



Awareness and Attitude Towards Labour Analgesia in Rural Northern India: A Cross-Sectional Questionnaire Based Study

Sandeepika Dogra, Pallavi Sharma¹, Ashufta Rasool Qazi,
Sanjay Kalsotra, Anil Mehta¹

Abstract

Background: The experience of labour is complex and subjective. However, as a consistent finding, labour pain is ranked high on pain rating scale when compared to other painful life experiences. So, a change can affect all dimensions of pregnant women and her family life. **Aim:** The aim of this study was to assess the level of awareness of labour analgesia among the women in rural northern India and factors which prevent them from opting for labour analgesia. **Material and Methods:** This was a cross sectional Questionnaire based study conducted in Government Medical College, Kathua, J&K. A self-made Questionnaire was used to obtain demographic details, awareness and attitude of pregnant women towards labour analgesia. A total of 300 women took part in the study. Data was analysed by SPSS 20. Frequencies and percentages were calculated to express the results. **Results:** Out of 300 women, 68% belonged to rural areas. 10% of the women could not read or write. 84% of the women were unaware of labour analgesia. Out of aware participants, no one got the information from primary health care workers like Asha worker or a midwife. About 86% of the participants said that the labour pains are either severe or unbearable, yet only 32% were ready to take labour analgesia. Out of unwilling participants, about 40% of the women believed that it would be harmful to their baby. **Conclusion:** Majority of the women believed that the labour pains are severe to unbearable yet desire to bear pain is prevalent. Health care workers should be trained to deliver knowledge about labour analgesia to all women in antenatal period.

Key Words

Awareness, Labour analgesia, Labour pain, Questionnaire

Introduction

The experience of labour is complex and subjective. Several factors affect a woman's perception of labour making each instant unique. However, as a consistent finding, labour pain is ranked high on pain rating scale when compared to other painful life experiences (1). So, a change can affect all dimensions of pregnant women and her family life. The International Association for Study

of Pain highlighted the importance of treating pain among parturients and the substantial public health impact that could occur if this pain is neglected, in the year 2007-2008 (2). Unless contraindicated, labour analgesia is the right of every pregnant woman even with severe morbidity (3).

Departments of Anaesthesiology & Critical Care, and ¹Obstetrics & Gynaecology, Government Medical College, Kathua (J&K), India

Correspondence to: Ashufta Rasool Qazi, Department of Anaesthesiology & Critical Care, Government Medical College, Kathua (J&K), India

Manuscript Received: 09 January 2021; **Revision Accepted:** 19 March 2021;

Published Online First: 10 October 2021

Open Access at: <https://journal.jkscience.org>

Copyright: © 2021 JK Science. This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License, which allows others to remix, transform, and build upon the work, and to copy and redistribute the material in any medium or format non-commercially, provided the original author(s) and source are credited and the new creations are distributed under the same license.

Cite this article as: Dogra S, Sharma P, Qazi AR, Kalsotra S, Mehta A. Awareness and attitude towards labour analgesia in rural northern India: a cross-sectional questionnaire based study. JK Science 2021;23(4):205-209.

Pain free labour is a common scenario in developed countries. However, in developing countries lack of knowledge regarding birth process among parturients, high pregnancy rates and short inter pregnancy intervals, labour analgesia remains a distant reality (4). Various methods, pharmacological and non-pharmacological are available to alleviate pain and assist women to experience the wonderful birthing process, however pain brings a sense of accomplishment during labour, as a result some women may refuse pain relief (5,6). Young women in some cultures believed that labour pain is natural and inevitable and endure it as a sign of womanhood (7).

Very few studies have been conducted in northern India focussing on parturients' awareness and views regarding labour analgesia in general and epidural analgesia in particular. The present study was aimed to assess the knowledge of pain relief during labour and their beliefs, fears, source of information and misconceptions regarding labour analgesia among the women belonging to rural set up in northern India.

Material and Methods

This was a cross sectional study done in Government Medical College, Kathua from 1st October 2019 to 31st December, 2019. After obtaining Institutional Ethical Committee approval, antenatal women were selected randomly and after taking informed consent parturients were enrolled in the study. Women unwilling to participate were excluded from the study. A self-made questionnaire was prepared and then translated into the local language, which was used for data collection. A total of 300 women participated in the study. Parturients were also informed regarding the confidentiality of their responses.

