

Knowledge and Attitude about Labor Epidural Analgesia among Pregnant Women Attending Antenatal Clinic

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ABSTRACT

Background: Labour pain is one of the most painful experiences that a woman faces in her lifetime. There are various options for labour pain management. Epidural analgesia is the gold standard method for pain management during labour. In developing and under-developed countries there are many challenges to provide this service, a very important one being knowledge about epidural analgesia among the parturients and the physicians.

Methods: A prospective cross-sectional study was carried out among 384 pregnant women attending Antenatal clinic of a tertiary level teaching hospital using pretested structured questionnaire prepared by a team of anaesthesiologists and obstetricians. Non-probability purposive sampling technique was used. The data was analysed by using SPSS version 20.0. Descriptive and inferential statistical methods were used for analysis.

Results: Of the 384 pregnant women, only 29.4% had knowledge about some form of labour analgesia techniques and only 16% of the participants were aware of labour epidural analgesia. Also, only 6.2% were aware that epidural service is available at our hospital. Regarding acceptance, only 42.4% were willing to use epidural analgesia in their present pregnancy.

Conclusions: The present study findings revealed that a significant number of participants had very limited knowledge about labour epidural analgesia and were also unaware of the availability of the service in our hospital. Educational programs need to be provided to all the pregnant women for enhancement of knowledge and awareness about epidural labour analgesia to increase its acceptability among them.

Keywords: Acceptance; awareness; knowledge; labour analgesia.

INTRODUCTION

The harmful physiological and psychological effects of labour pain can be relieved by proper pain management which also reduces the rate of caesarean section.¹⁻³ Encouraging the patients to participate in their own pain management during labour reduces pain and increases their satisfaction with childbirth experience.⁴

Epidural analgesia is considered the gold standard method for labour pain management due to its safety and efficacy.⁵ But, insufficient knowledge and lack of positive attitude makes pregnant women hesitant to use it.⁶ Age, education level, cultural beliefs, previous

childbirth experiences, fear of negative effects on the baby or oneself are the factors responsible for it.⁷⁻⁹ Also, lack of trained manpower and resources hampers regular labour analgesia service.¹⁰

This study was designed to help us identify the factors such as pregnant women's knowledge and attitude responsible for hindrance in successful implementation of such service.

METHODS

Following Institutional Review Committee (IRC) approval, this prospective cross-sectional study was carried out in

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Antenatal Clinic (ANC) of Tribhuvan University Teaching Hospital (TUTH), Maharajgunj, Kathmandu, Nepal from start of May 2021 to end of July, 2021. Sample size of 384 was calculated according to the prevalence of the pregnant ladies visiting our antenatal clinic over a month which was 48% (1642 pregnant ladies out of 3384 patients visiting obstetric-gynaecological Out-Patient Department (OPD) of our hospital over a month). Using the formula z^2pq/d^2 , where z is the confidence interval at 95% i.e. 1.96, p is the prevalence which is 0.48 and q is 1-p and d is the margin of error which is 5%.

A team of anaesthesiologists and obstetricians reviewed literature to collect questionnaire related to the knowledge and attitude about labour epidural analgesia. A structured set of 16 questionnaires related to personal information, knowledge and attitude of labour analgesia was prepared in Nepali language by the members. Pretesting was done in 40 pregnant patients (>10% of sample size) by the treating obstetrician (one of the team members) after obtaining consent. Difficulty in understanding any question was noted. Final questions were modified according to the result of pretesting. Validity of the questionnaires were checked by peer review and through subject experts.

Informed consent was obtained from the respondents before interviewing. A total of 384 healthy pregnant ladies were interviewed by the treating physician with the final set of questionnaires maintaining their privacy and confidentiality.

The collected data was analysed using SPSS version 20.0. Descriptive statistics like mean, frequency and percentage were used for statistical analysis. Results were interpreted in tables and diagram as per appropriate.

RESULTS

Our study included 384 participants. The mean age of women was 27.15 +/- 4.23 years. More than 90% were Hindu by religion and 58.6% were from Kathmandu District. A significant number of participants were literate, with 349 (90%) women having completed at least their secondary level. The level of education among participants is given in table 1.

Two hundred participants (52.1%) responded that this was their first pregnancy and 184 (47.9%) were on second or consecutive pregnancy. Out of the 184 multiparous women, 151 underwent normal vaginal delivery while 33 underwent lower segment caesarean section and a

total of 161 deliveries were conducted at a government hospital. Out of mothers who underwent normal vaginal delivery previously, none of them received labour analgesia in any form and 97 of them responded that the labour pain was painful but they tolerated. The details about the pregnancies are given in table 2.

Table 1. Level of education among participants.

S. No	Level of education	Number	Percentage
1	Uneducated	35	9.1%
2	Secondary level	161	41.9%
3	Undergraduates	123	32%
4	Post graduates	65	16.9%

Table 2. Details about present and previous pregnancy.

