ORIGINAL ARTICLE

Perception of Labour Pain and Desire for Pain Relief in Labour among Parturients in a Tertiary Health Facility in South-Eastern Nigeria

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ABSTRACT

Background: There are varied perceptions about pain and its relief in labour among pregnant women in Africa.

Objectives: This study aims to assess the perception of labour pain among parturients in a tertiary health institution in Nigeria. It also assessed the women's awareness of and desire for labour analgesia.

Methodology: One thousand, one hundred (1100) consecutive women who delivered at a University Teaching Hospital were studied using pretested researcher administered questionnaires. Data were entered into and analysed with SPSS 21. Statistical tests were done with Chi-square and T- test as appropriate. *P*-value of less than 0.05 was considered significant.

Result: The mean age of the respondents was 29.2 $\pm$ 5.89 while the mean parity was 2.43 $\pm$ 1.59. One thousand and ninety respondents (99.1%) reported that labour was painful and majority (91.3%) of them graded pain as severe. The mean pain score was 85.1 $\pm$ 16.2. Having antenatal care, partner support, attendance to antenatal classes, delivery by emergency C-section and induced labour were significantly associated with identifying labour as painful. Awareness of labour analgesia was poor as only 39.5% of the respondents reported so and only 1.4% of the parturients requested pain relief.

Conclusion: The women generally reported labour as being very painful, yet they had poor knowledge of, and demand for labour analgesia. This poor knowledge exists despite the fact that majority of these women had antenatal care, suggesting that health information given to them may be deficient. Misconceptions were the main reasons for not requesting pain relief in labour.

Keywords: Labour analgesia, Labour pain, Knowledge, Acceptance

INTRODUCTION

Labour is characterized with uterine contractions and cervical os dilatation which are painful. It is also expected that as contractions increase and cervical dilatation progresses, labour pains will increase and probably climax at the time of birth. Pain is usually an unpleasant experience, but unlike other causes of pain that are usually pathological, labour is an important physiological event in the life of a woman. The mechanism for labour pain in different individuals may be similar but perception of the pain may be influenced by certain maternal factors like cultural beliefs, pain threshold and psychological state of the woman.[1,2,3]

It is still not clear if there is any positive value of labour pain. On the other hand, pain during labour can be both a physical and psychological trauma for the parturient. Serum catecholamines are known to increase with labour pain and this rise may affect the progress of labour.[4] The practice of pain relief during labour in the developing nations is still evolving.[5] Poor knowledge of pain control during labour among parturients has been documented by some authors.[5]

Pain relief in labour is becoming increasingly popular especially in the developed nations. With increasing education and globalization, one expects a corresponding increase in awareness among parturients in developing nations.[5] However, this is not so as even care givers feel reluctant offering pain relief to women in labour.[6,7,8] At present, several options for the relief of pain during labour include pharmacological and non pharmacological methods. Presence of a companion during labour, immersion in water, acupuncture and hypnosis are known to reduce pain perception in labour.[9] Pharmacological agents for labour analgesia include opiods, local anaesthetic agents and inhalational anaesthetic agents.[9] Epidural analgesia has increasingly become popular and is now considered the gold standard for labour analgesia[10]

This study aims at studying the perception of labour pain as well as knowledge of, attitude and acceptance of pain relief during labour among parturients in a tertiary healthcare centre in South-East Nigeria.

METHODOLOGY

This was a cross sectional study carried out among parturients at the Chukwuemeka Odumegwu Ojukwu University Teaching Hospital Awka, Anambra state of Nigeria, a new teaching hospital that covers the state capital territory and adjoining parts of Enugu state. The study recruited 1100 consenting women who delivered between February 1st and December 31st, 2016. The study was approved by the ethics committee of the hospital.

The study instrument was a semi-structured researcher administered questionnaire which had been pretested among fifty women, who were not included in the analysis, following which modifications were made on the questionnaire. Items covered in the questionnaire included the socio demographics, attendance to antenatal clinic and classes, perception of pain during labour and events occurring during labour.

The women were interviewed as early as possible after their delivery but within 24 hours of delivery so as to increase the chances of good recall. To assess the perception of pain, a visual analogue scale (VAS) was used. This is a horizontal line that measured 10cm. The left end of the line (0cm) was labeled 'no pain' while the right end (10cm) was labeled 'worst pain'. Each woman was asked to mark a point on the line that corresponded with the severity of pain they perceived. The scale was graded thus: 0.1 – 3.9 is mild pain, 4.0 – 6.9 is moderate pain while 7 and above represented severe pain. The point marked by the respondent was converted to percentage by multiplying by 10.

Women with multiple pregnancy and those who had intra uterine foetal death were excluded from the study.

Statistical analysis was done using the SPSS (IBM SPSS statistics) statistical package Version 21.0. Chi-square test and students T-test were used as tests of significance as appropriate. The level of significance was set at $P < 0.5$ at 95% confidence interval.

