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Labour Pain Relief Management: Postnatal Mothers and Healthcare Providers' Perspectives

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Abstract

Introduction: Many women desire optimal pain management during labour and delivery. However, evidence on labour pain management in developing countries is scarce. This study explores knowledge and perspectives of postnatal mothers and healthcare providers (HCP) on pain management during labour and delivery in Brunei Darussalam. **Materials and Methods:** A cross-sectional study using "the Mothers Survey for postnatal mothers" and "the Labour Pain (LaP) HCP Survey" on mothers and healthcare professionals in the Maternal and Child clinics was carried out from April 2019 to May 2019. There were 282 mothers and 381 healthcare providers who participated in this study. **Results:** Over 50% of mothers reported severe to excruciatingly unbearable labour pain during recent labour. Age and education level were important predictors on pain relief information and preferences. Health professionals preferred third trimester to hold first discussion regarding preferences of labour pain relief, however not much support was received. **Conclusions:** This study highlights the need for health professionals in clinics and hospitals to equally provide informed choices on methods of labour pain relief and consider social media as a platform to educate expectant mothers regarding labour pain and its management.

Keywords: Labour pain; Pain management; Support; Postnatal care; Mothers; Health personnels

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INTRODUCTION

According to the American College of Obstetricians and Gynaecologists, it is unacceptable to leave patients to experience severe pain that can be potentially alleviated by safe intervention. Many women desire optimal pain management during labour and delivery, with many medical indications for analgesia during labour and delivery. Even in the absence of medical contraindication, maternal request for pain relief during labour is a sufficient indication for labour analgesia.[1–4] Pain experienced during the first stage of labour is mostly caused by stimulation of mechanical receptors in the uterus and cervix, which respond from uterine contractions. Increasing uterine contractions release neurotransmitters that activate pain receptors.[5] The pain experienced in first stage of labour is mainly visceral pain and can be relieved by blocking spinal nerve roots or plexuses or paracervical blockade.[5] As labour progresses to the second stage, the pain becomes more somatic. This pain can be relieved by blocking the pudendal nerves (S2-S4) and the nerve roots of L1-L3.[5]

It is essential to detect a woman's expectations of labour early on during antenatal care. Those with fears of labour and negative emotions during labour can make labour pain more severe, thus extending the labour process and can potentially reduce patient's level of satisfaction of their labour experience.[6,7] It is proven that educating women during antenatal care on coping strategies for labour not only lowers pain and anxiety during labour but also increases self-capability and their level of satisfaction of the labour experience.[6–10] Women often lack enough knowledge on analgesic options, risks and complications prior to labour. Consent and decision making are often obtained during labour when the woman is already distressed.[11] Therefore, it is important to provide proper counseling and address the indications, risks and benefits of labour pain relief during antenatal care.

Not much is known whether there is a standardised implementation of planning support for labour pain relief in Brunei Darussalam. The current antenatal practice in Brunei is that patients are given the Maternal and Child Health Handbook by the Ministry of Health that briefly outlines birth plans and pain relief options. Limited knowledge is known on how this handbook is actively utilised by patients and healthcare providers (HCPs) for making birth plans during antenatal care. Hence expectant mothers' understanding, fears, expectations, values and preferences for labour and labour pain management may not be adequately explored.

The purpose of this study is to explore the expectations and perceptions of postnatal mothers and HCPs on labour pain, labour pain relief and decision-making support in labour pain relief. This study also explores for any associated socio-demographic background of those favoring the idea of decision-making support on labour pain relief from those who are against it.

MATERIALS AND METHODS

This was a cross-sectional study conducted across all Maternal Child Health (MCH) Clinics and hospitals in Brunei on 282 postnatal mothers and 381 HCPs using two validated questionnaires - The Mothers Survey for postnatal mothers and the Labour Pain (LaP) HCP Survey for HCPs**.**

The survey was conducted from May 2019 to April 2019. The surveys were built on validated questionnaires on labour pain from previous studies.[12–14] The instruments were assessed for content and face validity. Expert panel (n=6) having vast and various knowledge and experiences in labour pain management commented and contributed to the development of the questionnaire. The expert panel comprised of two midwives, an obstetrician, an anaesthetist, a Senior Medical Officer and a Medical Officer. Each item in the instruments were thoroughly checked to confirm reliability of the instruments by checking the consistencies of understanding of each question amongst the member of the expert panel. The self-designed questionnaires were also pretested among selected participants. Comments were invited to further modify the questionnaire in the aim to achieve comprehensibility and clarity of questions. Item development contributed through experts and existing instruments indicated that content validity index was above 80%.