Demographic variables, obstetric history, various knowledge and attitude related parameters such as perceived severity, nature of labour pain, perceptions regarding labour analgesia were taken as primary outcome parameters. All the parameters were presented as frequency and percentages. The data was presented in tabular forms. No inferential statistical analysis was undertaken. Hence no statistical significance test was used in the study. IBM SPSS 21 (Armonk NY: IBM Corp) and Microsoft Excel 2010 were used for statistical analysis.

Results

A total of 300 women took part in the study. Majority of these were in the age group of 19-25 years (52%). 68% parturients had rural origin. While 10% parturients

were illiterate, nearly 20% did complete their graduation. 72% of the women were Hindus, while Muslims and Sikhs were 14% each. Nearly, 74% women belonged to low socioeconomic section with income of less than 30,000 per house hold. Socio economic parameters are given in *Table 1*.

Out of 300 women, 132 (44%) were nulliparous, 40% were second gravida. Over all, women had parity ranging one to four. Majority of these women were in second trimester. All multiparous women had previous hospital delivery, out of which nearly 89% had delivered in a government hospital. Out of 168 women who were multigravida, 45% had previous LSCS whereas 55% had normal delivery. Out of 76 parturients who underwent previous LSCS, 36 women had no experience of labour pains as they underwent emergency or elective LSCS directly, in their previous pregnancies, for various fetal and obstetric indications (*Table 2*).

The grading of labour pain was done by using Visual Analogue Scale (VAS) score (8). Nearly 78% of the women (132 out of 168) experienced labour pains in previous pregnancy and out of which 59% mothers said

Table 1: Socio- Demographic Parameters of the Participants

Characteristics	Frequency	Percentage
1. Age Group (years)		
19-25	156	52%
26-30	108	36%
31-35	24	8%
>35	12	4%
2. Residence		
Rural	204	68%
Semi Urban	96	32%
3. Education		
Illiterate	30	10%
Upto 8th	54	18%
Upto 10th	60	20%
Upto 12th	96	33%
Graduate/Postgraduate	60	20%
4. Religion		
Hindu	216	72%
Muslim	42	14%
Sikh	42	14%
5. Income of Family		
< 10000	48	16%
10000-20000	84	28%
21000-30000	90	30%
>30000	78	26%

Table 2: Obstetric Details of the Participants

Variables	Frequency	Percentage
1. Gravida		
Primigravida	132	44%
Second gravida	120	40%
Third gravida	36	12%
>Third	12	4%
2. Gestational Age		
5-12 weeks	84	28%
13-28 weeks	120	40%
>28 weeks	96	32%
3. History of previous Delivery		
Applicable	168	56%
Non-Applicable	132	44%
4. Place of previous Delivery among Multipara*		
Govt. Hospital	150	89%
Private Set up	18	11%
5. Previous LSCS*		
Yes	76	45%
No	92	55%
6. Grading of Labour Pain (1-10)**		
9-10 (Unbearable)	36	27%
7-9 (Severe)	78	59%
4-6 (Moderate)	18	14%
1-3 (Mild)	Nil	0%

* %age is from a total of 168 women (multiparous women); ** %age is from 132 parturients who experienced labour pain and grading of pain was done using Visual Analogue Scale (8)

that the pain was severe and 27% women said that the pain is unbearable. Interestingly, none of these women said that the pain was mild. *Table 2* depicts the experience of previous delivery among the multiparous parturients.

84% women had never heard about any form of pain relief in labour. Sources of information among aware parturient were either doctors who managed their previous delivery or relatives. It is pertinent to notice that no one had any formal information about labour analgesia. Different methods of labour analgesia known to women were mostly I/M or I/V injections and a few knew inhalation of a gas (*Table 3*).

After explaining the details about labour analgesia in general and epidural analgesia in particular, 32% women said yes, they would opt for painless labour. 20% women refused to take the benefit of labour analgesia while 48% women were not sure. Majority of women (68%) who

Table 3: Knowledge of Labour Analgesia Among Participants

Questions	Frequency	Percentage
1. Even heard about Pain Relief in Labour		
Yes	48	16%
No	252	84%
2. Sources of Information		
Relatives	18	6%
Doctors	30	10%
Friends	nil	0%
Asha	nil	0%
Mid wives	nil	0%
3. Different Methods of Labour Analgesia they know		
IV/IM Injections	36	12%
Inhalational Agents	12	4%
Epidural Analgesia	nil	0%
Breathing Exercises	nil	0%
TENS	nil	0%
4. Knowledge about the Services in the Hospital		
Yes	12	4%
No	288	96%

