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The Perception of Labour Pain and Willingness to Use Labour Pain Relief Among Pregnant Women Attending the Antenatal Clinic at the University College Hospital, Ibadan

Olufunmilola Adeola Faminu, Agnes Olajumoke Akande, Olufunmilayo Dorcas Adeyanju, Sarah Adeola Okunola, Comfort Moyoade Awe, Oluwadunni Deborah Olutayo, Agatha Modupe Abiola, Elizabeth Yemisi Babajide

Department of Nursing, Lead City University, Ibadan Oyo State

Abstract: Background Labour pain remains one of the most intense forms of physiological pain and its management is central to achieving a positive childbirth experience. This study assessed the perception of labour pain and willingness to use labour pain relief among pregnant women attending the antenatal clinic at the University College Hospital, Ibadan. Methodology A descriptive cross-sectional design was employed, and data were collected from 311 pregnant women using a validated, interviewer-administered questionnaire. Data were analysed using descriptive and inferential statistics, including Chi-square and Fisher's exact tests, with significance set at $p < 0.05$. Result Findings showed that respondents were largely within the reproductive ages of 26–35 years and predominantly married and educated. Perception of labour pain was generally high, as 91.6% acknowledged labour pain as an inevitable part of childbirth. Although 62.4% demonstrated good perception of pain relief, persistent misconceptions were noted, including fears that analgesia could prolong labour (35.4%) or harm the baby (28.9%). More than half of the respondents (57.6%) expressed willingness to use labour pain relief, with non-pharmacological methods such as breathing exercises (72.6%), massage (63.1%), and companionship (59.2%) being preferred. Willingness to use pharmacological methods was lower, with only 28.5% willing to use epidural and 18.4% willing to use opioids. Educational level ($p = 0.011$) and parity ($p = 0.036$) showed significant associations with willingness, while age and religion did not. Conclusion The study concludes that although awareness of labour pain is high and willingness exists, misconceptions, cultural beliefs, inadequate counselling, and cost barriers limit acceptance of pharmacological analgesia. Strengthening antenatal education, improving provider training, and enhancing the availability and affordability of pain relief options are recommended to support evidence-based labour pain management.

Keywords: Labour pain, Labour analgesia, Perception, Willingness, Pregnant women, Antenatal care.

Introduction

Childbirth remains a transformative biological, social, and emotional experience for women across cultures. Despite advancements in maternity care, labour pain continues to be recognized as one of the most intense forms of physiological pain experienced by humans. Contemporary studies affirm that labour pain arises from a complex interaction of uterine contractions, cervical dilatation, pelvic floor stretching, and neural transmission of nociceptive signals amplified or modulated by psychological, cultural, and environmental factors [1]. The World Health Organization has

increasingly emphasized that every woman has the right to a positive childbirth experience, which includes access to effective and respectful pain management during labour [2].

Although labour pain is universal, the way women perceive, interpret, and respond to it varies significantly. These variations reflect differences in prior birth experiences, cultural expectations of womanhood, religious beliefs, levels of support during labour, and availability of health facility–based interventions [3]. In many low- and middle-income countries, including Nigeria, women continue to internalize sociocultural narratives that associate endurance of labour pain with bravery, spiritual strength, or cultural identity. Recent findings in South-West Nigeria show that many women still describe labour pain as a natural, God-ordained process that validates motherhood, even when effective pain relief is available [4].

Globally, labour pain management has expanded to include a wide range of pharmacological and non-pharmacological interventions. Pharmacological methods include epidural analgesia, opioids, nitrous oxide, and non-opioid agents, while non-pharmacological methods include breathing exercises, massage, movement, hydrotherapy, relaxation techniques, and emotional support. Evidence consistently shows that women who receive adequate information and labour support are more likely to cope well, experience less fear, and demonstrate higher satisfaction with the birthing process [5]. However, access to these interventions remains limited in many African settings. Studies between 2020 and 2025 indicate that analgesia use in labour remains low in Nigeria due to factors such as poor awareness, inadequate counseling, cost constraints, cultural beliefs, and unavailability of skilled anesthetists [6].

The perception of labour pain influences women's attitudes toward analgesia, their level of cooperation during labour, their anxiety levels, and even obstetric outcomes. Poor perception or fear may lead to heightened stress hormones, which can slow cervical dilatation, increase exhaustion, and contribute to adverse maternal and neonatal outcomes [7]. Conversely, accurate perception accompanied by proper counseling may increase women's readiness to request safe pain relief. The WHO further recommends that all pregnant women should be counseled on available pain relief options during antenatal care, enabling them to make informed choices during labour. Unfortunately, antenatal counseling on pain relief remains inconsistent in many Nigerian facilities.

