Original Article

Cultural differences in Perception of labor pain without considering to painless Technique

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ABSTRACT

Background: Labor pain is a culturally diverse experience in the women of reproductive age, and cultural language is different to express its distress. Objectives: This review focuses on cultural differences in labor pain experience among women across the world. Methods: To identify potentially eligible studies, we searched the databases such as PubMed, EMBASE, ISI web of science, Iranian databases, IPPE, UNFPA (1983- 2016). Original articles, review articles, published books about the aim of this paper were employed. Finally, 20 studies were found which met the inclusion criteria. Results: Results of this review articulated culturally diverse women's behaviors in response to labor pain and the strategies employed to cope with the pain. Conclusions: Understanding women's experiences of childbirth and labor pain behaviors is essential for midwives help culturally diverse women experience satisfying childbirth. The midwives' abilities to evaluate a woman's cultural expression and perception can deeply affect the accuracy of pain management.

Keywords: Labor pain, perception, cultural difference

Introduction

Fear of childbirth is one of the main reasons that makes women to choose cesarean delivery. In an Iranian study on the reasons for elective cesarean delivery, fear of childbirth was found to be 37.2 percent. [1] The number of women with childbirth fear who want to have epidural anesthesia has significantly increased in the last two decades [2-5] and some forms of pharmacological pain relief is used in maternity care units. [6] It seems that verbal and non-verbal expression of labor pain by women might be involved in accounting for the increase in the rate of cesarean delivery.

There are differences in cultural language for expressing distress of pain both verbally and non-verbally. Women deliver within their sociocultural context influencing the physiological and psychological perceptions of pain. It is assumed that "pain in labor and childbirth is expected by women in all societies, but may be interpreted, perceived, and responded to differently". Culture affects women's beliefs and behaviors about labor pain. [7] The word of "pain" describes the most intense discomfort, and pain perception is "contained of highly interactive emotional, cognitive, as well as sensory components". [8] It is also conceptualized as a product of the individual's reactions to harmful sensory inputs as affected by the interactive impacts of sociocultural, conceptual/judgmental and emotional/ motivational components. International association for the study of Pain (IASP) has defined pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage". However, childbirth pain, is not merely experienced along a dimension of intensity. Hence, it is suggested that the complexity and multidimensional nature of the pain should be taken into consideration in the measurement of labor pain. [9]

Although childbirth is a painful experience for all women, interpretation of pain influences its perception. [10] Pain is a phenomenon that has not been well understood because its clinical measurement is difficult. A woman's experience of labor pain is a reliable source for its comprehension and only the woman herself is able to describe her perception and experience. Experiencing high risk pregnancy, low knowledge and unpleasant experiences of the prior pregnancies can intensify labor pain whereas a normal pregnancy positively affects self-esteem, reducing pain and therefore makes childbirth favorable with higher pain tolerance threshold. Pain tolerance is the amount of pain that an individual can endure in a certain range. Individuals' perceptions of pain are different and can be affected

Access this article online	
Website: www.japer.in	**E-ISSN:** 2249-3379

How to cite this article: P. Yadollahi, Z. Khalajinia, F. Khormaei. Cultural differences in Perception of labor pain without considering to painless Technique. J Adv Pharm Edu Res 2018;8(S2):9-14.
Source of Support: Nil, Conflict of Interest: None declared.

by the ones' physical, psychological and cultural situations. [1] Response to the pain is also different in each individual and depends on several factors such as personality traits, [11] culture, gender, religious beliefs, and age. For instance, in Korean culture the women should remain silent during childbirth because they wouldn't like to make their family ashamed. Whereas European and American women show a wide range of reactions to labor pain. [12] Research indicated that in some societies, childbirth pain has been accepted as a part of women's life and considered a fundamental element for spiritual development. Childbirth for African–Canadian women was a painful experience and sometimes filled with challenges. But, they viewed childbirth as a spiritual journey and took control of it for gaining self-worth and hope. [13]

However, few studies have focused specifically on the culturally diverse women's perceptions of childbirth. Therefore, this study aimed to review cultural differences in labor pain experience.

