

Original Article

Awareness And Acceptance of Epidural Labor Analgesia Amongst Parturients in Federal Teaching Hospital Katsina

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ABSTRACT

Background: Labour analgesia is a common practice worldwide but is not very popular in Nigeria. Epidural analgesia in labour, the gold standard for pain relief, was recently commenced in our hospital. It is therefore important to determine if pregnant women are aware of epidural analgesia and the acceptability of the procedure in our environment. **Objective:** The study was aimed at assessing the awareness and acceptance of epidural labour analgesia amongst parturients attending the ante-natal clinic in Federal Teaching Hospital Katsina. **Methods:** It was a cross-sectional study carried out among pregnant women attending antenatal care in Federal Teaching Hospital Katsina. Ethical approval was obtained from the research ethics committee. Using a structured questionnaire, consenting pregnant women attending the antenatal clinic were interviewed. Relevant information such as socio-demographic characteristic, awareness of epidural labour analgesia and its acceptability were obtained. Data was analysed using SPSS 20.0. The association between sociodemographic factors and awareness and acceptance of epidural labour analgesia and the reasons for non-acceptance of epidural analgesia in labour were determined. P value of <0.05 was considered statistically significant. **Result:** A total of 145 consenting pregnant women were interviewed but one of the respondents did not return her questionnaire. The mean age was 28.27 ± 4 years. Majority of the respondents were Hausa, Muslims, and housewives, with tertiary level as the highest level of education attained. There was an overall low level of awareness of epidural labour analgesia, as only 25.0% of the respondents were aware of epidural labour analgesia. About 2/3 of the respondents (63.9%) were willing to accept epidural labour analgesia in labour. Only occupation was found to be significantly associated with awareness of epidural labour analgesia with civil servants more likely to be aware (p 0.001), while acceptance of epidural labour analgesia was not significantly associated with any of the sociodemographic factors studied. **Conclusion:** The awareness of epidural analgesia in labour among pregnant women in our environment is low, though more women are willing to accept it.

KEY WORDS: Labour pain, epidural analgesia, awareness, acceptance, antenatal clients, Nigeria.

INTRODUCTION

Pain perception in labour is extremely variable

among women depending on the parturient's pain threshold and reaction to pain.¹ Cultural and social factors have been shown to influence pain perception during labour.² Labour is seen as excruciatingly painful among most Nigerian women.³ The pain of labour is not known to be

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beneficial to the process of labour; and it can be a source of extreme discomfort to the parturient.³ Following the discovery of the efficacy of chloroform in easing pain during childbirth, Queen Victoria requested that James Simpson administer it during the delivery of her son. This paved way for overcoming powerful negative attitudes that discouraged pain relief during childbirth.⁴

Obstetric analgesia is defined as the elimination of sensibility to pain without loss of consciousness during labour, delivery and possibly the post-partum period.⁵ The aim of pain relief in labour is to make labour an emotionally satisfying experience where a woman is delivered of a healthy baby with as little distress, pain, and exhaustion as possible and with minimal risk to both mother and foetus. Many options exist for obstetric analgesia ranging from non-pharmacological to pharmacological methods and these are routinely available to expectant mothers in the developed world. Preparations for some of these methods commence during the antenatal period and include gentle exercise, breathing, posture and relaxation techniques which are particularly useful in early labour. For some women this may be all that is required to make labour pains bearable. Other non-pharmacological methods include hypnosis, acupuncture, and Transcutaneous Electric Nerve Stimulation (TENS).⁶ Pharmacological methods include regional and general analgesics. The latter include systemic narcotics or opioids and inhalational agents, while methods of regional analgesia include pudendal block, epidural and spinal analgesia.⁶

