Original Research Article

Awareness and acceptance of labour analgesia in rural india

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Abstract

Study has been carried out at Pravara Rural Hospital regarding awareness among expecting mothers about Labour Analgesia. Parturient attending ANC clinic were interviewed by anaesthesia residents according to questionnaire prepared and responses were recorded. We wanted to study knowledge about labour analgesia in rural parts of India. **Method**: After getting permission from ethical committee, 250 pregnant women attending ANC clinic were interviewed by anaesthesia residents according to prepared questionnaire and responses recorded. Parturient not willing to participate were excluded from study. **Results**: Maximum (78%) respondents were from rural area. Their educational level was poor (39% were illiterate and 36% could only read and write). Majority of parturient belonged to low socio-economic group (76%). Awareness about painless delivery was minimal (98%), and after giving information about labour analgesia most (90%) were willing to experience painless delivery. **Discussion**: As pain during delivery is most excruciating and can have impact on future of expecting mothers, nowadays methods to relieve pain of delivery are available. Still labour analgesia is not known to expecting mothers and not commonly used in rural India. Same is the condition in developing countries as shown by various studies. **Conclusion**: Various methods need to be adopted to make expecting mothers aware about labour analgesia. Similarly, practicing obstetricians should encourage parturient for pain free delivery.

Key-words: Awareness, Labour-analgesia, rural India, parturient

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Introduction

Labour analgesia though used very commonly in the developed world, has not been used commonly in rural India. We tried to find out parturient knowledge about labour analgesia and after giving knowledge are they willing for painless delivery.

We prepared a questionnaire [appendix] and residents from Department of Anaesthesiology used to attend ANC Clinic, explained the questionnaire to attending expectant mothers in their mother tongue and collected responses. This exercise has been undertaken at Pravara Rural Hospital – Loni. This place has been chosen as a place for our study, as it is situated in the most rural part of India, and has facilities for labour analgesia.

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Pain during labour had been described as most severen pain and is known to cause unwanted changes in maternal and foetal physiology which can be controlled. Some studies have shown fear about delivery and severe pain during delivery can lead to perinatal psychiatric problems in expecting others [15]. It is inhuman to allow women to suffer for a normal physiologic event.

Similar studies have been carried out in various areas like Kolkata [2], Hong Kong [3], Karachi [4], Nairobi [5] and South Africa [14], which were compared with our tudies [2].

Methodology

In our study, 250 parturient attending antenatal clinics at Pravara Rural Hospital - Loni were given a

questionnaire and were interviewed in their mother tongue with prior approval of the institutional ethical committee. The questionnaire was prepared keeping in mind their knowledge about labour analgesia and willingness to accept it during delivery. Similarly, any changes in attitude of expecting mothers were noted after giving information regarding labour analgesia to them. Patients were also informed regarding the confidentiality of their responses. Parturient unwilling to participate were excluded from the study.

We also studied the relationship between knowledge of labour analgesia with demographic characters like parity, education, area of residence, economic status of parturient.

Primary outcome measure has been knowledge about labour analgesia. Secondary outcome measures:

a) Demographic variations
b) Willingness to accept labour analgesia after sensitisation.
c) Reasons for unwillingness to accept labour analgesia

Sample size calculations: Sample size has been calculated in view of previous studies[7, 11] and using the formula

$$n = (Z\alpha/2)2\ p\ (1 - P)$$

$$d2$$

Z =1.96 (as CI is 95% or α=5% or =0.05 and its half is 0.025, its value is taken from table, P=0.90 and 1-P=0.10 d=0.05 (precision level)

n = (1.96) 0.90 * 0.10)/(0.05)

= 3.8416 * 0.09/(0.05)

= 0.345744/0.0025

= 138 (as per the study of Olayemi O, et al)

Results

The survey has been carried out in consecutive antenatal clinics during the months between August 2016 and September 2016 at Pravara Rural Hospital - Loni. 250 patients willing to participate in the survey were interviewed as per the prepared questionnaire (Annexure – 1) translated by an anaesthesia resident in their mother tongue and responses were collected. Few patients declined to respond to some questions, but overall 100% patients' response was recorded in the age group between 17 to 30 years.

