

## Pain Relief during Labor: Attitudes of Postpartum Mothers in Selected Hospitals in Ibadan, Nigeria

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### ABSTRACT

**Background & aim:** Giving birth is a painful process, which exposes women to a lot of stress. It is the responsibility of the healthcare practitioners to make this process less burdensome. In this regard, the present study aimed to investigate the attitudes of postpartum mothers towards labor pain relief.

**Methods:** This descriptive cross-sectional study was conducted on 153 females with spontaneous vaginal delivery within September to October of 2012. The study population was selected through convenience sampling technique. Data collection was performed using a semi-structured questionnaire. The data were analysed in SPSS (version 20), using descriptive statistics and Chi-square. P-value less than 0.05 was considered statistically significant.

**Results:** According to the results, 60.8% of the respondents had knowledge about pain relief in labor. However, 58.8% of the participants did not request for pain relief during labor because they believed that their pain could not be relieved. Women's attitude to labor pain relief showed a significant association with their age ( $P=0.001$ ), education level ( $P=0.001$ ), and parity ( $P=0.001$ ).

**Conclusion:** Based on the findings of the study, the midwives are recommended to provide the pregnant women with health education on labor pain relief and dispel any misconceptions in this regard.

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## Introduction

Childbirth is one of the most painful and stressful events in a woman's life (1-3). Most of the women perceive labor and childbirth as the most severe and distressing experience they may encounter in life (4-5). Pain can simply be seen as a spiteful aspect of labor; therefore, it is important to determine women's expectations in this regard (6). Pain in labor has been considered for ages; accordingly, biblical texts hold accounts on the origin of labor pain. There have been controversial arguments about the causes of labor pains, as well as its severity and relief (7).

Childbirth pain is characterized with a complex sensory and affective experience that differs from the pain caused by the disease, trauma, and surgical or medical interventions (8-10). However, childbirth also involves the

most encouraging life events (i.e., forming a new life) (8). Delivery experience is described as a fundamental event of unique importance in the woman's life. Regardless of the widespread availability of pain relief interventions in childbirth, for a great number of women, childbirth is associated with an incredible labor pain.

The management of the labor pain and alleviation of the associated suffering are the major concerns of the health care practitioners and their clients (11). Pain relief during labor is favored by many women, irrespective of their race or belief, and this contributes immensely to their satisfaction with the experience of childbirth. In the same vein, studies have shown that when women are given analgesia during labor, they report a

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higher level of satisfaction with their birth experience (7).

Labor has long been recognized as a stressful event. Efforts have been made over years, predominantly in the developed world, to relieve the labor pain. However, in Africa, this issue has not been given the same consideration because it is assumed that Africans tolerate labor pain well (12). However, in a recent study conducted on the Nigerian women, it was demonstrated that most of the African women experience extreme labor pain and appreciate the measures relieving this pain. Consequently, it is required to provide effective, safe, and economic analgesia in the maternity departments of Africa. The fulfillment of this end will make hospital delivery as a more pleasant experience, thereby reducing the number of unregistered clients (12).

Nigeria does not have an organized labor analgesia service; however, such a service can be developed within the limits of available resources and technology in an emergent country like Nigeria (13). According to the findings of the Nigerian Demographic and Health in 2008, 60% of the Nigerian pregnant women received antenatal care; however, only 35% of them delivered in health care facilities (14). Regarding this, pain relief during labor can be an important motivation for increasing facility deliveries.

Only a limited number of studies have addressed labor pain in terms of its incidence, contributing factors, and intensity or have investigated the function of analgesia in labor (15). In a study conducted to assess the postpartum women's attitudes toward labor pain and its relief at the University of Calabar Teaching Hospital, Calabar, Nigeria, in 2012, women's attitudes toward labor pain was found to be associated with ignorance, religion, and sociocultural beliefs (16).

