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Epidural Analgesia During Childbirth: Women's Perspective in Saudi Arabia

Hanan M. Shamrani[1], MBBS, ABOG, Arwa F. Shamrani[2], MBBS, Fai J. Almagrabi[2], MBBS, Safwan O. Tayeb[2], MBBS, Rahma S. Bukhari[3], Pharm.D, and Steve M. Harakeh[4], PhD

[1]Department of Obstetrics and Gynecology, [2]Faculty of Medicine, King Abdulaziz University
[3]Faculty of Pharmacy, Batterjee Medical College,[4]Special Infectious Agents Unit,
King Fahd Medical Research Center, King Abdulaziz University,
Jeddah, Kingdom of Saudi Arabia

ABSTRACT

Background: Women worldwide may experience excruciating pain during childbirth. Epidural analgesia, sometimes used to relieve pain, has been endorsed as a safe and efficient procedure. The objective of this survey was to evaluate the attitude of women towards the use of epidural analgesia.

Materials and Methods: Data was collected *via* interviews based on a standard questionnaire and analyzed using the latest version of SPSS.

Results: The results indicate that the participants were knowledgeable about the use of epidural analgesia and thought it should be available in future deliveries and caesarean sections. Those with a history of pregnancy thought that pain was unnecessary and that epidural analgesia should be made available. Safety concerns were the primary reason women gave for not wanting to use epidural analgesia. Educational level, income, age and health insurance status influenced women's opinions concerning epidural analgesia use during labor. The main source of information reported was family and friends, followed by physician advice.

Conclusion/Recommendation: Most women surveyed were informed about the use of epidural analgesia during labor. Although half believed labor pain was natural, they thought epidural analgesia should be administered to ease the pain, and 12.1% even felt that pain during delivery was unnecessary. These numbers suggest that the use of epidural analgesia for labor pain management is acceptable in this healthcare setting. However, a nationwide study with a larger sample size may be more informative owing to the significant association between socio-demographic factors and women's attitudes towards epidural analgesia use during labor.

Keywords

Epidural analgesia; Childbirth; Attitude; Saudi Arabia; Cesarean section.

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Address for Correspondence:

Prof. Steve Harakeh
Special Infectious Agents Unit
King Fahd Medical Research Center
King Abdulaziz University
P.O. Box 80216, Jeddah, 21589, Saudi Arabia
e-M: sharakeh@kau.edu.sa

INTRODUCTION

During childbirth, women may experience excruciating pain, with possible subsequent undesirable effects on the newborn and the mother[1]. Painful labor can have a negative impact on both maternal and fetal physiology[2]. As a result, the relief of labor pain may be beneficial to both the mother and child. Previous research has also suggested that postnatal depression may be more frequent among healthy parturients when anesthesia is not administered[3], and one study demonstrated an association between labor pain and the occurrence of post-traumatic stress disorder[4]. In addition, women who receive intrapartum analgesia have less cognitive impairment, particularly in memory function, in the immediate postpartum period compared with those who do not receive analgesia[3,5].

Conversely, unnecessary intervention in labor may have negative consequences. Epidural analgesia EA has been associated with maternal hypotension[1], prolongation of the first and second stages of labor, and an increase in the rate of operative vaginal deliveries[6]. In addition, certain studies have reported that women who receive EA have a higher risk of having a caesarean section (C/S)[7,8]. However, still other studies have failed to show maternal hypotension, significantly prolonged labor, or an increased need for assisted vaginal or C/S delivery in labor patients receiving EA[9-11]. Furthermore, the fact that women with more complicated pregnancies are more likely to receive analgesia during delivery could help explain the increased rates of instrumental deliveries in patients given EA in some studies[7]. Finally, although single studies have found that EA was associated with respiratory distress[11] and lower APGAR scores in the neonate[13], the majority of studies have not shown any negative effects on neonatal outcome with EA use[6,14,15].