The LaP HCP Survey and the LaP Mothers Survey were analysed separately as both groups were different in terms of demographic characteristics.

The target sample for this study was calculated based on the annual registry of antenatal patient visits to MCH clinics from year 2013 till 2016 and the actual total number of HCPs nationwide. The targeted minimum sample of 362 postnatal mothers was required to achieve a precision of 5% (d=0.05) based on a population size of 6,259 with an expected proportion of 50% (95% Confidence interval [CI]) whereas 220 HCPs were required to achieve precision of 5% (d=0.05) on a population size of 511 with an expected proportion of 50% (95% CI).

The inclusion criteria for the mothers included patients who delivered via vaginal delivery in hospital (including vacuum and forceps assisted delivery), less than 8 weeks post labour (to reduce recall bias), gestation age at labour of at least 37 weeks or above and those whose age were at least 20 years or above (age 19 years and below were considered of vulnerable age). Those with incomplete questionnaires (less than 50% of total questions answered), delivery before arrival in hospital (e.g. home delivery, delivery in the car) and those who delivered by Caesarean section were excluded from the study. Meanwhile the inclusion criteria for HCPs were any health professional staff (including trainees or students) involved in the antenatal, labour and postnatal care in MCH and hospital, whereas any other staff that do not qualify as a health professional staff such as clerks, ward attendants or ward cleaners involved in the antenatal, labour and postnatal care in MCH and hospital were excluded.

This study was approved by the Medical and Health Research Ethics Committee, Ministry of Health, Brunei Darussalam and the Ethics Committee of PAPRSB Institute of Health Sciences (IHSREC), Universiti Brunei Darussalam (UBD/IHS/B3/8).

Descriptive statistics was computed, and univariate analysis (Chi-square test for independence) was used to detect association between demographic factors and study outcomes. All analysis was run using R v3.6.5.

RESULTS

Mothers

A total 282 eligible postnatal mothers participated in this study, giving a response rate of 72.8%. Participants between 30 to 39 years accounted for 51.4%, followed by 44.3% aged 20 to 29 years old. Among education level, 61.3% had secondary level education or below, and 17.7% had degree level education or above.

Table I: Experience and perception on labour pain among postnatal mothers (N=282).

	n	% [a]
What level of pain did you experience during your recent labour?		
No Pain	12	4.3 a
Mild	30	10.6
Moderate	93	33.0
Severe	104	36.9
Excruciatingly Unbearable	43	15.2
Do you think pain in labour should be relieved/eased?		
Yes	207	73.4
No	75	26.6
Why do you think labour pain *should* be relieved? (Multiple Answers)		
To relieve pain	158	56.0
To relieve stress	83	29.4
To feel confident	57	20.2
To enjoy the experience	66	23.4
Why do you think labour pain should NOT be relieved? (Multiple Answers)		
Natural process	19	6.7
Affect labour negatively	5	1.8
Affect baby negatively	4	1.4
Affect mother negatively	6	2.1

n = Count/Frequency a = Chi-square test for independence
a= Significant for education

Table I illustrates experience and perception of labour pain by mothers. Over 50% reported severe to excruciatingly unbearable labour pain during recent labour. Those with higher level education (postgraduate level) reported higher '*severe*' pain compared to those who had higher secondary and diploma level education (p=0.005). Majority (73.4%) of mothers agreed that labour pain should be eased, however, a minority (6.7%) believed labour pain should not be relieved due to natural process of birth.

Table II illustrates the perception and experience of labour pain management by mothers. 60.3% reported that they never asked for labour pain relief during recent labour and this was significantly higher in those with secondary level education and below compared to those certificate level education and higher (p=0.005). Those aged 35 to 39 years old obtained information from social media significantly more than other age groups (p<0.001). Those with postgraduate degrees obtained information significantly more from hospital or clinic leaflets (p=0.019).