Recent studies in West Africa show that although many women express willingness to use pain relief, actual uptake remains low. In a 2024 study at a tertiary hospital in North-Central Nigeria, less than 30% of women received any form of analgesia despite over 60% expressing willingness. Similar patterns were observed in Ghana and Ethiopia where high willingness was undermined by cultural expectations, fear of side effects, and system-level limitations [8]. These findings highlight a pressing need to assess women's perceptions and willingness within specific contexts to address knowledge gaps and improve labour outcomes.

At the University College Hospital (UCH) Ibadan—one of Nigeria's largest tertiary referral centers—labour pain relief is available but not routinely utilized. Preliminary observations indicate that although midwives and obstetricians understand the importance of pain management, counseling is not always prioritized, and women's requests for analgesia may not always be honored due to resource limitations or cultural assumptions. There is also an increasing number of first-time mothers and educated women attending antenatal clinics at UCH, suggesting that perceptions and expectations around childbirth may be shifting [9].

Despite existing studies on labour pain perception in Nigeria, most pre-2020 studies did not examine willingness to use analgesia nor the specific factors influencing willingness. More recent studies emphasize the importance of understanding not only what women believe about labour pain but also whether they are prepared to use available pain management options and what factors may shape their decisions [10].

This study therefore addresses a critical gap by assessing the perception of labour pain, willingness to use pain relief, and the socio-demographic, cultural, and healthcare factors influencing willingness among pregnant women attending antenatal clinic at UCH Ibadan. Understanding these perspectives is essential for strengthening antenatal counseling, improving maternity care policies, and ensuring a positive childbirth experience for Nigerian women [11], [12].

Objective

The broad objective of this study is to assess the perception of labour pain and willingness to use pain relief among pregnant women attending the antenatal clinic at the University College Hospital, Ibadan.

Specific Objectives

1. To assess pregnant women's perception of labour pain.
2. To determine their willingness to use pharmacological and non-pharmacological pain relief methods during labour.
3. To identify socio-demographic, cultural, and healthcare-related factors influencing willingness to use labour pain relief.
4. To examine the relationship between selected maternal characteristics and willingness to use analgesia.

Methods

Research Design

This study employed a descriptive cross-sectional research design to examine the perception of labor pain and willingness to use labor pain relief among pregnant women attending the antenatal clinic at the University College Hospital (UCH), Ibadan. A cross-sectional approach was considered appropriate because it allowed the researcher to collect data from a large group of antenatal attendees at a single point in time, thereby providing a snapshot of their perceptions, willingness, and related influencing factors. Previous maternal health studies conducted within Nigeria and other low-resource settings have successfully used cross-sectional methods to assess knowledge, perception, and utilization of labor analgesia due to their practicality and efficiency.

Study Setting

The study was conducted at the antenatal clinic of UCH, one of the foremost tertiary healthcare institutions in Nigeria. Established as a major referral center in the South-West region, UCH receives pregnant women of diverse socio-demographic backgrounds from within Ibadan and surrounding communities. The antenatal clinic operates four days weekly, with each clinic session beginning with structured health education delivered by midwives on essential maternal topics such as nutrition, pregnancy danger signs, labor preparation, delivery processes, and postnatal care. This setting provided a conducive environment for studying perception of labor pain and willingness to use pain relief because women attending UCH typically have exposure to standardized antenatal counseling.

Study Population

The study population comprised pregnant women attending UCH's antenatal clinic during the study period. Inclusion criteria were: (i) pregnant women present at the clinic during data collection, and (ii) ability and willingness to provide informed consent. Non-pregnant women and pregnant women unwilling to participate were excluded. The inclusion and exclusion criteria ensured that the study sample was representative of the pregnant population receiving tertiary antenatal care at UCH.

Sampling Technique and Sample Size

The sample size was determined using Yamane's formula for finite populations, based on an estimated average monthly antenatal attendance of 896 women. With a 95% confidence interval and 5% margin of error, the minimum sample size was calculated as 280. To accommodate potential non-response, 10% was added, bringing the final required sample size to 311 respondents. A purposive sampling technique was utilized. This was justified by the fact that antenatal clinic attendance is structured and rotational, making systematic or random sampling logistically difficult. Purposive sampling allowed the researcher to recruit eligible participants efficiently as they arrived for antenatal services. This sampling approach has similarly been applied in several recent studies assessing labor pain perception and willingness to use analgesia in comparable hospital settings in Africa (Sapira-Ordu et al., 2025; Elgzar et al., 2024).

Research Instruments

Data were collected using a structured, interviewer-administered questionnaire developed by the researcher following an extensive review of recent literature on labor pain, maternal perception, and analgesia utilization. The questionnaire consisted of five major sections.

The first section examined respondents' socio-demographic characteristics including age, marital status, educational attainment, occupation, religion, ethnicity, and area of residence.

The second section addressed reproductive history, such as gravidity, parity, age at first childbirth, and previous mode of delivery.