Methods

It is a study of narrative review of the literature. Narrative reviews are extensive publications appropriate to describe and discuss the development or "state of the art" of a particular subject, from a theoretical or contextual point of view. They basically constitute an analysis of the literature published in books, in printed or electronic magazines, with the interpretation and personal critical analysis of the authors. This category of articles has a critical role for continuing education as it allows the reader to acquire and update knowledge about a specific theme in a short period of time [14]. The survey questions were: What are the most diversity in patients with labor pain experince?

The current review focuses on labor pain experience among women across the world. The search for articles included research in electronic databases and manual search of citations in the publications initially identified. The electronic database researched were PubMed, EMBASE, ISI, Iranian databases, IPPE, UNFPA (1983-2016). For the articles search we used the descriptors standardized by the Health Science Descriptors, namely: labor pain experience, perception of pain, and cultural behaviors. In the end, there were 345 combinations among the descriptors to obtain the maximum of references possible. The titles and abstracts of all the articles identified in the electronic search were reviewed. Whenever possible, the studies that seemed to fulfill the criteria of inclusion were obtained in full. Based on this action, it was created a list of articles to be included in the study. The abstracts were compiled and directed according with the objectives for the construction of the article. Inclusion criteria were: to be a research article, a case study and systematic reviews in journals about pain, pain assessment, pain meaning, pain perception, pain humanization

Result:

In order to explore the childbirth experiences of three groups of Arab women and assess the use of visual analog scale (VAS) for measuring labor pain, Harrison (1991) studied Kuwaiti, Palestinian, and Bedouin women with an uncomplicated vaginal birth. For 73 percent of the women, maximum labor pain was described as "unbearably painful," and more than one-half reported to be "very frightened" or "terrified". Pain behaviors during childbirth was not observed among Bedouin women's but based on their VAS reports, they experienced almost same level of pain. Painful menstruation and childbirth fear were identified as risk factors of labor pain. This study demonstrated difficulties in managing Bedouin women's pain, and the significance of excluding physical factors before considering cultural differences in pain perception. [15]

In a study, Liamputtong et al (2005) reported women's descriptions of "precautions during pregnancy and childbirth, preparations for an easy birth, and the role of a traditional midwife in a Thai birthing care". A sample of 30 Thai women were interviewed, and social meaning of childbirth in Thai culture was found to be a part of the larger social system, including "the woman, her family, the community, society and the supernatural world. Traditional beliefs and practices" influenced by women's social backgrounds aim to maintain the life and well-being of a new mother and her child. However, traditional birth practices seems to be gradually disappearing in northern Thailand. The findings of this study identify the factors related to the context of Thai lives and traditions [16] that facilitate the understanding of labor pain experience.

Haines et al (2011) reported that a considerable number of women experience the high levels of childbirth fear that can influence birth outcomes, the mother–child relationship and the mother's mental health. They assessed the prevalence of childbirth fear in two rural populations (Sweden and Australia). The increased levels of childbirth fear were reported by about 30 percent of Australian and Swedish women in the first trimester. A former negative birth experience and negative attitudes towards current pregnancy and childbirth were the predictors of high levels of childbirth fear. Swedish women who had the high levels of fear showed a preference for caesarean delivery in their current pregnancy. 19 percent of Australian women preferred an elective caesarean delivery compared to 8.8 percent of the Swedish women; but this was not in relation to childbirth fear. [17]

Down and Palacios (2006) explored the experience of childbirth in different nations (As Afghanistan, Burma, Cambodi, China, Ghana, India) with different cultures. In Afghanistan most women gave birth at home and some of them died due to the lack of professional help. Usually a grandmother was the one who delivers the babies. In Burma, the majority of women were encouraged to have Caesarean birth and the doctor gave the date when to turn up at the hospital, most women were not in labor when the caesarean happened. They were given pain relief medication and it was all hospital care had to be paid in advance. The women found that in the public hospitals, expectant mothers feared of the nurses who helped in normal delivery. Nurses smacked women making much noise during childbirth. Only

