



Contents lists available at ScienceDirect

Annals of Medicine and Surgery

journal homepage: www.elsevier.com/locate/amsu

Review

Epidural analgesia and related ethical issues among pregnant women: Literature review

Sawsan Abuhammad^{*}, Esraa Alholi

School of Nursing, Jordan University of Science and Technology, Irbid, Jordan



ARTICLE INFO

Keywords:

Informed consent
Epidural analgesia
Pregnant women
And antenatal period

ABSTRACT

Objective: This study aims to review the literature regarding epidural analgesia and related ethical issues among pregnant women.

Method: The authors were searched many electronic databases (CHINAL, Ovid Midline, Pub MED and Google Scholar, Science Direct Database, Biomed) under the following keywords (Informed consent, epidural analgesia, pregnant women, and antenatal period). The several quantitative studies published in English were reviewed and analyzed. The authors were analyzed the studies using a literature review matrix subheading to author, years published, type of study, variables, design and methodology, finding, conclusion, limitations for practices and limitations for studies.

Results: The themes that emerged from the literature review were: difference between patient and provider in perceptions of informed consent toward EA during childbirth process; factors affecting the women choice of using EA during childbirth process and awareness regarding using of EA in childbirth among women in antenatal clinics.

Conclusion: The process of signing of informed consent for EA in women during childbirth is linked to many ethical responsibilities from women and healthcare providers. The informed consent practice can be enhanced by putting greater emphasis on antenatal information, providing suitable timing of information and developments in recent methods of information release and transfer.

1. Introduction

Pain through childbirth is main concern of most women during childbirth in the world. Childbirth pain is the most extreme pain that most women may experience during their life [1]. Many women have increased awareness of their right to enhance the quality of care through childbirth by using an appropriate pain relief way [2,3]. Currently, epidural anesthesia [EA] is the most effective way to control pain without any risk to the mother or the fetus [4]. However, EA is still not a completely and acceptable practice for many healthcare providers in developing countries despite several benefits of this method [4]. Normal vaginal delivery is an excruciating event resulting from frequent uterine contractions [5]. National Institute for Clinical Excellence [6] in United Kingdom recommends educating pregnant women about the accessibility of useful analgesia methods during childbirth to ensure that they obtain the most favorable experience through childbirth. The information regarding childbirth pain and way to control it are relatively in intuitive stages in developing countries [7]. Insufficient information,

antenatal dialogue, and practical experience are still the major concerns towards the practice of EA among obstetricians and healthcare providers. The main key source of receiving information regarding childbirth analgesia methods is from family and friends [8]. Therefore, it is the responsibility of the decision maker to improve the quality of EA practicing by providing consistent information about childbirth analgesia. There are many advantages of increasing awareness regarding EA among women which may prevent women from choosing cesarean section to avoid painful childbirth [8]. Because this intervention of healthcare provider holds risks and benefits, women are put in serious position at a critical time when they are vulnerable, in addition to the time needed to attain a lot of information to maintain and support their choices. Accordingly, increasing emphasis on the significance of the decision-making process to the childbirth process is required to enhance prenatal outcomes [12]. Women need to be informed about the advantages and disadvantages connected with EA through childbirth process [14]. Ethically, pregnant women have the right to obtain informed consent; there is an obligation to have all information regarding EA that

^{*} Corresponding author.

E-mail address: Shabuhhammad@just.edu.jo (S. Abuhammad).

<https://doi.org/10.1016/j.amsu.2021.102305>

Received 23 March 2021; Received in revised form 6 April 2021; Accepted 7 April 2021

Available online 13 April 2021

2049-0801/© 2021 The Authors. Published by Elsevier Ltd on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

include advantage and disadvantage of using this way to control pain [9].

In many countries, it is the responsibility of the anesthesiologist to get the informed consent from the women for any surgical procedure. This practice is inadequate because it is affected by many ethical factors related to the client and anesthesiologist if they fail to gain ethical informed consent, and this obligate the anesthesiologist to reassess the understanding of the patient [10–12]. The EA consent form is habitually oral and just obtained prior to insertion; therefore, this study aims to assess the process of obtaining informed consent regarding EA among pregnant women. This study aims to review the literature regarding epidural analgesia and related ethical issues among pregnant women.