Age and education level also played an important role in relation to knowledge on labour pain options. Older mothers of aged 35 and above knew well of personal coping ability as a method of pain relief; compared to those of younger age groups (20 to 34 years) (p=0.042), also observed in mothers with at least a degree level (p=0.009). Similarly, mothers with degree level and above knew well of 'breathing and relaxation' method as pain relief for labour (p=0.026) and 'keeping mobile and walking' (p=0.004).

Table III presents the perception of postnatal mothers on decision-making support on labour pain relief management. Over 80% agreed or strongly agreed that labour pain options should be discussed with them, especially for younger mothers compared to those aged 40 or above (p=0.007). Over 70% of the mothers were satisfied or very satisfied with their labour pain management during recent delivery, particularly for those mothers with a lower educational background compared to those with certificate level and above (p<0.001).

Breathing and relaxation (55.7%) was the most prevalent non-pharmacological technique received.

Table II: Experience and perception on labour pain management among mothers (N=282).

	n	% [a]
How often did you ask for pain relief during labour? (From start of contraction until baby is delivered)		
Very often	15	5.3
Sometimes	48	17.0
Rarely	49	17.4
Never	170	60.3 [∞]
Did go through 'Birth Record' of 'Maternal and Child Health Handbook' with the healthcare provider?		
Yes	197	69.9
No	67	23.8
I have not received the book	18	6.4
If you know about labour pain relief options/analgesia what is the source? (Multiple Answers?)		
Friends or Family	71	25.2
Social media	68	24.1 [c]
Doctors, Nurse, Midwife	154	54.6
Hospital or clinic leaflets	62	22.0 [∞]
What labour pain relief options do you know of really well? (Multiple Answers)		
No Pain relief	41	14.5
Personal Coping Ability	47	16.7 [c]
Breathing and Relaxation	165	58.5 [∞]
Back Massage	97	34.4
Family Support	110	39.0
Keep Mobile and Walking	79	28.0 [∞]
Change of Position	76	27.0
Analgesic Tablets (Paracetamol, Codeine, Tramadol)	16	5.7
Injection (Pethidine)	86	30.5 [∞]
Using Gas (Entonox)	91	32.3 [∞]
Epidural (Injection at the Back)	67	23.8 [∞]
What labour pain relief options do you know of the least? (Multiple Answers)		
No Pain relief	93	33.0
Personal Coping Ability	50	17.7
Breathing and Relaxation	64	22.7
Back Massage	41	14.5
Family Support	37	13.1
Keep Mobile and Walking	35	12.4
Change of Position	47	16.7
Analgesic Tablets (Paracetamol, Codeine, Tramadol)	48	17.0
Injection (Pethidine)	38	13.5
Using Gas (Entonox)	42	14.9
Epidural (Injection at the Back)	41	14.5

n = Count/Frequency a = Chi-square test for independence
¥ = Significant for level of education c= Significant for age
e = Significant for age and level of education

Those who received 'personal coping ability' for pain relief was significantly reported from those with degree level (p=0.040) and Entonox was reported to be significantly received more by mothers with postgraduate level (p=0.025).

More than half (55.7%) of mothers reported that hospital midwives and nurses should be involved in decision-making on labour pain management, followed by patients themselves (44.0%) and their family members (35.1%). Mothers aged 30 to 39 years (p=0.006) and with diploma level education (p<0.001) significantly favoured obstetricians to be involved in decision-making. Generally, mothers favoured 'patient's own involvement' (p<0.001) and involvement of patient's family (p=0.048).

Healthcare Providers (HCPs)

A total 381 eligible healthcare providers from three major hospitals and all maternal and child health clinics in Brunei, participated in this study (97.4% response rate of distributed questionnaire). However, this number surpassed the calculated minimal sample size required for this study. A majority (61.9%) of the healthcare

Table III: Perception on decision-making support on labour pain relief among mothers (N=282).

