

## Perception and use of labour analgesia among antenatal attendees in a sub urban Nigerian population

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### Abstract

**Introduction:** Labour pain is the result of many complex interactions, physiological and psychological, excitatory as well as inhibitory. The severity of labour pain varies greatly among women in labour and the mechanism and perception depends on the stage of labour as well as birth preparedness. Over the years, various methods have been used to achieve pain free labour. However, an ideal method that will provide rapid, effective and safe pain relieve in labour, is difficult to find in medicine.

**Objectives:** The aim of the study was to determine the level of awareness, perception and desirability and use of analgesia during labour.

**Materials and Methods:** This was a descriptive cross-sectional study carried out at Irrua, Edo State on 307 patients who met the inclusion criteria during the study period using the McGill pain questionnaire.

**Results:** Of the 307 respondents, 46 (15%) were aware of the use of analgesia during labour through literatures, lectures and symposia (58.8%). Two hundred and forty-four of the women (79.5%) were desirous of analgesia use in labour and the preferred method was intramuscular opioids (112(45.9%). Interestingly, 40.3% of the parturient did not want analgesia in labour because of their belief and God's will for them in 35.5% of the women.

Education, occupation and parity had statistically significant association with the knowledge and desire of use of analgesia in labour (education ( $p = 0.004$ ), occupation ( $p = 0.016$ ) and parity ( $p = 0.025$ ).

**Conclusion:** Education and high skilled occupation played important role in the knowledge and the desire for use of analgesia in labour. Therefore, continuous public enlightenment is advocated to reduce cultural misconception about the use of analgesia. This will go a long way in promoting the uptake of analgesia in labour.

**Keywords:** Analgesia, Labour, Perception

### Introduction

Childbirth is a process which from time immemorial has been accompanied by pain experienced by the mother. The Bible states, concerning the woman, that "in sorrow thou shalt bring forth children".<sup>1</sup> It is often characterized with fears and anxiety resulting mostly from the associated painful experience.<sup>2-5</sup>

Pain is defined as an unpleasant, subjective, sensory and emotional experience associated with real or potential tissue damage, or described in terms of such damage.<sup>6</sup> So many factors might contribute to pain in labour that a specific aetiological diagnosis of the causes of such pain is difficult.

Labour pain is the result of many complex interactions, physiological and psychological, excitatory as well as inhibitory. Pain during the first stage of labour is due to distention of the lower uterine segment, mechanical dilatation of the cervix and lastly due to stretching of excitatory nociceptive afferents resulting from the contraction of the uterine muscles<sup>7</sup>. The severity of pain parallels with the duration and intensity of contraction<sup>8</sup>. In the second stage, additional factors such as traction and pressure on the parietal peritoneum, uterine ligaments, urethra, bladder, rectum, lumbosacral plexus, fascia and muscles of the pelvic floor increase the intensity of pain.

The severity of labour pain varies greatly among women in labour. If women are asked during or shortly after birth to score their labour pain, most rate it as

severe while few mention little or no pain<sup>9,10</sup>. Using the McGill pain questionnaire, Melzack et al<sup>10</sup> in Montreal, Canada, found out that labour pain was usually rated with a high score particularly among primiparae, especially those with a history of dysmenorrhoea and those belonging to low socio-economic status<sup>9</sup>. The effects of severe pain are principally a sympathetic autonomic response and include exhaustion, dehydration, misery, elevated heart rate, blood pressure, oxygen and glucose consumption, decreased blood flow and oxygen to placenta and fetus, hyperventilation and cramps. Obviously in many individuals such effects are undesirable and in some may even be life-threatening<sup>11</sup>. Despite these recognized adverse effects of pain in labour, the issue of analgesia in labour remains a controversial topic because of difference in ethnicity, illiteracy, lack of knowledge and poverty.

