Knowledge of and attitude towards pain relief during labour of women attending the antenatal clinic of Cecilia Makiwane Hospital, South Africa

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Abstract

Background

This study determined women's knowledge of and attitudes to pain relief during labour.

Methods

This descriptive study included 151 women, 18 years or older, attending the antenatal clinic of Cecilia Makiwane Hospital. Women were interviewed using a questionnaire that determined their knowledge of and attitudes regarding pain relief.

Results

The median age of the women was 29 years and most was pregnant for a second or third time. More than half the women (56.3%) indicated that they knew about pain relief and most had received their information from a previous labour experience (56.5%) or from friends and relatives (55.3%). Of the women who had knowledge of pain relief (n=85), 65.9% indicated injections. Half the women (51.7%) believed that they should experience mild pain, however, while 55.7% had experienced severe pain during previous labour and 65.3% of these had found the experience to be unacceptable. Most women (59.8%) who had been pregnant were not told what to expect when in labour. Of those who had been told (n=41), 75.6% found the information useful. The women who had previously delivered in a health facility rated the service received in relieving labour pain as fair (47.3%) and good (31.2%). Most of the women (99.3%) believed that the staff had an important role to play in helping to relieve labour pain. Most of the women (78%) expressed no concern about problems associated with pain relief methods, while a large number (83.4%) expressed little or no confidence in labour pain relief.

Conclusion

Most of the women gained knowledge regarding pain relief from past experiences or from friends and relatives. Even though the few women who received information about what to expect during labour found the information useful, most expressed little confidence in labour pain relief.

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Introduction

Pain relief management during labour has undergone various advancements since 1847, when Simpson found that chloroform could help relieve the pain women felt during labour. His findings were not received favourably on religious and medical grounds.[1] Childbirth was viewed as a physiological process best managed with as little interference as possible.[2,3] In spite of knowledge gained since, pain relief in labour is still controversial.

A lack of knowledge regarding the birth process can influence a woman's attitude to pain relief. A knowledgeable woman may understand the pain leading to birth, and view her pain as positive and as a good sign of progress. Pain, a sense of accomplishment and enjoyment are all experienced during labour and, as a result, some women may refuse pain relief.[4,5]

The attitude to pain relief in labour may also be influenced by a woman's upbringing.[6] Culture, ethnic group and age may be strong influences. In the third world, especially in Africa, access to knowledge and the availability of medical care can influence attitudes to pain relief. Women may not even know that pain can be relieved. A study at Ibadan University College Hospital in Nigeria showed that out of 1 000 respondents, only 271 were aware that labour pain could be relieved.[6]

The birth environment and the care provided by the staff may also affect women's attitudes to pain relief.[5,7] Healthcare workers have a duty to make women's labour experiences as pleasant as possible. Pain may simply be seen as an unpleasant part of labour and it is important to determine women's expectations.

This study at Cecilia Makiwane Hospital's antenatal clinic determined:

1. Women's knowledge of pain relief during labour, their beliefs, and the sources of their knowledge and beliefs.
2. Women's concerns and fears about various methods of pain relief.
3. Women's views on the roles of the labour ward staff (i.e. midwives and doctors) as far as pain relief is concerned.
4. Women's confidence in labour pain relief.

Methods

This descriptive study included women attending the antenatal clinic at Cecilia Makiwane Hospital (located in Region C of the Eastern Cape Province, South Africa). Women were interviewed on a randomly selected day of each week from February to April 2005. Women 18 years or older were interviewed after giving informed consent.

The first author interviewed the women and was assisted by nurses who interpreted for those women who did not understand English. The women were interviewed after they were registered but before their consultation. Descriptive statistics, namely frequencies and percentages of categorical data, were calculated. A pilot study was done on eight mothers at Cecilia Makiwane Hospital and, because no changes were consequently made to the questionnaire, these questionnaires were included in the results.

The Senior Medical Superintendent of Cecilia Makiwane Hospital, the Ethics Committee of Region C and the Deputy Director: Epidemiological Research and Surveillance Management of the Eastern Cape Department of Health approved the study. Approval was also obtained from the Ethics Committee, Faculty Health Sciences, University of the Free State.