Epidural analgesia is seen as the gold standard for labour pain relief in the modern obstetric practice.⁷ The evolution of labour analgesia is not only in the methods but also in the "medical profession's perspective of pain management from simply good practice to an imperative founded on patients' rights".⁷ Studies on the level of awareness, perception, attitude and use of epidural analgesia for labor

pain relief show that awareness and utilization of epidural labour analgesia is still very low in developing countries.⁸ In previous studies, the level of awareness of epidural analgesia in labour in Nigeria was found to be 19.5% in the South West⁹, 8.6% in the North West and 38.7%¹⁰ in the South East.¹¹ There appears to be a generally poor knowledge of obstetric analgesia across the country compared to other African countries. For instance, more than half of interviewed pregnant women in Kenya (56%) and South Africa (56.3%) were aware of obstetric analgesia.^{12,13} Epidural analgesia in labour was only recently started in our centre. It is therefore important to assess how much pregnant women in our environment know about it, and if they are willing to accept it.

This study was carried out with the aim of assessing the awareness and acceptance of epidural labour analgesia amongst parturients attending the ante-natal clinic in Federal Teaching Hospital Katsina.

METHODS

This was a cross-sectional study carried out in the antenatal clinic of Federal Teaching Hospital Katsina.

The sample size was calculated using the Fisher's formula. A previous and similar study by Iliyasu et al in Kano¹⁰ showed the proportion of patients that were aware of epidural labour analgesia is 8.6%. The sample size was calculated was 121 and attrition of 20% was added giving a sample size of 145.

One hundred and forty pregnant women who consented to participate in the study were consecutively recruited from the antenatal clinic. Informed consent was obtained from prospective respondents prior to commencement of the interviews.

An interviewer administered questionnaire was used to collect the information from eligible patients. Data collected included personal data such as age, parity, occupation, ethnicity, religion, and educational level; as well as information about awareness of pain relief in labour, sources of information and types of analgesia method known. Acceptance of epidural analgesia in next labour and

reason why parturients may reject it were also assessed and recorded

The data obtained were analysed using the computer software program, Statistical Package for Social Sciences version 20, (SPSS Incorporation) and the results were displayed on tables in numbers and percentages. Pearson Chi-Square test was used to determine the association between qualitative variables and a P value of <0.05 was considered statistically significant.

Ethical Consideration

Ethical clearance to conduct this study was obtained from the Health Research Ethics Committee (ethical approval number FMCNHREC.REG.N003/082012) of Federal Teaching Hospital Katsina and the interview was conducted on pregnant women that consented to it.

RESULTS

One hundred and forty-five questionnaires were administered, and 144 (99.3%) were returned and analysed. The age range of the respondents was 20 – 37 years with a mean age of 28.27±4.66 years. Majority of the respondents were in the 26 – 30 years’ age category (38.2%). Most were of low parity (70.1%), Islamic religion (84.7%) and all were married. Majority were Hausa (73/6%), housewives (33.3%) and majority had tertiary level of education (49.3%). Table 1 summarizes the Sociodemographic characteristics of the respondents.

Less than half of the respondents were aware of pain relief in labour (45.1%) and the main source of information for most of the respondents was a health institution (34.7%). The type of analgesia known by most of the respondents was injectable analgesia (33.4%), while only 25.0% were aware of epidural analgesia. Ninety-two respondents (63.9%) are willing to accept epidural analgesia in their next labour. Table 2 summarizes the awareness of pain relief in labour and acceptance of epidural analgesia.

There was no statistically significant association found between the awareness of epidural labour analgesia with the mean age (p

0.464), parity (p 0.835), religion (p 0.105), ethnic group (p 0.972) and educational status (p 0.386) of the respondents. The association between the awareness of epidural analgesia and the occupation of the respondents (0.001) was found to be statistically significant. Most of the respondents who were aware were civil servants with tertiary level of education. Table 3 summarizes the association between socio-demographic factors and awareness of epidural labour analgesia amongst respondents.