James Young Simpson in 1847<sup>11</sup> stated that “the distress and pain women often endure while they are struggling through a difficult labour are beyond description, and seem to be more than human nature would be able to bear under any other circumstances. Medical men have opposed for a long time the use of andgesia and anaesthesia in labour but a time will come when the parturients enforce its use upon the profession as a matter of right<sup>11,12</sup>. These statements are still most pertinent, as they encapsulate today’s widely held view of both parturients and most perinatal care providers. First, because most of today’s laboring women do not want to suffer severe pain, and more importantly they know that it is no longer necessary to do so.

## Literature Review

Pain relief management during labour has undergone various advancements since 1847, when Simpson found out that chloroform could help relieve the pain women felt during labour. His findings were not received favourably on religious and medical grounds<sup>13</sup>. Childbirth was viewed as a physiological process best managed with as little interference as possible<sup>14,15</sup>.

Over the years, various methods have been used in an attempt to achieve a pain-free labour<sup>16</sup>. Psychological, physical and pharmacological methods of pain relief are utilized depending on the patient’s choice and expertise of the care giver. Examples of

these various methods include, psychoprophylaxis<sup>17,18</sup>, hypnosis<sup>19</sup>, for the psychological methods; transcutaneous electrical nerve stimulation (TENS), acupuncture<sup>20,21</sup> and hydrotherapy<sup>22,23</sup> for the physical methods; and the use of opioids (pentazocine, pethedine, and fentanyl)<sup>24</sup> either systemically or regionally (epidural)<sup>25,26</sup>, and inhalational agents<sup>27</sup> for the pharmacological methods.

The ideal analgesic technique in labour should provide rapid, effective and safe pain relief for all stages of labour, not compromise maternal vital physiology or normal activity not compromise fetal vital physiology or well-being, not hamper the normal processes of labour, be flexible enough to convert to anaesthesia for urgent operative delivery or other intervention, e.g. manual removal of placenta. Meeting such an ideal would leave the mother awake, alert, comfortable and able to void, bear down, and, if desired, even ambulate throughout labour. Unfortunately, such ideals are rarely met in medicine, but for the past twenty years the development of low-dose neuraxial anaesthesia and analgesia (epidural and combined spinal-epidural (CSE)) have been recommended<sup>11</sup>

While the practice of obstetric analgesia has become almost routine in the developed world, many parturients in the developing world are still unaware that labour could be pain-free. The level of awareness of the various methods of pain relief in labour amongst Nigerian parturients is still relatively low. In a study conducted at the University College Hospital, Ibadan, in 2000, only 27.1% of patients were aware of pain relief methods<sup>28</sup>. It is not unusual in many settings, for laboring women to be left unattended to while experiencing the agonizing pain of childbirth. Presently, many health care institutions in Nigeria lack a protocol for the management of labour pain despite the overwhelming evidences of its usefulness<sup>17,18</sup>. Lack of manpower and cost of care are some of the reasons given for this poor practice.<sup>17</sup>

A study conducted amongst pregnant women in South Western Nigeria, revealed that most women desire the elimination of labour pain<sup>18</sup>. The patient’s choice of a medical intervention in preventing labour pains is dependent mainly on the level of awareness about the significance of such a method<sup>29</sup>.

The low level of awareness and desirability of analgesia in labour is attributed by some investigators

to the prevalent educational level, socioeconomic status, cultural and religious inclinations of women in Nigeria. The attitude to pain relief in labour may also be influenced by a woman's upbringing<sup>28</sup>. Culture, ethnic group and age might be strong influences. In the third world, especially in Africa, access to knowledge and the availability of medical care could influence attitudes to pain relief.

The aim of this study is to determine the level of awareness and the factors influencing this, as well as the desirability of analgesia during childbirth amongst antenatal patients in the Irrua Specialist Teaching Hospital in order to make informed recommendations that would facilitate the practice of obstetric analgesia in this center.