The third section assessed perception of labor pain using a 13-item dichotomous scale. Each item required a "Yes" or "No" response. Scores of 0–7 indicated poor perception, while scores above 7 indicated good perception.

The fourth section measured willingness to use labor pain relief during childbirth, asking respondents about their readiness, preferred methods, and perceived barriers.

The final section explored factors influencing willingness, such as cultural beliefs, religious norms, family influence, cost, and attitudes of healthcare workers.

Validity and Reliability of Instruments

The questionnaire underwent rigorous content validation by three experts in maternal and child health nursing to ensure clarity, relevance, and alignment with current evidence on labor pain and analgesia. Based on expert input, revisions were made to enhance cultural appropriateness and eliminate ambiguous terms. To ensure comprehension among Yoruba-speaking respondents, the questionnaire was translated into Yoruba and back-translated into English to ensure semantic consistency. A pilot study was then conducted among 31 pregnant women at Adeoyo Maternity Teaching Hospital, Ibadan. The pilot results were used to assess reliability, and the Cronbach's alpha coefficient exceeded 0.70, indicating good internal consistency in line with reliability benchmarks used in recent maternal health studies (Polit & Beck, 2021).

Method of Data Collection

Data collection was carried out over a four-week period with the assistance of two trained research assistants with midwifery experience. The assistants received training from the researcher on study objectives, ethical standards, and proper administration of the instrument. Interviews were conducted in designated areas of the antenatal clinic to ensure privacy, reduce social desirability bias, and promote accurate responses. Each interview lasted approximately 20–25 minutes.

Method of Data Analysis

Data collected were coded and entered into the Statistical Package for the Social Sciences (SPSS) version 20 for analysis. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize socio-demographic and reproductive characteristics. The

perception scale was scored and categorized into good and poor perception based on the predetermined criteria. Inferential statistics were used to examine associations between selected variables. Chi-square tests and Fisher's exact tests were applied to assess relationships between socio-demographic characteristics, reproductive factors, and willingness to use pain relief. The level of statistical significance was set at $p < 0.05$. Results were presented in tables and interpreted narratively to align with the study objectives.

Ethical Considerations

Ethical approval for the study was obtained from the University College Hospital Research Ethics Committee. Administrative permission was also granted by the Head of Department, Obstetrics and Gynecology. All respondents were informed of the purpose of the study, the voluntary nature of participation, and their right to withdraw at any stage. Written informed consent was obtained, and confidentiality was maintained by assigning codes instead of personal identifiers on questionnaires. The ethical procedures adhered to international guidelines for research involving human subjects.

Results

Socio-Demographic Characteristics of Respondents

The socio-demographic profile of respondents revealed that the majority were adults in their prime reproductive years. Women aged 26–30 years constituted the largest group, accounting for 32.5%. This was followed closely by those aged 31–35 years at 30.2%. Younger respondents aged 21–25 years made up 16.1%, while those aged 36–40 years accounted for 11.3%. These findings show that most women who seek antenatal care at UCH are within age groups commonly associated with optimal reproductive performance. Marital status analysis revealed that 94.5% of the respondents were married. This reflects the strong cultural preference in Nigeria for marriage before childbirth. Educational attainment was generally high among respondents. A majority, 66.9%, had completed tertiary education. The high literacy level suggests that UCH attracts a predominantly educated patient population, which may influence their perceptions and decisions about labor pain relief. Regarding occupation, 40.2% of respondents were engaged in skilled or professional work. This distribution reflects the socio-economic diversity of urban antenatal attendees [13]. Religious affiliation was almost evenly split: Many (52.4%) were Christians, and 47.6% were Muslims. Ethnically, the Yoruba dominated with 73.3%. This distribution is consistent with the cultural composition of Ibadan.

Table 1: Socio-Demographic Characteristics of Respondents (N = 311)

Variables	Frequency (N)	Percentage (%)
Age in years		
18-24 years	31	10.0
25-45 years	262	84.2
> 45years	1	0.3
Marital Status		
Single	15	4.8
Married	296	95.2
Christianity	220	70.7
Islam	91	29.3
Ethic Group		

Yoruba	264	84.9
Igbo	21	6.8
Hausa	9	2.9
Others	15	4.8
Educational qualification		
Primary	2	0.6
Secondary	54	17.4
Tertiary	238	76.5
Student	13	4.2
Occupation		
Farming	4	1.3
Civil service	44	14.1
Artisan	69	22.2
Business/trading	57	18.3
Housewives	2	0.6
Military	1	0.3
Teaching	35	11.3
Professionals	72	23.2
Unemployed	2	0.6
Residence		
Urban	231	74.3
Semi-urban	37	11.9

Reproductive History of Respondents

The reproductive characteristics of respondents showed considerable variability. Gravidity data indicated that many (42.8%) of respondents had experienced two to three pregnancies and women who had been pregnant four to five times constituted 21.9%. Parity analysis revealed that 35.4% had one previous delivery and 28.0% had two children. These findings indicate a mixture of first-time mothers, moderately experienced mothers, and multiparous women. Age at first delivery showed that most respondents had their first child in young adulthood. A majority (58.5%) gave birth between ages 20–29. Majority (69.5%) of respondents have had previous mode of delivery of spontaneous vaginal delivery which was most commonly reported.