Table 1: Sociodemographic Characteristics of the Patients

Variable	Number (n = 144)	Percentage (%)
Age (years)		
16-20	9	6.2
21-25	27	18.8
26-30	55	38.2
31-35	43	29.9
36-40	10	6.9
Parity		
1-4	101	70.1
≥5	43	29.9
Religion		
Islam	122	84.7
Christianity	22	15.3
Marital Status		
Married	144	100.0
Divorced/widowed	0	0.0
Occupation (woman)		
Housewife	48	33.3
Student	19	13.2
Trader	43	29.9
Artisan	4	2.8
Civil servant	30	20.8
Educational Status		
Primary	26	18.1
Secondary	47	32.6
Tertiary	71	49.3
Ethnic Group		
Yoruba	24	16.6
Hausa	106	73.6
Igbo	8	5.6
Others	6	4.2

Age: Mean ± SD = 28.27±4.66 years, Range = 20-37 years

There was no statistically significant association found between the awareness of epidural labour analgesia with the mean age (p 0.094), parity (p 0.351), religion (p 0.342), occupation (0.220), educational status (0.766) and ethnic group (p 0.480) the respondents. Table 4 summarizes the association between socio-demographic factors and acceptance of epidural labour analgesia amongst respondents. Figure 1

summarizes the reasons given by the respondents for not wanting epidural analgesia in labour, with majority of the respondents giving no particular reason (35.4%)

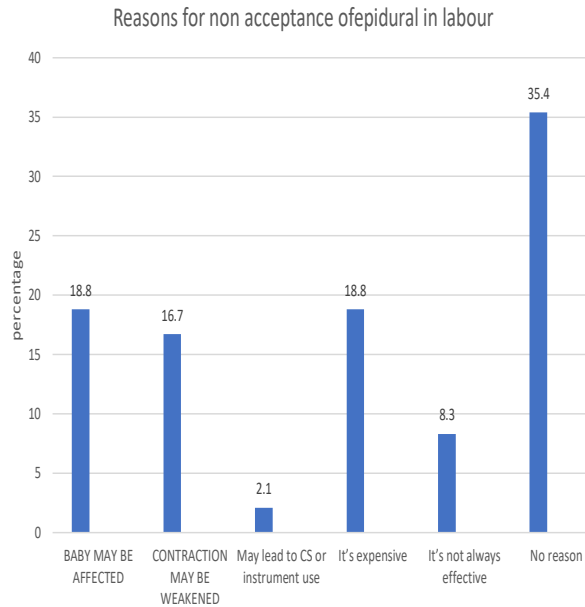


Fig. 1. Bar Chart showing reasons for Not Accepting Epidural Analgesia in Labour

Table 2: Awareness of Pain relief in Labour and Acceptance of Epidural Analgesia in Labour

Variables	Number n = 144	Percentage (%)
Aware of Pain relief in Labour		
Yes	65	45.1
No	79	54.9
Main Source of Information		
Health Institution	50	34.7
Social Media	29	20.1
Print Media	25	17.4
Radio	8	5.6
Television	8	5.6
Family and Friends	24	16.6
Type of Pain Relief Known		
Epidural analgesia	36	25.0
Inhalational	13	9.0
Injections	48	33.4
Acceptance of Epidural		
Yes	92	63.9
No	52	36.1

Table 3. Association between Socio-demographic Factors and Awareness of Epidural Labour Analgesia amongst Respondents

Variable	Aware of Epidural Analgesia Yes (n = 36)	No (n = 108)	Test	P Value
Mean Age (±SD) years	27.8 (± 3.8)	28.4 (± 4.9)	t = 1.69	0.464
Parity				
1-4	26 (72.2)	75 (69.4)	X ² = 0.09	0.835
≥5	10 (27.8)	33 (30.6)		
Religion				
Islam	27 (75.0)	95 (88.0)	X ² = 3.51	0.105
Christianity	9 (25.0)	13 (12.0)		
Occupation (woman)				
Housewife	10 (27.8)	38 (35.2)	X ² = 32.04	0.001*
Student	1 (2.8)	18 (16.7)		
Trader	6 (16.6)	37 (34.3)		
Artisan	0 (0.0)	4 (3.6)		
Civil servant	19 (52.8)	11 (10.2)		
Educational Status				
Primary/secondary	16 (44.4)	57 (52.8)	X ² = 0.75	0.386
Tertiary	20 (55.6)	51 (47.2)		
Ethnic Group				
Yoruba	6 (16.6)	18 (16.7)	X ² = 0.24	0.972
Hausa	27 (75.0)	79 (73.1)		
Igbo	2 (5.6)	6 (5.6)		
Others	1 (2.8)	4 (4.6)		