	n	% [a]
Discussion of analgesia options including their indications, side effects and complications matters to patients?		
Strongly agree	121	42.9 [h]
Agree	115	40.8
Neutral	16	5.7
Disagree	3	1.1
Strongly disagree	27	9.6
How satisfied were you with the labour pain management that was given to you in your recent delivery?		
Very satisfied	95	33.7 [j]
satisfied	107	37.9
Neutral	58	20.6
Somewhat satisfied	6	2.1
Very dissatisfied	16	5.7
Did the staff in the labour room acknowledge your preferences of labour pain relief or birth plan wishes?		
Yes	224	79.4 [j]
What pain relief method did you receive from the doctor/midwife during your labour? (Multiple Answers)		
No Pain relief	48	17.0
Personal Coping Ability	41	14.5 [j]
Breathing and Relaxation	157	55.7
Back Massage	63	22.3
Family Support	69	24.5
Keep Mobile and Walking	29	10.3
Change of Position	57	20.2
Analgesic Tablets (Paracetamol, Codeine, Tramadol)	5	1.8
Injection (Pethidine)	81	28.7
Using Gas (Entonox)	77	27.3 [j]
Epidural (Injection at the Back)	16	5.7
Who do you think should be involved in making decisions for labour pain management? (Multiple Answers)		
Maternal and Child Health Doctor	84	29.8
Maternal and Child Health Community Health Nurse/Midwife	103	36.5
Obstetrician and Gynaecology Doctor	69	24.5 [l]
Hospital Midwife/Nurse	157	55.7 [j]
Patient	124	44.0 [j]
Patient' Family	99	35.1 [j]
Anaesthetist	29	10.3
When do you think the first discussion regarding preferences of labour pain relief should ideally happen?		
During first trimester	52	18.4
During second trimester	30	10.6
During third trimester	109	38.7 [j]
When the woman is first admitted	44	15.6
During labour	10	3.5
How helpful do you think healthcare providers are at managing your postnatal pain?		
Extremely helpful	81	28.7
Very helpful	133	47.2 [j]
Somewhat helpful	52	18.4
Not so helpful	13	4.6
Not at all helpful	3	1.1
Would you like to be well-informed of labour pain options in the future?		
Yes	240	85.1
No	14	5.0
Unsure	28	9.9

n = Frequency a = Chi-square test for independence
l = Significant for age, education h = Significant in relation to age
j = Significant in relation to education

Table IV: Expectation and perception on labour pain among HCPs (n = 381).

	n	% [a]
What level of pain should you expect women in labour to experience?		
No Pain	33	8.7
Mild	20	5.2
Moderate	62	16.3
Severe	124	32.5
Excruciatingly Unbearable	142	37.3 ‡
Do you think pain in labour should be relieved/eased?		
Yes	342	89.8 g
No	39	10.2
Why do you think labour pain *should* be relieved? (Multiple Answers)		
To relieve pain	270	70.9
To relieve stress	221	58.0 §
To feel confident	144	37.8
To enjoy the experience	170	44.6
Why do you think labour pain should NOT be relieved? (Multiple Answers)		
Natural process	18	4.7 Ī
Affect labour negatively	5	1.3
Affect baby negatively	7	1.8
Affect mother negatively	4	1.0

n = Frequency
‡ = Significant for education
§ =Significant for age, experience
a = Chi-square test for independence
g = Significant for age (>50 years; <50 years)
Ī =Significant for Age

participants were between 31 to 50 years old. They comprised mainly of midwives (41.7%) and staff nurses (37.2%), followed by community health nurse (14.4%) and doctors (6.6%). 70% of the participants had working experience of more than 10 years. About half of the participants (48%) graduated with diploma and above.

Table IV illustrates the responses towards expectation and perception of labour pain by healthcare providers. Majority (69.8%) expects women in labour to experience severe to excruciatingly unbearable pain and perceived that the pain should be relieved (89.8%). It was observed that education level, age group and experience were significant factors.

Table V presents the responses of HCPs regarding experience and perception of labour pain management. This showed that 31.8% of HCPs were '*very often'* asked by patients on labour pain options where Obstetrics and Gynaecology doctors were asked significantly more compared to midwives, staff nurses and community health nurses (p=0.004).

Among the HCPs, 72.9% agreed or strongly agreed that they were knowledgeable in discussing pain relief options with patients, and this finding was observed in those aged more than 50 years old compared to those less than 30 years old (p=0.008) as well as HCPs who were degree holders and above compared to those with diploma and below (p=0.032).

Community health nurses, midwives and staff nurses promoted breathing and relaxation as well as back massage techniques more than maternal and child health doctors, Obstetrics and Gynaecology doctors and anaesthetists (p=0.009). Back massage technique was also preferred more from those with degree level and below compared to those of postgraduate level and above (p=0.031) as well as senior HCPs aged more than 50 years compared to those aged less than 50 years (p=0.016). On the other hand, HCPs with less than 10 years' working experience preferred mobility as a means of labour pain management compared to senior HCPs of more than 10 years' experience (p=0.034).