The American College of Obstetricians and Gynecologists and the American Society of Anesthesiologists has stated that, "There is no other circumstance where it is considered acceptable for an individual to experience untreated severe pain, amenable to safe intervention, while under a physician's care"[16]. Nevertheless, labor pain may be considered a very different type of pain than that associated with injury and/or disease, since it is a normal part of the childbirth process. In the absence of a medical contraindication, however, maternal request is a sufficient medical indication for labor pain relief[11].

Epidural analgesia is the most commonly used method of pain relief and is preferred by more than 60% of women in developed countries[9]. However, low back pain and headache are two problems reported after the administration of EA. There are a number of contributing factors to the occurrence of low back pain, such as local epidural needle trauma, patient body mass index, epidural duration, patient position and number of EA placement attempts[8]. Reassuringly, the incidence of long-term back pain is not increased in women who receive EA compared with those who are given parenteral opioids or no analgesia[3,16]. Furthermore, some studies have not found a significant increased risk of back pain with EA[39]. However, headache occurs in approximately 70% of inadvertent dura punctures ('wet taps'). The incidence of wet taps has been estimated at roughly 1%[3].

Some researchers have focused on EA and the establishment of breastfeeding. While some studies have found associations between the use of EA and delayed lactation and earlier breastfeeding suspension, still others have not[17]. In one observational study, Halpern *et al.*[18] showed that analgesia use during labor was not correlated with a decrease in breastfeeding at 6-8 weeks postpartum. Another study reported that, compared with delivery without analgesia, EA during delivery did not adversely affect breastfeeding[19]. Finally, one report demonstrated an adverse effect on early breastfeeding success only with high doses of epidural fentanyl (>150 μg) during labor[20].

Epidural anesthesia is very effective in reducing labor pain and making childbirth a pleasurable event[21]. Nevertheless, some women consider labor pain to be a natural phenomenon that creates a strong bond between mother and child, and relief of such pain would be highly controversial[22]. This survey aims to evaluate the preferences of women in Jeddah, Saudi Arabia regarding the use of EA to manage childbirth-associated pain.

MATERIALS AND METHODS

This cross-sectional survey was conducted on women who were either visiting King Abdulaziz University Hospital (KAUH), a public hospital, or the International Medical Center (IMC), a privately-run hospital in Jeddah, between 2013 and 2014. In Saudi Arabia, the Ministry of Health (MOH) is the main provider of public healthcare services. In addition to public providers, there are many private agencies. The MOH provides health services at the primary, secondary, and tertiary levels of care.

The questionnaire was approved by the Research Ethics Committee at King Abdulaziz University, and participants signed a consent form. Women were assured that the information collected in the survey would remain anonymous and confidential. The questionnaire was written first in English, then translated into Arabic.

Female participants were recruited from the waiting area of the obstetrics and gynecology clinics at both KAUH and IMC, irrespective of whether they were being seen or were there with a relative. Women who were unaware of EA were excluded from this study.

A total of 800 women were invited to participate in this survey. Of these, 690 completed the full interview, giving a response rate of 86.3%. Of the 690 who agreed to participate in the survey, 144 had never heard of EA and were consequently excluded from further analysis. We present data for 546 women who provided perspectives on EA during childbirth.

The main and contributing authors developed the questionnaire and it was distributed to 30 women prior to the study to obtain feedback to improve its clarity, comprehensiveness, and ease of completion. The questionnaire was validated. Then, participants were interviewed face to face by medical students who followed the questionnaire, which was composed of 24 closed-ended and multiple-choice questions. The questionnaire elicited relevant demographic information including age, nationality, educational background, marital status, socio-economic background, health insurance status and knowledge of the cost of childbirth. The rest of the questions addressed previous and/or current pregnancies, abortions, presence of a prenatal caregiver, mode of previous deliveries, pain control during delivery, knowledge of pain control options available to women during labor, and preferences regarding pain control measures.