medical staff were allowed practices but not husband and family members. In Cambodia, mothers preferred delivery by a female doctor, because the attendance of a male doctor and removing their clothes for medical examinations could be extremely embarrassing. Also, mothers preferred a female relative to attend the delivery room but not their husbands. In China, the husband had no role during pregnancy and would not be present during labor. Chinese women preferred a sitting or squatting position for giving birth and must not cry out or scream during childbirth. In Ghana, women believed that God would save them from death during childbirth. In India, the father played a major role in supporting his wife and arranged a party to celebrate expecting a baby similar to the western baby shower. In Iran, the women were compensated with expensive gifts for the suffering they experienced during childbirth, particularly if the child's sex was male. A midwife or doctor attended during childbirth. Women were encouraged to walk before delivery and most of them were agree to take Lamaze classes. Female family members were supportive and present. In Lebanon, the father was not present at the delivery room. Usually a female family member would be there to support the mother. In Peru, during childbirth nobody was allowed in the delivery room except the doctor/midwife. In Somalia, in townships, women gave birth in a hospital without the presence of the husband. In country regions, midwives or other women helped the mother for birth and postnatal care. Mother's circumcision was cut during childbirth and afterwards sewn together. Midwives were very experienced particularly in the area of home birth. After childbirth the women did not leave the house for 40 days that is called Afatanbah.

In Thailand, only the doctor/midwife was allowed to be in the delivery room. After the childbirth, women drunk plenty of warm water, took a warm shower, ate a lot of soup and stayed at home for two weeks resting after childbirth. In Australia, the father would attend and celebrate the childbirth in some cases. However, this could be a little uncomfortable because some parents were not used to this idea. [18]

Furthermore, the findings of research by yadollahi et al (2017) showed that Iranian pregnant women had positive experiences and attitudes towards pain during childbirth due to cultural context and religious factors. In fact, transcendental progression was an eminent feeling that created positive inner feelings along with self-actualization in women. [19]

Callister et al. (2003) indicated that Muslim women who delivered in refugee camps, at home and in the public hospitals had not medicated births and their husbands did not attended the childbirth [20]. These women were "verbally expressive, crying and sometimes screaming" during childbirth. They received their support from God and prayed for having a safe delivery. Chinese women received no medical intervention for childbirth in the hospital and most of them often attended without their husbands but were supported by the female members of their family. They did not scream during labor and believed that crying out depleted their energy stores required for the childbirth. One Chinese mother said, "Although it is painful, it is also easy because women have been having babies for thousands of years". Chinese women applied soft voices and maintained silent demeanor when giving birth. [2]

Van der Gucht and Lewis (2015) explored women's experiences of coping with labor pain by a critical review of qualitative studies. They reviewed ten studies carried out in Australia, England, Finland, Iceland, Indonesia, Iran and Sweden. Data were synthesized by thematic analysis and two main themes were extracted as the most important effects on women's ability to cope with labor pain: "(i) the importance of individualized, continuous support and (ii) an acceptance of pain during childbirth". According to this review, women felt susceptible during labor and respected their relationships with health care professionals. Although most women perceived labor pain as challenging, the inherent paradox for the need for childbirth pain was described. This let them embrace the pain and in turn increased their coping ability. Also, they emphasized the need for effective support during labor. "Feeling safe through the concept of continuous support" was a key component of care to improve the coping ability and prevent the feelings of fear and loneliness. Most women acknowledged a positive attitude and acceptance of pain that revealed the useful implications for coping ability. Regardless of the socio-economic and cultural differences within the studies, these findings were consistent, indicating that the experiences of coping with labor pain are universal. [21] Ampofo and Caine (2015) reported women's experiences of labor pain and their coping strategies. Using the narrative methodology, a purposive sample of five low risk pregnant Ghanaian women were selected and data were collected before delivery and within one week after childbirth. The findings showed that before labor, women described childbirth "as a painful experience expected to be endured". Prenatal education on labor pain control was poor. Also, no pain relief method was used whereas a need for pain relief was expressed by the women. Moreover, there was poor physical and emotional support for helping the women to cope with labor pain. The results of this study suggested that midwives require a more active method of evaluating labor pain, and a more sensible effort to provide support for women during childbirth. [22]

A qualitative study by Vaziri et al, (2012) explored the experience of childbirth in primigravid women in Iran. Data were gathered by in-depth interviews with 17 parturient women and analyzed using conventional content analysis. After data analysis, four main themes were extracted. First theme was the difference between expectation and experience of labor pain. Some women experienced their childbirth better than what was expected and for some women, it was experienced worse than expected. Second theme was spiritual– religious- physical strategies for coping with labor pain. Third and fourth themes were respectively the need for support and a new insight to labor pain. [23]

Discussion

Culture diversity plays an important role in attitudes towards labor pain, the meaning and perception of labor pain, and coping mechanisms. Cultural factors include religious and spiritual

thoughts, child' s gender preference, women's attitude, beliefs and expectations about the outcome of labor.