Table I: Women's ages, education levels and occupations (n=151)

		Frequency	Percentage
Education:	Grade 0–7	12	7.9
	Grade 8–11	64	42.4
	Grade 12	44	29.1
	Tertiary student	7	4.6
	Tertiary graduate	24	16.0
Occupation:	Unemployed	58	38.4
	Housewife	9	6.0
	Small business owner/employee (dressmakers, hairdressers, shop attendants)	11	7.3
	Secretary, bookkeeper, clerk	10	6.6
	Students (all institutions)	22	14.6
	Professionals (nurses, teachers)	10	6.6
	Unskilled (cleaners, housekeepers, security guards, domestics)	29	19.2
	Technicians	2	1.3

Results

The study included 151 women with a median age of 29 years (range 18–47 years), all of whom belonged to the Xhosa ethnic group and only 0.6% were of traditional African religions. Most of the women (71.6%) had an education level between Grades 8 and 12. The women's ages, education levels and employment are given in Table I. Fifty-eight women (38.4%) were unemployed and nine women (6.0%) were housewives. The rest belonged to various occupational categories, ranging from unskilled (domestic workers and cleaners) to professional (teachers and nurses).

Approximately a third (32%) of the women were pregnant for the first time, but most (54.6%) were pregnant for a second or third time. Most of the women (63.6%) had delivered in a health facility before, with 66.7% of these women having delivered at a secondary hospital.

The women's knowledge of pain relief during labour, the sources of their information, the preferred method to be used in the upcoming labour and the reason for their choices are given in Table II. More than half the women (56.3%) indicated that they knew about pain relief during labour. Most women received information about pain relief from a previous labour experience (56.5%) or from friends and relatives (55.3%). Of the women who had knowledge of pain relief in labour (n=85), 65.9% indicated injections, presumably opiates such as pethidine (reported as injection in the thigh). Some women (32.9%) had a concept of epidural or spinal blocks (reported as injection in the back). Most women (n=119, 78.8%) expressed a preference and wanted some form of medication, such as injections (31.1%) or an epidural (21.8%), in the upcoming labour. The reasons given for their choices were that the method works (34.5%) and that it takes pain away (33.6%).

The attitudes toward and beliefs regarding pain relief during labour and the women's reasons for not asking for pain relief are given in Table III. Most of the women (51.7%) believed that they should experience mild pain during labour. Of those who had undergone labour (n=97), 55.7% had experienced severe pain and 65.3% found the experience to be unacceptable. When the women were asked whether they had

Table II: The women's knowledge of pain relief during labour, their source of information, the preferred method to be used in the upcoming labour and the reason for their choices (n=151).

	Response	Frequency#	Percentage
Have knowledge (n=151)	Have knowledge of pain relief methods	85	56.3
Knowledge (n=85)	Injections	56	65.9
	Epidural	28	32.9
	Breathing exercises	25	29.4
	Baby's delivery	3	3.5
Information source (n=85)	Previous labour	48	56.5
	Friends and relatives	47	55.3
	Media	12	14.1
	Textbooks	5	5.9
	Other	1	1.2
Preferred method## (n=119)	Injections	37	31.1
	Epidural	26	21.8
	None	15	12.6
	Elective caesarean section	3	2.5
	Breathing exercises	3	2.5
	Baby's delivery	2	1.7
Reason (n=113)	Method works	39	34.5
	Makes pain go away	38	33.6
	Labour pain is natural	12	10.6
	Heard about method	12	10.6
	Methods do not work	5	4.4
	Easy to give	4	3.5
	Do not want to go through labour again	2	1.8
	Can push with method	1	0.9

#Women could indicate more than one choice.
##Some women who indicated they had no idea about pain relief gave a response as to their preference. Most wanted some form of "injection to make the pain go away".

Table III: Attitudes and beliefs toward pain relief during labour and reasons for not asking for pain relief

	Response	Frequency#	Percentage
Labour pain (n=151)	Pain free	44	29.1
	Mild pain	78	51.7
	Moderate pain	23	15.2
	Severe pain	6	4.0
Pain during previous labour (n=97)	Pain free	5	5.2
	Mild pain	9	9.3
	Moderate pain	29	29.9
	Severe pain	54	55.7
Reason for not asking for pain relief (n=65)	Not aware pain could be relieved	43	66.2
	Labour pain is natural	15	23.1
	Previous delivery on arrival	2	3.1
	Had no pain during previous labour	2	3.1
	Medication for pain could be harmful	1	1.5
	Other (e.g. pains help with bonding)	4	6.2

#Some women gave more than one response

asked for pain relief during labour, or if they would ask in their coming labour, 56.7% said they had asked or would ask. Among the reasons given as to why they had not asked for pain relief, 66.2% indicated they were not aware that anything could be done about labour pain and 23% believed that labour pain is natural.