Finally, women were asked questions about their knowledge and attitudes concerning both pain in general and the use of EA in childbirth in particular. This included answering questions concerning pain during labor and whether they thought that pain was a natural part of childbirth or whether they thought that it was unnecessary. Other questions asked about their plans regarding EA use in the future (definitely plan to use, probably plan to use, plan to avoid, no intention of using, or "I don't know").

Only completed questionnaires were included for analysis. The data were entered using IBM SPSS Statistics for Windows, Version 22.0. (IBM Corp, Armonk, NY USA). Appropriate descriptive statistics were calculated. The chi-square test was used to identify associations between the various demographics of interest as well as associations between demographic characteristics and the use of EA.

RESULTS

Demographics

The sample included 690 women but results included data from 546 women in accordance with the exclusion criterion *i.e.* those women who had not heard of EA were not questioned on their views. Respondents were predominantly Saudis (65.5%), married (59.9%), and college or university graduates (55.9%). Furthermore, of the respondents, 34.2% earned monthly income ranging from Saudi Riyals 3,000 to 10,000 (US$800-2,667), and almost half (49.2%) were health insurance holders (90.1% of those had private insurance; Table 1).

Pregnancy-Related Information

As shown in Table 2, 90.2% of the women had a history of pregnancy. Only 30.9% were pregnant at recruitment. Those with a history of pregnancy sought a physician as their prenatal caregiver (85.1%). There was a history of abortion in 35.8%. In those who had previously delivered a baby, the most common route of delivery was vaginal (58.3%). Approximately 35.4% of respondents estimated the cost of vaginal delivery to range to be between SR3,001 and SR8,000 (US$800-US$2,134).

History of Pain Management

Of the women with previous deliveries, 57.4% used non-pharmacological pain control measures, whereas 40.5% used pharmacological drugs based on the recommendation of their doctors (43.5%). Most of those surveyed (79.2%) had heard about EA (Table 3).

Labor Associated Pain

Thirty-five percent of our respondents agreed with the statement that pain was natural during labor and women should bear it without medical intervention. Approximately 50.1% believed that labor pain was natural but that EA should be administered to ease the pain, and 12% said that labor pain was unnecessary. About equal proportions of the respondents shared the same opinion of the use of pharmacological drugs (44.0%) and EA (46.6%) *i.e.,* such interventions were equally considered the best option for pain control during delivery. Regarding the use of EA during normal labor, 34.3% of the women preferred to avoid it, 22.8% definitely planned on having it, 18.0% responded that they would probably have it, 16.0% had no intention of receiving it, and 9.0% did not know. Safety concerns (reported by 67.3%) was the main reason given by respondents for their not wanting to have EA. Regarding the use of EA in C/Ss, 33.9% definitely planned on using it, 20.8% preferred to avoid it, 17.1% had no intention of receiving it, and 16.4% did not know. The women's main source of information about epidurals was family and friends (47.4%), followed by doctors (38.8%; Table 4).

Influence of Demographics and Obstetrical History

Considering the response "pain is a natural part of childbirth and women should cope with it" as a baseline reference, our analysis showed that age, educational level and monthly income significantly affected the attitude of women towards the use of EA in normal labor (Table 5).

DISCUSSION

The aim of this survey was to evaluate the attitude of women towards the use of EA for labor pain relief with respect to demographics, obstetric history, and surgical history. We believe that the interview method used to obtain data put the participants at ease and made them more likely to give candid answers, improving the quality of the collected data.

Our survey results demonstrated a high level of knowledge regarding the use of EA during childbirth (79.2%). Similarly, James *et al.*[23] found that 78% of their study participants had knowledge of EA use in childbirth; whereas, other authors have reported lower levels of knowledge among women surveyed[22,24-26]. Differences among study populations are likely related to socio-demographic factors. The high level of knowledge among our study group is attributable to the study setting and sample characteristics. This study was conducted

TABLE 1.
Demographic characteristics of the respondents.