The majority of the women in Southeast Nigeria are uninformed of their rights to receive pain relief in labor. Ignorance and fear of unfavourable reactions from the health care practitioners have been identified as some of the factors hindering the women from demanding for labor analgesia (17). Top of Form Though most of the Nigerian women find labour painful, they appear to tolerate it well.

However, in a study carried out on the Nigerian women, it was reported that they would welcome the measures targeted toward labor pain relief (18).

On the one hand, the available pain relief methods adopted in developed countries are not applicable to the Nigerian women. On the other hand, the only method applied in this country is not very effective (19). Labor pain relief is an important phase in women's health, which has been disregarded (20). Poor labor pain management and lack of demanding pain relief during this process by many women urged the researchers of the present study to investigate the knowledge, attitudes, and concerns of postpartum mothers regarding labor pain relief.

## Materials and Methods

This descriptive cross-sectional study was conducted on postpartum mothers to explore their perspectives on pain relief at the University College Hospital and Adeoyo Maternity Hospital in Nigeria. The data were collected between September and October of 2012. The sample size was determined as 138.7 (rounded up to 139) using Solvin's formula (21), as follows:

### **Solvin's formula:**

where,  $n$  represents the required sample size,  $N$  signifies the whole population, and  $e$  is the error of tolerance (0.05).

However, with the attrition rate of 10%, the final sample size was estimated as 153 cases. Purposive sampling method was used to select the postpartum mothers from the postnatal departments of the hospital under investigation.

### **Inclusion and exclusion criteria**

The inclusion criteria included spontaneous vaginal delivery and willingness to participate in the study. On the other hand, the exclusion criterion entailed a past medical history of elective caesarean section.

### **Study design**

The data were collected using a semi-structured researcher-made questionnaire. To determine the validity of this instrument, it was presented to a group of research experts

to make the necessary modifications. Furthermore, the reliability of this tool was ensured through the implementation of a pre-test on 15 respondents yielding a coefficient of 0.89.

Ethical approval was obtained from the University College Hospital/University of Ibadan Institutional Review Board and the officials of Adeoyo General Hospital, Ibadan. Informed consent was obtained from all participants, and they were assured about the confidentiality terms. Furthermore, the participants were ensured about the possibility of study withdrawal at any stage of the research without any negative consequences. The researchers administered the questionnaire to the respondents in a face to face manner.

### Statistical analysis

Data analysis was performed in SPSS (version 20) using descriptive statistics, such as frequency and percentage, and Chi-square test. P-value less than 0.05 was considered statistically significant.

### Results

The mean age of the participants was

28.71±6.84 years (age range: 18-45 years). Regarding the education level, 7 (4.6%) and 81 (52.9%) respondents had primary and tertiary education, respectively. In terms of the parity, it ranged within 1-6. The details of the socio-demographic features of the participants are tabulated in Table 1.

Out of the 153 respondents, 93 (60.8%) subjects had information about labor pain relief, while 60 (39.2%) participants did not have such information. Furthermore, 66.7% of the participants were informed about this issue by the health workers. In this regard, 86 (56.2%) subjects knew about massage therapy, and 44.4% of them preferred massage for their next labor. The reasons for preferring this method were that the participants believed that labor is a natural process (86; n=56.2%), and that it is easy to give (n=89; 58.2%) (Table 2).

However, 58.8% of the respondents did not request for any pain relief measure since they believed that labor pain could not be relieved (n=107; 69.9%), labor pain is a natural process (n=79; 51.6%), and medications used for pain relief could be harmful (n=3; 2%). Meanwhile, 102 (66.7%) participants reported to have confidence in pain relief methods (Table 3).

