# Good example of pain management for the obstetric patient term paper

**Education**, Teaching



## Pain Management for the Obstetric Patient

Pain is subjective and individual responses to pain vary. The response of every client to labor pain is also unique. Perception and expression of labor pain is influenced by a number of factors. These factors include cultural factors, individual pain tolerance, anxiety, level of education, attitudes of the client towards pregnancy, age, and parity. Management of labor pain is a key goal of intrapartum care (Simkin, Lockwood, Eckler, & Klein, 2014). This paper will discuss pain management for the obstetric patient. It consists of two parts. The first part will focus on the causes and management options for pain and discomfort during pregnancy, labor, birth, and recovery from birth. The second part is a component of a teaching plan for teaching antenatal patients about labor pain relief options.

# Causes of pain for the Antepartum, Intrapartum, and Postpartum Patients

Two common sources of pain for the antepartum patient are headaches and back pain. Headaches are common up to the 26th week of pregnancy. These headaches are usually migraines and tension headaches. They have similar triggers such as hormonal-induced changes, eye strain, and sinus congestion. These headaches usually improve with time especially in the first trimester. More serious causes of headaches should, however, be ruled out. The latter causes include depression, pre-eclampsia, cerebral tumors, subarachnoid hemorrhage, and focal lesions (Littleton-Gibbs & Engebretson, 2012, p. 581).

The second cause of pain for antepartum patients, back pain, affects

approximately 50% of all gravid women. The etiology of this pain is attributed to the neuronal, endocrine, and weight changes that accompany pregnancy. It is thought to be caused by the polypeptide relaxin which is secreted by the corpus luteum. This polypeptide softens pelvic ligaments to permit accommodation of the growing fetus and facilitate vaginal delivery. The pain is usually described as burning (thoracic), stabbing (gluteal), or dull (lumbar). It can be accompanied by paraesthesia due to root compression (Littleton-Gibbs & Engebretson, 2012, p. 581).

The intrapartum patient experiences labor pain. The pain experienced during first stage is an internal visceral pain felt at the back or legs. This pain is caused by distension/dilatation of the lower uterine part and contractions of the uterus. The other cause of pain in first stage is effacement, dilatation, and stretching of the cervix. The labor pain experienced during second stage is a localized somatic pain. It accompanies fetal descent and expulsion. It is caused by the distension as well as pressure to the vagina and perineum. This latter type of pain is described as splitting, burning, or tearing. It is also caused by pressure and tagging on pelvic structures like the bladder, fallopian tubes, ligaments, and peritoneum. Lastly, it is caused by lacerations to soft tissues like the vagina, cervix, and perineum (Littleton-Gibbs & Engebretson, 2012, p. 581).

Pain for postpartum patients is remedial pain from the distension and stretching of the vagina as well as the perineum during second stage. It is also due to contraction of the uterus. This pain is characterized as burning, splitting, or tearing. Notably, vaginal and pelvic outlet pain passes through Adelta and C fibers that pass through the parasympathetic bundle of the

pudendal nerves (S2-S4 dermatomes). Uterus and cervical pain is also mediated by A-delta and C-fibers but of sympathetic nerves. This pain is passed to the sympathetic chain (T10-L1 dermatomes) (Littleton-Gibbs & Engebretson, 2012, p. 581).

# **Pharmacologic Pain Relief Options**

Analgesia

Pharmacologic methods of pain relief for the intrapartum patient are categorized into two: analgesia and local/regional anesthetics. This paper will focus on the use of analgesia. Analgesia encompasses the use of opiods, sedatives, and ataractics (Simkin, Lockwood, Eckler, & Klein, 2014). Opiod analgesics include fentanyl, butorphanol, and nalbuphine. These agents are central acting. They reduce pain perception without inducing loss of consciousness. They can be given intravenously (IV) or intramuscularly (IM). The IV route is recommended because it has a faster onset of action. There are risks associated with the use of opiod analgesic though. For one, they can induce respiratory depression in the neonate especially when given near the time of delivery. Other adverse effects include decreased fetal heart rate variability, tachycardia, hypotension, sedation, and reduced gastric emptying which can lead to emesis. Sedatives like phenobarbital can be given during the early phase of labor to induce sleep or reduce anxiety. Their adverse effects include unsteady client ambulation and inhibition of a client's ability to cope with labor pain. Others are respiratory depression in the neonate because the medication crosses the placental barrier (Simkin, Lockwood, Eckler, & Klein, 2014). Ataractics medications do not reduce pain but

potentiate the effects of opiod analgesics. They also control nausea and anxiety. Examples of ataractics are phenothiazine medications like promethazine. Their side effects include sedation and dry mouth. Notably, when given early in labor (vaginal dilatation <4cm), analgesic agents can slow down the progress of labor (Simkin, Lockwood, Eckler, & Klein, 2014).