The women's attitudes regarding the role of the labour ward staff in pain relief is given in Table IV. Most of the women (59.8%) who had been pregnant before were not told what to expect when in labour. Of those who had been told (n=41), 75.6% found the information useful. Of the women who had delivered in a health facility (n=93), most rated the service received in relieving labour pain as fair (47.3%) and good (31.2%). Most of the women (99.3%) believed that the staff had an important role to play in helping to relieve labour pain.

The women's concerns about pain relief methods are given in Table V. Most of the women (78%) expressed no concern about problems associated with pain relief methods. Of those who expressed concern (n=33), 42.4% believed that the baby may be affected. When asked if problems associated with pain relief methods influenced the methods they preferred to use (n=32), 59.4%

Table IV: Women's attitudes regarding the role of the labour ward staff in pain relief

	Response	Frequency#	Percentage
Received information (n=102)	Received information concerning labour during previous pregnancy	41	40.2
Quality of information received during previous delivery (n=41)	Knew what to expect	12	29.3
	Could cope with or tolerate the pain	19	46.3
	Information was useless	10	24.4
Staff's role (n=150)	Explaining what will happen	145	96.7
	Giving medication for pain if needed	136	90.7
	Anything to make me comfortable (n=149)	2	1.3
	Have no role (n=149)	1	0.7
Rating staff's role (n=93)	Excellent	7	7.5
If they have delivered	Good	29	31.2
before	Fair	44	47.3
	Poor	13	14.0

#Some women gave more than one reason

Table V: Women's concerns about pain relief methods

	Response	Frequency#	Percentage
Confidence rating (n=151)	A little or no confidence in pain relief in labour in general	126	83.4
Concerns about methods (n=150)	Concerned about pain relief methods	33	22.0
	Not concerned about pain relief methods	117	78.0
Concerns (n=33):	Baby may be affected	14	42.4
	Contractions may be weakened	6	18.2
	Inability to push or use lower body parts	4	12.1
	May lead to caesarean section or instrument use	6	18.2
	Labour may be unnatural	4	12.1
	Method may not work	2	6.1
	Increase in number of non-caring women	1	3

#Some women gave more than one answer

of the women answered "yes". Seven women (4.7% of total) knew somebody who had or had themselves experienced complications due to pain relief methods. Most of the women (83.4%) expressed little or no confidence in labour pain relief.

Discussion

More than half the women were aware of labour pain relief methods. Even though this percentage is not high, it is comparable to other populations with a similar level of socioeconomic development. In Nigeria, Olayemi ***et al.*** found that only 27.1% of 1 000 respondents were aware of the availability of labour pain relief.[6] Ibach ***et al.*** found that most Xhosa primigravidae in a Cape Town midwifery obstetric unit knew of some analgesic method, although only a few had knowledge of regional analgesia.[8]

Most of the women had gained knowledge of pain relief from previous experience or from friends and relatives, with only a few gaining knowledge from media and textbooks. The literature cites the most useful sources of information as friends, family, midwives, books and information booklets.[9]

The women were mostly aware of pain relief given as an injection in the thigh, presumably an opiate like pethidine. This is not surprising, as this is the most commonly given form of labour pain relief because of its ease of administration. None of the women mentioned inhalation techniques or non-pharmacological methods, except the few who knew about breathing exercises. This level of knowledge is similar to that in the Nigerian study, in which 80% of the respondents who had an awareness of obstetric analgesia knew of opiates, but only 10% and 14% were aware of epidural and inhalation techniques respectively.[6]

Of the women who expressed a preference for pain relief (Table II, n=119, 78.8%), 31.1% preferred some form of injection. This choice is most likely because injections may be the only form of pain relief they know or have experienced. Preference for and knowledge of epidurals was similar (21.8%) and may indicate that women who had experienced epidurals would prefer the technique. Leighton and Halpern found that women who received epidural analgesia had lower pain scores and were satisfied with their analgesia.[10]

Approximately two-thirds of the women had experienced labour before, and of these 85.6% had experienced moderate or severe pain, while 65.3% found the experience unacceptable. This indicated that most women believed that labour should be as comfortable as possible, although few of the women believed that labour pain had to be tolerated. Melzack found that over 80% of both primigravidae and multiparae found labour pain severe, very severe or excruciating.[11] Melzack and Katz found that pain scores for labour pain in both primigravidae and multiparae were greater than pain scores given by patients with chronic back pain, post-herpetic neuralgia and phantom limb pain.[12] There are additional factors that allow women to view their pain

and labour experience as acceptable. Hodnett reviewed a number of studies and found that pain and pain relief generally do not play major roles in maternal satisfaction.[7]