**Table 1.** Respondents' education level, age, and parity after the most recent birth

Age (years)	Frequency	Percentage
18-20	49	32.0
21-30	46	30.1
31-40	41	26.8
Above 40 years	17	11.1
Total	153	100
<b>Parity</b>		
1	63	41.2
2	42	27.5
3	23	15.0
4	12	7.8
>5	13	8.6
Total	153	100
<b>Level of education</b>		
Primary	7	4.6
Secondary	51	33.3
Tertiary	81	52.9
No formal education	14	9.2
Total	153	100

**Table 2.** Respondents' knowledge of labor pain relief, source of information, and preferred method to be used in the upcoming labor and the reason for their choices

Response	Frequency	Percentage
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Knowledge about pain relief	Yes	93	60.8
	No	60	39.2
Source of information	No response	41	26.8
	Health worker	102	66.7
	Media	3	2.0
	Friends	7	4.6
Type of pain relief methods known	No response	12	7.8
	Massage	86	56.2
	Relaxation techniques like music	7	4.6
	Opioid analgesics	12	7.8
	Breathing exercise	31	20.3
	Epidural analgesia	4	2.6
	Others	1	0.7
Type of pain relief methods preferred for the next labor	No response	28	18.3
	Massage	68	44.4
	Relaxation techniques like music	2	1.3
	Opioid analgesics	17	11.1
	Breathing exercise	33	21.6
	Epidural analgesia	4	2.6
	Others	1	0.7
Reasons for preferred methods	Method works		
	No response	77	50.3
	Yes	2	1.3
	No	74	48.4
	Makes pain go away		
	No response	103	67.3
	Yes	2	1.3
	No	48	31.4
	Labor pain is natural		
	Yes	86	56.2
	No	67	43.8
	It is easy to administer		
	Yes	89	58.2
	No	64	41.8
Heard that the methods work			
No response	128	83.7	
Yes	5	3.3	
No	20	13.1	

**Table 3.** Respondent's attitudes towards labor pain relief and their confidence in pain relief methods

Attitude towards labor pain relief	Do you ask for pain relief	Frequency	Percentage
		NO	90
	Yes	63	41.2
	Total	153	100.0
<b>Confidence in pain relief methods</b>		Yes	102
		No	51
		Total	153
			66.7
			33.3
			100.0

**Table 4.** Respondents' concerns about pain relief methods

Concerns about pain relief method	Response	Frequency	Percentage
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Concern	Concerned about pain relief methods	92	60.1
	Not concerned about pain relief methods	61	39.9
Concerns (each item n=92).	-Neonate may be affected if analgesia is given	57	62
	-Contractions may be weakened when analgesia is given.	57	62
	-One may not be able to push.	43	46.7
	-It may lead to caesarean section.	31	33.7
	-Labor may be unnatural.	30	32.6
	-The methods may not relieve the labor pains.	32	34.8
	-The midwife may not attend to one properly.	25	27.2

**Table 5.** Association of the study variables and women's attitudes towards labor pain relief

Parameters	Attitudes towards pain relief (Did you ask for pain relief?)		X <sup>2</sup>	P-value
	No	Yes		
	Age			
18-20	17	32	134.60	0.001
21-30	18	28		
31-40	39	2		
>40	16	1		
Level of education				
Primary	7	0	67.34	0.001
Secondary	41	10		
Tertiary	32	49		
No formal education	10	4		
Parity				
1	23	40	113.89	0.001
2	31	11		
3	13	10		
4	11	1		
>5	12	1		

Significance level: P&lt;0.05

Table 4 presents the respondent's concerns about pain relief methods. In this respect, 90 (60.1%) women showed concerns about the pain relief methods because they thought that their neonate may be affected by analgesia (62%), and that their contractions may be weakened (62%). The results also revealed that the women's attitudes to pain relief showed a significant relationship with their age and level of education (P<0.05). The significant association of this variable with parity (P<0.05) rejected the null hypothesis, and the alternative hypothesis was accepted (Table 5).

## Discussion

In the current developing world, especially in Africa, access to knowledge and availability of medical care can have a positive impact on the attitudes of women towards labor pain relief. Women may not be aware of the appeasability of the labor pain (6). Knowledge deficit

regarding the birth process can influence a woman's attitude to pain relief. A knowledgeable woman may comprehend the pain leading to birth, and positively view this pain as a good sign of advancement in labor. A woman's lack of knowledge about the risks and benefits of the various methods of pain relief can increase her anxiety (22).