Table 4: Readiness for Labour Analgesia After Getting Full Information

Variable	Frequency	Percentage
Do you want Labour Analgesia		
Yes	96	32%
No	60	20%
Not Sure	144	48%
Reasons for not opting Labour Analgesia		
1. Harmful to the baby	82	40%
2. Methods do not work	20	10%
3. Chances of caesarean section increase	20	10%
4. Cost of procedure	33	16%
5. Refusal by the family	49	24%

either refused or were not sure thought that it would be harmful for their baby. About 24% of the women thought that their family members will not allow them to take labour analgesia. 10% women thought that the methods won't work and 10% thought chances of caesarean delivery will be more (*Table 4*).



Discussion

Pain during labour is the most excruciating type and since ages women are supposed to bear it. It is unethical to allow parturient to suffer this pain as efficient and safe methods to relieve pain are available. Hence, we decided to study the awareness and acceptance of labour analgesia among rural women in northern India. In our study, only 20% of the total population had completed their graduation and 74% of the participants lived in a household with a total income of less than 30,000 per month.

84% of the women were unaware about labour analgesia and only 16% had heard about labour analgesia. So, our results were comparable to studies done by To *et al.* (9), Nabukenya *et al.* (10) and Prakash *et al.* (11). In a study done by Shidhaye *et al.* (12), 98.4% of the women irrespective of age, education level, socio economic status did not have any information about labour analgesia. Women suffer from the agony of labour pain because of lack of awareness, unbound fears and limited knowledge about the analgesia services. In developed countries issues are focussed in the choice of methods of labour analgesia and its complications (10). While in developing countries like India, child birth is still viewed as a physiological process managed with as little interference as possible (13).

As earlier mentioned, majority of women in our study also had no idea about pain relief in labour. In present study, all multigravida had previous hospital delivery and 100% of the women who experienced labour pains said these were either unbearable or severe, yet nobody wanted pain relief voluntarily for their subsequent delivery. It was found that a very high number of women were still ready to bear the pain in their upcoming labour (14,15). Women who knew about pain relief gained the knowledge from either relatives or from doctors in their previous delivery. It is interesting as no patient gained the information regarding labour analgesia through mid-wives. Majority of these women had knowledge of I/M injections given in the buttock. A few knew about inhalational techniques. Interestingly, no woman had the knowledge of epidural anaesthesia in our study.

Most of the women after detailed information about labour analgesia especially epidural analgesia gained a little confidence in labour pain relief. About 20% said that they do not want labour analgesia and 48% of the women were still not sure that they would want labour analgesia as good number of women could not believe that labour with minimal pain is possible. This belief was

irrespective of their educational status, religion or socio-economic status.

Many misconceptions and fears were associated with epidural analgesia. Most of the women think that epidural analgesia has a detrimental effect on the baby. About 20% of the women think that chances of caesarean section are increased after epidural analgesia in particular. Studies conducted even in developed countries have shown similar misconceptions related to epidural analgesia (16,17). About 24% did not opt for labour analgesia as they feared the refusal by the family which shows the strong dependence of the women on their family members in their decision making. In a recent study, done in Hong Kong, they concluded that epidural analgesia remains the best method of relieving pain during labour and only maternal request is sufficient indication to initiate epidural analgesia, consent from family is not required (18).

Antenatal education of women regarding labour analgesia by health providers is poor in our study. No women got information about labour analgesia from Asha worker or a midwife. It is similar to inference obtained in other studies done in pregnant women (17). Hence, in a rural Indian set up awareness about labour analgesia in parturient needs to be stressed and it can be easily achieved by training health workers, especially Asha workers, who routinely register pregnant women and do follow up. We need to educate the women against the myths and misbeliefs related to labour analgesia with evidence.

The most ironical finding that none of the participants received information from Asha or a mid-wife is actually a wakeup call for changing the practice pattern for the benefit of the women. Obstetricians can also play an important role in disseminating appropriate and accurate knowledge regarding labour analgesia. Primigravidae have longer labouring period and are more prone to fear labour pains hence need to be mainly targeted. A Turkish study has stated that there should be good inter personal relationship between obstetricians and anaesthesiologists and there should be mutual respect understanding and support from professional point of view as their combined management is required for effective labour outcome (19). Thus, there will be benefit of integrating the services of anaesthesiologists, obstetricians and Asha workers both in educating the antenatal women and in providing labour analgesia.