Factors	Descriptive Statistics	
	Number (N)	Percentage (%)
Nationality		
Saudi	452	65.51%
Arab Expat	142	20.58%
Western Expat	41	5.94%
Asian Expat	55	7.97%
Age		
Less than 27	318	46.08%
27 – < 37	205	19.72%
37 – 47	104	15.07%
More than 47	63	9.13%
Marital Status		
Single	238	34.69%
Married	411	59.91%
Widowed	20	2.92%
Divorced	17	2.48%
Educational Level		
Illiterate	39	5.66%
Reading and Writing	12	1.74%
School Education	71	10.30%
High School	137	19.89%
College or University	385	55.88%
Higher Education	45	6.53%
Family Monthly Income (in SAR)		
Less than 3,000	124	18.02%
3,000 – 10,000	235	34.16%
10,001 – 15,000	132	19.19%
15,001 – 20,000	92	13.37%
More than 20,000	105	15.26%
Health Insurance		
Yes	221	49.22%
No	228	50.78%
If Yes, Type of Insurance		
Private	192	90.14%
Governmental	21	9.86%

in Jeddah, the largest city in the western region of Saudi Arabia, where more people may be aware of modern medical procedures used to relieve labor-associated pain than in rural areas. Moreover, the survey was conducted in a hospital setting, with one of the included hospitals being privately run. In addition, many of the women surveyed had a college or university educational background and earned high incomes, and approximately 50% were private health insurance holders.

Of our respondents, 12% felt that pain during childbirth was unnecessary, and 50.1% agreed that pain was a natural part of childbirth but that epidurals should be administered for pain relief. Thus, a large number of women were in favor of EA use for labor pain management, while 35.0% felt that pain was a natural part of childbirth and women should cope with it. A significant number (40.8%) reported that they would definitely or probably use EA in the future. By comparison, one survey in India found that only 23% of women were inclined toward the use of EA during labor[28]. Another study by a Nigerian group reported that 57.6% of respondents accepted the use of EA, and a higher rate of acceptance (63.0%) was reported from one of the largest cities included in their study[29]. An even higher proportion of women (80%) endorsed the use of EA in a study conducted in Australia[30]. Although there is no clear explanation for these differences, it is plausible that people in developed countries are better informed and more aware of the safety of EA use during childbirth. In addition, religious and cultural traditions may influence whether or not a woman requests pain medication or uses alternative measures to manage childbirth pain[31].

TABLE 2.
Pregnancy information of the respondents.

Factors	Descriptive Statistics	
	Number (N)	Percentage (%)
History of Pregnancy		
Yes	404	90.18%
No	44	9.82%
Pregnant Currently		
Yes	124	30.92%
No	277	69.18%
Prenatal Caregiver		
Physician	342	85.07%
Nurse (PHC)	30	7.46%
Other	3	0.75%
None	27	6.72%
Previous Abortion		
Yes	143	35.84%
No	256	64.16%
Mode of Previous Deliveries		
Cesarean	81	20.46%
Vaginal	231	58.33%
Both	51	12.88%
Not Applicable	33	8.33%
Pregnancy Care Cost (in SAR)		
Less than 3,000	93	13.68%
3,000 – 8,000	241	35.44%
8,001 – 12,000	195	28.68%
More than 12,000	151	22.20%

Studies are needed, however, to obtain qualitative data on the cultural beliefs, values and perceptions that may affect labor pain responses and pain management preferences.

Respondents who had a history of pregnancy sought a physician as a prenatal caregiver in 85.1% of the cases, 58.3% had vaginal deliveries, and 35.4% correctly estimated the cost of delivery. The reason behind this lies in the fact that the women included in this study were largely well educated with high monthly incomes, approximately half were private insurance holders, and most had been pregnant before. Women who had experienced previous deliveries were aware of the use of EA (79.2%); 40.5% used pharmacological drugs for pain control measures, and 57.4% based their decision on physician advice. Again, the high degree of awareness may be due to the high socio-economic background of our study population.