In the present study, more than half of the women were knowledgeable about the labor pain relief methods. In line with our findings, in a study carried out at University College Hospital, in Ibadan, Nigeria, only 271 cases out of 1,000 respondents were aware that the labor pain could be relieved (23). In the mentioned study, most of the participants had acquired their knowledge regarding pain relief from the health care professionals, and a few of them were informed in this regard via friends and media; however, some of them gave no response.

In another study performed in Australia, it was found that antenatal period is an important time to provide information on pain relief and that if women attend antenatal classes regularly, they will have a better labor experience (24). The findings of the current study demonstrated a significant relationship between the women's education level and attitudes towards pain relief in labor. Accordingly, education has been reported as a significant factor in labor pain. It has been argued that the women who are more informed and educated about the childbirth process are more secure and display improved attitude towards childbearing (20).

In the present study, the majority of the respondents were aged within 18-30 years. The women of this age group had a higher percentage of asking for labor pain relief methods. Accordingly, age was significantly associated with the women's attitudes toward pain relief during labor. It is stated that the attitude to labor pain relief may be subjective of a woman's background; in this regard, their culture, ethnic group, and age may affect their attitudes in this respect (6).

In the current study, the majority of the women were nulliparous, and few cases were multiparous. The percentage of the nulliparous respondents asking for labor pain relief was greater than that of their multiparous counterparts. This is in line with the results of an earlier study in which 47.5% of the respondents were nulliparous and desired pain relief (25). This finding is also consistent with those of a research carried out in Zaria General Hospital, Zaria, Nigeria, investigating the parturients' perceptions of labor pain. In the mentioned study, most of the respondents were multiparous and tolerated the labor pain well, suggesting that they were experienced mothers (26).

Furthermore, the majority of our participants were aware of the non-pharmacological pain relief approaches, such as massage therapy and breathing exercise, just a few of them knew about opioid analgesics, and very small number of them had information about the relaxation techniques and epidural analgesia. This finding is in contradiction with those reported in a study carried out on Xhosa primigravida at the Midwifery Obstetric Unit of

Cape Town, South Africa. In the mentioned study, most of the respondents had knowledge on analgesic method, while only a few of them were aware of the regional analgesia (27), which is similar to the results reported in a Nigerian study performed by Olayemi. In the mentioned study, the majority of the respondents were conscious of obstetric analgesics, such as opiates, and only few had heard of epidural and inhalation techniques (23).

In the present study, most of the postpartum women preferred non-pharmacological techniques, such as massage therapy and breathing exercise, for their next labor because they believed that these methods work and considered labor as a natural process. This is in disagreement with the findings of a study conducted in Nigeria in which more than half of the women were willing to take analgesia if offered (23). In the mentioned study, most of those who did not want to have analgesia underwent this procedure because they believed that labor pain is a natural process in spite of the information given by the health care practitioners (23).

In a study comparing the efficiency of massage and music therapies in relieving the severity of labor pain, massage therapy was concluded to be more effective than music therapy in the mitigation and relief of labor pain (28). In the present study, 41.2% of the women requested for pain relief, while others did not. It was assumed that labor pain could not be relieved, while some believed that this pain is normal and natural part of birth process. Only few participants thought that the medication could be harmful. This finding is in line with the results of a research demonstrating that most of the women did not request for pain relief during labor (23) due to unawareness of the possibility of mitigating labor pain and considering this pain as a normal process (23).

According to our findings, a little more than half of the postpartum mothers had confidence in the pain relief methods, while more than half of them had concerns about these methods. In this regard, some of the women believed that their neonates can be affected by analgesia, and that their contractions may be weakened, and they may not be able to push. On the other hand, in a study conducted by Mahlako et al., most of the

women expressed no concerns about the methods of pain relief (20). In another study, the majority of the pregnant women were reported to have concerns about the labor pain and the availability of the pain relief method (29).