## Materials and Methods

### Study Area

The hospital is a tertiary public health institution that serves the three senatorial districts in Edo State particularly the Edo Central senatorial district with an estimated population of 550,000-700,000. It also serves as a major referral centre for patients from Delta, Ondo and Kogi States.

**Study Population:** The Patients attending antenatal clinics were recruited for the study

**Inclusion criteria:** Pregnant women in the 3<sup>rd</sup> trimester of pregnancy

### Exclusion criteria:

- 1) Primigravidae
- 2) Women in 1<sup>st</sup> and 2<sup>nd</sup> trimester
- 3) Women already in confirmed Labour
- 4) Women who declined

**Study Design:** Descriptive cross-sectional study was used.

**Sample Size Determination:** The number of women who deliver in the Irrua Specialist Teaching Hospital each year is about 1000. The required sample size was determined using a standard statistical formula  $\{n_f = n / (1 + n/N)\}$  where  $n_f$  is the desired sample size when population is less than 10,000;  $n$  is the desired sample size when the population is more than 10,000 and  $N$  is the estimation of the population size} and marked upwards in order to obtain a better representative

sample. Three hundred and seven women completed the questionnaires satisfactorily during this period

### Sampling Method

A total population sampling was done based on the availability of women attending the antenatal clinic in Irrua Specialist Teaching Hospital, Irrua. Respondents were chosen from a number of antenatal clinic sessions until the desired sample size was achieved. For each clinic session, before commencement of the clinic, numbers were assigned to the patients. However, all the patients attending antenatal clinic were interviewed.

### Study Duration

5 months (April – August 2015)

### Data Collection

Patients attending antenatal clinics during this period responded to a structured questionnaire after giving their consent to the interviewer who intimated them on the purpose of the study. The questionnaire was structured in four parts: sections on socio-demographic profile, knowledge of obstetric analgesia, attitude towards the use of analgesia in labour and desirability of analgesia in labour.

**Data Analysis:** Statistical analysis was performed using the International Business Machines Statistical Package of Social Science (IBM SPSS) 22.0 version software. Bivariate analysis was used to explore the effect of socio-demographics on the dependent variables (awareness and desirability of analgesia) using the Pearson's Chi square test. The statistical significance was set at 95% confidence level.

**Ethical Consideration:** Approval for the study was obtained from the ethical committee of the Irrua Specialist Teaching Hospital. Ethical considerations in this study will be based on the general ethical principles as applicable to human subjects. These are respect for persons, beneficence, non-maleficence and justice.

## Results

A total of 307 women completed the interviewer structured questionnaires satisfactorily. The analysis of the collated data was presented in simple frequencies, percentages, tables, charts, cross-tabulations and the

corresponding Chi-squares and logistic regression tables as follows:

Table I: Socio-Demographic Characteristics of Respondents

Years	Frequency	Percentage (%)
<b>Age group</b>		
18-22	<b>19</b>	<b>6.2</b>
23-27	<b>81</b>	<b>26.4</b>
28-32	<b>131</b>	<b>42.7</b>
33-37	<b>54</b>	<b>17.6</b>
38-42	<b>22</b>	<b>7.2</b>
Total	<b>307</b>	<b>100</b>
<b>Occupation</b>		
Unemployed	<b>34</b>	<b>11.1</b>
Student	<b>39</b>	<b>12.7</b>
Artisan	<b>57</b>	<b>18.6</b>
Trader	<b>93</b>	<b>30.3</b>
Professional	<b>60</b>	<b>19.5</b>
Health Worker	<b>24</b>	<b>7.8</b>
Total	<b>307</b>	<b>100</b>
<b>Level of Education</b>		
No formal Education	<b>1</b>	<b>0.3</b>
Primary	<b>44</b>	<b>14.3</b>
Secondary	<b>107</b>	<b>34.9</b>
Post secondary	<b>155</b>	<b>50.5</b>
Total	<b>307</b>	<b>100</b>
<b>Parity</b>		
1	<b>94</b>	<b>30.6</b>
2-4	<b>167</b>	<b>54.4</b>
5 and above	<b>46</b>	<b>15.0</b>
TOTAL	<b>307</b>	<b>100.0</b>

Age is categorized into 5- year age groups from 18-22; 23-27; 28-32;33-37; and 38-42 years.