RESULTS

The mean age of the respondents was 29.2 ± 5.89 while the mean parity was 2.43 ± 1.59. The modal age group was 20 – 29years while the modal parity range was para 2 – 4. Majority of the respondents (93.6%, n = 1030) were booked for antenatal care in the hospital. Majority of the respondents had at least a secondary level of education. Table 1 shows the socio-demographic characteristics of the respondents.

Majority of the respondents (99.1%, n = 1090) reported that labour was painful while the remaining 0.9% (n = 10) were not sure. Using the Visual Analogue Scale scores for the pain, 91.3% (n = 1000) of the respondents identified labor pain as severe (score of 70 and above), 7.3% (n = 80) as moderate (score of 40- 69) while 1.4% (n = 15) reported it as being mild (score of less than 40). About 59% of the respondents reported that their perceived pain was much more than what they anticipated.

Booking for antenatal care, partner support during pregnancy, attendance to antenatal classes, and induced labour were significantly associated with identifying labour as being painful (Table 2). The mean pain score among the respondents was 85.1 ± 16.2.

Table 1. Socio-Demographic Characteristics of Respondents

Characteristics (N)	Frequency	Percentage
Age (years) (N = 1100)		
<20	25	2.3
20 – 29	561	51.0
30 – 39	444	40.4
≥ 40	70	6.4
Parity (N = 1100)		
Para 0	15	1.4
Para 1	350	31.8
Para 2 – 4	620	56.4
Para 5 and above	115	10.5
Level of education (N = 1090)		
Primary	60	5.4
Secondary	375	34.1
Tertiary	655	59.5
Marital status (N = 1100)		
Married	1005	91.4
Not married	95	8.6
Booking status (N = 1100)		
Booked	1030	93.6
Unbooked	70	6.4
Attended antenatal class (N = 1080)		
Yes	1000	92.6
No	80	7.4
Partner support during pregnancy (N = 1025)		
Yes	970	88.2
No	55	11.8

The mean pain score was significantly higher for induced labour, need for oxytocin augmentation and attendance to antenatal classes (Table 3). Women at extremes of age (age less than 20 years or more than 40 years) were more likely to report painful labour but this did not reach significant level. Level of education did not also affect their report of pain.

Table 2. Association Between Perception of Labour Pain and Selected Socio-demographic

Characteristics Variable	Is labour painful?		Chi-square	P -value
	Yes(%)	No(%)		
Booking Status			32.2	< 0.01
Booked	1025(99.5%)	5(0.5%)		
Unbooked	65(92.9%)	5(7.1%)		
Marital Status				
Married	995(99%)	10(1%)	0.9	0.33
Not married	95(100%)	0		
Partner Support During Pregnancy			39.5	< 0.01
Yes	965(99.5%)	5(0.5%)		
No	50(90.9%)	5(9.1%)		
Attended Antenatal Classes			26.7	< 0.01
Yes	995(99.5%)	5(0.5%)		
No	75(93.8%)	5(6.2%)		
Onset of Labour			5.7	0.02
Spontaneous	910(99.5%)	5(0.5%)		
Induced	180(97.3%)	5(2.7%)		

Table 3. Comparison of Mean Pain Score Between Some Participants' Characteristics

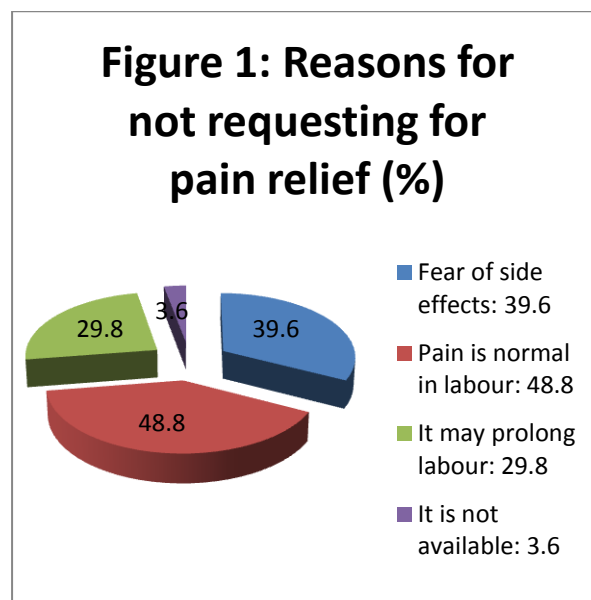| Variable	Mean pain score	T	P-value
Marital status			
Married	84.3 (16.5)	13.312	<0.01
Not married	96.0 (6.2)		
Presence of partner support			
Yes	85.1(16.2)	1.087	0.28
No	81.8(22.3)		
Booking status			
Booked	85.1(16.2)	0.496	0.62
Unbooked	86.2(16.6)		
Attended antenatal classes			
Yes	85.5(15.9)	2.9	<0.01
No	78.8(20.4)		
Onset of Labour			
Spontaneous	84.9(15.7)	3.378	<0.01
Induced	89.1(12.8)		
Oxytocin augmentation			
Yes	87.2(17.2)	3.822	<0.01
No	83.4(15.3)		

