explored the knowledge and attitudes of women toward epidural analgesia in Nigeria, there is limited research specifically focusing on Southeast Nigeria. This region's unique socio-cultural context, coupled with its healthcare challenges, warrants a focused investigation. Understanding the knowledge and attitudes of pregnant women in Southeast Nigeria toward OEA is critical for designing targeted interventions that can increase awareness, dispel myths, and improve maternal healthcare outcomes.

Materials and Methods

Study design

A descriptive cross-sectional study was conducted to assess the knowledge and attitude towards obstetric epidural analgesia among pregnant women attending antenatal clinics in Southeast Nigeria. This design is appropriate because it allows for the collection of data at a single point in time to describe the characteristics of the population being studied and evaluate relationships between the knowledge and attitude of OEA.

Study area

The research was conducted in Southeast Nigeria, comprising five states: Abia, Anambra, Ebonyi, Enugu, and Imo. The choice of Southeast Nigeria is pertinent because of the socio-cultural and economic diversity, which can influence healthcare choices among women in the region. Key urban and rural healthcare centres in these states were selected as study sites to ensure representation from different socio-demographic backgrounds.

Study population

The study population consisted of expectant mothers attending antenatal clinics in public and private health facilities across the selected states. The inclusion of antenatal attendees was justified because these women are more likely to have access to information about labour and delivery options, including epidural analgesia.

Inclusion criteria:

- Pregnant women attending antenatal care in the selected facilities.
- Women in their second and third trimesters who were more likely to have discussed or considered delivery options.
- Women aged 15 years and above who give informed consent to participate.

Exclusion criteria:

- Pregnant women with contraindications for epidural analgesia as indicated by their healthcare providers.
- Women who decline participation in the study.

Sample size determination

The sample size was determined using the Cochran formula for estimating proportions in a population outlined by Airaodion., *et al.* [9]:

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

where n = Minimum sample size,

Z = 1.96 at 95% confidence level,

P = Known knowledge of the existence of epidural analgesia in Nigeria,

e = Error margin tolerated at 5% = 0.05,

q = 1 - p

According to a recent study by Shawahna., *et al.* [10], the knowledge of the existence of epidural analgesia in Nigeria is 44.2%.

P = 44.2% = 0.442

q = 1 - p

= 1 - 0.442

= 0.558

$$n = \frac{(1.96)^2(0.442 \times 0.558)}{(0.05)^2}$$

$$n = \frac{3.8416 \times (0.246636)}{0.0025}$$

$$n = \frac{0.9475}{0.0025} = 378.99$$

The minimum sample size was 379 but was adjusted to 417 to account for a non-response rate of 10%.

Sampling technique

A multistage sampling technique was employed:

- Stage 1:** Stratified sampling was used to categorize healthcare facilities into public and private institutions within the five states of Southeast Nigeria.
- Stage 2:** In each state, a simple random sampling method was used to select one tertiary, one secondary and one primary healthcare facility from both urban and rural areas. This was to ensure diversity in socio-economic and cultural settings.
- Stage 3:** Proportional allocation was applied to determine the number of expectant mothers to be sampled in each facility based on the facility's antenatal clinic population.
- Stage 4:** Systematic random sampling was used to select participants from each facility's antenatal clinic registry.

Ethical consideration

The study adhered to the ethical principles of autonomy, beneficence, non-maleficence, and justice. Informed consent was obtained from each participant before data collection, and participants were assured of confidentiality and anonymity. Participation in the study was voluntary, and participants had the right to withdraw from the study at any time without any penalty.

Data collection instrument

A structured questionnaire was used as the primary data collection instrument. The questionnaire was developed based on previous studies on obstetric epidural analgesia and modified to suit the study context. The questionnaire was divided into four sections:

- **Section A: Socio-demographic characteristics:** This section captured information on age, educational level, occupation, parity, gestational age, and marital status.
- **Section B: Knowledge of obstetric epidural analgesia:** This section contained questions on the participants' awareness, source of information, and understanding of epidural analgesia, including its indications, benefits, risks, and availability.
- **Section C: Attitudes towards obstetric epidural analgesia:** This section assessed the attitudes of pregnant women towards the use of epidural analgesia during labor, including their willingness to use it, perceived benefits, and concerns.
- **Section D: Barriers to the use of obstetric epidural analgesia:** This section assessed the barriers to the use of obstetric epidural analgesia by pregnant women.