Patients aged 28-32 years constituted the highest number, with 131 patients (42.7%); followed by the group aged 23-27, with 81 patients (26.4%). The age group 18-22, was the lowest, with 19 patients (6.2%), closely followed by the group of 38-42 which had 22 patients (7.2%). The mean of the individual ages was 29.58 years, the mode was 28 years and the median was 29 years.

Regarding the occupation, most of the respondents, 93 (30.3%), were traders; only 24 (7.8%) patients were in the health sector; 39 patients (12.7%), were students, while 34 (11.1%), were unemployed.

Regarding the level of education, majority (50.5%) of the respondents had postsecondary level of education.

Table 1 also showed the parity distribution of the patients. Ninety-four patients (30.6%) were primiparas;

167 (54.4%) were multiparas and 46 (15.0%) were grandmultiparas.

NB: Of the 94 primiparas, 2 had Elective Caeserean delivery in their previous confinement

Table 2: Previous Experience of Labour Pain

Degree of pain	Frequency	Percentage
Mild	<b>8</b>	
Moderate	<b>54</b>	
Severe	<b>159</b>	
Total	<b>221</b>	
<b>Greatest concern during labour</b>		
Safe delivery of baby	<b>162</b>	<b>73.3</b>
Labour pain experienced	<b>40</b>	<b>18.1</b>
Her health	<b>16</b>	<b>7.2</b>
None	<b>3</b>	<b>1.4</b>
Total	<b>221</b>	<b>100</b>

Two hundred and twenty-one of the 307 women who were interviewed had experienced labour pains at least once. 72% (159) of these women considered the labour pains they had experienced to be severe; 24.4% (54) considered the pains as moderate. Only 3.6 (8) felt that the pains were mild.

The table also showed the greatest concern expressed by patients during previous labour experiences. 162 (73.3%) of the patients were most concerned about the safe delivery of the baby;40 (18.1%) were most concerned about the labour pain experienced; 16 (7.2%) were most concerned about their own health,while 3(1.4%) admitted to not having any particular concern during labour. Table 2 also displayed the level of knowledge of analgesia during labour amongst the patients.

Eighty-five percent of the patients (261) had no knowledge of analgesia in labour. Fifteen percent (46) knew about analgesia in labour

It showed that 27(58.8 %) of the knowledgeable patients got to know about obstetric analgesia from "other sources" which included literatures, lectures in schools and symposia. Thirty point four percent of the knowledgeable patients got to know about obstetric analgesia while attending the antenatal clinic and from

other health personnel at other times. 6.5% of the patients acquired the knowledge from friends or family members. The media accounted for only 4.3% of source of knowledge.

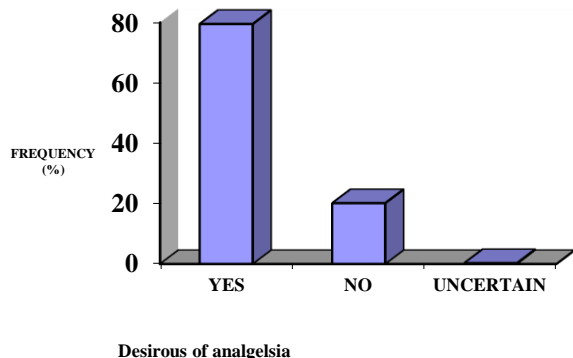


Figure 1: Desirous of analgesia in labour

Table 3: Choice of Analgesia in labour

Choice of Analgesia	Frequency	Percentage (%)
intramuscular-opioid injection	112	45.9
epidural injection	29	11.9
Inhalational	14	5.7
Others	20	8.2
uncertain about what method	69	28.3
Total	244	100