Table 2: Reproductive history of respondents

Variables		Frequency (n)	Percentage (%)
Age at first delivery	< 18 years	4	1.3
	18-24 years	46	14.8
	25-45 years	220	70.7

Number of pregnancies	1	112	36.0
	2	95	30.5
	3	56	18.0
	> 3	28	9.0
Number of children	1	117	37.6
	2	107	34.4
	> 2	65	20.9
Age of youngest child	0-2 years	65	20.9
	3-5 years	89	28.6
	6-10 years	29	9.3
	> 10 years	4	1.3
Place of last delivery	Health center/Maternity	14	4.5
	Hospital	175	56.3
	TBA/Faith homes	7	2.3
	House	2	0.6
Method of delivery for last child	Vaginal birth	125	40.2
	Caesarean section	70	22.5
Nature of current pregnancy	Wanted	278	89.4
	Unwanted	11	3.5

Perception of Labour Pain

Perception of labor pain was assessed using a 13-item scale, which revealed that majority (62.4%) of respondents had a good perception. The item-by-item responses further showed a strong awareness of the nature of labour pain among the women. Most (91.6%) respondents agreed that labor pain is an unavoidable part of childbirth. Similarly, 84.6% believed that severe labour pain has the potential to affect a woman's cooperation during delivery, indicating a clear understanding of how pain intensity may influence maternal behavior and labor progress. Additionally, 79.4% agreed that unmanaged labor pain could negatively affect maternal or neonatal outcomes, suggesting that many respondents recognized the clinical implications of inadequate pain control. Despite these positive perceptions, certain misconceptions persisted [14]. For instance, 35.4% believed that analgesia could prolong labor, reflecting a misunderstanding widely reported in previous research. Furthermore, 28.9% felt that pain relief could harm the baby, while 22.5% expressed the belief that labor pain is natural and should not be interfered with. These findings collectively show that, although the overall perception of labor pain and pain relief is relatively good, notable myths and culturally rooted misconceptions remain.