2. Method

2.1. Searching strategies

Electronic search using the following databases to collect data about informed consent toward epidurals among pregnant women: science direct, PubMed, Google Scholar, Google advanced search with the following search words: *Informed Consent, Epidural Analgesia, Antenatal Period, Pregnant Women, Risk Factors, Benefits, Characteristics, Knowledge, Practice, Nurses, Midwives, and Perception*. The authors extended the searching to the reference list of each article they found. The articles were systematic review, randomized controlled trial (RCT), cross-sectional study, cohort study and descriptive study. The inclusion criteria were articles written in English language with focusing on the main keywords listed previously. The emerging themes from the literature review were: Differences among Patient and Health Care Providers; Factors Affecting the Women Choice of Using EA During Childbirth Process, and Awareness Regarding Using of EA in Childbirth Process among Pregnant Women in Antenatal Clinics.

3. Results

3.1. Difference between patient and provider in perceptions of informed consent toward EA during childbirth process

The first theme that emerged from the literature review was difference between patient and provider in perceptions of informed consent. In a comparative study to determine the variation of informed decision-making awareness toward EA during childbirth among patient and provider. They found a considerable difference between provider and patient in defining and recognizing pain relief methods. Providers were expected to support the rights of women toward informed decisions compare to the women who are expected to respect the healthcare providers decisions [15]. In another research study to compare the differences in decision-making among health care providers and women regarding utilizing EA throughout childbirth process. It was obvious that choosing of EA depend on the information that women were received from the healthcare providers [15,16].

3.2. Factors affecting the women choice of using EA during childbirth process

There were many studies were described factors that affecting choice of using EA during childbirth [6,8,16,17]. For example, a prospective cross-sectional study was conducted to assess factors linked to the refusing of EA among 933 among women. This study was collected information about their parity, literacy level, reasons for seeking or refusing EA, a resource of information and satisfaction. This study demonstrated that universal reasons were misconceptions regarding the nature of EA (65.9%) and lacking information about the choice of EA (20.5%); familiarity with the side effects of EA (70.5%). For participants used EA during childbirth, their choices for having EA were directed by healthcare providers [8]. In two studies in Nigeria and Norway, to

compare the characteristics between women who received EA and who not. They found that the education level was higher with women who had received EA during childbirth compared to none. Moreover, women who received childbirth preparation classes are more likely to use EA during childbirth [22,23]. Another national antenatal survey among 8233 found that refusing to seek EA was greater in poor women such as none employed women or less than bachelor's degree [16]. In comparison, a survey study among 320 participants found that 80% of women receiving an epidural during childbirth. The identified factors for using EA include prior epidural use, partner preference, age, language, type of insurance, duration of childbirth, and education [17].

In summary, the main reasons for avoiding EA are lack of knowledge and awareness, misconceptions about EA, and desire to experience vaginal delivery [8]. The recommendation of National Institute for Clinical Excellence to educate pregnant women about availability of effective analgesia in childbirth process and find the factors that impacted their decision to choose EA during childbirth [6].

3.3. Awareness regarding using of EA in childbirth among women in antenatal clinics

Another theme that emerged from this literature review was awareness regarding EA in childbirth among women in antenatal clinics [7,8,18,20–24]. A descriptive study among multipara pregnant women found that many misconceptions and worries linked with EA use. Braun, Skene, & Merry [20] anticipated three methods to address the impeding factors for obtaining informed consent from healthcare providers that should described in preadmission clinic. These clinics require to inform women regarding pain-relief options during childbirth. A cross-sectional study among 350 women attending antenatal classes aimed to identify the awareness and utilization of EA during childbirth between April 2016 and July 2016 found that only 43.3% of the participants were aware of using EA during childbirth. However, only 7.5% used EA. The results from this study focus on developing a strategy to enhance performance and quality of EA by information providing during pregnancy [8]. The improving of antenatal information was required teamwork with sufficient resources [7].

