

KNOWLEDGE AND ATTITUDE ON PAIN RELIEF IN
LABOUR AMONG MIDWIVES IN HOSPITAL
UNIVERSITI SAINS MALAYSIA (HUSM)

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by

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Dissertation submitted in partial fulfillment of
requirements for the degree of Bachelor of Nursing
(Honours)

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CERTIFICATE

This is to certify that the dissertation entitled “Knowledge and Attitude On Pain Relief in Labour Among Midwives in Hospital Universiti Sains Malaysia” is the bona fide record of research work done by Ms Nur Azyyati Athirah Binti Khairil Anuar during the period from “September” 2020 to June 2021 under my supervision. I have read this dissertation and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation to be submitted in partial fulfillment for the degree of Bachelor of Nursing (Honours).

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated and duly acknowledged. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at Universiti Sains Malaysia or other institutions. I grant Universiti Sains Malaysia the right to use the dissertation for teaching, research and promotional purposes.

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LIST OF ABBREVIATION

USM	Universiti Sains Malaysia
SPSS	Statistical Package of Social Sciences

ABSTRAK

Mengurangkan kesakitan semasa melahirkan menjadi perhatian utama seseorang bidan. Menyediakan pengurusan kesakitan yang berkesan adalah salah satu kualiti penting dalam penjagaan kebidanan. Kajian keratan rentas dilakukan terhadap 63 bidan di Hospital USM. Soal selidik yang disahkan diedarkan kepada semua responden yang sesuai dengan kriteria kajian. Objektif umum kajian adalah untuk menilai pengetahuan dan sikap mengenai mengurangkan rasa sakit semasa melahirkan dalam kalangan bidan di Hospital USM. Kajian ini dilakukan untuk mengetahui hubungkait antara tahap pengetahuan dan tahap sikap berkenaan mengurangkan rasa sakit semasa bersalin dan untuk mengetahui hubungkait antara data sosiodemografi terpilih (Tahap pendidikan dan tahun pengalaman) dengan tahap pengetahuan berkenaan mengurangkan rasa sakit semasa bersalin dalam kalangan bidan di Hospital USM. Data untuk kajian ini telah dianalisis dengan menggunakan statistic deskriptif dan 'Pearson Chi-Square test' dengan menggunakan 'Statistical Package of Social Sciences (SPSS)' 26.0. Hasil kajian ini menunjukkan bidan di Hospital USM mempunyai tahap pengetahuan yang tinggi ($n=59$, 93.7%) dan sikap yang positif berkenaan mengurangkan rasa sakit semasa melahirkan ($n=52$, 82.5%). Dari segi hubungkait, kajian ini menunjukkan tiada hubungkait antara tahap pengetahuan dan sikap berkenaan mengurangkan rasa sakit semasa melahirkan dalam kalangan bidan $p=0.681$ ($p\text{-value} >0.05$). Hubungkait antara sosiodemografi data dengan tahap pengetahuan menunjukkan bahawa ada hubungkait antara tahap Pendidikan dengan tahap pengetahuan semasa melahirkan dalam kalangan bidan $p=0.010$ ($p\text{-value} <0.05$). Namun begitu, kajian ini menunjukkan tiada hubungkait antara tahun pengalaman dengan tahap pengetahuan berkenaan tahap pengetahuan $p=0.527$ ($p\text{-value} >0.05$). Maka, meningkatkan pengetahuan dan sikap berkenaan mengurangkan rasa sakit semasa bersalin dalam kalangan bidan dapat membantu meningkatkan kualiti penjagaan wanita yang bersalin.

ABSTRACT

Labour pain is an unpleasant experience that woman must endure in their life. Relieving the labour pain of the woman may be the main concern of the midwives. Furthermore, providing effective pain management is one of the important quality cares in obstetric care. A cross sectional study was conducted on 63 midwives in Hospital USM. A validated questionnaire was distributed to all respondents that fit the inclusion criteria. The general objective of the study was to assess the knowledge and attitude on pain relief in labour among midwives in Hospital USM. This study was conducted to determine the association between the level of knowledge and the level of attitude on pain relief in labour and to determine the association between selected sociodemographic data (Educational level and year of experience) with level of knowledge on pain relief in labour among midwives in Hospital USM. The data was analysed by descriptive statistics, and Pearson Chi-Square test using Statistical Package of Social Sciences (SPSS) 26.0. The findings of this study showed that midwives in Hospital USM have high level of knowledge (n=59, 93.7%) and positive attitude (n=52, 82.5%). For the association, in this study there is no association between the level of knowledge and level of attitude $p=0.681$ (p -value >0.05). Furthermore, in term association between sociodemographic data and level of knowledge, there is significant association between educational level with level of knowledge $p=0.010$ (p -value <0.05). However, there is no significant association between year of experience with level of knowledge on pain relief in labour among midwives $p=0.527$ (p -value >0.05). Thus, increasing the knowledge and attitude on pain relief in labour among midwives may help in improving quality of care for woman in labour.