* Significant

Table 4. Association between Socio-demographic Factors and Acceptance of Epidural Labour Analgesia amongst Respondents

Variable	Acceptance of Epidural Analgesia Yes (n = 92)	No (n = 52)	Test	P Value
Mean Age (± SD)	28.8 (± 4.6)	27.4 (± 4.7)	t = 1.69	0.094
Parity				
1-4	67 (72.8)	34 (65.4)	X ² = 0.35	0.351
≥5	25 (27.2)	18 (34.6)		
Religion				
Islam	80 (87.0)	42 (80.8)	X ² = 0.32	0.342
Christianity	12 (13.0)	10 (19.2)		
Occupation (woman)				
Housewife	27 (29.3)	21 (40.4)	X ² = 5.73	0.220
Student	14 (15.2)	5 (9.6)		
Trader	32 (34.8)	11 (21.2)		
Artisan	3 (3.3)	1 (1.9)		
Civil servant	16 (17.4)	14 (26.9)		
Educational Status				
Primary	16 (17.4)	10 (19.3)	X ² = 0.53	0.766
Secondary	32 (34.8)	15 (28.8)		
Tertiary	44 (47.8)	27 (51.9)		
Ethnic Group				
Yoruba	15 (16.3)	9 (17.3)	X ² = 2.48	0.480
Hausa	67 (72.8)	39 (75.0)		
Igbo	7 (7.6)	1 (1.9)		
Others	3 (3.3)	3 (5.8)		

DISCUSSION

Management of labour pains may be achieved with different methods; however epidural analgesia remains the gold standard. There is poor awareness of women about the use of epidural analgesia in labour. In this study only one quarter of the respondents (25%) were aware of epidural labour analgesia. This is higher than those of Iliyasu et al ¹⁰ in the north (8.6%) of Nigeria and lower than those of Fidelis Anayo Onyekwulu et al ¹¹ in the Southeastern Nigeria (38.7%). This could be because of cultural and religious differences amongst the different regions and ethnic groups in the country. However, it is very low in comparison

to data from the developed countries, where awareness rate is about 80%.¹⁶ This suggests that people need to be enlightened about such service available in a tertiary care hospital.

Fifty (34.7%) responders got the information of epidural analgesia from health institution and this similar to other literatures, which quote that health care professionals, friends and family are the source of such information.¹⁷ This further emphasized the need for prenatal counselling by health care providers. Presenting prenatal choices for labour analgesia by health care providers in such facilities would go a long way in helping women make choices and give informed consent regarding their pain management in labour.

Many of the responders thought that the pain of labour should be relieved and most (63.9%) would accept pain relief if offered in the current delivery. Among the patients who declined labour epidural analgesia (36.1 %), 64.4% described their hindrance to acceptability was that childbirth was natural, which was an expected answer in studies conducted in low-income countries.¹⁸ Society like ours has beliefs that are encrypted in peoples' mind and cultural practice, which plays a role in making a decision.

More than half of the women desire to have epidural labour analgesia after receiving information about its role during labour. To

translate this desire into a higher epidural analgesia rate; there must be a standard epidural analgesia service with a 24-hour coverage; the cost of providing epidural analgesia must be affordable, and the medical resources needed to support the services must be available.