Pethidine was the most preferred pharmacological method of labour pain management by midwives, staff nurses, Obstetrics and Gynaecology doctors and anaesthetists compared to community health nurses and maternal and child health doctors (p<0.001). Epidural injections were preferred more by maternal and child health doctors, Obstetrics and Gynaecology doctors and anaesthetists compared to staff nurses, midwives and community health nurses (p=0.001) as well as HCPs of more than 5 years of work experience compared to those with less than 5 years of work experience (p=0.018). HCPs aged more than 30 years and with degree level and above were more open to providing and assisting patients for epidural if asked by patients (and if no contraindication) compared to those less than 30 years and with diploma and below (p<0.001).

Table VI shows the results on perception of decision-making support for labour pain management by healthcare providers. Over 90% of healthcare providers agreed or strongly agreed that labour pain management including indications, side effects and complications should be discussed with patients. Obstetrics and Gynaecology doctors, maternal and child health doctors, community health nurses and staff nurses preferred the first discussion regarding preferences of labour pain

relief should be done in the third trimester compared to midwives and anaesthetists (p=0.001).

DISCUSSION

The LaP for Mothers Survey

From this study, it was observed that the higher education, the more severe the pain was reported during labour. In terms of source of information regarding pain relief, there was a trend seen among younger mothers (age 29 and below) where they obtained their source of information on labour pain relief mostly from social media. All these findings suggest that social media in future could potentially be the best platform to educate

Table V: Experience and perception on labour pain management among HCPs (N=381).

	n	% [a]
How often have you been asked by the patient to discuss the available labour pain relief options?		
Very often	121	31.8 [y]
Sometimes	192	50.4
Rarely	54	14.2
Never	14	3.7
How often have you been asked by the patient in the labour room to provide pain relief?		
Very often	116	30.4 [y]
Sometimes	235	61.7
Rarely	24	6.3
Never	6	1.6
Participant is knowledgeable at discussing in detail with patient the available labour pain relief options		
Strongly Agree	80	21.0 [e]
Agree	197	51.7
Neutral	98	25.7
Disagree	5	1.3
Strongly disagree	1	0.3
How often do you go through the 'My Birth Record' section of the 'Maternal and Child Health Handbook' that was given to MCH patients?		
Very often	125	32.8 [y]
Sometimes	185	48.6
Rarely	49	12.9
Never	22	5.8
Which analgesia/ pain relief method would you prefer to promote for labour pain in a low risk vaginal delivery? (Multiple Answers)		
No Pain relief	2	0.5
Personal Coping Ability	65	17.1
Breathing and Relaxation	246	64.6 [y]
Back Massage	198	52.0 [¥]
Family Support	138	36.2
Keep Mobile and Walking	77	20.2 [§]
Change of Position	101	26.5
Analgesic Tablets (Paracetamol, Codeine, Tramadol)	24	6.3
Injection (Pethidine)	176	46.2 [y]
Using Gas (Entonox)	139	36.5
Epidural (Injection at the Back)	50	13.1 [§]
Others	2	0.5
Participant is open to provide/assist the patient with epidural analgesia if the patient asks for it and there is no contraindication		
Strongly agree	50	13.1 [t]
Agree	151	39.6 [t]
Neutral	105	27.6
Disagree	27	7.1
Strongly disagree	5	1.3
Unsure	43	11.3

n = Count/Frequency
y= Significant for occupation
§ = Significant for experience
Ŝ= Significant for occupation and experience
a = Chi-square test for independence
¥ = Significant for age, occupation and experience
e = Significant for age and education
t = Significant for age and experience

Table VI: Perception on decision-making support on labour pain relief among HCPs (N=381).