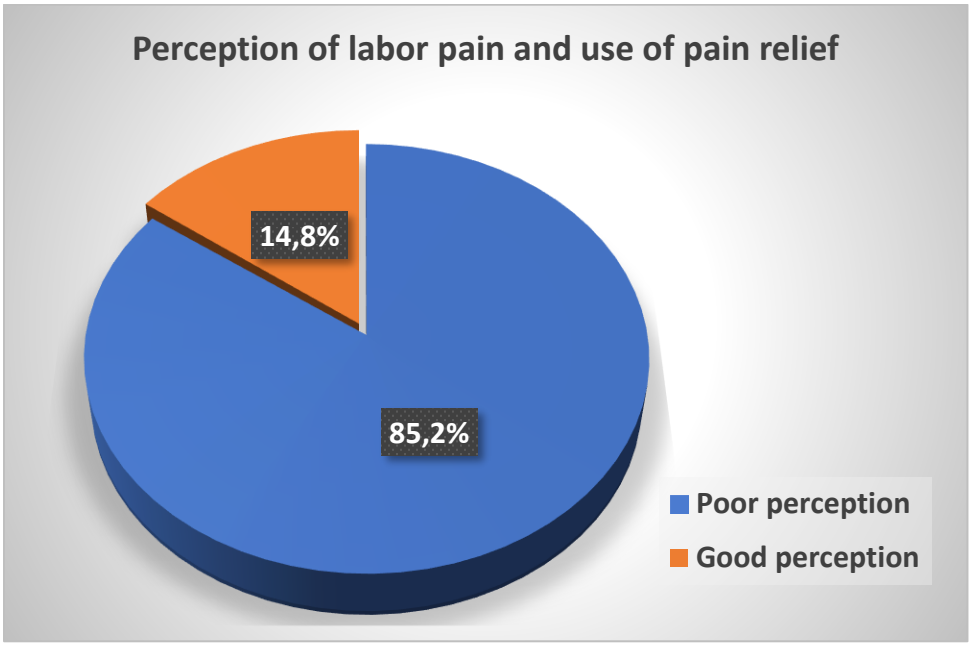

Figure 1: Perception of labor pain and use of pain relief

Willingness to Use Labour Pain Relief

With respect to willingness to use labor analgesia, most of the respondents, 265(83.6%) indicated that they were ready to experience the pain of normal delivery and more than half (57.9%) of the respondents indicated willingness to use pain relief during labor. Among the women who expressed willingness, non-pharmacological methods emerged as the most preferred pain relief options. Majority (72.6%) of respondents favored techniques such as breathing exercises, chosen back massage preferred were 63.1%, and 59.2% emotional support or companionship during labor. These preferences suggest an inclination toward methods perceived as natural, safe, and immediately available. Only 28.5% indicated willingness to use epidural analgesia, and an even smaller proportion and 18.4% were willing to use opioid analgesics. For respondents who were unwilling to use any form of pain relief, several reasons were prominent. Cultural and religious beliefs were the most commonly cited factor, reported by 40.2%. Fear of side effects accounted for 30.3% and 21.2% attributed their unwillingness to cost-related concerns. Additionally, 8.3% stated that they had not received any counseling about pain relief options, which may have contributed to their reluctance [15]. Overall, although moderate willingness exists, this does not necessarily translate into a desire for pharmacological interventions, and gaps in counseling and knowledge appear to hinder uptake.

Table 3: Willingness to use pain relief during labor

Willingness statements	Yes n(%)	No n(%)
I am ready to experience the pain of normal delivery	260(83.6)	42(13.5)
I would be willing to use pain relief during labour if given	180(57.9)	119(38.3)
I will prefer other alternatives to relieving labour pain than analgesics	159(51.1)	108(34.7)
I can request for a pain relief during labour	145(46.6)	153(49.2)

Factors Influencing Willingness

Considering the factors that can influence the women's willingness to use pain relief during labor, 157(50.5%) of the women stated that they could consider using pain relief for prolonged duration of

labor while 129(41.5%) said they would not consider this factor. Similarly, 165(53.1%) stated that doctors/nurses' prescription would influence their willingness to use pain relief while 111(35.7%) stated that they would not be influenced. Only 62(19.9%) of the women stated that their family and friends can influence them to use pain relief during labor while 237(76.2%) said they cannot be influenced by their family and friends to use pain relief. More than half of the women, 179(57.6%) said they would consider pain relief if they can afford the cost while 101(32.5%) said otherwise. Few of the women, 98(31.5%) stated that they would only take the pain relief they know and 192(61.7%) stated that they would not. Less than half of the respondents, 152(48.9%) indicated that the attitude of the health worker during delivery can influence them to use pain relief while 103(33.1%) said that their previous experience of labor pain will influence their willingness to use pain relief during labor.

Table 4: Factors influencing use pain relief during labor

Factors	Yes n(%)	No n(%)
Prolonged duration of labor	157(50.5)	129(41.5)
Doctors/nurses' prescription	165(53.1)	111(35.7)
Family and friends	62(19.9)	237(76.2)
Cost affordability	179(57.6)	101(32.5)
Knowledge of pain relief	98(31.5)	192(61.7)
Attitude of health workers during delivery	152(48.9)	145(46.6)
Previous experience of labor pain	103(33.1)	158(50.8)

Hypothesis Testing

Hypothesis testing using Chi-square and Fisher's exact tests reinforced some of the earlier observations. Socio-demographic characteristics of respondents like age of the respondents was not statistically associated with the perception of labor pain and pain relief ($F = 1.194$, $p = 0.526$).

Marital status of the respondents was not statistically associated with the perception of labor pain and pain relief ($F = 0.027$, $p = 1.000$). Highest educational qualification of the respondents was statistically associated with the perception of labor pain and pain relief ($F = 10.059$, $p = 0.013$). The number of pregnancies of the respondents was not statistically associated with the perception of labor pain and pain relief ($F = 6.767$, $p = 0.076$). The number of children of the respondents was statistically associated with the perception of labor pain and pain relief ($F = 11.864$, $p = 0.006$).

Table 5: Association between demographic characteristics and perception of respondents

Socio-demographic	Perception				
	Poor n(%)	Good n(%)	F-Test	p-value	Null hypothesis
Age					
18-24	28(9.5)	3(1.0)	1.194	0.526	Accepted
25-45	220(74.8)	42(14.30			
≥ 45	1(0.3)	0(0.0)			
Marital status					
Single	13(4.2)	2(0.6)	0.027	1.000	Accepted

Married	252(81.0)	44(14.1)			
Highest educational qualification					
Secondary	52(16.9)	2(0.7)	10.059	0.013	Rejected
Tertiary	196(63.8)	42(13.7)			
Others	12(3.9)	1(0.3)			
Number of pregnancies					
1	103(35.4)	9(3.1)	6.767	0.076	Accepted
2	79(27.1)	16(5.5)			
3	44(15.1)	12(4.1)			
> 3	24(8.2)	4(1.4)			
Number of children					
0	3(1.0)	1(0.3)	11.864	0.006	Rejected
1	108(36.9)	9(3.1)			
2	82(28.0)	25(8.5)			
> 2	57(19.5)	8(2.7)			

Perception and willingness to experience labor pain (χ^2 = 9.518, df = 1, p = 0.002) Although cultural beliefs and fear of side effects did not yield statistically significant associations in quantitative testing, the qualitative responses provided by participants highlighted these factors as strong underlying influences. These results emphasize that women's perception and willingness to use pain relief are shaped by a multifaceted combination of socio-demographic characteristics, cultural norms, personal experiences, and the quality of healthcare information provided the perception of labor pain was not statistically associated with the willingness to use pain relief during labor (χ^2 = 3.021, df = 1, p = 0.082).