Validity and reliability

- **Validity:** Content validity was ensured by consulting obstetricians, anesthesiologists, and healthcare professionals in maternal care to review the questionnaire for relevance, clarity, and comprehensiveness.
- **Reliability:** A pilot study was conducted with 5% of the total sample size in a non-participating state to assess the internal consistency of the instrument. The Cronbach's alpha coefficient was calculated, with a value of ≥ 0.7 considered acceptable for reliability.

Data collection procedure

Trained research assistants (midwives and healthcare professionals familiar with the antenatal setting) administered the questionnaire to the participants during their routine antenatal clinic visits. The research assistants explained the purpose of the study to participants, obtained informed consent and assisted with clarifying questions when necessary. Data collection spanned over six months to ensure that an adequate number of participants from diverse settings were sampled.

Data analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) version 26. Descriptive statistics (frequencies and percentages) were used to summarize socio-demographic characteristics and the levels of awareness and acceptance of obstetric epidural analgesia.

Results

Most participants are aged between 30 - 34 years (48.20%), with the majority having secondary education (56.35%) and being married (91.13%). The dominant employment category is self-employment (46.76%), and most respondents reside in rural areas (63.55%). Regarding gravidity and parity, 57.79% of participants have been pregnant 2-3 times, and 55.40% have had 2-3 deliveries (Table 1).

Socio-Demographic Information	Frequency (n = 417)	Percentage (%)
Age (in Years)		
15-24	28	6.71
25-29	41	9.83
30-34	201	48.20
35-39	123	29.50
40-44	19	4.56
45-49	05	1.20
Educational Level		
No formal Education	14	3.36
Primary Education	31	7.43
Secondary Education	235	56.35
Tertiary Education	137	32.85
Marital Status		
Single	11	2.64
Married	380	91.13
Divorced/Widowed	26	6.24
Employment Status		
Unemployed	11	2.64
Self-employed	195	46.76
Private sector employee	119	28.54
Public sector employee	78	18.71
Student	14	3.36
Residence		
Rural	265	63.55
Urban	152	36.45
How many times have you been pregnant including this present one (gravida)?		
1	34	8.15
2-3	241	57.79
4-5	121	29.02
More than 5	21	5.04
How many deliveries have you had (parity)?		
None	42	10.07
1	112	26.86
2-3	231	55.40
4 or more	32	7.67

Table 1: Demographic information of participants.

Awareness of OEA is low, with 70.26% of respondents never having heard of it. Among those familiar with OEA, most learned about it from social media or the internet (11.75%). However, a large portion (52.52%) is unsure of what OEA is used for, and 70.98% were unaware of its use for labor pain relief. Furthermore, 49.58% are unfamiliar with its benefits, and 79.86% do not know about its potential risks or side effects (Table 2).

Variable	Frequency (n = 417)	Percentage (%)
Have you ever heard of Obstetric Epidural Analgesia (OEA)?		
Yes	124	29.74
No	293	70.26
If yes, where did you first learn about it?		
Health facility (hospital/clinic)	31	7.43
Family/friends	15	3.60
Social media/internet	49	11.75
Books/magazines	21	5.04
Television/radio	08	1.92
Do you know what obstetric epidural analgesia is used for?		
Yes	118	28.30
No	80	19.18
Unsure	219	52.52
Obstetric epidural analgesia is a pain-relief method used during labor. Before this, were you aware of it?		
Yes	121	29.02
No	296	70.98
Which of the following benefits of obstetric epidural analgesia do you know? (You can select more than one) (n = 591)		
Pain relief during labor	120	20.30
Ability to remain awake during labor	89	15.06
Ability to participate in childbirth	89	15.06
None	293	49.58
Do you know if obstetric epidural analgesia has any risks or side effects?		
Yes	84	20.14
No	333	79.86
If yes, which of the following risks/side effects do you know about? (Select all that apply) (n = 142)		
Headache	59	41.55
Numbness in the legs	21	14.79
Difficulty pushing	11	7.75
Low blood pressure	21	14.79
Risk of infection	13	9.15
Others	17	11.97

Do you believe that using pain relief methods like obstetric epidural analgesia shows weakness during labor?		
Yes	42	10.07
No	51	12.23
Not sure	324	77.70
Would the opinions of your family or partner influence your decision to use obstetric epidural analgesia?		
Yes	91	21.82
No	124	29.74
Maybe	202	48.44

Table 2: Knowledge of obstetric epidural analgesia.