Table 4. Association between Awareness of Pain Relief in Labour and Selected Respondents Characteristics

Variables	Aware of Pain Relief		Chi-square	*P*-value
	Yes (%)	No(%)		
Educational Level				
Primary	10 (18.2%)	45 (81.8%)	140.32	< 0.01
Secondary	75 (20.5%)	290(79.5%)		
Tertiary	345(53.1%)	305(46.9%)		
Marital Status				
Married	400(40.2%)	595(59.8%)	0.06	0.80
Not married	35 (38.9%)	55 (61.1%)		
Booking Status				
Booked	420(41.4%)	595(58.6%)	8.5	<0.01
Un-booked	15 (23.1%)	50 (76.9%)		
Attended Antenatal Classes				
Yes	410(41.6%)	575 (58.4)	8.5	<0.01
No	20 (25%)	60 (75%)		
Had Partner Support				
Yes	410(43.4%)	535(56.4%)	10.65	0.01
No	10 (20%)	40 (80%)		

Four hundred and thirty five (39.5%) participants were aware of the practice of pain relief in labour. Significant factors that were associated with awareness include having a tertiary education ($P \leq 0.001$), booking for antenatal care (P <0.01), attending antenatal classes (P <0.01) and having partner's support during pregnancy (P <0.01) (Table 4). Three hundred and twenty five (29.5%) participants had received counseling on pain relief in labour. Out of the 435 respondents that were aware of pain relief in labour, only 15(3.4%) respondents requested for labour analgesia. Reasons given for not requesting for pain relief despite being aware are displayed in Figure 1. Four hundred and seventy five (43.2%) said they would request for pain relief in their next delivery whereas 600 (54.5%) would recommend it to their daughters or relations.

DISCUSSION

This study showed that majority of the women had painful experience at labour which was mainly severe. The factors that were significantly associated with painful labour were booking for, and attendance of antenatal classes, partner support during pregnancy and spontaneous labour. Previous studies also documented that increased

Figure 1: Reasons for not requesting for pain relief (%)

- Fear of side effects: 39.6
- Pain is normal in labour: 48.8
- It may prolong labour: 29.8
- It is not available: 3.6

** The total figure in percent will be more than 100 because some respondents had more than one reason.

perception of pain was seen in clients who were booked for antenatal care.[2,11] One would have thought that antenatal care would have offered a good opportunity for counseling and psychological preparation for labour. This finding may suggest a suboptimal patient preparation by our healthcare givers. If mothers receive adequate information on labour pains during their antenatal care, they

will be able to take decision about requesting for pain relief during labour. They will also be prepared psychologically and so develop a positive attitude towards labour pain. In a study of Belgian and Dutch parturients, the authors found that having a positive attitude to labour pain was associated with reduced need for pain medication in labour.[12]

In this study, education did not affect the perception of labour pain. This is in contradiction to the finding from a previous study in western Nigeria.[13] Also, Shrestha *et al*. found that attaining higher levels of education was associated with reporting of severe pain during labour.[14] In this study, perception of pain was more in the extreme ages (below 20 and above 40). Olayemi *et al*. have documented that pain was more in younger age groups.[2] Other authors have also documented that age had no influence on the perception of labour pains.[5, 15] These findings go to show the complexity of the interactions that influence one's perception of pain.

Awareness of the practice of pain relief in labour was poor as reported by these respondents. Increasing education, booking for antenatal care, attending antenatal lessons and partner support were significantly associated with awareness of pain relief in labour. Furthermore, there appears to be some reluctance on the part of the healthcare givers in giving information on pain relief. Majority of these women had their antenatal care within the hospital but there was still paucity of information on pain relief. In labour too, caregivers did not offer pain relief to these clients. This corroborates the finding from another study in Enugu, Eastern Nigeria.[8]

Women who did not request pain relief gave various reasons including worries about side effects of drugs, slowing labour progress, affecting the babies and the fact that pain is a natural phenomenon in labour and should not be tampered with. In another study, similar reasons were also given for not wanting pain relief in labour.[5] These worries expressed by parturients are likely to be amenable to proper patient education. This underscores the need for caregivers to assess

and possibly review the content of their health information to clients.

There was a tremendous increase in the number of women who will subsequently request for pain relief in labour. This goes to show that with appropriate information, more women will actually request for pain relief in labour. On the other hand, it is also worrisome that even when the great majority of these respondents categorized labour pain as severe, only 43.2% said they will want to use pain relief in their next delivery. This brings to the fore other factors that may influence acceptability of pain relief in labour among women.

The limitation of this study is that it was a hospital based study and depended on the ability of the respondent to report their feelings. Recall of events in labour may not be excellent. However, to reduce the chances of poor recall, the interview was done within 24 hours of delivery.

CONCLUSION
The practice of labour analgesia in the hospital was poor as most of the respondents felt severe pain during delivery. There was also poor knowledge of labour analgesia among the respondents. Therefore, there is a need to include pain relief in the delivery protocol and antenatal classes.

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