CHAPTER 1

INTRODUCTION

1.1 Background Study

The most severe pain experience by women is childbirth pain which is the severity of unbearable pain and the most painful. The severity of the labor pain verifies with the degrees of pain, onset, timing and the intensity cause the pain experiences by the woman is unbearable. Due to the painful experiences suffering by every woman during the labor, many of pregnant women concerned about the pain they will experienced during childbirth (Maher Ali, 2020). Extreme pain can cause adverse effects for both mother and fetus such as heart attack which can lead to death according to O. Olayemi, (2005).

In order to help pregnant woman do get better experience during childbirth, pain management had been used to relief their pain during labour. There are many pain reliefs such as pharmacological and non-pharmacological methods have been developed as treatments in reducing pain in childbirth in developing countries (Ogboli-Nwasor, Adaji, Bature, & Shittu, 2011). Thus, many countries had been using this pain relief in labour to help relieve the pregnant woman pain during the labour. In addition, American College of Obstetricians and Gynecologists (ACOG, 2004) and the American Society of Anesthesiologists (ASA) stated that no one a person experiences unbearable pain under the care of a health professional. From this statement it showed that midwives play important role in labour as they have closed contact with the pregnant woman and they are the one who will give opinion and help the patient in the decision making to use pain relief in labour. Thus, it important that the midwives need to have knowledge regarding the use of pain relief during labour pain.

Furthermore, pharmacological pain relievers were increased in the last century (Wakgari et al., 2020). These showed that the use of pain relief in labour pain have been increased and midwives play the important role in suggesting and providing the use of the pain relief as many of them seen that pain in labour also include in pain management that help in relieve the pregnant woman pain during labour pain.. However, despite the increase of the use of pain relief there still doubt in the effectiveness and the need in using the pain relief in the labour pain. According to Keskin et al., (2012), there ongoing debate over the drug should be used as pain relief in labor, due to their effectiveness, the side effect of the pain relief toward mother and fetus and usually pharmacological methods is not easily accessed due to safety of the mother and fetus. In a study done by McCauley, Stewart, & Kebede, (2017), it stated that the healthcare provider have concern in using the pain relief in labour pain as they fear of the side effect of the pain relief especially pharmacological methods toward the mother and fetus. In a study done in Australia, it stated that midwives that have inadequate knowledge more preferred with the use of labour pain relief compared with midwives that have adequate knowledge (Greenow, Roberts, McCaffery, & Clarke, 2006). This can be seen that, midwives with more knowledge be more aware with the use of pain relief in labour pain as they more aware with the use and side effect of the pain relief especially pharmacological methods that can cause various side effect not only toward mother but also towards the baby.

As a member of healthcare provider, midwives play important role in provided pain management toward pregnant woman in labour pain and the goal of the use of labour pain relief is to help pregnant woman relief their pain or minimize the pain experience by them. In pain management, midwives responsible in assessing, monitoring and reducing the pain experience during the labour pain by providing and suggesting a safe and effective pain relief whether non-pharmacological or pharmacological methods towards the

pregnant woman. According to Ohaeri, Owolabi, & Ingwu, (2019), and Baker et al., (2001), it stated the American Pain Society sustain that pain is the fifth vital sign that must be providing pain management among healthcare. However, the pain researches reported that midwives commonly inaccurate in assessing the patient pain resulted in ineffective pain relief providing toward the patients. Different people have different description of the pain, same as labour pain, different woman have different severity of the pain. Thus, the inaccurate assessing pain and inadequate knowledge of the pain relief may cause ineffective of the pain management toward parturient.

In high-income countries, labour pain relief has been essentially used such as the United Kingdom (UK), where the pain relief included pharmacological and non-pharmacological been offered toward pregnant by trained healthcare provider as the individual choices. However, in low resource setting, the options of pain relief use especially pharmacological has not been well practices and the choices to provide the pain relief commonly depends on the health system availability, the knowledge and attitudes of the midwives about labour pain relief (McCauley, Danna, & Broek, 2018). In low- and middle-income countries (LMIC), continuous support from the partner are the most common use as a pain relief in labour. The use of another pain relief are not well-established due to the ongoing debate on the need, advantages and disadvantages of the use of pain relief especially pharmacological options.

The poor pain management of pain in labour may cause the negative effect toward the outcome of the childbirth. According to Ohaeri, Owolabi, & Ingwu, (2019), it stated that some of the researcher summarized that the relationship between the pain management and outcome of the childbirth with the quality of life and satisfaction of the maternal toward delivery process. Thus, it is necessary to provide labour pain relief in order to give maternal positive experience during childbirth. In nutshell, midwives play important role

in supporting woman choice and to assess the pain relief options for them during childbirth.