Epidural analgesia remains the gold standard for pain management in labour and thus its relevance in obstetric analgesia service could not be overemphasized. There is therefore a need to make this technique available in health institutions in Nigeria. This study demonstrated the poor knowledge and utilization of labour epidurals. Many of the respondents were willing to accept labour epidurals if offered to them. This study also revealed misconceptions in the perception of epidural labour analgesia.

CONCLUSION

The study found that the awareness of epidural labour analgesia is generally low in our

environment, but many patients are willing to accept it.

REFERENCE

1. Bilic N, Djakovic I, Klican-Jaic K, Rudman SS, Ivanec Z. Epidural Analgesia in Labor-Controversies. *Acta Clin Croat.* 2015;54(3):330-336.
2. I. Donald, *Practical Obstetric Problems*, PG publishing Pte limited, New Delhi, India, 5th edition, 1990.
3. Onyeka TC, Chigbu CO. Denial of pain relief during labour to parturients in the South-East Nigeria. *Inter J Gynecol Obstet.* 2011; 114: 226-228.
4. Brennan F, Carr DB, Cousins M. Pain management: A fundamental human right. *AnesthAnalg* 2007;105:205-21
5. <http://www.medicalconditions.info> accessed 22nd August 2020.
6. E. O. Ogboli-Nwasor and S. E. Adaji, "Between pain and pleasure: pregnant women's knowledge and preferences for pain relief in labor, a pilot study from Zaria, Northern Nigeria," *SaudiJournalofAnaesthesia*,2014;8:20-4,
7. Cambic CR, Wong CA. Labour Analgesia and Obstetric outcome. *Brit J Anaesth.* 2010; 105(S1): i50- i60.
8. Nabukenya MT, Kintu A, Wabule A, Muyingo MT, Kwizera A. Knowledge, attitudes and use of labour analgesia among women at a low-income country ante-natal clinic. *BMC Anesthesiology.* 2015; 15: 98.
9. Oladokun A, Eyelade O, Morhason-Bello I, Fadare O, Akinyemi J, Adedokun B. Awareness and desirability of labour epidural analgesia: A survey of Nigerian women. *Inter J Obst Anaesth.* 2008 18(1): 38-42.
10. Iliyasu Z, Galadanci HS, Abubakar IS, Isah H, Aliyu MH. Desire for Obstetric analgesia among women in Northern Nigeria. *Trop J*
11. Fidelis AnayoOnyekwulu, Innocent Chidiebere Ugwu, Elias Chikee Aniwada, Tochukwu Christopher Okeke. Awareness and Perception of Epidural Labor Analgesia Amongst Parturient in Southeastern Nigeria. *Clinical Medicine Research.* Vol. 6, No. 3, 2017, pp. 116-120. doi: 10.11648/j.cmr.20170603.20
12. Mung'ayi V, Nekyon D, Karuga R. Knowledge, attitude and use of labour pain relief methods among women attending antenatal clinic in Nairobi. *East Afr Med J.* 2008;85(9):438-41
13. Mugambe JM, Nel M, Hiemstra LA, Steinberg WJ. Knowledge of and attitude towards pain relief during labour of women attending the antenatal clinic of Cecilia Makiwane Hospital, South Africa. *SA Fam Pract* 2007;49(4):16-26.

14. Paech M. "Just put it in!" Consent for epidural analgesia in labour. *Anaesth Intensive Care*. 2006;34(2):147-9.
15. Ekweani J, Avidime S. The awareness and desirability of pain relief in labour among pregnant women in Zaria. *P H Med J*. 2016;10(3):115.
16. Paech M. "Just put it in!" Consent for epidural analgesia in labour. *Anaesth Intensive Care*. 2006;34(2):147-9.
17. Ekweani J, Avidime S. The awareness and desirability of pain relief in labour among pregnant women in Zaria. *P H Med J*. 2016;10(3):115.
18. Poomalar G.K LS. Awareness of labour analgesia among antenatal women in semi urban area. *Int J Reprod Contracept Obstet Gynecol*. 2016;5(8):2612-7