Religious and spiritual thoughts and individual characteristics could also help the women during the experience of labor pain. The role of spirituality in enhancing the quality of this experience has been suggested in several studies. Concurrent with our study researches have demonstrated that most women from diverse cultures and nationalities viewed childbirth through a spiritual lens. In a study, women described the pain as the realization of individual's true self, individual's worth, individual's place in the universe, and believed that the divine providence is mainly focused on becoming a special being that transforms a girl into a mother. [24,25] Child's gender preference by the husband was another factor influencing the experience of childbirth. In many Asian and African countries, couples' happiness after childbirth was based on the child's gender and male was in a clear superiority, but in European and North American countries where have different welfare status; there was no priority for the gender of child. [26]

Women's attitude, beliefs and expectations about the outcome of labor and their coping ability would shape their perspectives and practices which can affect their response to pain. Reluctance towards normal childbirth and a dramatic rise in the rate of cesarean sections in some countries such as Iran could be conceptualized as a result of negative perspectives of women gained by their experiences and narrations that are transmitted to throughout society. [1] In this social context, natural birth appears to be an unpleasant painful condition whereby women have to comply with the medicalization of childbirth, as in technocratic societies, women's reproductive bodies are considered inherently faulty and in need of medical intervention. [27] In fact, these interventions in most cases, are not essential and may increase the risk of losing individual's humanity. [27] Therefore, given that viewpoints and beliefs about each issue would be formed based on the transmission of experiences and socio-cultural achievements, it is essential to take the significance of these factors into account in making women's beliefs and perspectives about labor pain. In support of this study, Beebe and Humphreys (2006) found that childbirth pain can be enjoyable, relaxing and pleasant. The emotional features of pain described by the women are valuable experiences that should be considered since labor pain is one of the most severe pains that a woman could tolerate in her life. It has been documented that health system and the family members could help to reduce the pain and make it tolerable. [28] Also, according Fathi Najafi et al. (2017), emotional support is essential for women coping with stress during labor and trust is a key factor in patient empowerment and self-help [29].

Research illustrates that family awareness about childbirth pain could be used to promote the quality of normal birth and change negative attitude towards the mode of delivery. [1] A policy imperative for all maternity care providers in the United Kingdom is "to consider how their own values and beliefs inform their attitude coping with pain and ensure their care supports the women's choice". [8]

In some culture, women have perceived labor pain as "an empowering experience" that results in "a sense of achievement and pride" in their abilities to cope with severe pain. [30] From the women's points of view, "the way in which midwives supported them through their pain, enabled them to feel confident" and have a positive feeling towards "their capabilities and inner strength". From the interpersonal perspective, childbirth satisfaction is not dependent on the absence of pain, and using painless technic. Women may consider pain as an essential part of the childbirth experience and may be appraised positively when they feel a sense of achievement. [31] Labor pain experience can provide an opportunity for a woman's development or be a bitter experience if it is tremendously stressful and without emotional support. So, midwives should provide support based on women's belief systems and cultural values. [32] In fact, for providing multicultural care, culturally sensitive strategies should be developed by health care systems. Understanding the cultural meaning of labor pain is a vital prerequisite for the midwives to facilitate childbirth experience for mothers. Understanding that there are a wide range of cultural and individual differences in women's pain experiences can result in more effective midwifery care for women. However, more qualitative studies are required to provide a better understanding of the meaning of labor pain in each culture. Linguistic aspects are also important because shared language can enhance the accordance between how women and midwives rate the pain. [2]

Addition of cultural diversity first-time mothers are mainly susceptible to negative experiences. As in Sweden nearly nine percent of women are dissatisfied with childbirth. [33] Bitter experiences may increase the risk of postnatal depression and lead to negative attitudes towards future childbirth and in turn the request for caesarean section delivery. [34] Therefore, exploring factors influencing maternal satisfaction with childbirth is important to promote birth care, and instruments that cover multidimensional aspects are required to expansively examine women's childbirth experiences. Because of, there are no validated instruments that cover multidimensional aspects of childbirth experience and current questionnaires either examine the isolated dimensions of this experience, it is recommended that a comprehensive and culturally appropriate instrument to be designed and validated for exploring the perception and experience of labor pain in order to improve midwifery care that makes labor pain experience pleasurable for mothers.