Although labour pain relief is well established in high income countries and been implemented in many countries around the world, the use of labour pain relief is limited in Malaysia. This is may due to factors included the availability of health care delivery system, knowledge and attitude of the midwives about labour pain relief and the choices of the woman. The knowledge and attitude of the midwives is most common factors especially in Malaysia. Despite many researches in developed countries regarding the knowledge and attitude of labour pain relief among healthcare provider, there still limited research regarding level of knowledge and attitude in labour pain relief among midwives in Malaysia. Thus, this study aimed to assess the level of knowledge and the level of attitude in labour pain relief among midwives in Hospital USM, northeast Malaysia.

1.2 Problem Statement

Labour pain is an unpleasant experience that woman must endure in their life. The severity of the pain can be from mild to severe. Labour is a natural process that happen to the body such as contraction of the uterus, dilation of the cervix, stretching of the vagina and compression of the pelvic structure. Different person will experience different kind of pain. Some may only experience mild pain while others may experience intense pain. However, most of the women state that the pain during labour is the most painful pain they experience in life. Thus, relieving the labour pain of the woman may be the main concern of the healthcare provider especially midwives. Furthermore, providing effective pain management is one of the important quality cares in obstetric care. This is supported by Geltore et al., (2018), that stated healthcare provider main concern is to help reduce woman pain in labour and it is essential in providing with effective pain relief in

that will give better outcome of labour and increase the quality care of obstetric care toward patient. pharmacological pain relievers were increased in the last century (Wakgari et al., 2020). These showed that the use of pain relief in labour pain have been increased and midwives play the important role in suggesting and providing the use of the pain relief as many of them seen that pain in labour also include in pain management that help in relieve the pregnant woman pain during labour pain.

Based on a study done in Southern Ethiopia, it stated that inducing pain relief especially pharmacological methods to pregnant woman without affecting the maternal and fetus is the main concern toward the health care provider especially midwives (Geltore et al., 2018). The American College of Obstetricians and Gynecologist (2004) and the American Society of Anesthesiologists (2007) stated that it is unacceptable to let an individual to experienced unbearable pain under the care of the health professional. Furthermore, the feelings of stress, anxiety, and fear could contribute to labour pain.

According to McCauley, Stewart, & Kebede, (2017), it stated that midwives play an important role in suggesting women to choose and access pain relief during labour and involve in the decision making for the labour pain relief. As we know midwives is one of the healthcare provider organization that has contact with the parturient. According to the study of Ohaeri, Owolabi, & Ingwu, 2019, in Ibadan Nigeria, it proved that midwives is a member of the healthcare that responsible for patient management especially their pain management by assessing, observing and relieve the pain in labour.

In high-income countries, labour pain relief has been essentially used such as the United Kingdom (UK), where the pain relief included pharmacological and non-pharmacological been offered toward pregnant by trained healthcare provider as the individual choices. However, in low resource setting, the options of pain relief use

especially pharmacological has not been well practices (McCauley, Danna, & Broek, 2018). According to Geltore et al., (2018), stated that major factors that contributing the utilization of the pain relief in developing countries due to the unavailability of drugs, health care delivery system, knowledge and religion. In addition, the main factors that contributing in the implementation of the labour pain relief are knowledge, attitude, and skills of the healthcare provider. Based on study by Endalew, Tawuye, & Malesse, (2020), proved that health care provider related barrier are the main barriers that contributed to the effectiveness of the treatment or quality care of the patient. It stated that in the low resource setting, the lack of knowledge, poor of attitude and unavailability of the labour pain relief options considered to be main barriers that influence utilization of the labour pain relief. The study also stated that midwives that have lack adequate knowledge and attitude will influence the effectiveness of the labour pain management and affect the pregnant woman and their baby by reducing their psychological quality of life.

Present study showed that 45.8% of the obstetric caregivers including midwives had inadequate knowledge regarding the labour pain relief (Endalew, Tawuye, & Malesse, 2020). However, according to Bishaw, Sendo, & Abebe, (2020), it stated that midwifery had adequate knowledge than health officer and nurses and it been proved by Lee et al., (2012), that reported knowledge as significant factor for obstetric pain relief options. The study also explained that curriculum content of obstetric course delivered to health professional is based on the level of training programs as it found that professional with medium level of education more likely knowledgeable than those with lower level of education regarding labour pain relief. Thus, it showed that knowledge as a midwife it important to have adequate knowledge regarding labour pain relief as they are the one who will suggested and helping in decision making to use the pain relief in labour pain. According Based on study by McCauley, Stewart, & Kebede, (2017), stated that effort

must be made in order to increase the knowledge of labour pain relief options through education and training programs in order to provide an effective quality care in labour pain. It also proved that healthcare provider needs to be more educated to provide pain relief in labour pain and in order to explained or informed the pregnant woman regarding various option of pain relief in labour to improve the quality of care toward pregnant woman in labour.