Table 4: Choice of analgesia method

Knowledge	Not desirous of analgesia	Opioid Injection	Epidural	Inhalational	Uncertain about	Other forms of Pain relief	Un-certain	Total
No (%)	57 (21.8%)	97 (37.2%)	10 (3.8%)	8 (3.1%)	69 (26.4%)	19 (7.3%)	1 (0.4%)	261 (100%)
Yes (%)	5 (10.9%)	15 (32.6%)	19 (41.3%)	6 (13.0%)	0 (0%)	1 (2.2%)	0 (0%)	46 (100%)
Total	62 (20.2%)	112 (36.5%)	29 (9.4%)	14 (4.6%)	69 (22.5%)	20 (6.5%)	1 (0.3%)	307 (100%)

p-value = 0.000\*

\*Statistically significant (p < 0.05)

Table 3 showed the choices of the different methods of analgesia preferred by the patients. Most women, 112(45.9%), preferred the intramuscular opioid injection. 69(28.3%) of the women desirous of analgesia in labour were uncertain of the method they wanted. In their opinion, they would want the doctor to use whatever method he considered to be the best since they did not have afore knowledge about the topic. 29(11.9%) of the women wanted epidural analgesia; 14 (5.7%) wanted inhalational analgesia, while 20(8.2%) of the women preferred other forms of pain relief in labour which included companionship in labour and having their backs rubbed during contractions.

Table 4 is a bivariate analysis table of the knowledge of analgesia and the choice of method of analgesia amongst the patients. It showed the total number of patients who lack knowledge of obstetric analgesia and what method of analgesia they preferred respectively. It also showed the data for those patients who were previously aware of obstetric analgesia and methods of analgesia they preferred. Of note was that 10.9% of patients who were aware of analgesia in labour did not want any form of analgesia; while amongst those who previously were not aware that labour could be pain free, only 22.3% did not desire analgesia in labour after being informed that labour could be pain free. The preferred method of obstetric analgesia amongst those with a fore knowledge of the topic was the epidural analgesia, 41.3%; while intramuscular opioid injection was the preferred method, 37.2%, amongst those who previously were not aware of analgesia in labour. Overall, the most preferred method of analgesia in labour was the intramuscular opioid injection with 36.5% of the total number of patients desiring this method of analgesia. Inhalational analgesia was the least preferred method, with a total of 14 patients, 4.6%, opting for this method.

Bivariate analysis between the awareness of respondents about the use of analgesia in labour and the preferred method of analgesia revealed a statistically significant association (p = 0.000).

Table 5 showed the various reasons why some women were not desirous of analgesia in labour. The greatest percentage of women, 40.3%, was of the belief that experiencing labour pains was part of being a woman.

35.5% were not desirous of analgesia in labour because they believed that it was God's will for a woman to experience labour pains. 14.5% were not desirous of analgesia in labour because of the fear of possible side effects on the baby and their health. 3.2% of the women wanted to experience labour pains for the first time. 6.5% gave other reasons for not wanting analgesia in labour which included being able to tolerate the pain of labour.

Table 5: Reasons for not wanting analgesia in labour

Reasons	Frequency	Percentage (%)
Labour pain is the will of god	22	35.5
It is part of being a women	25	40.3
Fear of side effects	9	14.5
Desirous of the experience	2	3.2
Others	74	6.5
Total	6265	100

Table 6: Use of Analgesia in labour

Use of analgesia in Labour	Frequency	Percentage (%)
Uses	200	65.1
No	107	34.9
Total	307	100

From table 6 majority (65.1%) of the patients have used analgesia in labour before, while 34.9% have not used analgesia in labour before.

Table 7: Analgesia used in labour

Analgesia used in labour	Frequency	Percentage (%)
Intramuscular opioid injection	120	60.0
epidural injection	27	13.5
inhalational	24	12.0
others	29	14.5
Total	200	100

From table 7 intramuscular opioid injection 120 (60.0%) was the most commonly used analgesia in labour.