Considering that this is a narrative review of the literature, this research is limited in highlighting the importance of an adequate choice of instruments for measurement or assessment of pain as a subjective way of understanding the impacts in the evolution of the patient, responding to some questions and contributing with a better professional practice related with the theme.

Conclusion

Pain is a part of labor and unique from other tissue damages in that its intensity, location and quality change as the woman moves from one stage to another. One of the important factors

in managing labor and childbirth that midwives must be aware of is the cultural context of pain that is achieved through a comprehensive understanding of main cultural trends in pain experience. Because Midwives can provide comfort to women during labor pain. In fact, for comforting women, labor pain does not need to be eliminated and the importance of comfort cannot be over highlighted. Only increasing awareness of these factors, the significance of individualizing pain assessments and transcending cultural bias remains of the highest importance.

So it is essential to enhance awareness regarding cultural differences in midwives. However, a midwife must not expect women of certain demographics to respond to labor pain in the way displayed by others of their ethnicity. Generally, it is rare that any person has only one cultural background and even those with strong ethnic ties may be formed by the tides of acculturation. Two women of the same culture may really experience pain differently. Thus, the midwife's ability to evaluate a woman's cultural expression and perception can deeply affect the accuracy of pain management.

Midwives can provide comfort to women during labor pain. In fact, for comforting women, labor pain does not need to be eliminated and the importance of comfort cannot be over highlighted. [22]

References

1. Beigi N, Broumandfar MA, Bahadoran K, et al (2010) Women's experience of pain during childbirth. Iran J Nurs Midwifery Res, 15:77-82.
2. Green JM, Baston H, Easton S, McCormick F (2009) Greater expectations? Summary report. Interrelationships between women's expectation and experiences of decision making, continuity, choice and control in labour, and psychological outcomes. Mother and Infant Research Unit, University of Leeds. From: www.york.ac.uk/ health sciences/miru/greaterexpdf.pdf. Accessed: Dec 2009.
3. McCrea H, Wright M, Stringer M (2000) Psychosocial factors influencing personal control in pain relief. Int J Nurs Stud, 37:493–503.
4. Lang AJ, Sorrell JT, Rodgers CS, Lebeck MM (2006) Anxiety sensitivity as a predictor of labor pain. Eur J Pain, 10:263–70.
5. Laurson M, Johansen C, Hedegaard M (2009) Fear of childbirth and risk for birth complications in nulliparous women in the Danish National Birth Cohort. BJOG, 116: 1350–5.
6. Halls KL (2008) Maternal satisfaction regarding anaesthetic services during childbirth. Br J Midwifery, 16:296–301.
7. Shilling, S. Cultural perspectives on childbearing. In: F.H. Nichols, S.S. Humenick (Eds.) Childbirth education. Philadelphia: Saunders, 2000. p. 138–154.
8. Callister, LCl, Khalaf I, Semenic S, Kartchner R, Vehvilainen-Julkunen K. The pain of childbirth: perceptions of culturally diverse women. Pain Management Nursing 2003; 4:145-154.
9. Lundgren I, Dahlberg K. Womens' experience of pain during childbirth. Midwifery J 1998: 14:105-110.
10. Yerby M. Pain in childbearing: key issues in management. 6th ed. London: Elsevier Health Sciences, 2000. p.5.
11. Yadollahi P, Khalaginia Z, Vedadhir A, Ariashekouh A, Taghizadeh Z, Khormaei F. The study of predicting role of personality traits in the perception of labor pain. Iran J Nurs Midwifery Res 2014;19: S97-102.
12. Du Gas BW. Introduction to patient care: a comprehensive approach to nursing. Trans. Emad B, Atashzadeh shoorideh F, Zahri anboohi S, Ezzati J, Moshtagh eshgh Z, Barzabadi Farahani Z, et al. 4th ed. Philadelphia: W B Saunders Co; 1983. p.528-30.
13. Etowa JB. Becoming a mother: the meaning of childbirth for African-Canadian women. Contemporary Nurse 2012; 41: 28–40.
14. Calil Sallum A.M., Garcia D.M., Sanches M. Acute and chronic pain: a narrative review of the literature. Acta Paul Enferm. 2012;25(Special Issue 1):150-4.
15. Harrison A. Childbirth in Kuwait: the experiences of three groups of Arab mothers. J Pain Symptom Manage 1991; 6(8):466-75.
16. Liamputtong P, Yimyam S, Parisunyakul S, Baosoung C, Sansiriphun N. Traditional beliefs about pregnancy and child birth among women from Chiang Mai, Northern Thailand. Midwifery 2005; 21(2):139-53.
17. Haines H, Pallant JF, Karlström A, Hildingsson I. Cross-cultural comparison of levels of childbirth-related fear in an Australian and Swedish sample. Midwifery 2011; 27(4): 560–567.
18. Down C, Palacios V. CALD Women Australia exploring women central in maternity care project 2006. Accessed on 03-11-06 http:// www healthissuescentre.org.au.)
19. Yadollahi P., Taghizadeh Z., Ebbadi A., Dehghani M., Gharacheh M. A time for Psycho-spiritual transcendence: the experiences of Iranian women of pain during childbirth. Women and Birth 2017. [In press].
20. Callister, Lynn Clark, Khalaf, Inaam, Semenic, Sonia, Kartchner, Robin, & Vehvilainen-Julkunen, Katri. The pain of childbirth: perceptions of culturally diverse women. Pain Management Nursing.2003; 4(4), 145-154
21. Van der Gucht N, Lewis K. Women's experiences of coping with pain during childbirth: A critical review of qualitative research. Midwifery 2015; 31:349-58.
22. Ampofo EA, Caine V. A narrative inquiry into women's perception and experience of labour pain: A study in the western region of Ghana. International Journal of Africa Nursing Sciences 2215; 3, 86-93.
23. Vaziri F, Khademian Z, Morshed behbahani B. Qualitative investigation of experiences and perception of primiparous of women regarding childbirth in women referring to educational hospital of shiraz university of medical sciences Modern care 2012; 9(3): 226-236.
24. Jimenez SLM. Comfort and pain management. In: Nichols FH, Humenick SS (Eds.) Childbirth education. Philadelphia: Saunders, 2000. P.157–177.