According to McCauley, Stewart, & Kebede, (2017), stated that studies review from the high income countries showed that the influence of the attitudes and behaviour of the healthcare providers is one of the most important aspects that will give impact of the labour pain relief, it intervention in labour pain and on the quality of care in labour. This supported by the National Institute of Clinical Excellence (NICE, 2015), in the UK that recommended that all of the healthcare provider to consider their own belief and values by explained their opinion or attitude to pregnant woman regarding the pain relief options or how the woman need cope with the labour pain and midwives must also ensure that the quality of care they provided toward pregnant woman in labour is necessary to the woman needs and choices.

The issue regarding labour pain relief as a part of the labour care is not often practice and mostly neglected by the healthcare providers. This is influenced by many factors such as awareness and experiences of healthcare providers, acceptability and availability, restricted training and teaching regarding the labour pain relief (Endalew, Tawuye, & Malesse, 2020). It also stated that having poor knowledge and attitude is starts from the basic of educational programs. As we can see that knowledge and attitude of midwives is important aspects regarding labour pain relief as they play major part as the obstetric care that will provide satisfaction toward the pregnant woman in labour by helping them in decision making and explaining the needs of using the labour pain relief.

Despite increasing of labour pain relief in high income countries, in developing countries and in low resource setting the use of the labour pain relief is not common and except from the support from the companion during labour. This is due to the belief that considered labour as a natural process and woman must cope with the labour pain. Moreover, midwives have misconception such as long-term backache, harm to the baby, breastfeeding problem, increased risk for caesarean section, and slow labour progress are some of the factors that affect the implementation of labour pain relief. Lack of knowledge and poor attitude on labour pain relief may affect the quality of care during labour. Thus, the knowledge and attitude of the midwives is the main key in helping the pregnant woman in decision making and in access the pain relief options for the pregnant woman in labour.

Although labour pain management is accepted and been used widely in many countries, in Malaysia there been no study on pain relief management in labor. Thus, this study aimed is to assess the knowledge and attitude on labor pain management among midwives in Hospital USM.

1.3 Research Objective

The aim of this study is to assess the knowledge and attitude on labour pain relief among midwives in Hospital USM.

1.3.1. Specific Objective

1. To determine the level of knowledge on labor pain relief among midwives in Hospital USM.
2. To determine the level of attitude on labor pain relief among midwives in Hospital USM.
3. To determine the association between the level of knowledge and the level of attitude on labour pain relief among midwives in Hospital USM.
4. To determine the association between the selected demographic data (level of education and year of experience) with the knowledge on labor pain relief on labor pain relief among midwives in Hospital USM.

1.4. Research Question

1. What is the level of knowledge on labor pain relief among midwives in Hospital USM?
2. What is the level of attitude on labor pain relief among midwives in Hospital USM?
3. Is there any association between the level of knowledge and the level of attitude on labor pain relief among midwives in Hospital USM?
4. Is there any association between the selected sociodemographic data (level of education and years of experiences) with the knowledge on labour pain relief among midwives in Hospital USM?

1.5. Hypothesis

1. H_0 : There is no significant level of knowledge and the level of attitude on labor pain relief among midwives in Hospital USM.

H_A : There is a significant between the level of knowledge and the level of attitude on labor pain relief among midwives in HUSM.

2. H_0 : There is no significant association between the selected sociodemographic data (level of education and year of experience) and the knowledge on labor pain relief among midwives in Hospital USM.

H_A : There is significant association between the selected sociodemographic data (level of education and year of experience) and the knowledge on labor pain relief among midwives in Hospital USM.

1.6. Operational Definition

Term	Conceptual Definition	Operational Definition
Knowledge	Is a fact, information or understanding of certain subject or learn by the experience or acquired through (Press, 2020)	In this study, the knowledge refers to the midwives in HUSM of their understanding about pain relief on labor by structured questionnaire survey.
Attitude	Is the way you react toward someone or something that reflect your thinking and feeling about it (Press, 2020).	In this study, it refers to how the midwives react toward the pain relief being use in labor in HUSM by structured questionnaire survey.
Pain relief	Is a drug or methods in reducing pain or an act to reduce pain (Press, 2020)	In this study, pain relief focused on type of the pharmacologic and non-pharmacologic as a pain relief in labour pain.
Method	Is a way of doing something (Press, 2020)	In this study, method focused on the pharmacologic and non-pharmacologic.
Midwives	A health worker, who is trained or have certificate to	In this study, the focused on the midwives consist of nurses that have been work

	<p>help woman give birth to their children (Press, 2020).</p>	<p>in midwives' field in HUSM such as antenatal, postnatal areas and Obstetrics and Gynecology Clinic in HUSM.</p>
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1.7. Significance of The Study