Table 8: Association between knowledge of analgesia use in labour and sociodemographic profile of the antenatal women (n= 307).

Variables	% within the group (knowledgeable) about analgesia in labour	p-value
<b>Age group (years)</b>		
18-22	5.3	
23-27	14.8	
28-32	13.7	0.225
33-37	24.1	
38-42	9.1	
<b>Education</b>		
No formal education	0	
Primary	2.3	0.000*
Secondary	4.7	
Post-secondary	25.8	
<b>Occupation</b>		
Unemployed	2.9	
Student	15.4	
Artisan	3.5	0.000*
Trader	5.4	
Professional	15.0	
Health personnel	95.8	
<b>Parity</b>		
0	22.6	0.004*
1	21.6	
2-4	7.7	
5+	6.2	

\*Statistically significant (p < 0.05)

Bivariate analysis between the knowledge of respondents about the use of analgesia in labour and their biodemographic profile revealed a statistically significant association with level of education (p = 0.000), occupation (p = 0.000) and parity (p = 0.004). Further analysis using logistic regression to adjust for confounders showed that only occupation was significantly associated with the patients' knowledge of analgesia in labour

Table 9: Logistic regression model for predictors of knowledge of analgesia use during labour

Variables	OR	P-value	95% CI
<b>Occupation</b>			
Unemployed	<b>-Ref</b>	<b>0.000</b>	<b>-Ref</b>
Student	<b>0.001</b>	<b>0.000</b>	<b>0.000-0.022</b>
Artisan	<b>0.008</b>	<b>0.000</b>	<b>0.001-0.091</b>
Trader	<b>0.002</b>	<b>0.000</b>	<b>0.000-0.044</b>
Professional	<b>0.004</b>	<b>0.000</b>	<b>0.000-0.052</b>
Health personnel	<b>0.005</b>	<b>0.000</b>	<b>0.000-0.051</b>
<b>Education</b>			
No formal education	<b>Ref</b>	<b>0.000</b>	<b>Ref</b>
Primary	<b>0.000</b>	<b>1.000</b>	<b>0.000</b>
Secondary	<b>0.280</b>	<b>0.309</b>	<b>0.024-3.244</b>
Post-secondary	<b>0.602</b>	<b>0.492</b>	<b>0.141-2.566</b>
<b>Parity</b>			
0	<b>Ref</b>	<b>0.000</b>	<b>Ref</b>
1	<b>1.057</b>	<b>0.956</b>	<b>0.146-7.643</b>
2-4	<b>1.244</b>	<b>0.828</b>	<b>0.173-8.940</b>
5+	<b>0.366</b>	<b>0.298</b>	<b>0.055-2.434</b>
<b>Age</b>			
18-22	<b>Ref</b>	<b>0.000</b>	<b>Ref</b>
23-27	<b>1.719</b>	<b>0.777</b>	<b>0.041-72.633</b>
28-32	<b>2.158</b>	<b>0.629</b>	<b>0.095-48.894</b>
33-37	<b>3.620</b>	<b>0.403</b>	<b>0.178-73.665</b>
38-42	<b>8.045</b>	<b>0.175</b>	<b>0.394-164.29</b>

Table 10: Desirability of use of analgesia in labour

Variables	% within the group	P-value
Desire analgesia in labour		
<b>Age group (years)</b>		
18-22	<b>73.7</b>	
23-27	<b>84.0</b>	
28-32	<b>79.4</b>	<b>0.614</b>
33-37	<b>75.9</b>	
38-42	<b>77.3</b>	
<b>Education</b>		
No formal education	<b>100</b>	
Primary	<b>61.4</b>	<b>0.004*</b>
Secondary	<b>74.8</b>	
Post-secondary	<b>87.7</b>	
<b>Occupation</b>		
Unemployed	<b>79.4</b>	
Student	<b>89.7</b>	
Artisan	<b>70.2</b>	<b>0.016*</b>
Trader	<b>71.0</b>	
Professional	<b>88.3</b>	
Health personnel	<b>95.8</b>	
<b>Parity</b>		
0	<b>77.4</b>	
1	<b>93.2</b>	<b>0.025*</b>
2-4	<b>74.4</b>	
5+	<b>71.9</b>	