The C/S delivery rate has been increasing for the last several years and several studies have indicated that Western women electively opt for C/Ss[32-35]. The highest percentage of our respondents indicated that they definitely planned to use EA during C/S (33.9%), versus 20.8% who preferred to avoid it. The use of EA was less preferred for other surgical procedures, with 20.6% planning to use it and 22.6% reporting that they would avoid it with preference for other forms of anesthesia such as spinal block or general anesthesia. This is much higher than what was reported by other authors in a study conducted in India[28].

The results of the current study indicate that socio-economic status influences a woman's decision to choose EA for labor pain control. Private insurance holders and those who were supervised by a physician during pregnancy tended to choose EA for pain management. Of note, previous research found that women with private insurance and those who received care from an obstetrician used epidurals more frequently than women without private insurance and those who received midwifery care[30]. Furthermore, the authors suggested that educated women and those who had higher incomes were more likely to have private insurance, indicating that they were more likely to use EA.

Prior research showed that compared with women in developed countries, fewer women in developing countries were aware of the use of EA for pain management during labor[16-18,24,31,32]. It is possible that women who attend antenatal classes, which may be more accessible in developed countries, experience a change in their beliefs due to such classes. Moreover, women belonging to a high socio-economic class are more likely to use EA because

TABLE 3.
Pain information and knowledge of the respondents.

Factors	Descriptive Statistics	
	Number (N)	Percentage (%)
Use of Anesthesia During Previous Deliveries		
Yes	226	57.36%
No	148	37.56%
Not Applicable	20	5.08%
Best Perceived Option for Pain Control During Delivery		
Meditation	71	15.40%
Pharmacological	158	34.27%
Non-pharmacological	43	9.33%
Epidural	107	23.21%
Other	11	2.39%
Relaxation, breathing techniques, positioning/movement, massage, hydrotherapy, hot/cold therapy, guided imagery, acupressure, and aromatherapy	71	15.40%
Doctor's Advice about Pain Control Options		
Meditation	43	11.14%
Pharmacological	168	43.52%
Non-pharmacological	32	8.29%
Epidural	81	21.98%
Other	37	9.59%
Not Applicable	25	6.48%
Heard about Epidural		
Yes	546	79.13%
No	144	20.87%

they are not as likely to be restricted by financial concerns as less privileged women. One study[30] showed that women who were less educated, of lower socio-economic status and uninsured were reluctant to accept the extra cost of EA and tried different techniques for pain control.

Safety concerns were reported by women who did not want to use EA—67.3% thought EA was harmful to their health and 6.5% indicated adverse effects to the health of the baby. Although adverse effects from EA use in childbirth have been reported, many studies indicate that EA is safe for the mother and newborn[1,33,34]. Some concerns that have been raised in the literature are related to the effect of EA on the baby and the bonding between the mother and the newborn[14]. There is also concern that EA may reduce the ability of the mother to push, possibly resulting in operative vaginal delivery or C/S[23]. Some women associated the use of EA with back pain; however, one study indicated that there was no difference in the occurrence of back pain in women who had EA versus those who did not receive anesthesia[35].

Interestingly, the main source of information on EA reported by our respondents was family and friends (47.4%), followed by doctors (38.8%). These proportions are slightly higher than those reported in other studies that were conducted in a similar cultural setting. For example, in studies conducted in Eastern cultures, which share similar values with the Saudi culture, 39-42% of women reported that their source of information was family and friends[17,20,21]. In our setting, antenatal clinics do not usually provide much information to expecting mothers, meaning that women rely largely on health information conveyed by family members and friends. In contrast, women in developed countries have multiple sources of information, including doctors, midwives, family and friends, television programs, leaflets, the internet and newspapers[42,43]. For example, women reported multiple sources of information, ranging from the anesthetist/obstetrician to the media, in a study conducted in Australia[44]. In other studies, women obtained information from clinics, textbooks, the media, the internet, and television[42,43]. The uncertainties in the attitudes that were evident in many of the responses of

TABLE 4.
Women's attitudes towards pain and labor.