This study aims to assess the knowledge and the attitude on labor pain relief among midwives in HUSM. In this study, the researcher was assessed the knowledge of the respondents about labor pain relief using in labor pain at HUSM. Thus, this study may useful and helpful in increasing the midwife's knowledge about the pain relief by organizing training or seminar program to enhance midwife's knowledge and attitude toward labour pain relief and increase the number of midwives that can provide competent care toward pregnant woman in labour pain. Other than that, this study may be useful in increasing the quality of care provided toward woman in labour pain plus improving the quality of care in Malaysia by giving effective pain management. Furthermore, this research finding may be helpful in identify the factors that influence the attitude among midwives toward labour pain relief and increasing the understanding of the use of pain relief in labour pain.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

2.2 Review of Related Literature

2.2.1. Labor pain

Pain can be described as unpleasant experience that everyone will have to endure. The severity of the pain can be from mild to severe based on the severity of the damaged. Pain often giving negative perception or negative experience that affect the quality of people life. Different people will be experienced different type of pain. The experience of pain during labour only can be experienced by pregnant woman and it can be described as one of the most painful experience in life for them. The pain during labour can influenced the psychological and physiological factors of the individuals. The factors can influence the woman perception toward the childbirth process such as uterine contractions, dilation of the cervix, stretching of the vagina, perineum and pelvic structure contributed to the pain during childbirth (Ohaeri, Owolabi, & Ingwu, 2019).

Furthermore, the feelings of stress, anxiety, and fear could contribute to labour pain. According to American College and Obstetricians and Gynecologist, it states that no other situation, considered as severe as labor pain. In United Kingdom and Finland stated that 93.5% and 80% of woman experience childbirth could not explained or compared the pain (Bitew, Workie, Seyum, & Demeka, 2016).

Labour pain is the most unbearable pain that experience by pregnant woman. Pain management is one of the managements that can help relieve the pain experience by them. Same for the pregnant woman, they deserve pain management if they preferred the pain relief in labour as they also a human being and some of them may not able to manage the pain. The American College of Obstetricians and Gynecologist and the American Society

of Anesthesiologists stated that it is unacceptable to let an individual to experienced unbearable pain under the care of the health professional. Furthermore, there are many pain relief methods such as pharmacologic and non-pharmacologic have been developed as a treatment in reducing the pain in labor and it becomes well known worldwide use especially in developing countries (Ogbole-Nwasor E, 2011). As we can see the use of the pain relief can be helpful in helping the pregnant woman during the labour in relieve their pain.

2.2.2 Classification of labour stage

According to National Women's Health, (2020), the classification of the labour stage consists of three stage which are first stage, second stage, and third stage. For the first stage, the muscle of the uterus will contract to help dilation of the cervix as the cervix is long and firm before the labour. Usually, first time mother will be experienced almost 36 hours for this stage. During this stage, the pregnant mother will be experienced contraction of the uterus from mild to strong and the water breaking happen in this stage. The water breaking indicated that the amniotic sac around the baby has gone.

The second stage of the labour is where the labour begin, when the cervix is fully dilated, and the baby start to move heads down the uterus and into the vaginal. The mother will be focused on pushing the baby through the vaginal. During this stage, it takes about half an hour or an hour or much longer. It become much longer with the use of epidural. Those its recommended that epidural given in only first stage.

The last stage in labour is delivering the placenta. For this process there are two way for delivery the placenta which are by physiological management or active management. For physiological, the mother will take an hour or longer to wait for the placenta to deliver spontaneously. The other option is active management which is

involve injection of ecbolic that will speed up the placenta separation with the uterus to reduce blood loss and ensuring that the womb remains contracted (health Board, 2020).

2.2.3 Pain relief in labour

According to the World Health Organization (WHO, 2019), it emphasizes that the labour pain relief is considered as a standard quality treatment for the pregnant woman during the labour. It emphasizes that all aspects of health care should be delivered promptly, adequately and the need of the woman should be considered not matter their choices and culture.

By using the pain relief during labour indicated more satisfied experience toward pregnant mother during labour. A study from Nigeria stated that 94.8% of the mother said that pain relief is needed in labor and it proved by a study that conducted at Ethiopia which is 82% of the maternal not satisfied with the nursing care during labor due to unbearable pain they experienced during the labor (Tadele Melese, 2014).

In high income countries, labour pain relief have been considered as essential component in childbirth care (McCauley, Stewart, & Kebede, 2017). In United Kingdom (UK), pain relief been discussed frequently about the pain relief use and been offered toward pregnant woman in labour (McCauley, Danna, & Broek, 2018).

Nowadays, the use of pain relief during labor become more popular as increasing in maternal request for a better experience during labor with less pain (Endalew, Tawuye, & Melesse, 2020). A study stated that there have gradually increased in pain relief method such as pharmacological method in labor (Wakgari et al., 2020).