Regarding attitudes towards OEA, 38.85% of women would consider using it for labor pain relief, but 52.27% of those uncertain or opposed to it cited fear of side effects. Interestingly, 80.34% would feel comfortable being awake but pain-free during labor, and 54.68% believe both the woman and doctor should decide on using OEA. Notably, 100% agree that more awareness should be created about OEA (Table 3).

Variable	Frequency (n = 417)	Percentage (%)
Would you consider using Epidural Analgesia for pain relief during labour?		
Yes	162	38.85
No	139	33.33
Not sure	116	27.82
If no or not sure, why? (Select all that apply) (n = 375)		
Fear of side effects	196	52.27
Lack of information	43	11.47
Personal preference for natural birth	63	16.80
Cultural/religious beliefs	31	8.27
Advice from family/friends	42	11.20
Do you think obstetric epidural analgesia can negatively impact the childbirth experience?		
Yes	87	20.86
No	121	29.02
Not sure	209	50.12
How would you feel about the idea of being awake but pain-free during labor with obstetric epidural analgesia?		
Comfortable	335	80.34
Uncomfortable	28	6.71
Indifferent	54	12.95

In your opinion, who should decide whether obstetric epidural analgesia should be used?		
The pregnant woman	107	25.66
The doctor	80	19.18
Both the woman and the doctor	228	54.68
Family members	02	0.48
Do you think more awareness should be created about epidural analgesia among pregnant women?		
Yes	417	100.00
No	00	0.00
Not sure	00	0.00

Table 3: Attitude towards obstetric epidural analgesia.

Lack of awareness (53.90%) is the most cited barrier to OEA usage. Fear of complications (14.92%) and financial cost (12.03%) also pose significant concerns. A majority (89.45%) had never discussed OEA with healthcare providers, and only 7.67% believe that the Nigerian healthcare system provides adequate information about pain relief options (Table 4).

Variable	Frequency (n = 417)	Percentage (%)
What do you think are the major reasons why pregnant women may not choose obstetric epidural analgesia? (Select all that apply) (n = 449)		
Lack of awareness	242	53.90
Fear of complications	67	14.92
Financial cost	54	12.03
Cultural or religious beliefs	12	2.67
Negative stories from others	29	6.46
Influence from family or friends	08	1.78
Preference for traditional methods	37	8.24
Lack of trust in healthcare providers	00	0.00
Have you ever discussed obstetric epidural analgesia with your healthcare provider during antenatal visits?		
Yes	44	10.55
No	373	89.45
If yes, how did you feel about the discussion? (n = 44)		
Confident	28	63.64
Confused	11	25.00
Worried	03	6.82
Indifferent	02	4.55

Do you think the healthcare system in Nigeria provides adequate information about pain relief options during labor?		
Yes	32	7.67
No	284	68.11
Not sure	101	24.22
What would encourage you to consider using epidural analgesia? (Select all that apply)		
More information from healthcare providers	291	69.78
Positive stories from other women	26	6.24
Assurance of safety from doctors	78	18.71
Reduced financial cost	22	5.28

Table 4: Barriers to the use of obstetric epidural analgesia.

Discussion

The results from this study indicate that awareness of obstetric epidural analgesia (OEA) among pregnant women in Southeast Nigeria is relatively low. Only 29.74% of respondents had heard of OEA, with 70.26% indicating they had no prior knowledge. These findings align with several other studies in African settings, which report a general lack of awareness about epidural analgesia. For example, in a study conducted by Faponle, *et al.* [11], the level of awareness of epidural analgesia in Southwestern Nigeria was also low, at approximately 33%. Similar trends have been noted across other developing countries, where the diffusion of knowledge about modern pain relief options during labor remains limited due to inadequate health education and low utilization of such services [12].