Geographical distribution: 78% of patients were from rural area, while 20% were from semi-urban and 2% from urban areas. (Table-1)

Level of literacy: 74.8% patients were illiterate or could read and write. 24.4% patients had studied till 12th standard, while 0.8% patients were graduates/post-graduates. (Table-1)

Socioeconomic status: Majority (76%) of the patients belonged to low income group, while 23.6% of the patients belonged to middle income group. (Table-1)

Previous delivery experience: 59.6% of patients were primigravida, hence had no previous experience of labour pains. 34.8% were second gravida and 5.6% were third gravida (Table-1). No patient had more than 2 deliveries. Of second and third gravida, 30.3% patients were with duration of labour between 4 – 12 hours 54.54% patients had labour duration of less than 4 hours, while 17.17% patients had labour duration for more than 12 hours.

Intensity of pain in previous delivery – 21.21% patients experienced mild pain, while 49.49% patients experienced moderate pain. Only 6 patients complained of severe pain. (Table-2)

Awareness of labour analgesia: 98.8% patients had no knowledge about labour analgesia. Only 3 patients knew about labour analgesia, mainly from nearby relatives.

Willingness for labour analgesia: Most participants (79.6%) were willing for painless labour. Only one participant was unwilling, while 20% of patients had reserved response. (Table-2).

After explaining in detail about labour analgesia, 96.8% patients were willing for labour analgesia, while 8 patients (3.2%) were not at all interested.

Table 1: demographic distribution

Criteria	Range	No. of participants N (%)	Total
Age wise (years)	≤20	102 (40.8%)	250
	21-25	115(46%)	
	26-36	33 (13.2%)	
Geographical distribution	Urban	5 (2%)	250
	Semi-urban	50 (20%)	
	Rural	195 (78%)	
Education wise	Illiterate/can read and write	187 (74.8%)	250
	Up to 12thStd	61 (24.4%)	
	Graduate/Postgraduate	2 (0.8%)	
Income wise (IRP)	≤10,000	190 (76%)	250
	10,001 – 50,000	59 (23.6%)	
	> 50,000	1 (0.4%)	
Gravida status	Primi	149 (59.6%)	250
	Second	87 (34.8%)	
	Third	14 (5.6%)	
	≥Fourth	0 (0%)	

Patients not willing for pain relief were asked reasons for refusal, and reasons given had been, some think it is natural process, some were worried about cost of procedure, some worried about well-being of foetus, while some thought chances of caesarean delivery were more after labour analgesia.

Table 2(a): Readiness for labour analgesia after getting full information and its association with demography variables

Variable	Range	Number of participants					Total
		1*	2*	3*	4*	5*	
Age	≤20	4	38	35	17	8	102
	21-25	4	42	40	19	10	115
	26-36	1	12	11	6	3	33
	Total	9	92	86	42	21	250
Geographical distribution	Urban	0	2	2	1	0	5
	Semi-urban	2	18	17	8	5	50
	Rural	7	72	67	33	16	195
	Total	9	92	86	42	21	250
Education Status	Illiterate/can read and write	7	69	64	31	16	187
	Up to 12th Std	2	22	21	11	5	61
	Graduate/Postgraduate	0	1	1	0	0	2
	Total	9	92	86	42	21	250
Monthly Income	≤10,000	7	70	65	32	16	190
	10,001 – 50,000	2	22	20	10	5	59
	> 50,000	0	0	1	0	0	1
	Total	9	92	86	42	21	250
Gravida Status	Primi	5	55	51	25	13	149
	Second	3	32	30	15	7	87
	Third	1	5	5	2	1	14
	≥Fourth	0	0	0	0	0	0
	Total	9	92	86	42	21	250

When asked about knowledge of any parturient delivered with labour analgesia and their experiences, 99.6% patients had no knowledge while 0.8% responded with knowledge of some relative who delivered under labour analgesia and were fully satisfied.