Pharmacological pain relief has been gradually increasing in the last century (Wakgari et al., 2020) such as non-opioids (ketamine), opioids (pethidine, morphine, and fentanyl), regional (epidural) and inhalation analgesia. Pethidine is given through

injection into the thigh or buttock to help relieve the pain. It takes about 20 minutes to work and the effect can be experience after 2 and 4 hours. Pethidine is not recommended to use near stage two of labour because it may affect mother ability to push the baby. The side effect of pethidine such as feeling dizzy, sick, or forgetful. This medication can interfere baby first feed. The most popular one is epidural which is the most effective for labour pain relief. This epidural is given by injected to the spinal cord through the back which makes the mother feel numb from the waist down. However, no matter the effectiveness the drug still has side effect such as cause muscle weakness in the legs, individual that given epidural on the first stage will be confined at bed. Epidural also can lengthen the second stage of labour (Department of Health & Human Services, 2014).

Moreover, despite the pharmacological pain relief, non-pharmacological mostly been used in labour pain in helping the mother during the childbirth process. Comfort measure which is non-pharmacologic pain relief provide natural pain relief toward pregnant woman during labor and it can be very effective during the labor. One of the non-pharmacological such as birthing techniques, such as patterned breathing, movement and position changing and relaxation that can increase the production of the endorphins that bind to receptor in brain to relieve pain.

For the breathing pattern techniques, it can provide comfort during the childbirth process. It helps enhance the breathing by increase oxygen flow to the fetus and vital to the contracting uterus. Other than that, movement and position can help less the labor process by the effect of gravity and changing shape of the pelvis such as sitting, standing and walking. Touch and massage also can help reduce pain in labor as touch can be the messenger in reducing pain by the comfort sensation from the massage because it blocks the painful stimuli in labor (Newton Wellesley Hospital, 2014).

2.2.4 Knowledge on labour pain relief

According to McCauley, Stewart, & Kebede, (2017), stated that midwives play an important role in suggesting women to choose and access pain relief during labour and involve in the decision making for the labour pain relief. As we know midwives is one of the healthcare provider organization that has contact with the parturient. They are the first healthcare provider that will approach the pregnant woman during their labour. Based on a study in Hawassa City, Ethiopia, 88.9% of the respondents were knowledgeable about the labor pain relief method. It important that the midwives have knowledge about the pain relief in order to help their patient in making decision or helping the patient in making the decision or preferences in using the pain relief. They also need the knowledge in access the best condition or the need for the parturient to give the pain relief in labour pain. According to the study of Ohaeri, Owolabi, & Ingwu, 2019, in Ibadan Nigeria, proved that midwives is a member of the healthcare that responsible for patient management especially their pain management by assessing, observing and relieve the pain in labour.

Based on study in Nigeria, it stated there still lack of knowledge about pain that could affect their management of the pain for the pregnant woman (Ohaeri, Owolabi, & Ingwu, 2019). Knowledge is one of the important aspects that will affect the quality of treatment that provided to the pregnant woman and the use of pain relief as labour pain relief. In order to provide an effective quality of care or effective pain relief in labour, midwives need to have adequate knowledge regarding the pain relief. Thus, knowledge is main aspect that could affect the midwives of the use of pain relief in labour.

According to Bitew, Workie, Seyum, & Demeke, 2016, showed that healthcare providers with inadequate knowledge more likely to use pain relief than healthcare provider with adequate knowledge. A study in Australia also showed stated that

knowledge may be factor that contribute toward the use of labour pain relief. Thus, it proved that people who have adequate knowledge may be more precaution with the use of pain relief in labour especially pharmacological pain relief (Greenow, Roberts, McCaffery, & Clarke, 2006). By having adequate knowledge, it showed that midwives can provided or suggested the need of using pain relief in labour pain. According to McCauley, Stewart, & Kebede, (2017), half of healthcare provider concern with using the pain relief in labour include the fears of adversely affecting the baby, the mother and the delivery process. Based on study McCauley, Danna, Mrema, & Broek, (2018) reported that many of the healthcare have a good or adequate knowledge of non-pharmacological method of pain relief such as emotional support, back massage, breathing techniques and encouraging the presence of companion. Thus, most of the healthcare more preferred the non-pharmacological methods as pain relief in labour. This showed that, midwives with adequate knowledge more preferred non-pharmacological methods because it may give less risk toward mother and baby during the delivery.

Nowadays, in developing country the use of the pain relief has been increase, woman or pregnant woman become more aware of the use or option of pain relief in labour. In a study, it stated that the parturient aware about the use of pain relief in labour as a relieve pain. The main reason for this increases due to the high level of educated woman coming to the Hospital for delivery (Minhas, Kamal, Afshan, & Raheel, 2005). The factor that contributed in woman to use the pain relief included the pain is unbearable, the fear of the pain they will experience and to have a good experiences and satisfaction during labour. Thus, healthcare provider will be the individual that play a big part in contributed the use of pain relief in labour to get the satisfying labour experience to the woman. Having adequate number of knowledges could help in giving the pregnant

woman satisfying experiences during the labour by improving the quality of pain management during labour.