In a study performed by Mugambe et al, two thirds of the respondents had little or no confidence in labor pain relief methods, and few participants expressed concerns regarding such practices (6). Some of these concerns are real and well recognized. For instance, epidural analgesia may increase the duration of second-stage labor and result in instrumental delivery (30).

### Research implications

The results of the present study revealed that only few of the postpartum mothers were conscious of the labor pain relief methods, even some of those that were aware did not ask for pain relief during labor because they believed that labor pain is natural and there is no need for pain relief. Therefore, the nurses and midwives should educate pregnant women about labor pain relief in order to dispel any misconception in this regard.

The nurses and midwives should be also provided with continuous education to be informed about new innovations in the management of labor pain and improve their communication skills in order to promote the care of the parturients.

### Limitations of the research

The present study was carried out in selected secondary and tertiary hospitals in Oyo State, Nigeria. However, time factor was one of the major limitations of the current research because it had to be done within a stipulated period of time. Another limitation of this study was financial constraint.

### Conclusion

As the findings of the present study indicated, the majority of the women were cognisant of labor pain relief; however, only few of them demanded for pain relief measures because they believed that labor pain cannot be relieved. In addition, most of the postpartum women were only aware of the non-pharmacological approaches of pain relief, and

only few respondents had information about the pharmacological methods. Regarding this, the midwives should educate pregnant women about the different techniques of pain relief in labor, especially pharmacological approaches, and dispel any misconceptions in this respect.

Further studies are required to provide cross-sectional data from different health institutions across the country in order to improve the results. Furthermore, future studies are needed to perform a qualitative investigation on the description of labour pains among postpartum women.

### References

1. Nabukenya MT, Kintu A, Wabule A, Muyingo MT, Kwizera A. Knowledge, attitudes and use of labour analgesia among women at a low-income country. *BMC Anaesthesiology*. 2015; 15(1):98-103.
2. Pirdel M, Pirdel L. Perceived environmental stressors and pain perception during labor among primiparous and multiparous women. *Journal of Reproduction & Infertility*. 2009; 10(3):217.
3. Teimoori B, Sakhavar N, Mirteimoori M, Narouie B. Nitrous oxide versus pethidine with promethazine for reducing labor pain. *African Journal of Pharmacy and Pharmacology*. 2011; 5(17):2013-2017.
4. Costa-Martins JM, Pereira M, Martins H, Moura-Ramos M, Coelho R, Tavares J. Attachment styles, pain, and the consumption of analgesics during labor: a prospective observational study. *The Journal of Pain*. 2014; 15(3):304-311.
5. Wong CA. Advances in laboranalgesia. *International Journal of Women's Health*. 2009; 1:139-154.
6. 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. *South African Family Practice*. 2007; 49(4):1.
7. Ogboli-Nwasor E, Adaji SE, Bature SB, Shittu OS. Pain relief in labor: a survey of awareness, attitude, and practice of health care providers in Zaria Nigeria. *Journal of Pain Research*. 2011; 4:227-232.
8. Chiejina EN, Odira CC, Sibeudu FT, Okafor CN. Childbirth pain perception and behavior: socio-cultural diversity. *American Journal of Scientific Research*. 2012; 75:40-46.
9. Niven CA, Murphy-Black T. Memory of labour pain: a review of literature. *Birth*. 2000; 27(4):244-253.
10. Sittner B, Hudson DB, Grossman CC, Gastron-Jehansson T. Adolescents' perception of pain