S.No	Pregnancy Detail	Number	Percentage
1	No. of women in first pregnancy	200	52.1%
2	No. of women in second or consecutive pregnancy	184	47.9%
3	Vaginal delivery in previous pregnancy	151	82.06%
4	LSCS in previous pregnancy	33	17.9%
4	Deliveries conducted in hospital in previous pregnancy	161	87.5%
5	Vaginal deliveries conducted in hospital in previous pregnancy	128	69.5%
6	Vaginal deliveries conducted at home in previous pregnancy	23	12.5%
7	Labour analgesia in previous pregnancy	0	0%

Among the respondents, 271 women (70.57%) were totally unaware about any types of labour pain management techniques. Only 113 (29.4%) knew about some form of labour analgesia techniques out of which 62 (16.14%) women had heard about epidural analgesia, 32 (8.33%) had heard about injection techniques, 10 (2.6%) about lower back oil massage and the rest about inhalational techniques and breathing exercises.

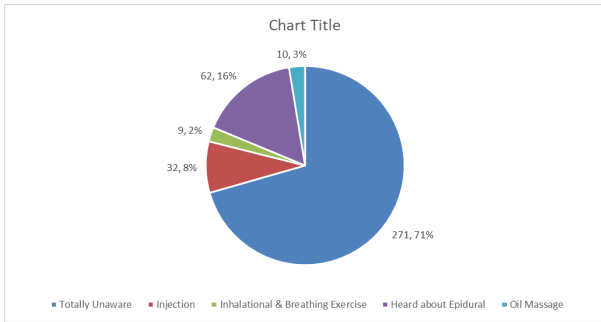


Figure 1. Pie chart about knowledge of labour analgesia techniques.

Out of 113 participants who were aware about some form of labour pain management techniques, 49 participants received the information from television, internet or newspaper, 30 participants heard it from their friends, 21 participants heard about it from health care workers and rest couldn't remember where they had heard it from.

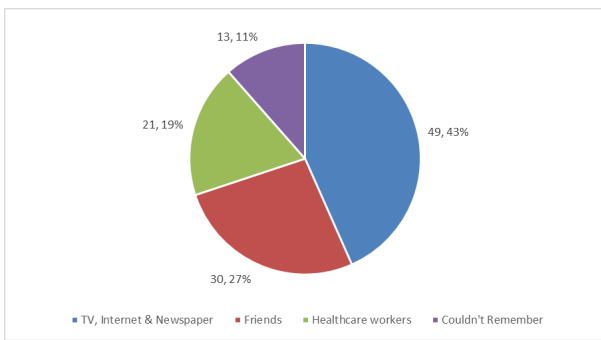


Figure 2. Pie chart about source of information.

For the present pregnancy, 163 participants (42.4%) were willing to prefer any sort of labour pain management techniques during this normal vaginal delivery while 139 (36.19%) did not want any form of labour analgesia and 82 patients (21.35%) were confused. The details about 139 participants regarding why they weren't willing to receive any form of labour analgesia is given in table 3.

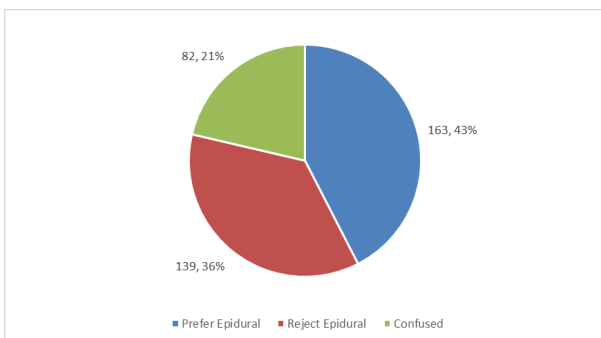


Figure 3. Pie chart about acceptance of Epidural analgesia during this pregnancy.

Table 3. Status of acceptance of epidural analgesia and barriers in preventing its acceptance.

S.No	Status of acceptance	Number	Percent
1	Willing to accept	163	42.44%
2	Refusal to accept	139	36.19%
a.	Preference to experience the natural process of childbirth	64	46.04%
b.	Absent knowledge about labour analgesia	28	20.14%
c.	Fear of negative impact in baby	24	17.26%
d.	Expensive	7	5%
e.	Fearful about piercing the back with an injection	5	3.59%
f.	Skeptical that any method would relieve labour pain	5	3.59%
g.	Negative impact on one's own overall health	3	2.15%
h.	Family members won't agree.	3	2.15%
3	Confused about accepting	82	21.35%

Around 178 (46.4%) respondents did not know who actually administered the epidural analgesia. Only 74 (19.3%) responded that anaesthesiologist would administer it, while 78 (20.3%) thought that it would be administered by the obstetrician and 45 (11.7%) believed that nurses are the ones to administer, while remaining 9 believed that any doctor was capable of providing the epidural analgesia.

Only 29 (7.5%) of our total respondents were aware that epidural analgesia is the best method of labour pain management and only 24 participants (6.25%) knew that our hospital provides epidural labour analgesia. The level of knowledge is given in table 4.

Table 4. Level of knowledge about labour analgesia.