The most common sources of information about OEA were social media/internet (11.75%) and health facilities (7.43%). This suggests that social media may be a key avenue for disseminating health information, similar to findings from previous studies, such as that of Oladokun, *et al.* [13], where digital platforms emerged as a significant source of healthcare knowledge among Nigerian women. The minimal contribution of health facilities to the knowledge dissemination (7.43%) highlights a gap in the health education programs of hospitals and clinics, echoing findings from earlier studies which point out that health professionals often miss opportunities to inform pregnant women about available pain relief methods during antenatal care [14].

Regarding the knowledge of what OEA is used for, only 28.30% of the women knew it was a pain relief method, and over half of the respondents (52.52%) were unsure. This uncertainty aligns with the findings of a study by Okojie, *et al.* [8], which identified a significant knowledge gap among Nigerian women regarding the use of epidural analgesia, further suggesting that there may be a lack of adequate antenatal education on labor pain management options. The low awareness of OEA (29.02%) as a labor pain relief option prior to this study also corroborates similar findings from previous research conducted in developing countries where modern obstetric practices are not widespread [15].

Regarding the benefits of OEA, the knowledge was limited, with 49.58% of respondents unaware of any benefits. Among those who knew, the most frequently identified benefit was pain relief (20.30%). This is consistent with studies by Okojie, *et al.* [8] and Kolawole and Fadare [15], where pain relief was the primary benefit acknowledged, but a substantial number of women lacked any awareness of the advantages of epidural analgesia during labor.

The study also found that only 20.14% of respondents knew about the risks or side effects of OEA, with headaches (41.55%) and numbness in the legs (14.79%) being the most commonly recognized risks. These findings are consistent with studies like that of Anaba,

et al. [14], which also reported that women had minimal knowledge of the potential side effects of epidural analgesia. The low level of knowledge about the risks further suggests that comprehensive information about epidurals, including both benefits and risks, is not being adequately communicated to pregnant women in Southeast Nigeria.

In terms of attitudes towards the use of OEA, 38.85% of the respondents indicated they would consider using it for pain relief during labor, while 33.33% were opposed, and 27.82% were unsure. This mixed attitude towards OEA is reflected in several studies from Nigeria and other African countries. For instance, Kolawole and Fadare [15] found that while some women were open to the idea of using epidural analgesia, many remained hesitant due to concerns about side effects, lack of knowledge, or cultural preferences for natural childbirth. The high percentage of women (52.27%) in this study who cited fear of side effects as a reason for not considering OEA is consistent with findings from Okojie., *et al.* [8], who also found fear of complications as a major barrier to its acceptance.

Cultural and religious beliefs were another barrier identified by 8.27% of the respondents, which aligns with studies such as Faponle., *et al.* [11], where cultural attitudes towards pain and childbirth were shown to influence the perception of medical interventions like epidural analgesia. Interestingly, the influence of family and friends, cited by 11.20% of the respondents, reflects social pressures that often shape health decisions in Nigeria and has been highlighted in studies by Oladokun., *et al* [13].

Despite some reservations, 80.34% of respondents expressed that they would feel comfortable being awake but pain-free during labor with OEA. This positive attitude towards the comfort provided by epidural analgesia has also been noted in other studies, such as Anaba., *et al.* [14], which found that while many women were open to the idea of pain relief during labor, misinformation and fear often prevented them from actively considering it.

The overwhelming majority of respondents (54.68%) believed that the decision to use OEA should be a joint one between the woman and her doctor, which aligns with the findings from previous research in Nigeria and other African countries where shared decision-making in healthcare is increasingly valued [8]. This sentiment suggests that involving healthcare professionals in discussions about labor pain management may positively influence the uptake of OEA.

The most significant barrier to the use of OEA, as reported by 53.90% of the respondents, was a lack of awareness. This finding is consistent with previous studies by Kolawole and Fadare [15] and Faponle., *et al.* [11], which also identified insufficient knowledge as a key reason why many Nigerian women do not opt for epidural analgesia during childbirth. Fear of complications (14.92%) and financial cost (12.03%) were also notable barriers, reflecting concerns that have been echoed in studies from other developing countries, where fears of adverse outcomes and financial constraints often deter women from seeking medical interventions for labor pain relief [13].