## **Non-Pharmacologic Pain Relief Options**

Frequent Changes of Maternal Positions

The non-pharmacologic measures to be discussed in this paper are frequent changes of maternal position and touch and massage. Women in labor have always moved, walked or changed positions frequently to make themselves comfortable. Frequent changes of maternal position promote relaxation and pain relief. The dimensions of the pelvic vary depending on the maternal position (Kupina & McGuire, n. d.). Therefore, changes in maternal position can help reduce labor pain. The most frequently used positions are lying supine, squatting, kneeling, sitting upright, and walking around. Evidence derived from clinical studies suggests that the use of upright positions during early labor interspersed with other positions is correlated with less painful labor (Simkin, Lockwood, Eckler, & Klein, 2014). Majority of the women in these studies reported less pain for standing and sitting positions as compared to lying supine. Of note is that vertical and side-lying positions in these studies were correlated with more progress than supine or sitting positions. For the second stage of labor, a systematic review of 9 randomised trials concluded that the routine use of the supine position was associated with more pain as compared to other positions. One randomized trial,

however, found that compared to kneeling, use of the sitting position during second stage of labor is associated with significantly higher pain during delivery. Participants in the study also reported less comfort, and the feeling that the second stage was too long (Simkin, Lockwood, Eckler, & Klein, 2014).

## **Touch and Massage**

Touch and massage are used in labor to promote relaxation and decrease pain. They encompass back rubs, massage, and effleurage. Effleurage refers to light and gentle stroking of a client's abdomen using the fingertips during contractions. The strategy of touch and massage employs the gate-control theory of pain. This theory is based on the concept that pain competes with other sensations for transmission to the brain via the sensory nerve pathways. Therefore, sending of alternate signals via these pathways can block pain from ascending the neurological pathway. This in effect inhibits its perception by the brain and sensation of pain (Kupina & McGuire, n. d.). Notably, there are no harmful effects from the use of either touch or massage. Evidence from research seems to suggest that the two interventions reduce pain and improve feelings of well-being (Simkin, Lockwood, Eckler, & Klein, 2014).

Variables considered when developing a Teaching Plan
Several variables are considered when developing a teaching plan for an
obstetric patient. These variables include the patient's educational level,
cultural practices, and parity. A patient's education level is considered
because it determines factors such as the teaching method to be used.

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Cultural practices influence a patient's beliefs, coping mechanisms, and preferences towards labor pain and delivery. In some cultures, expression of pain is accepted whilst in some cultures it is not. Further, some cultures allow husbands to be present during the birthing process while others do not. Therefore, a client's cultural beliefs and practices should be considered in the development of a teaching plan. Lastly, a patient's parity influences their perception and knowledge of labor pain and the delivery process. Multipara patients tend to have more knowledge than primigravida mothers.

Therefore, the parity of the patient influences the preparation of a teaching plan on labor pain (National Health Service (NHS) Foundation trust, 2013).

# Points regarding Pain Relief Options included in a Teaching Plan

Regarding the information to be taught to obstetric patients about pain relief options, the paper will discuss positions for labour and relaxation techniques. For positions for labour, the obstetric patient needs to be taught the different types of labour positions, how to use them, and lastly their advantages and disadvantages. The rationale for teaching the different positions as well as how to use them is to enhance the mother's knowledge about these positions. The other rationale is to ensure that they can safely assume the positions. The rationale for informing the mothers about the merits and demerits of positions for labour as a pain relief technique is to ensure that they are able to weigh the available options and make an informed choice. On relaxation techniques, obstetric clients need to be taught the various relaxation techniques as well as their merits and demerits. The rationale for

including the three points is to enable clients make an informed decision on their preferred pain relief option (NHS Foundation Trust, 2013).

### Conclusion

In summary, this paper has described the causes of pain for the antepartum, intrapartum, and postpartum patient. Further, it has described the pharmacologic and non-pharmacologic pain relief options available for the intrapartum patient. In addition, it has identified three variables unique to the obstetric patient that need to be considered when developing a patient specific pain management teaching plan. Lastly, it has explained three teaching points on pain relief options that need to be taught to the obstetric patient.

### References

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