\*Statistically significant (p&lt;0.0) +

Table 11: Logistic regression model for predictors of desire for analgesia use during labour

Variables	OR	p-value
<b>Occupation</b>		
Unemployed	<b>-</b>	<b>0.406</b>
Student	<b>0.200</b>	<b>0.158</b>
Artisan	<b>0.340</b>	<b>0.365</b>
Trader	<b>0.120</b>	<b>0.070</b>
Professional	<b>0.131</b>	<b>0.073</b>
Health personnel	<b>0.326</b>	<b>0.313</b>
<b>Education</b>		
No formal education	<b>-</b>	<b>0.242</b>
Primary	<b>2.237</b>	<b>1.000</b>
Secondary	<b>0.414</b>	<b>0.120</b>
Post-secondary	<b>0.935</b>	<b>0.893</b>
<b>Parity</b>		
0	<b>-</b>	<b>0.042*</b>
1	<b>0.492</b>	<b>0.252</b>
2-4	<b>2.188</b>	<b>0.285</b>
5+	<b>0.589</b>	<b>0.310</b>
<b>Age</b>		
18-22	<b>-</b>	<b>0.549</b>
23-27	<b>0.581</b>	<b>0.542</b>
28-32	<b>1.296</b>	<b>0.714</b>
33-37	<b>1.003</b>	<b>0.996</b>
38-42	<b>0.611</b>	<b>0.451</b>

\*Statistically significant (p&lt;0.0)

In Table 11, Bivariate analysis between the desire of the patients for use of analgesia in labour and their bio-demographic profile revealed a statistically significant association with educational status (p= 0.004), occupation (p = 0.016) and parity (p = 0.025). On further analysis with the logistic regression model, only parity, had a significant association with desire for analgesia use in labour (p = 0.048 for the nullipara) (Table 15)

## Discussion

The advances recorded in the field of medicine from the time of Hippocrates and even earlier, have been largely dependent on the acquisition of knowledge. James Young Simpson in 1847 stated that "the distress and pain women often endure while they are struggling through a difficult labour are beyond description, and seem to be more than human nature would be able to

bear under any other circumstances".<sup>12</sup> In the developed world, most of today's laboring women do not want to suffer severe pain, and more importantly, they know that it is no longer necessary to do so.<sup>11</sup> The situation is however different in the developing world where the greater percentage of women in labour are unaware of the possibility of labour being pain-free.

This study was conducted in a sub-urban environment it revealed that only 15% of the study population was aware of analgesia use in labour. This was markedly lower than the 80% awareness level reported in developing countries.<sup>30, 31</sup> Olayemi et al. found that only 27.1% of 1 000 respondents were aware of the availability of labour pain relief.<sup>28</sup> Imarengiaye et al. in a study of women in labour conducted at the University of Benin Teaching Hospital Benin, found out that (37.5%) patients were aware that the pain of labour can be relieved but only 26.0% had prenatal information on labour analgesia.<sup>32</sup> A more recent study conducted at the University College Hospital by A. Oladokun et al. showed an increase in the level of knowledge from a previous study carried out in the same institution from 27.1% to 38.3%.<sup>33</sup>

The level of knowledge obtained in this study is still much lower than that observed in earlier studies carried out in the country. This is likely due to sub-urban environment in which this study was conducted. 30% of the respondents in this study were traders and although 50.5% of the respondents had post-secondary level of education, the only variable which had a statistical significance on knowledge after further analysis by the logistic regression model was occupation, health professional having a greater level of knowledge of obstetric analgesia than other professions.