The level of knowledge on pain relief can be affected by the level of knowledge of the healthcare provider and the knowledge of the individual itself. As the healthcare provider play a main part in providing or suggesting the use of the pain relief to the pregnant mother in labour. According to McCauley, Stewart, & Kebede, (2017), it showed that majority of the healthcare provider understand pregnant woman undergo unbearable pain in labour or childbirth and majority of them agreed that the pain that suffered by the woman need to be eased by pain relief. More than half (74%) of the healthcare provider would provide pain relief to the pregnant woman in labour. The knowledge on labour pain relief can be affected by healthcare provider related factor of concern about the side effect of the pain relief use in labour toward mother and baby. according to McCauley, Stewart, & Kebede, (2017), half of healthcare provider concern with using the pain relief in labour include the fears of adversely affecting the baby, the mother and the delivery process. The main barrier for the pregnant woman in receiving the pain relief included the healthcare itself lack awareness about the using of pain relief in labour.

2.2.5 Attitude on labour pain relief

In a study, more than half of the healthcare have a positive attitude toward the labour pain management (Bishaw, Sendo, & Abebe, 2020) and majority of the midwives agreed that reducing the pain helps the labouring mother. However, they disagreed that it could provide benefit from the pain relief during labour and childbirth (Wakgari et al., 2020).

In Ethiopia, there is an attitude which is labour is a natural process and the woman should be able to cope with the pain. This is related to barrier for patient to receive pain relief included cultural norms which is 12% of them agreed that woman need to bear the pain in labour. The barrier of the pregnant woman receiving the pain relief included the healthcare provider think that labour pain is a natural process, and it should not be given pain relieve in helping the woman to bear the pain. This proved that the attitude of the midwives has been influenced by the culture. Even in Malaysia, there are people that belief that labour pain is a natural process, and it should cope with the pain. Mostly in low- and middle-income countries (LMIC), they showed positive attitude towards continuous support partner and practice it as labour pain relief.

The other factor included the pain relief can cause side effect toward both mother and baby. According to a study in Ethiopia, it been proved that 20% of the respondent think that pain relief should not be given due to it complication during labour and 17% from them think it will affect the baby while most of the healthcare provider recommended combination use of pain relief such as breathing techniques, back massage and support from closed one. In Uganda, 88% of the pregnant woman glad for the pain relief, and 79% reported that pain relief should be given by healthcare provider but only 7% reported awareness of various option (McCauley, Stewart, & Kebede, 2017). Most of the midwives showed negative attitude toward pharmacological pain relief despite effectiveness of it due to the various side effect that could affect the mother and baby in labour.

In a study done by Bishaw, Sendo, & Abebe, (2020), it stated that more than half of the healthcare provider including midwives have a positive attitude toward the labour pain management. However, according to Bitew, Workie, Seyum, & Demeka, (2016), it stated that people with inadequate knowledge more likely to use pain relief in labour. It

showed that, midwives that have more knowledge showed unfavourable attitude toward the use of pain. Despite that, a study done in Hawassa City, Ethiopia stated that midwives showed positive or favourable attitude toward labour pain relief and agreed that labour pain management could help in reducing woman pain in labour pain. However, there are some who disagreed that the woman obtained any benefit from pain relief during childbirth (Wakgari et al., 2020).

As stated before, that mostly of the high-income countries been used pain relief in labour such as in United Kingdom and it focused on the methods and complications of the pain relief in labour. However, it may differ to low-income countries or middle-income countries due to the awareness, accessibility of the treatment, and barrier such as culture, knowledge and education that may affect the attitude. It been proved by study done by Ali, Sultan, Kumar, & Ghouri, (2020), it stated that culture, knowledge, education may affect the attitude toward labour pain relief.

2.2.6 The association between the level of knowledge and the level of attitude

According to Bishaw, Sendo, & Abebe, (2020), it stated that midwives with positive attitude about labour pain relief more likely to be knowledgeable about the pain relief than those with negative attitude. It also showed that there is significance association between level of knowledge and attitude on pain relief in labour among midwives ($p < 0.05$). The association between the level of knowledge and level of attitude on pain relief in labour among midwives indicates that respondents with good knowledge on pain relief have favorable attitude toward it.

In a study, it stated that the more knowledgeable the respondents the more they have positive attitude towards the pain relief in labour (McCauley, Stewart, & Kebede,

2017). This showed that the high level of knowledge of the respondents, the more they showed positive attitude on the pain relief.

2.2.7 Association between selected sociodemographic data with level of knowledge

Sociodemographic is one of the factors that influence the knowledge and attitude on the pain relief including the age, level of education and year of working experience. In term of age, a study done in Nortwest Ethiopia by the Bitew, Workie, Seyum, & Demeka, (2016), showed that young healthcare provider more likely to suggest the use of the pain relief. Based on study by Wakgari et al., (2020), it stated that midwives age less than 30 years old more likely to use labour pain relief compared to midwives aged 30 years old above. From the study, it showed that by increasing the age, the year of experience also increase and that may affect the knowledge and attitude on labour pain relief.