Factors	Descriptive Statistics	
	Number (N)	Percentage (%)
Attitudes Towards Pain		
Pain is unnecessary	66	12.11%
Pain is natural but epidural should be used to control it	273	50.09%
Pain is natural and women should cope with it	191	35.05%
Don't know	15	2.75%
Known Pain Management Options*		
Meditation	127	19.30%
Pharmacological	220	33.44%
Non-Pharmacological	66	10.03%
Epidural	233	35.41%
Other	12	1.82%
Epidural Analgesia in Normal Labor		
Definitely plan on having it	124	22.76%
Will probably have it	98	17.98%
Would prefer to avoid it	187	34.31%
No intention of having it	87	15.96%
Don't know	49	8.99%
Reasons for choosing NOT to have an epidural*		
Harmful to baby	13	5.65%
Harmful to me	134	58.26%
High financial cost	6	2.61%
Prefer other option	58	25.22%
Don't know	19	8.26%
Epidural Analgesia in Cesarean Section		
Definitely plan on having it	184	33.82%
Will probably have it	64	11.76%
Would prefer to avoid it	113	20.77%
No intention of having it	93	17.09%
Don't know	89	16.36%
Epidural Analgesia in Other Surgical Procedures		
Definitely plan on having it	112	20.55%
Will probably have it	97	17.80%
Would prefer to avoid it	123	22.57%
No intention of having it	103	18.90%
Don't know	110	20.18%
Information Sources on Epidural*		
Doctors	194	30.31%
Nurses	26	4.06%
Midwives	4	0.63%
Family & Friends	237	37.03%
Newspapers	19	2.97%
Internet	91	14.22%
Television Programs	44	6.87%
Others	25	3.91%

**Percentages amount to more than 100% as question allowed for multiples answers.*

TABLE 5.
The effects of different parameters on the women's attitudes towards epidural analgesia.

Factors		Attitude			
		Pain Attitude	Epidural Analgesia in Normal Labor	Epidural Analgesia in Cesarean Section	Epidural Analgesia in Surgical Procedure
Demographics	Age	0.043†	0.033†	0.017†	0.012
	Educational Level	0.036†	0.027†	0.013	0.014
	Monthly Income	0.036†	0.027†	0.020†	0.026*
	Marital Status	0.038†	0.020†	0.005	0.006
	Health Insurance	0.029†	0.015†	0.011†	0.011†
Pregnancy Information	Currently Pregnant	0.011	0.015†	0.007	0.005
	Delivery Mode History	0.026*	0.009	0.029†	0.018
	Pregnancy Cost	0.005	0.008	0.014*	0.006
Pain Information	Pain Control History	0.023*	0.021*	0.021†	0.008
	Doctor's Advice	0.049†	0.050†	0.058†	0.038*
	Best Option Choices	0.125†	0.137†	0.090†	0.038†

The value was calculated by using chi-square test (uncertainty coefficient).

- *Uncertainty coefficient (attitude dependent): appears how factors (demographics and knowledge) affect attitudes.*
- *0.0 = no association, 0.0 < r ≤ 0.2 very weak, 0.2 < r ≤ 0.4 weak, 0.4 < r ≤ 0.6 moderate, 0.6 < r ≤ 0.8 strong, 0.8 < r ≤ 1.0 very strong.*

**P-value < 0.05; †P-value < 0.01*

our respondents may be due to the fact that their sources of knowledge were family and friends, not healthcare professionals, and, therefore, misunderstandings and misconceptions are likely.

Limitations

Our sample only included visitors of two big hospitals (private and public) in Jeddah. Such a study should be extended to rural villages and remote areas to provide a more representative and inclusive assessment of Saudi women's attitudes toward the use of EA in childbirth.