	n	% [a]
Discuss labour pain analgesia options including indications, side effects and complications matters to patients?		
Strongly agree	177	46.5 [y]
Agree	179	47.0
Neutral	19	5.0
Disagree	3	0.8
Strongly disagree	1	0.3
Unsure	2	0.5
How concern do you think patients feel about whether their pain is adequately and appropriately controlled during labour?		
Very concerned	144	37.8
Concerned	154	40.4
Neutral	58	15.2
Not really concerned	3	0.8
Not concerned at all	1	0.3
Unsure	21	5.5
You actively educate women regarding available options of labour pain relief management?		
Strongly agree	71	18.6
Agree	196	51.4
Neutral	100	26.2
Disagree	4	1.0
Strongly disagree	1	0.3
Unsure	9	2.4
When do you think the first discussion regarding preferences of labour pain relief should ideally happen?		
During first trimester	59	15.5
During second trimester	64	16.8
During third trimester	181	47.5 [¥]
When the woman is first admitted	63	16.5
During labour	10	2.6
Unsure	4	1.0
Who do you think should be involved in making decisions for labour pain management? (Multiple Answers)		
Maternal and Child Health Doctor	243	63.8 [y]
Obstercian and Gynaecology Doctor	175	45.9 [¥]
Hospital Midwives/Nurses	171	44.9 [§]
Patient	159	41.7 t
Patient's family	256	67.2
Anaesthetist	293	76.9
Shared decision between staff and patient	233	61.2
How helpful do you think healthcare providers are at managing postnatal pain?		
Extremely helpful	43	11.3
Very helpful	198	52.0
Somewhat helpful	111	29.1
Not so helpful	28	7.3
Not at all helpful	1	0.3

n = Frequency a = Chi-square test for independence
t =Significant for age, occupation and level of education
y= Significant for education
¥ = Significant for occupation § =Significant for education and occupation

patients regarding labour pain and pain relief management options. In Australia women reported the lack of complete information on analgesics options prior to labour. Information regarding analgesia were regularly obtained from conversation with other people and rarely from HCPs. Decision to use analgesia was found to be influenced by cultural background, friends, family, media, literature and HCPs.[11]

For labour pain relief, the study found that pregnant women in general used various types of pain relief, non-pharmacological and pharmacological. There was significant correlation level of education, where the highest users were mostly educated women with degree level or above. This suggest that majority were not lacking knowledge on labour pain relief options. This could be explained by the fact that younger women and those of lower education level tend to seek information regarding labour pain and its relief management from social media instead of from hospital or clinic leaflets which are traditionally more credible. In a study in Nigeria, where the participants with a median age of 28.8 years and majority with at least primary school level education similarly found low knowledge regarding side-effects and low utilisation of labour pain relief methods.[15] Similarly a study in Chennai, India, with participants of median age 27.4 years and level of education at least up to class 10 or more found that most mothers did not know the beneficial effects of relieving pain and stress during labour.[13] HCPs should consider using social media to educate pregnant women on labour pain and its relief management options, especially since majority of pregnancies are in the younger age group.

In terms of perception on decision-making support on labour pain relief management among mothers most patients 'strongly agree' that it is important to discuss labour pain analgesia options including their indications, side effects and complications. This is consistent with the finding from a systemic review of 69 qualitative and quantitative studies that examined experience and expectations of women of labour pain and labour pain relief was done in the UK and published in 2008 where the study found that women wanted to be involved in decision-making for pain relief management during labour. However the review found a big gap between women's expectation of labour and what actually happened in labour and this affected their level of satisfaction of their labour experiences.[16]

In this study, generally most women wanted their family involvement in making decisions on labour pain management. Most voted for the third trimester as the best time to do the first discussion regarding labour pain relief. A qualitative study from England on primi- and multiparous women at 36 weeks of pregnancy and again at 6 weeks postnatally found a totally different perspective on decision-making for labour pain relief during the antenatal period. Women found advance planning to be difficult and most were undecisive. However, like many other studies, they reported lacking of knowledge on both pharmacological and non-pharmacological labour pain relief methods, and even lacking knowledge on how painful the labour would be. Most of them preferred to wait and see before deciding on pain relief. It was interesting that many had reported attending different types of antenatal preparation classes, yet there were still unclear about the many aspects of labour.[17]

The LaP for Healthcare providers (HCPs) Survey

This study found that HCPs who were older with postgraduate education level had lower expectations that labour pain should be relieved and they did not perceive labour pain could be 'excruciatingly unbearable'. This was despite them being more knowledgeable with labour pain relief options compared to younger HCPs. A survey done in Ethiopia in 2013 also found that despite HCPs in Ethiopia acknowledging that labour can be painful, they did not pro-actively offer patients options for pain relief. Therefore there is a need to encourage HCPs to educate patients actively on pain relief options to improve quality of care for women in labour.[14]