Conclusion

This study showed poor general awareness among



women about the role of labour analgesia leading to low demand for such services. Majority of the women believed that the labour pains are severe to unbearable yet desire to bear pain is prevalent. Health care workers should be trained to deliver knowledge about labour analgesia to all women in antenatal period.

Financial Support and Sponsorship

Nil.

Conflicts of Interest

There are no conflicts of interest.

References

1. Melzack R. The myth of painless childbirth (the John J. Bonica lecture). *Pain* 1984;19(4):321-37.
2. Landau R, Ciliberto C. Modern labor analgesia. *Pain: Clinical Updates* 2011;19(4):1-5.
3. Souza MA, Guida JPS, Cecatti JG, Souza JP, Gulmezoglu AM, Betran AP, et al. Analgesia during Labor and vaginal birth among women with severe maternal morbidity: secondary analysis from the WHO multicountry survey on maternal and newborn health. *BioMed Res Int* 2019;2019:7596165.
4. Karn S, Yu H, Karna S, Chen L, Qiao D. Women's awareness and attitudes towards labor analgesia influencing practice between developed and developing countries. *Adv Reprod Sci* 2016;4(2):46-52.
5. Lowe NK. The nature of labor pain. *Am J Obstet Gynecol* 2002;186(5 Suppl Nature):S16-24.
6. Sharma M, Dhungel S, Niroula S, Karki M. Knowledge and acceptance of labour analgesia in pregnant women. *J Nepal Health Res Counc* 2018;16(3):302-06.
7. Obuna JA, Umeora OJ. Perception of labor pain and utilization of obstetric analgesia by Igbo women of Southeast Nigeria. *J Obstet Anaesth Crit Care* 2014;4(1):18-22.
8. Gould D, Kelly D, Goldstone L, Gammon J. Examining the validity of pressure ulcer risk assessment scales: developing and using illustrated patient simulations to collect the data. Information Point: Visual Analogue Scale. *J Clin Nurs* 2001;10(5):697-706.
9. To WWK, Quality Assurance Subcommittee in Obstetrics and Gynaecology, Hospital Authority, Hong Kong. A questionnaire survey on patients' attitudes towards epidural analgesia in labour. *Hong Kong Med J* 2007;13(3):208-15.
10. Nabukenya MT, Kintu A, Wabule A, Muyingo MT, Kwizera A. Knowledge, attitudes and use of labour analgesia among women at a low-income country antenatal clinic. *BMC Anesthesiol* 2015;15:98.
11. Prakash A, Yadav A, Karim HMR, Sahoo SK, Jena P, Aman K. Knowledge, awareness and acceptance of labor analgesia among antenatal women in a remote island: a questionnaire based study. *J Adv Med Med Res* 2017;21(10):1-7.
12. Shidhaye RV, Galande M, Bangal VB, Smita J, Shidhaye UR. Awareness and attitude of Indian pregnant women towards labour analgesia. *Anaesth Pain Intensive Care* 2012;16(2):131-36.
13. Poomalar GK, Sameera L. Awareness of labour analgesia among antenatal women in semi urban area. *Int J Reprod Contracept Obstet Gynecol* 2016;5(8):2612-17.
14. Mung'ayi V, Nekyon D, Karuga R. Knowledge, attitude and use of labour pain relief methods among women attending antenatal clinic in Nairobi. *East Afr Med J* 2008;85(9):438-41.
15. Ogboli-Nwasor EO, Adaji SE. Between pain and pleasure: pregnant women's knowledge and preferences for pain relief in labor, a pilot study from Zaria, Northern Nigeria. *Saudi J Anaesth* 2014;8(Suppl 1):S20-24.
16. Stamer UM, Messerschmidt A, Wulf H, Hoefl A. Practice of epidural analgesia for labour pain: a German survey. *Eur J Anaesthesiol* 1999;16(5):308-14.
17. Biswas G, Hariharan V. A survey of antenatal women on their knowledge of pain relief methods in labour. *Bull Royal Coll Anaesth Bulletin* 2002;11:530-31.
18. Lam KK, Leung MKM, Irwin MG. Labour analgesia: update and literature review. *Hong Kong Med J* 2020;26(5):413-420.
19. Pirbudak L, Balat O, Kutlar I, Ugur MG, Sarimehmetoglu F, Oner U. Epidural analgesia in labor: Turkish obstetricians' attitudes and knowledge. *Agri* 2006;18(2):41-46.