- during labour. *Clinical Nursing Research*. 1998; 7(1):82-93.
11. Khaskhelim M, Baloch S. Subjective pain perceptions during labour and its managers. *Journal of Pakistan Medical Association*. 2010; 60(6):473-476.
  12. Kuti O, Faponle AF, Adeyemi AB, Owolabi AT. Pain relief in labour: a randomized controlled trial comparing pentazocine with Tramadol. *Nepal Journal of Obstetrics and Gynaecology*. 2008; 3(1):14-18.
  13. Imarengiaye CO. Trends in pain relief in labour: implications for obstetrics analgesia services in Nigeria. *The Nigerian Postgraduate Medical Journal*. 2005; 12(3):193-202.
  14. National Population Commission and ICF Macro Nigeria Demographic and Health Survey 2008. Abuja, Nigeria: National Population Commission and ICF Macro; 2009.
  15. Olayemi O, Adeniji RA, Udoh ES, Akinyemi OA, Aimakhu CO, Shoretire KA. Determinants of pain perception in labour among parturients at the University College Hospital, Ibadan. *Journal of Obstetrics and Gynaecology*. 2005; 25(2):128-130.
  16. Akpan SG, Eshiet AI, Ilori LU, Bassey E, Kalu QN, Edentekhe TA. Attitude of Nigerian mothers to labour pain and its relief. *Mary Slessor Journal of Medicine*. 2003; 3(2):12-16.
  17. Chigbu CO, Onyeka TC. Denial of pain relief during labor to parturients in southeast Nigeria. *International Journal of Gynecology & Obstetrics*. 2011; 114(3):226-228.
  18. Kuti O, Faponle AF. Perception of labour pain among the Yoruba ethnic group in Nigeria. *Journal of Obstetrics and Gynaecology*. 2006; 26(4): 332-334.
  19. Faponle AF, Kuti O. Perception of labour pain by pregnant women in Southwestern Nigeria. *Tropical Journal of Obstetrics and Gynaecology*. 2004; 21(2):153-155.
  20. Mahlako KM. The perception of a selected group of midwives towards women experiencing labour pain. [Doctoral Dissertation]. South Africa: University of South Africa; 2008.
  21. Araoye MO. Research methodology with statistics for health and social sciences. Ilorin: Nathadex Publisher; 2003.
  22. Olayemi O, Aimakhu CO, Akinyemi OA. The influence of westernisation on pain perception in labour among parturients at the university college hospital Ibadan. *Journal of Obstetrics and Gynaecology*. 2006; 26(4):329-331.
  23. Olayemi O, Aimakhu CO, Udoh ES. Attitudes of patients to obstetric analgesia at the University College Hospital, Ibadan, Nigeria. *Journal of Obstetrics and Gynaecology*. 2003; 23(1):38-40.
  24. Swan HD, Borshoff DC. Informed consent-recall of risk information during epidural analgesia in labour. *Anaesthesia and Intensive Care*. 1994; 22(2):139-141.
  25. Muhammed A, Danlami S. Perception of pain in labour among parturients in Hajia Gambo Sawaba General Hospital, Zaria. *Journal of Nursing and Health Sciences*. 2015; 4(5):113-117.
  26. Oladokun A, Morhason-Bello IO, Eyelade OR, Adedokun BO, Akinyemi JO, Adewole IF. Awareness and desirability of the Nigerian antenatal women about analgesia use during childbirth. *Nigerian Medical Journal*. 2007; 47(4):85-88.
  27. Ibach F, Dyer RA, Fawcus S. Qualitative study of the knowledge and expectations of the pain of labour, in urban Xhosa primigravidae: registrar communication. *Southern African Journal of Anaesthesia and Analgesia*. 2005; 11(1):23-29.
  28. Taghinejad H, Delpisheh A, Suhrabi Z. Comparison between massage and music therapies to relieve the severity of pain pain. *Women's Health*. 2010; 6(3):377-381.
  29. Iliadou M. Labour pain and pharmacological pain relief practice points. *Health Sciences Journal*. 2009; 3(4):197-201.
  30. Leighten BL, Halpern SH. Epidural analgesia: effects on labour progress and maternal and neonatal outcome. *Seminars in Perinatology*. 2002; 26(2):122-135.