CONCLUSIONS AND RECOMMENDATIONS

Overall, our data demonstrate that most women were informed about the use of EA during labor, and over half of the respondents had positive opinions toward EA use, suggesting that the use of EA for labor pain management is acceptable to women in our healthcare setting. However, we recommend a nationwide study with a larger sample size to obtain data that is more representative of the views of women from rural areas of the Kingdom. Moreover, we suggest that the Ministries of Health and Education run educational campaigns on the safety and acceptability of modern labor pain management techniques using multiple means of communication (television programs, newspapers, journal articles, the internet and social media). In addition, healthcare providers should organize antenatal classes that discuss current labor pain management options and encourage women to make informed decisions.

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Conflict of Interest

The authors have no conflict of interest.

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Ethical Approval

Obtained.

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ابرة الظهر المسكنة أثناء الولادة: وجهة نظر المرأة في المملكة العربية السعودية

حنان شمراني[1]، وأروى شمراني[2]، وفيء المغربي[2]، وصفوان طيب[2]، ورحمة بخاري[3]، وستيف حركة[4]

[1]قسم أمراض النساء والولادة، [2]كلية الطب، جامعة الملك عبد العزيز،
[3]كلية الصيدلة، كلية البترجي للعلوم الطبية
[4]وحدة الكائنات المعدية الخاصة، مركز الملك فهد للبحوث الطبية بجامعة الملك عبد العزيز
جدة - المملكة العربية السعودية

المستخلص.

المقدمة: النساء في جميع أنحاء العالم قد تواجهن آلام مبرحة أثناء الولادة. وقد تم استخدام ابرة الظهر المسكنة لتخفيف هذا الألم، وقد اعتمدت أنها إجراء آمن وفعال. الهدف من هذه الدراسة هي تقييم ومعرفة موقف المرأة نحو استخدام ابرة الظهر المسكنة أثناء الولادة.

الطريقة: تم استخدام الاستبيان كأداة لجمع البيانات. تم تحليل البيانات باستخدام أحدث نسخة من برنامجSPSS.

النتائج: أظهرت النتائج أن معظم المشاركات كن على معرفة نحو استخدام ابرة الظهر المسكنة وظنوا أنه ينبغي أن تكون متاحة في جميع الولادات المستقبلية والقيصرية. النساء اللاتي كن حامل من قبل يعتقدن أن ألم الولادة غيرضروري ويجب أن تكون ابرة الظهر المسكنة متاحة. المخاوف المتعلقة بالسلامة هي السبب في عدم رغبة النساء في استخدام ابرة الظهر المسكنة. العوامل المؤثرة على قرار النساء بشأن استخدام ابرة الظهر المسكنة كان المستوى التعليمي، الدخل، العمر والتأمين الصحي. المصدر الرئيسي للمعلومات عن ابرة الظهر المسكنة، بالإضافة إلى أطبائهم، كان أفراد العائلة والأصدقاء.

الاستنتاج / توصية: معظم النساء في هذه الدراسة كن على معرفة حول استخدام ابرة الظهر المسكنة أثناء الولادة. وعلى الرغم أن نصف النساء اعتقدن أن ألم الولادة يعد طبيعيا، الا انهم ظنوا أن ابرة الظهر المسكنة يمكن أن تدار لتخفيف هذا الألم، مما يشير إلى أنه في سياقنا أن استخدام ابرة الظهر المسكنة لإدارة ألم الولادة مقبول عليه. ومع ذلك، نوصي بعمل دراسة وطنية مع عينة أكبر من النساء قد يكون ضروريا نظرا لوجود ارتباط مهم بين العوامل الاجتماعية والديموغرافية ومواقف المرأة نحو استخدام ابرة الظهر المسكنة أثناء الولادة.

كلمات: ابرة الظهر المسكنة، الولادة، موقف، المملكة العربية السعودية، الولادة القيصرية.