Fifty-eight point eight of the respondents acquired knowledge of analgesia use in labour from books, lectures and symposia. 30.4% of the respondents attributed their knowledge of analgesia in labour to interactions with health care personnel in the antenatal clinics and other quarters. This implied that the antenatal clinic counseling sessions are not being utilized properly as an avenue to adequately educate the patients on the issues relevant to the pregnant women. The media was identified as the source of knowledge on obstetric analgesia in only 4.3% of knowledgeable respondents. Considering the far-

reaching influence of the media, this avenue should be adequately utilized in the dispersion of information on health topics, including obstetric analgesia.

Interestingly, 79.5% of the respondents in this study were desirous of analgesia use in labour. This high demand for analgesia use in labour was similar to that reported by Imarengiaye et al in their study where 85.1% of their patients would want their pain of labour relieved.<sup>32</sup> A. Oladokun et al in their study reported that 47.5% of the respondents desired analgesia in labour.<sup>33</sup> Olayemi et al reported acceptance of methods of analgesia as 57.6%.<sup>28</sup>

In this study, education ( $p = 0.004$ ), occupation ( $p = 0.016$ ) and parity ( $p = 0.025$ ) had statistically significant association with the desire for analgesia use in labour. However, on further analysis with the logistic regression model, only parity, had a significant association with desire for analgesia use in labour ( $p = 0.048$  for the nullipara). This was a different finding from that obtained in the study carried out by A. Oladokun et al where it was reasoned that the relatively low desire for analgesia use in labour may have been as a result of a fairly large population of respondents in his study who were nulliparous and may not have appreciated the severity of labour pain and the accompanying relieve from analgesia use.<sup>33</sup>

The most preferred method of analgesia in labour in this study was the intramuscular injection of opioid (45.9%). This was similar to that obtained by A. Oladokun et al, 45.0%.<sup>33</sup> In a similar study carried out by Mugambe et al in an antenatal clinic in South Africa, 31.1% of the respondents preferred some form of injection.<sup>34</sup> This preference may be as a result of its popular use in many health care facilities / maternity homes in Nigeria.<sup>17</sup>

Amongst the respondents who had a fore knowledge of analgesia in labour in this study, epidural analgesia was the preferred method (41.3%). This obviously supported the fact that knowledge of analgesia use in labour aids one in choosing a method that would be effective. This gap in knowledge must be addressed in order to reverse the trend observed in our society where women opt for a less effective method of analgesia<sup>24,35</sup> unlike what is obtained in the developed world where the practice of epidural analgesia in labour was the closest to the ideal analgesic technique.<sup>2</sup> Inhalational

analgesia was the least desired (5.7%) in the study population. This was not surprising as this method of analgesia in labour is not a common one in our environment because of its high cost, non-availability and lack of expertise. In a study conducted in the University College Hospital, Ibadan, Nigeria, only 10% of the population was aware of inhalational analgesia.<sup>28</sup>

Sixty-two women in this study, 20.2%, rejected analgesia use in labour because they considered the pain experienced during labour as integral to the woman's role in life. 35.5% of the respondents who did not desire analgesia in labour attributed this to the fact that they considered labour pain to be the will of God. 14.5 % of the women were afraid of possible side-effects to the baby and themselves. The first two reasons reflect the mind set of many antenatal attendees in the country and that of their relatives. As much as we appreciate the cultural and religious pillars of our society we must sensitively seek avenues to address beliefs and practices that impair proper care of patients and in this case, the woman in labour.

## Conclusion

This study revealed that most women are desirous of a pain-free labour. Efforts should be intensified and more avenues utilized to ensure that the populace is made more aware of the practice of obstetric analgesia. Facilities should be available to ensure that the demand for obstetric analgesia is met. It is therefore recommended that pregnant women be enlightened about analgesia in labour and the various methods available, and analgesia be readily and promptly offered to all women in labour making the experience a pleasant and memorable one.

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