Table 2(b):

Variable	Range	Number of participants					Total
		1	2	3	4	5	
Time required for last delivery	≤ 4 hrs	14	29	10	1	0	54
	>4 &<12 hrs	8	17	4	1	0	30
	>12 &<18 hrs	4	8	3	0	0	15
	>18&<24 hrs	1	1	0	0	0	2
	>24 hrs	0	0	0	0	0	0
	Total	27	55	17	2	0	101
Perception of intensity of labour pains during last delivery	No pains at all	1	10	8	4	2	25
	Mild	1	8	7	3	2	21
	Moderate	1	20	16	8	4	49
	Severe	0	2	2	1	1	6
	Excruciating and unbearable	0	0	0	0	0	0
	Total	3	40	33	16	9	101
Fear of delivery complications	Not at all	2	17	15	8	4	46
	Mild	5	51	47	23	12	138
	Moderate	2	23	22	11	5	63
	Very much	0	1	2	0	0	3
	Total	9	92	86	42	21	250
Fear of labour pains	Not at all	1	3	3	1	1	9
	Mild	5	53	49	24	12	143
	Moderate	2	21	20	10	5	58
	Very much	1	15	14	7	3	40
	Total	9	92	86	42	21	250

***Response rating: 1= Not at all; 2=Ready to some extent; 3=Ready; 4=Eager; 5=Fully ready and unwilling to deliver without labour analgesia**

Discussion

Pain during labour is the most excruciating type, and since ages women are supposed to bear it. This is inhuman to allow parturient to suffer this, although efficient and safe methods to relieve pain are available. Hence, we decided to study awareness amongst rural Indian parturient about labour analgesia.

The study has been carried out at Rural Medical College Hospital ante-natal clinics. Study shows 78% of women had been from rural background, 74.8% of women were uneducated, while 76% women were from low socio-economic group. Amongst women attending ANC clinic, 59.6% women had been primigravida who seem to be more sensitive about labour pains[12]. When asked about knowledge of labour analgesia, 98.8% have not heard about such facility and 90.4% were willing to opt for labour analgesia after giving detailed information about labour analgesia. Only 3% refused, reasons being

- Familial tradition and beliefs
- Obstetricians choice
- May be costly
- Well-being of foetus
- Fear of LSCS

Awareness about labour analgesia and acceptance during delivery had no co-relation with educational status or socio-economic status of expecting mother.

Similar studies have been carried out by various researchers. Hug t al[2] also showed that only 38.9% patients knew about labour analgesia. Oladokun et al [7] showed that knowledge was not there in Nigerian women. Minhas et al also showed regarding minimal knowledge about labour analgesia in a metropolitan city like Karachi. Mung'ayi et al[14] found that most of Nigerian women after receiving full information also showed limited interest in labour analgesia.

Hence, in an Indian setup, awareness about labour analgesia in parturient needs to be stressed and it can be easily achieved by training health workers, Anganwadi workers and Asha workers, who routinely register pregnant women and do follow-up.

Obstetricians also need to be addressed about the availability of technical support for labour analgesia and use it in indicated patients. General hospitals should make the facility available through government funding and technical support.

All anaesthesiologists should encourage parturient to opt for labour analgesia, mainly those who are psychologically disturbed or show signs of fear about delivery. Primiparas are more prone for fear of labour pains and delivery complications and need to be mainly targeted. Similar type of study had been published by Shidhaye et al [9] five years back and opined that awareness about labour analgesia should be addressed at all possible levels. Still, present study shows that women are unaware of such a facility.

Limitations of study: Carried out in one hospital. Antenatal care patients and those who attend antenatal PD. Other pregnant women even in the same region are not addressed in the study.

Conclusion

It is important to make fertile women aware about labour analgesia. Similarly, practicing obstetricians need to support a safe, pain-free delivery of their patients.

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