More than half of the women (56.7%) would ask or had asked for pain relief during labour. Similarly, Olayemi ***et al*** found that 57.6% of the respondents in the Nigerian study were willing to accept analgesia if offered, but also that 76.5% of those who did not want to have analgesia did so because labour pain is natural.[6]

Generally, women who had been pregnant before were not told what to expect during labour. However, of those who were told, 75.6% found the information useful in that it helped them cope with labour pain. Hodnett found that a woman's labour satisfaction depends on the quality of her relationship with her caregivers and included good communication, rapport and information, and the freedom with which she can express her feelings.[7]

In spite of the poor communication with healthcare staff (Table IV, n=150), 96.7% of the women believed that the staff had an important role to play. They believed the staff's role included giving an explanation of what was going to happen. This emphasises the importance of communication. Of the women who had delivered in a hospital, most rated the role of the healthcare staff as fair or good.

Seventy-eight percent of the women expressed no concern about problems associated with pain relief methods. This is consistent with the large number of women who knew nothing or very little about pain relief in labour. An Australian study found that the antenatal period is an important time to provide information on pain relief and that the recall of information given in labour was improved if women attended antenatal classes.[13] A small number expressed concern regarding pain relief techniques. Some concerns are real and well established; for example, epidural analgesia increases the likelihood of longer second-stage labour and instrumental delivery.[10,14]

Most of the women (Table V, n=151, 83.4%) had little or no confidence in labour pain relief. This particular question was meant to determine if women would be confident to go through labour comfortably expecting to have little or no pain. The response shows that the majority do not believe that labour with minimal pain is possible.

In a modern world context when improved access to more modern medical facilities is the order of the day, one would assume that knowledge about pain relief during the birth process will increase, followed by a greater demand for various forms of pain relief. That this has not happened may be a failure on the side of the health authorities, local caregivers, or even the patients themselves. Information could be disseminated through having pamphlets or booklets available at antenatal clinics or making use of videos or DVDs providing material that explains the role of analgesia in labour for the lay person. These resources could be made available to patients while waiting at the clinic or be provided on loan from a resource library. The perception of the degree of pain is a very individual thing, and the choice of pain relief should thus obviously be guided by the patient, on condition that they know what is available.

Conclusion

Most of the women in this study had gained knowledge regarding pain relief from past experience or from friends and relatives. Even though the few women who received information on what to expect during labour found the information useful, most expressed little confidence in labour pain relief.

References

1. Llewellyn-Jones D. Child birth without pain. In: Llewellyn-Jones D Everywoman: a gynaecological guide for life. London: Faber and Faber; 1971. p. 177.
2. Caton D, Frolich MA, Euliano TY. Anesthesia for childbirth: controversy and change. Am J Obstet Gynecol 2002;186(5 Suppl Nature):S25–30.
3. Caton D. Obstetric anaesthesia: the first ten years. Anesthesiology 1970;33(1):102–9.
4. Lowe NK. The nature of labor pain. Am J Obstet Gynecol 2002;186(5 Suppl Nature):S16–24.
5. Norr KL, Block CR, Charles A, Meyering S, Meyers E. Explaining pain and enjoyment in childbirth. J Health Soc Behav 1977;18(3):260–75.
6. Olayemi O, Aimakhu CO, Udoh ES. Attitudes of patients to obstetric analgesia at the University College Hospital, Ibadan, Nigeria. J Obstet Gynecol 2003;23(1):38–40.
7. Hodnett ED. Pain and women's satisfaction with the experience of childbirth: a systemic review. Am J Obstet Gynecol 2002;186(5 Suppl Nature): S160–72.
8. Ibach F, Dyer R, 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.
9. Stewart A, Sodhi V, Harper N, Yentis SM. Assessment of the effect upon maternal knowledge of an information leaflet about pain relief in labour. Anaesthesia 2003;58(10):1015–9.
10. Leighton BL, Halpern SH. The effects of epidural analgesia on labor, maternal, and neonatal outcomes: a systematic review. Am J Obstet Gynecol 2002;186(5 Suppl Nature):S69–77.
11. Melzack R. The myth of painless childbirth. Pain 1984;19(4):321–37.
12. Melzack R, Katz J. Pain measurement in persons in pain. In: Wall PD, Melzack R, editors. Textbook of pain. Edinburgh: Churchill Livingstone; 1999. p. 337–51.
13. Swan HD, Borshoff DC. Informed consent – recall of risk information following epidural analgesia in labour. Anaesth Intensive Care 1994;22(2): 139–41.
14. Lieberman E, O'Donoghue C. Unintended effects of epidural analgesia during labor: a systematic review. Am J Obstet Gynecol 2002;186(5 Suppl Nature):S31–68.