A study among 40 pregnant and newly birthing women regarding how media, friends, and family informing decision-making for women for using EA during childbirth. The results of the study show that women define birth based on previous experiences. These experiences impact the women's choices regarding use of EA during childbirth process [23]. Yet, it is implicit that women's choices of delivery would be enhanced if women informed correctly and professionally regarding EA. Stewart et al. experimental study found that most women in both standard care and intervention groups would receive the information regarding EA from anesthesiologist prior to childbirth. They found that women need to obtain both verbal and written information from healthcare providers prior to childbirth to formulate a decision regarding using EA (26). It is the responsibility of healthcare to give an adequate information about pain relief options during childbirth to empower pregnant women to make an informed choice.

3.4. Critique

There were many limitation and gaps in the literature regarding informed consent for EA during childbirth, these limitations are small sample size or focusing on homogeneous sample that could limit the generalizability of the findings [8,17,19,20]. For example, a study by Harkins et al. [17] regarding the impact of women characteristics on healthcare providers choice of having informed consent regarding EA. This study weakens by using homogenous sample from English-literate, married, and highly educated women.

Similarly, Sitras et al. [25] utilize an investigation to inspect how women gain knowledge regarding informed consent of EA during childbirth. A limitation is the generalizability of the findings that

restricted to Norwegian-speaking women who were Caucasian sample. Another possible limitation of this study is not using validated instrument. A study in Northern British Columbia where EA is available and physicians directed most of the clinics that improved the chance of using EA, which limit the generalizability the results to other areas [25].

3.5. Implications and recommendation

The study's results draw attention for the importance of legal and ethical principles toward the childbirth process. Healthcare providers should assist women regarding decisions toward EA. It is vital for healthcare providers to find the best method to improve woman understanding of option during childbirth process. Lastly, it is the responsibility of healthcare providers to guarantee the understanding of EA during informed consent. It is recommended that providers spend more effort in implementing "shared decision-making practices".

4. Conclusion

The process of signing of informed consent for EA in women during childbirth is linked to many ethical responsibilities from women and healthcare providers. The informed consent practice can be enhanced by putting greater emphasis on antenatal information, providing suitable timing of information and developments in recent methods of information release and transfer. Changes in existing practice may well be helpful to women to better adhere to the legal standards of obtaining informed consent. There is a need for future research which may add further information to enhance awareness regarding EA during childbirth.

Ethical approval

No ethical approval is required.

Sources of funding

No funding

Author contribution

All authors were participated in all stages of this paper.

Consent

No consent is required.

Registration of research studies

1. Name of the registry:
2. Unique Identifying number or registration ID:
3. Hyperlink to your specific registration (must be publicly accessible and will be checked):

Guarantor

All authors were participated in all steps of this paper.

Declaration of competing interest

No conflict of interest.