Table 6: Association between perception of labor pain and readiness to experience labor pain

Readiness to experience labor pain	**Perception**				
	Poor n(%)	**Good n(%)**	**F-Test**	**p-value**	**Null hypothesis**
Request for a pain relief during labor					
Yes	113(37.9)	32(10.7)	9.518	0.002	Rejected
No	139(46.6)	14(4.7)			
Willingness to use pain relief during labor					
Yes	147(49.2)	33(11.0)	3.021	0.082	Accepted
No	106(35.5)	13(4.3)			

Discussion

This study investigated the perception of labor pain and willingness to use labor pain relief among pregnant women attending the antenatal clinic of the University College Hospital (UCH), Ibadan. The findings provide important insights into contemporary maternal perspectives in a tertiary Nigerian context and highlight gaps between awareness, perception, and actual willingness to use labor analgesia. When compared with recent evidence from Nigeria, Africa, and other low- and middle-income settings, the findings reveal several consistencies, emerging trends, and context-specific issues.

The study showed that most women (91.6%) acknowledged labor pain as a significant and unavoidable component of childbirth. This aligns with recent findings from multi-country studies within sub-Saharan Africa, which continue to affirm the universal nature of labor pain despite differences in women's cultural backgrounds. A similarly high perception of labor pain severity has been reported in a South-South Nigeria study, where 88.3% of women rated labor pain as severe or very severe. These parallels confirm that Nigerian women's understanding of labor pain remains consistent with regional and global patterns.

However, although 62.4% of respondents had a good perception of labor pain relief, notable misconceptions persisted among a significant minority. Approximately 35.4% believed analgesia could prolong labor, and 28.9% believed it could harm the baby. These misconceptions have been highlighted in recent African studies examining maternal knowledge about labor analgesia. For example, Irowa et al. found that many antenatal attendees at a tertiary hospital in Makurdi held inaccurate beliefs about epidural safety and feared adverse fetal outcomes. Similarly, a 2023 Ethiopian meta-analysis reported that myths about analgesia harming mother or child continue to impede informed maternal decisions. These persistent misconceptions underscore the need for improved antenatal counseling and structured client education at tertiary facilities.

A key finding of this study was that more than half of the respondents (57.6%) were willing to use pain relief during labor. This is consistent with recent West African studies indicating increasing willingness among pregnant women to accept pain management interventions during childbirth. Nonetheless, a significant proportion (42.4%) remained unwilling, largely due to cultural beliefs, fear of side effects, cost barriers, and inadequate information.

The preference for non-pharmacological pain relief such as breathing exercises, massage, and companionship reflects similar findings in recent Nigerian and international studies. A 2022 study in South-West Nigeria reported that women mostly relied on massage, breathing techniques, and emotional support during labor, with very low utilization of pharmacological methods due to limited availability and high cost (Journal of the West African College of Surgeons, 2022). This trend is not limited to Nigeria; a study conducted among maternity nurses in Saudi Arabia also reported higher prioritization of non-pharmacological methods due to reduced risk and greater accessibility. The preference for non-pharmacological approaches may also reflect systemic limitations: pharmacological options such as epidural analgesia are not routinely available in many Nigerian labor wards. Importantly, this study noted the relatively low willingness to use pharmacological methods such as epidural analgesia (28.5%) or opioids (18.4%). This corresponds with evidence from across sub-Saharan Africa, where uptake of epidural analgesia remains low despite increasing awareness. Limited availability of trained anesthesia providers, infrastructural constraints, and negative experiences from peers may contribute to this low acceptance.

Educational status was significantly associated with willingness to use pain relief. Women with tertiary education were more willing to consider analgesia than those with lower educational levels. This association has been consistently reported in contemporary literature. For instance, Azeze et al found that women with higher education had better knowledge, fewer misconceptions, and greater acceptance of labor analgesia. Similarly, a 2024 Nigerian study in Makurdi reported that tertiary-educated women were more likely to request pain relief and to trust its safety. Higher education

likely enhances access to credible information, facilitates better interaction with healthcare providers, and reduces reliance on cultural myths.

Parity also showed a significant relationship with willingness, with primigravida women more willing to use pain relief compared to multiparous women. This aligns with findings from Sapira-Ordu et al, who reported that first-time mothers tend to approach labor with greater anxiety and, therefore, demonstrate a higher desire for pain relief. In contrast, multiparous women often rely on prior experiences, which may influence them to believe they can manage labor without analgesia.