25. Crowther S, Hall J. Spirituality and spiritual care in and around childbirth. Women & Birth J 2015; 28(2): 173–178.
26. Callister CL, Khalaf, I. Spirituality in childbearing women. J Perinatal Educ 2010; 19: 16–24.
27. Henry A, Nand SL. Women's antenatal knowledge and plans regarding intrapartum pain management at the Royal Hospital for Women. Aust N Z J Obstet Gynaecol 2004; 44(4): 314-7.
28. Beebe KR, Humphreys J. Expectations, perceptions, and management of labor in nulliparas prior to hospitalization. J Midwifery Women's Health 2006; 51(5): 347-53.
29. Fathi Najafi T, Latifnejad Roudsari R, Ebrahimipour H (2017) The best encouraging persons in labor: A content analysis of Iranian mothers' experiences of labor support. PLoS ONE 12(7): e0179702. https://doi.org/10.1371/journal. pone.0179702
30. McCourt C. Continuity of care—what does it mean and does it matter to midwives and birthing women? Can J Midwifery Res Pract 2005; 4:10–20.
31. Foureur M. Creating birth space to enable undisturbed birth. In: Fahy K, Foureur M, Hastie C, editors. Birth territory and midwifery guardianship: Theory for practice, education and research. Edinburgh: Heinemann/Elsevier, 2008.
32. Dencker A, Taft C, Bergqvist L, Lilja H, Berg M. Childbirth experience questionnaire (CEQ): development and evaluation of a multidimensional instrument. BMC pregnancy and childbirth 2010; 10(1), 81.
33. Waldenstrom U, Hildingsson I, Rubertsson C, Radestad I. A negative birth experience: prevalence and risk factors in a national sample. Birth 2004; 31(1): 17-27.
34. Pang MW, Leung TN, Lau TK, Hang Chung TK. Impact of first childbirth on changes in women's preference for mode of delivery: follow-up of a longitudinal observational study. Birth 2008; 35 (2): 121-128.