It is interesting to find that in this study, patients mostly asked Hospital Obstetrician and Gynaecology doctors to discuss pain relief options and to provide it during labour and rarely asked Anaesthetists. This could be because Anaesthetists were not being included in most labour management in hospitals, unless they are being called. In the US, discussion of labour pain relief is done in collaboration with an Anaesthesia Care Provider who can help the patient make an informed decision about which types of analgesia to use based on her medical history, personal preferences, and a discussion of the potential benefits and risks of each intervention. It was preferred that such discussion should take place during the prenatal period.[1]

It was also observed that non-pharmacological methods of pain relief were advocated mostly by nurses and midwives whereas pharmacological method such as epidural was mostly advocated by doctors. Similar trend was observed with HCPS of higher education level; they were more supportive than those with lower

epidural was mostly advocated by doctors. Similar trend was observed with HCPS of higher education level; they were more supportive than those with lower education level. The study in Ethiopia found that the HCPs commonly provided non-pharmacological pain relief measures only such as breathing and relaxation exercises, back massage and support from family. Generally pain relief was not considered a priority and more than half, 52% of the HCPs had safety concerns using pharmacological methods to relieve pain in labour.[14] The American College of Obstetricians and Gynaecologists quoted an RCT study regarding intrathecal opioids versus systemic opioids and found that the first stage of labour to be 90 minutes shorter in women receiving intrathecal rather than systemic opioids.[18] RCTs and systemic reviews of thousands of patients have shown that use of epidural analgesia at any stage during labour does not increase the risk of caesarean delivery, but only the risk of instrumental vaginal delivery is increased when compared with not using epidural analgesia.[18–21] This study suggests that in Brunei, nurses and midwives in general may need to be more educated regarding pharmacological method of labour pain relief, especially on epidural.

LIMITATIONS

The limitations of the study, however, were that it was a cross-sectional survey, where there was limitation for truly 'exploring' the knowledge and perspectives of HCPs and mothers towards labour pain and its management as participants' responses were limited to the set of questions asked. A mixed-quality study and quantitative survey would have provided in-depth information on the knowledge and perspectives of the HCPs and mothers that could add value to the existing results. A qualitative study in England challenged the whole idea of advanced planning for labour pain relief where most mothers were undecisive despite being multiparous. A qualitative study to explore this in Brunei would be interesting to see whether the trend is the same.

CONCLUSION

In Brunei Darussalam the nurses and midwives favoured non-pharmacological pain relief methods while doctors seemed to favour more pharmacological pain relief methods. There is a need to educate the Nurses and Midwives on benefits of pharmacological pain relief methods. Also, it seemed that anaesthetists were not much involved in labour pain management. Younger mothers and those with lower education tend to seek information from clinics and hospitals. Healthcare professionals should consider social media as one of the platforms to educate expectant mothers regarding labour pain and its relief management.

Take Home Message

- Majority of mothers in the study were not knowledgeable enough in terms of labour pain relief options.
- Over 80% of mothers strongly agreed that labour pain options should be discussed and over 60% of mothers reported that the first discussion of labour pain should be during the third trimester.
- Doctors favoured pharmacological pain relief methods whereas nurses and midwives favoured non-pharmacological pain relief methods—suggests that in Brunei, nurses and midwives may need to be more educated regarding pharmacological method of labour pain relief, especially on epidural.
- Anaesthetists were not being included in early labour pain management planning-Collaboration between the anaesthetists and antenatal health care providers (Hospital and Community Obstetricians and midwives) at early stage may help the patient make an informed decision on proper planning for labour pain management.
- Health Care Providers must consider social media as a platform to educate expectant mothers regarding labour pain and its relief management.

Abbreviations

HCPs	Healthcare providers
MCH	Maternal and Child Health
RCTS	Randomised controlled trials

Declarations

Conflict of interests

The authors declare no conflict of interests.

Ethical Statement

This study was approved by the Medical and Health Research Ethics Committee, Ministry of Health, Brunei Darussalam and the Ethics Committee of PAPRSB Institute of Health Sciences (IHSREC), Universiti Brunei Darussalam (UBD/IHS/B3/8).

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