Interestingly, variables such as age and religion did not show statistically significant associations despite qualitative reports pointing to their influence. This is comparable to findings from a Ghanaian study where religion shaped women's beliefs but did not independently predict analgesia uptake when adjusted for education and parity. It is possible that the dominant role of education and reproductive experience in shaping willingness overshadowed other socio-demographic influences.

The study identified cultural beliefs as one of the strongest qualitative barriers to willingness. Over 40% of unwilling respondents cited cultural or religious ideologies that portray labor pain as natural, necessary, or spiritually significant. Similar findings were reported by Irowa et al, who noted deep-rooted perceptions linking endurance of labor pain with cultural expectations of womanhood. These cultural narratives remain influential in Nigeria, despite increasing modernization. Systemic barriers also strongly influenced willingness. Respondents mentioned cost, limited counseling, and inadequate provider encouragement as barriers. These findings mirror those from Ethiopia, Saudi Arabia, and Nigeria, where weak clinical guidelines, inadequate staffing, and inconsistent antenatal counseling reduce the utilization of labor analgesia.

Implications of Findings in Relation to Global Recommendations

The World Health Organization emphasizes respectful maternity care and the right of every woman to access effective labor analgesia. However, this study and recent African literature show a persistent gap between WHO recommendations and practice. Women remain inadequately informed, analgesia is underutilized, and systemic constraints limit access. This underscores the urgent need for national guidelines, provider training, and improved antenatal education in Nigeria.

Summary of Findings

This study assessed pregnant women's perception of labor pain and their willingness to use labor pain relief at the University College Hospital, Ibadan. A total of 311 antenatal attendees participated. Most respondents were married, educated, and within the 26–35-year age group. Gravidity and parity patterns revealed a mix of first-time mothers and multiparous women, with the majority having prior spontaneous vaginal deliveries. Perception of labor pain was generally high, as 91.6% acknowledged labor pain as a natural and intense experience. While 62.4% demonstrated good perception of labor pain relief, significant misconceptions persisted particularly fears of fetal harm, prolonged labor, and spiritual implications of using analgesia. Overall willingness to use pain relief was moderate at 57.6%, with non-pharmacological methods such as breathing exercises, massage, and companionship being most preferred. Only a minority expressed willingness to use pharmacological methods such as epidural or opioid analgesia. Reasons for unwillingness included cultural and religious beliefs, fear of adverse effects, limited counseling, and cost. Educational status and parity were significantly associated with willingness to use labor pain relief, while age and religion showed no statistical association. These findings highlight a complex interplay of socio-demographic, cultural, and systemic factors that influence maternal choices.

Conclusion

This study concludes that although awareness and perception of labor pain are generally high among pregnant women attending UCH, willingness to use pharmacological labor pain relief remains limited. Many women favor non-pharmacological methods despite the potential benefits of modern analgesic techniques. Cultural beliefs, insufficient counseling, cost considerations, and persistent misconceptions act as barriers to effective pain management during childbirth. Educational status and parity significantly influence willingness, indicating that targeted antenatal education could improve acceptance of evidence-based pain relief. There is an urgent need for improved health worker engagement, structured counseling, and health system reforms to ensure that Nigerian women receive the full spectrum of pain relief options recommended by international guidelines. Ultimately, strengthening labor pain management will enhance maternal satisfaction and support positive childbirth experiences.

Recommendations

1. Healthcare providers should deliver structured, evidence-based education on labor pain and analgesia options during antenatal sessions.
2. The Federal Ministry of Health should establish clear, standardized guidelines for labor pain management in all maternity facilities.
3. Nurses, midwives, and obstetricians should receive updated training on modern labor analgesia and patient-centered counseling techniques.
4. Hospitals should equip labor wards with both pharmacological and non-pharmacological pain relief options and subsidize costs for low-income women.
5. Religious and community leaders should be involved in educational campaigns to correct cultural misconceptions and promote acceptance of safe pain relief.

Implications for Nursing Practice

Nurses and midwives occupy a central role in antenatal education, intrapartum care, and patient advocacy. Enhanced knowledge and positive attitudes among nursing staff are crucial for improving women's understanding and acceptance of labor pain relief. Nurses must adopt evidence-based, non-judgmental approaches when discussing pain management, ensuring that women are empowered to make informed choices. Additionally, incorporating modern labor analgesia education into nursing curricula and continuous professional development programs will strengthen the capacity of maternal care providers. Ultimately, improved nursing practice will translate into safer, more satisfying childbirth experiences.

Limitations

This study is limited by its cross-sectional design, which prevents causal inference. The use of self-reported data may also introduce recall and social desirability bias. Furthermore, the study was conducted in a single tertiary hospital, which may not reflect practices in rural or private facilities. Finally, cultural beliefs were measured quantitatively, and deeper qualitative insights were beyond the scope of this research.