For the level of education, based on study by Bitew, Workie, Seyum, & Demeka, (2016), it showed that professionals with diploma as level of qualification or education more likely to use pain relief in labour compared with one's who has second degree or higher qualification. It proved that professional with inadequate knowledge more likely to use pain relief than one's who had adequate knowledge. This also supported by Bishaw, Sendo, & Abebe, (2020), which stated that midwives with medium level of education more likely to be knowledgeable about pain relief compared to those with lower level of education. This is due to midwives with more knowledge more understand the needs of using the pain relief and the complications of the pain relief. It also may be explained based on their level of training programs during the curriculum education.

The level of education can affect the knowledge and attitude on labour pain relief. Despite there a study that stated that the higher the level of education more less the uses of labour pain relief. However, it not stated if there any negative or positive attitude on labour pain relief. However, as we can see that the more experience, the more positive the attitude on labour pain relief from the study of Bitew, Workie, Seyum, & Demeka, (2016), as the longer they work experience, they showed positive attitude toward the pain labour relief.

2.3 Conceptual Framework

In this research, using Health Belief Model (HBM) as the model for conceptual framework. This HBM been developed by social psychologist Hochbaum, Rosenstock and Kegels that worked in U.S Public Health Services which is the first developed in 1950s. This Health Belief Model has been developed due to the failure of free tuberculosis (TB) health screening program. Using this theory, it included six concepts of changing the behavior which are perceived susceptibility, perceived severity, perceived benefits vs perceived barrier, cues to action and self-efficacy (L & Skinner, 2008).

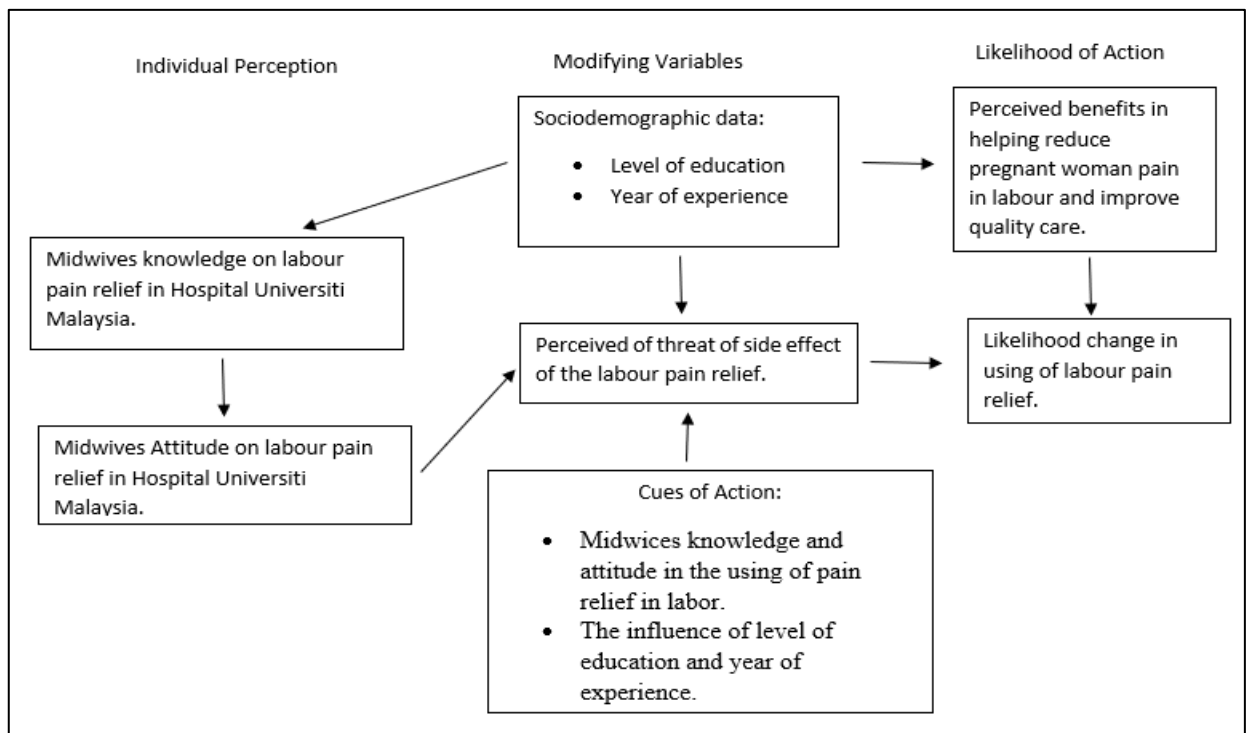


Figure 2.1 Modified from Health Belief Model (HBM) adapted from (L & Skinner, 2008).

In this study of knowledge and attitude on labor pain relief study, the modifying variables which is selected demographic such as level of education and year of experience. The level of education may effect the knowledge of the midwives toward