References

- [1] L.O. Lawani, J.N. Eze, O.B. Anozie, C.A. Iyoke, N.N. Ekem, Obstetric analgesia for vaginal birth in contemporary obstetrics: a survey of the practice of obstetricians in Nigeria, *BMC Pregnancy Childbirth* 14 (1) (2014 Dec) 1–6.
- [2] E.O. Ogboli-Nwasor, S.E. Adaji, Between pain and pleasure: pregnant women's knowledge and preferences for pain relief in labor, a pilot study from Zaria, Northern Nigeria, Saudi J. Anaesth. 8 (Suppl 1) (2014 Nov) S20.
- [3] E. Ogboli-Nwasor, S.E. Adaji, S.B. Bature, O.S. Shittu, Pain relief in labor: a survey of awareness, attitude, and practice of health care providers in Zaria, Nigeria, *J. Pain Res.* 4 (2011) 227.
- [4] R.V. Shidhaye, M.V. Galande, V.B. Bangal, S.S. Joshi, U.R. Shidhaye, Awareness and attitude towards labour analgesia of Indian pregnant women, *Anaesth. Pain Intensive Care* 16 (2) (2012) 131–136.
- [5] H. Aksoy, B. Yücel, U. Aksoy, G. Acmaz, T. Aydin, M.A. Babayigit, The relationship between expectation, experience and perception of labour pain: an observational study, *SpringerPlus* 5 (1) (2016 Dec) 1–5.
- [6] NICE Intrapartum care for healthy women and babies, *Clin. Guidelines (CG 190)* (2014 Dec) 1–103.
- [7] A.R. Braun, L. Skene, A.F. Merry, Informed consent for anaesthesia in Australia and New Zealand, *Anaesth. Intensive Care* 38 (5) (2010 Sep) 809–822.
- [8] A. Prakash, A. Yadav, H.M. Karim, S.K. Sahoo, P. Jena, K. Aman, Knowledge, awareness and acceptance of labor analgesia among antenatal women in a remote Island: a questionnaire based study, *J. Adv. Med. Res.* (2017 May 31) 1–7.
- [9] Authority, Informed consent, *NHSLA Risk Alert* 4 (2) (2014) 53–58.
- [10] G.N. Jackson, T. Sensky, P. Reide, S.M. Yentis, The capacity to consent to epidural analgesia in labour, *Int. J. Obstet. Anesth.* 20 (3) (2011 Jul 1) 269–270.
- [11] B.M. Broaddus, S. Chandrasekhar, Informed consent in obstetric anaesthesia, *Anesth. Analg.* 112 (4) (2011 Apr 1) 912–915.
- [12] Sakala C, Corry MP. Evidence-based Maternity Care: what it Is and what it Can Achieve.
- [14] V.A. Entwistle, I.S. Watt, Patient involvement in treatment decision-making: the case for a broader conceptual framework, *Patient Educ. Counsel.* 63 (3) (2006 Nov 1) 268–278.
- [15] H.B. Goldberg, A. Shorten, Differences between patient and provider perceptions of informed decision making about epidural analgesia use during childbirth, *J. Perinat. Educ.* 23 (2) (2014 Jan 1) 104–112.
- [16] Fisher KT. report Women's Recall of Information Received Relating to Labour Epidural Analgesia at an Academic Hospital: a Pilot Study (Doctoral dissertation).
- [17] J. Harkins, B. Carvalho, A. Evers, S. Mehta, E.T. Riley, Survey of the factors associated with a woman's choice to have an epidural for labor analgesia, *Anesthesiol. Res. Pract.* (2010 Jan 1) 2010.
- [18] P.O. Ezeonu, O.B. Anozie, F.A. Onu, C.U. Esike, J.E. Mamah, L.O. Lawani, R. C. Onoh, E.O. Ndukwe, R.L. Ewah, R.O. Anozie, Perceptions and practice of epidural analgesia among women attending antenatal clinic in FETHA, *Int. J. Wom. Health* 9 (2017) 905.
- [19] A. Barakzai, G. Haider, F. Yousuf, A. Haider, N. Muhammad, Awareness of women regarding analgesia during labour, *J. Ayub Med. Coll. Abbottabad* 22 (1) (2010 Mar 1) 73–75.
- [20] L. Ray, F. Goffinet, M. Palot, M. Garel, B. Blondel, 681: 'Choice' of delivery without epidural analgesia in women at low risk in France Camille, *Am. J. Obstet. Gynecol.* 197 (6) (2007 Dec 1) S195.
- [21] C.O. Imarengiaye, B.N. Olagbuji, M.C. Ezeanochie, Akhideno II, Clinical correlates of women requesting labour epidural analgesia in a tertiary hospital in Nigeria, *Niger. Postgrad. Med. J.* 20 (3) (2013 Sep 1) 214–217.
- [22] S.B. Munro, A. Hui, E.A. Gemmel, N. Torabi, A.S. Johnston, P.A. Janssen, Evaluation of an information pamphlet for women considering epidural analgesia in labour, *J. Obstet. Gynaecol. Can.* 40 (2) (2018 Feb 1) 171–179.
- [23] C. Malacrida, Always, already-medicalized: women's prenatal knowledge and choice in two Canadian contexts, *Curr. Sociol.* 63 (5) (2015 Sep) 636–651.
- [24] S.J. Brubaker, H.E. Dillaway, Medicalization, natural childbirth and birthing experiences, *Sociol. Compass* 3 (1) (2009 Jan) 31–48.
- [25] V. Sitras, J. Šaltytė Benth, M. Eberhard-Gran, Obstetric and psychological characteristics of women choosing epidural analgesia during labour: a cohort study, *PLoS One* 12 (10) (2017 Oct 18), e0186564.