S. No	Knowledge	Number	Percentage
1	Knowledge about some form of labour analgesia techniques	113	29.4%
a	Epidural analgesia	62	16.14%
b	Injection techniques	32	8.33%
c	Lower back oil massage	10	2.6%
d	Inhalation techniques	5	1.3%
e	Breathing exercises	4	1.04%
2	Knowledge that epidural is the best technique	29	7.5%
3	Knowledge that labour analgesia service is available in our hospital	24	6.25%
4	Knowledge that anaesthesiologist provides epidural analgesia	74	19.27%

Regarding expectation from epidural labour, only 62 (16.1%) believed that it would fully relieve pain; 145 (37.8%) had absolutely no idea related to epidural, 138 (35.9%) participants believed that there would be little alleviation of pain but not completely whereas 39 (10.2%) doubted it fully.

DISCUSSION

In developing countries like ours, many women prefer natural vaginal delivery without adopting any form of labour analgesia. There is strong belief that experiencing labour pain would add maturity and/or labour analgesia is against the traditional values and/or Gods' will.^{7,11-13}

One of the main findings of our study was that only 29.4% of the participants were aware about some form of pain management techniques during labour and only 16% had heard about epidural analgesia. Only 29 (7.5%) were aware that epidural is the best technique to control pain during labour. Though a good number of participants were literate, there seems to be poor general awareness about painless delivery. The awareness of epidural analgesia was reported to be low in other studies conducted in the developing countries.^{1,7,11-15} However, the awareness was reported to be much higher in the developed countries.¹⁶

Also, almost half of the participants (47.9%) were on

second or consecutive pregnancy. Among 161 deliveries conducted in hospital in previous pregnancy, 128 underwent normal vaginal deliveries but none of them were provided epidural for labour analgesia. The above practice could be due to the high work load of the attending physicians, unavailability of separate labour analgesia service at the hospital or limited knowledge on the labour analgesia of both obstetricians and patients and/or the institution culture avoiding any form of analgesia.^{8,15}

The general source of knowledge about pain relief methods were obtained from television, internet or newspaper in 49 women, from their friends in 30 women, from health care workers in 21 whereas rest couldn't remember where they had heard it from. In other studies, a high proportion of women had obtained information from health care workers during previous deliveries.^{10,13} Our study seems to have a low percentage of women receiving information from health care workers despite the fact that 161 deliveries were conducted in hospital previously. This indicates that we are lacking in providing information about painless delivery in the hospital. A collaborative approach by obstetrician, anaesthesiologists and nursing care providers will be effective in providing information about painless delivery. Obstetricians are in touch with the patient throughout pregnancy and delivery, hence information of labour analgesia provided by them at the correct time would be impactful.⁸ Majority of the studies have suggested that health care team should provide labour epidural education at ANC OPD visit.^{1,8,15}

Also, participants were not aware as to who actually provided epidural analgesia. Only 19.3% of them correctly said that anaesthesiologists were the actual providers. This is not surprising because the overall general knowledge about labour analgesia is poor. But, the number of participants knowing correctly about who administered the epidural was more than the number who had heard about epidural analgesia as a form of painless delivery. This is because we had asked all the participants who they think administered the epidural. Instead, if we had asked only the ones who had heard about the epidural then we would have gotten a clearer picture.

Only 24 were aware that our hospital provides labour epidural service which indicates that advertisements of the service is required via different media.

Regarding acceptance, only 42.4% would like to use epidural analgesia during their present pregnancy,

36.19% totally refused and 21.35% were confused. The most common reason for refusal was preference to experience the natural process of childbirth without any intervention in 64 women as suggested in many similar studies.^{8,10} Among others, 28 admitted that lack of knowledge about labour analgesia was the cause and 24 women feared that this would have negative impact on the baby. Remaining 23 had other reasons for refusal. The acceptance about labour analgesia is greatly influenced by one's beliefs, upbringing and culture but, level of knowledge and awareness about labour analgesia also plays an important role which can be improved by educating them or conducting awareness campaign or leaflet and pamphlets distribution.^{8,11,13,15,17}

Regarding expectation, only 62 had full faith that the epidural would completely relieve labour pains. There seems to be a poor general knowledge about labour analgesia and low acceptance rate for labour analgesia despite having a good literacy rate. But many studies have shown that a collaborative approach by the obstetrician, anaesthesiologists and the nursing team in providing useful information about labour analgesia would be impactful in educating the women and adopting a painless delivery where pain can be totally obliterated.^{1,8,15,17}

The result of this study guided us to start a dedicated obstetric anaesthesia clinic with a motto of educating the patients about labour analgesia. Articles related to information of labour analgesia and painless delivery services at our hospital are being published in local newspapers and displayed in the local media. Pamphlets and posters have also been published for the same purpose.

The limitation of our study is that since it was conducted in only one setting, the findings cannot be generalized overall. Also, the labouring women were not included in our study.

CONCLUSIONS

There is a huge gap of knowledge about different modalities of labour analgesia among pregnant women regardless of parity and level of education. Education should be provided by the attending obstetrician, anaesthesiologist and nursing team at the time of Antenatal visit.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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