Only 10.55% of women reported having discussed OEA with their healthcare provider during antenatal visits, which is a critical issue identified in previous studies as well. For instance, Okojie., *et al.* [8] highlighted that many women in Nigerian healthcare settings are not adequately informed about pain relief options, leading to low uptake rates. The fact that 68.11% of respondents felt the healthcare system did not provide adequate information about labor pain relief suggests that the issue may be systemic, requiring policy-level interventions to improve antenatal education.

Conclusion

The results of this study highlight significant gaps in knowledge and mixed attitudes towards obstetric epidural analgesia among pregnant women in Southeast Nigeria. These findings are consistent with previous studies in Nigeria and other developing countries, which have shown that limited awareness, fear of side effects, and cultural factors are major barriers to the acceptance and utilization of OEA. Increasing education and awareness through healthcare providers, alongside addressing misconceptions about risks, could enhance the acceptance and use of OEA, ultimately improving childbirth experiences for women in this region.

Bibliography

1. Anim-Somuah M, et al. "Epidural versus non-epidural or no analgesia for pain management in labour". *Cochrane Database of Systematic Reviews* 5.5 (2018): CD000331.
2. Ezebialu IU, et al. "Factors influencing women's choice of pain relief during labor in a tertiary health institution in Southeast Nigeria". *Nigerian Journal of Clinical Practice* 22.7 (2019): 946-952.
3. Ruppen W, et al. "Epidural analgesia during childbirth: Current evidence and practice". *Best Practice and Research Clinical Anaesthesiology* 35.3 (2021): 317-328.
4. Kuti O, et al. "The use of obstetric analgesia in Nigeria: Current status". *Journal of Obstetrics and Gynaecology* 39.4 (2019): 546-550.
5. Obuna JA, et al. "Perceptions of epidural analgesia for labor among obstetricians in Southeast Nigeria". *Nigerian Journal of Clinical Practice* 21.9 (2018): 1160-1164.
6. World Health Organization. "Maternal mortality: Levels and trends 2000 to 2020". WHO (2023).
7. World Health Organization. "WHO recommendations: Intrapartum care for a positive childbirth experience". WHO (2018).
8. Okojie M, et al. "Awareness and attitude of pregnant women toward epidural analgesia". *Nigerian Postgraduate Medical Journal* 28.1 (2021): 37-42.
9. Airaodion AI, et al. "Prevalence of erectile dysfunction in men with type 2 diabetes mellitus in Osun State, Nigeria". *Direct Research Journal of Agriculture and Food Science* 10.6 (2023): 45-52.
10. Shawahna R, et al. "Knowledge, attitudes, and practices of pregnant women regarding epidural analgesia: a multicentre study from a developing country". *Journal of Obstetrics and Gynaecology* 44.1 (2024): 2354575.
11. Faponle AF, et al. "Awareness and Acceptance of Epidural Analgesia in Labor Among Pregnant Women in a Nigerian Tertiary Hospital". *African Journal of Reproductive Health* 20.4 (2016): 69-76.
12. Afolabi BB, et al. "Perception and Utilization of Epidural Analgesia in Labor Among Nigerian Women". *International Journal of Women's Health* 11 (2019): 237-244.
13. Oladokun AO, et al. "Obstetric Pain Management in Nigeria: Current Practices and Future Prospects". *Annals of African Medicine* 17.3 (2018): 121-128.
14. Anaba AE, et al. "Knowledge and Perception of Labor Pain Management Among Women in a Nigerian Tertiary Hospital". *Nigerian Journal of Clinical Practice* 24.4 (2021): 516-522.
15. Kolawole A and Fadare T. "Obstetric Epidural Analgesia: Knowledge and Attitudes Among Nigerian Pregnant Women". *Journal of Clinical Medicine Research* 9.12 (2017): 100-106.

Volume 13 Issue 11 November 2024

©All rights reserved by AI Airaodion., et al.