Suggestions for Further Studies

Future research should include multi-center studies involving rural, private, and secondary health facilities to improve generalizability. Qualitative studies involving husbands, family members, and healthcare workers could deepen understanding of cultural and interpersonal influences on labor pain decisions. Longitudinal studies should also explore how antenatal perception and willingness translate into actual intrapartum decisions and postpartum experiences.

References

[1] L. Abikou, "Healthcare providers' utilisation of non-pharmacological labour pain management: A review of facilitators and barriers in Africa," Journal of Obstetric, Gynecologic & Neonatal Nursing, vol. 53, no. 4, pp. 389–402, 2024.

[2] G. A. Azeze, Y. S. Asgedom, A. G. Efa, and G. A. Kassie, "Labor pain management practices and associated factors in Ethiopia: A systematic review and meta-analysis," International Journal of Gynecology & Obstetrics, vol. 166, no. 1, pp. 204–213, 2023. doi: 10.1002/ijgo.15276.

[3] L. Aziato, A. K. Acheampong, and A. A. Kyei, "Factors influencing women's decisions regarding labour pain management in Ghana: Implications for practice," BMC Pregnancy and Childbirth, vol. 22, no. 1, pp. 1–10, 2022. doi: 10.1186/s12884-022-04711-3.

[4] W. T. Elgzar, M. S. Alshahrani, and H. A. Ibrahim, "Non-pharmacological labour pain relieve methods: Utilisation and associated factors among midwives and maternity nurses in Najran, Saudi Arabia," Reproductive Health, vol. 21, Art. no. 11, 2024. doi: 10.1186/s12978-023-01737-2.

[5] E. I. Ezebuiro, "Awareness and acceptance of obstetric epidural analgesia among expectant mothers in Southeast Nigeria," MediResOnline Journal, vol. 9, no. 2, pp. 45–52, 2024.

[6] A. Goldberg and S. Kives, "Assessment and management of pain in labour and delivery: Current strategies and future directions," Research and Reports in Gynecology and Obstetrics, vol. 7, pp. 18–25, 2023.

[7] O. Irowa, D. E. Ukpabi, H. O. Emoekpere, C. U. Ugboaja, P. E. Itodo, and D. U. Orshio, "Knowledge, perception, utilisation of labour analgesia among antenatal clinic attendees in a tertiary centre in Makurdi, North-Central Nigeria," Journal of the West African College of Surgeons, vol. 15, no. 3, pp. 252–257, 2025.

[8] D. H. John, L. Sapira-Ordu, H. Awoye-Godspower, F. C. C. Wekere, S. C. Amadi, and A. G. Mba, "Utilisation of labour analgesia: The experience with pharmacological agents among parturients at a tertiary centre in South-South Nigeria," International Journal of Advanced Research in Medicine, vol. 7, no. 1, pp. 34–38, 2025. doi: 10.22271/27069567.2025.v7.i1a.609.

[9] Journal of the West African College of Surgeons, "Labour analgesia practices in South-West Nigeria: Methods and self-reported effectiveness," Journal of the West African College of Surgeons, vol. 12, no. 2, pp. 55–63, 2022.

[10] A. G. Mba, L. Sapira-Ordu, D. H. John, H. Awoye-Godspower, F. C. C. Wekere, and S. C. Amadi, "Labour pain perception and preferred methods of pain relief among parturients in a tertiary centre in South-South Nigeria," International Journal of Clinical Obstetrics and Gynaecology, vol. 9, no. 2B, pp. 113–117, 2025. doi: 10.33545/gynae.2025.v9.i2b.1605.

[11] O. A. Olayinka, S. B. Muhammad, S. I. B. Halimah, and U. N. Jibril, "Exploring obstetric analgesia in labour management: Assessing knowledge and usage among midwives in North-Central Nigeria," International Journal of MCH and AIDS, vol. 14, Art. no. e002, 2025. doi: 10.25259/IJMA_14_2024.

[12] D. F. Polit and C. T. Beck, Nursing Research: Generating and Assessing Evidence for Nursing Practice, 11th ed. Philadelphia, PA, USA: Wolters Kluwer, 2021.

[13] L. Sapira-Ordu, D. H. John, H. Awoye-Godspower, F. C. C. Wekere, S. C. Amadi, and A. G. Mba, "Women's perception of labour pain and utilisation of labour analgesia in South-South Nigeria," African Journal of Reproductive Health, vol. 29, no. 1, pp. 122–131, 2025.

[14] UCHE-Maternal Health Collaborative, "Utilisation of labour analgesia in tertiary hospitals in Nigeria: A multicentre observational study," Nigerian Journal of Clinical Practice, vol. 26, no. 4, pp. 512–520, 2023.

[15] World Health Organization, WHO Recommendations: Intrapartum Care for a Positive Childbirth Experience, updated guideline. Geneva, Switzerland: World Health Organization, 2022.