

KNOWLEDGE AND PRACTICE ON POSTNATAL  
CARE AMONG POSTNATAL MOTHER IN  
HOSPITAL UNIVERSITI SAINS MALAYSIA

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KNOWLEDGE AND PRACTICE ON POSTNATAL  
CARE AMONG POSTNATAL MOTHER IN  
HOSPITAL UNIVERSITI SAINS MALAYSIA

by

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

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## CERTIFICATE

This is to certify that the dissertation entitled “KNOWLEDGE AND PRACTICE ON POSTNATAL CARE AMONG POSTNATAL MOTHER IN HOSPITAL UNIVERSITI SAINS MALAYSIA” is the bona fide record of research work done by Ms MARDIAH HUSNA BINTI AHMAD ANUAR during the period from 2019 to June 2020 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 fulfilment 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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PENGETAHUAN DAN AMALAN TENTANG PENJAGAAN SELEPAS BERSALIN  
DALAM KALANGAN IBU SELEPAS BERSALIN DI HOSPITAL UNIVERSITI  
SAINS MALAYSIA (HUSM)

**ABSTRAK**

Tempoh selepas bersalin dianggap sebagai masa kritikal bagi semua wanita setelah melahirkan bayi di mana kadar kematian dan kecacatan sangat tinggi pada masa sekarang. Setiap wanita akan mengalami situasi yang berbeza dalam tempoh berpantang dan penjagaan yang betul dan baik dapat mengurangkan komplikasi selepas bersalin. Kajian ini bertujuan mengenal pasti pengetahuan dan amalan tentang penjagaan selepas bersalin dalam kalangan ibu selepas bersalin di Hospital Universiti Sains Malaysia (USM). Satu kajian deskriptif keratan rentas digunakan dalam kajian ini. Teknik persampelan mudah secara rawak digunakan untuk memilih ibu selepas bersalin. 153 ibu selepas bersalin telah dipilih untuk menjawab soal selidik berstruktur. Data yang dikumpulkan dianalisis dengan menggunakan statistik deskriptif (frekuensi dan peratusan) dan statistik inferensi (chi-square). Seramai 23 peserta dikategorikan dalam tahap yang lemah, 59 dalam tahap sederhana dan 71 peserta dalam tahap pengetahuan yang baik. Manakala 31 peserta dikategorikan mempunyai tahap amalan yang rendah, 111 peserta dalam tahap memuaskan dan 11 peserta dalam tahap baik. Terdapat hubungan yang signifikan antara tahap pengetahuan dengan amalan ( $p$ -value 0.028) dan pariti ( $p$ -value 0.037). Hasil kajian mendapati bahawa ibu selepas bersalin mempunyai tahap pengetahuan yang baik dan mempunyai tahap amalan yang memuaskan Terdapat hubungan antara tahap pengetahuan dengan tahap amalan dan pariti. Walau bagaimanapun, tidak ada hubungan antara tahap pengetahuan dengan usia, etnik, status pendidikan, status pekerjaan, pendapatan bulanan

dan sumber maklumat. Kandungan pendidikan formal yang berstruktur dan media massa diperlukan untuk meningkatkan pengetahuan dan amalan ibu lepas bersalin.

KNOWLEDGE AND PRACTICE ON POSTNATAL CARE AMONG POSTNATAL  
MOTHER IN HOSPITAL UNIVERSITI SAINS MALAYSIA

**ABSTRACT**

Postnatal period is considered a critical time for all woman after giving birth where now days the range of mortality and morbidity are very high. Every woman will experience different situations during postnatal period and a proper and good care can reduce complication. This study aimed to identify the knowledge and practice regarding postnatal care among postnatal mother in Hospital Universiti Sains Malaysia (USM). A cross-sectional descriptive study was used in this study. Simple random sampling technique was used to select the postnatal mothers. 153 postnatal mother were selected to answer the structured questionnaire. The collected data were analysed by using descriptive statistics (frequency and percentage) and inferential statistics (chi-square). A total of 23 respondents were categorised in poor level, 59 in moderate level and 71 respondents in good level of knowledge. Meanwhile, 31 participants were categorized as having low levels of practice, 111 respondents in satisfactory level and 11 respondents in good level. There is a significant relationship between level of knowledge with practice (p-value 0.028) and parity (p-value 0.037). Finding of the study found out that postnatal mother had good level of knowledge and had satisfactory level of practice. There are association between level of knowledge with level of practice and parity. While there are no association between level of knowledge with age, ethnicity, educational status, employment status, monthly income and source of information. The structure formal educational and mass media content is needed for improving the knowledge and practice of postnatal mother.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background of the study

Postnatal care is a continuation care that the woman has received through her pregnancy, labour and birth and it include the woman's individual needs and preferences (University College London Hospital, 2019). According to WHO (2010), care in the postnatal period is critical not only for survival but also to the future of mothers and new born. In this period also the major changes occur which will determine their wellbeing and potential for a healthy future.

Based on Maharjan & Singh (2017), becoming a mother is an important stage in every women's life because postnatal period is a critical phase for mother and most maternal deaths occur during this period. Based on report by WHO (2010), mention that, the first hours, days and weeks after childbirth are a dangerous time for both mother and new born infant. Yet, this is the most neglected period for the provision of quality care of postnatal mother regarding postnatal care. The report also shows that, the new parents very need support from other for parenting and its responsibilities.

According to the (Hill, 2017), maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes". The maternal mortality ratio in developing countries in 2015 is 239 per 100 000 live births versus 12 per 100 000 live births in developed countries (WHO, 2018). Based on Wymen et al. (2014), Kelantan demonstrated a consistently high maternal mortality ratio across 3 consecutive years.

Based on Simkhada et al. (2006), maternal mortality occurs because lack of access to basic maternal healthcare, difficult geographical terrain, poorly developed transportation and communication systems, poverty, illiteracy and women's low status in the society. Supported by Hill (2017) state that, barriers to access health care during pregnancy and childbirth are poverty, distance, lack of information, inadequate services and cultural practices. Other than that, in high-income countries, almost all women attend at least four antenatal care visits and receive care by skilled health worker during childbirth and postpartum, whereas in low-income countries, only 40% of all pregnant women receive the recommended antenatal care visits. (Hill, 2017)

During or following pregnancy and childbirth lead to women death and most are preventable or treatable cases (WHO, 2019). Based on Wymen et al. (2014), pregnancy and childbirth remain the major causes of death which are caused by complications of pregnancy or childbirth or during puerperium period. Some disease may exist before pregnancy but it can be more worsened if happen during pregnancy, especially if not managed as a part of the woman's care.

According to WHO (2019) report, the major complications that account for nearly 75% of all maternal deaths are severe bleeding that mostly bleeding after childbirth, infections that usually after childbirth, high blood pressure during pregnancy, complications from delivery and unsafe abortion. The remainder are caused by or associated with infections such as malaria or related to chronic conditions like cardiac diseases or diabetes. Based on WHO (2010), found that, the postpartum care for the mother more focused on routine observation and examination of vaginal blood loss, uterine involution, blood pressure and body temperature of mother. Other than that, the postnatal care also includes appropriate advice given to the mother and systematic examination of the mother and the baby (Dutta, 2015).



In addition, according to Dutta (2015), the first postnatal examination is done and the advice is given when patients can discharge and second conducted at the end of 6th week of postpartum period. Examination that includes are recording weight, check for pallor, blood pressure and fundal height (involution of uterus) and breast. Then, pelvic examination should be done only when indicated. A cervical smear may be taken for exfoliative cytological examination if not been done previously and insertion of intrauterine contraceptive device may be done when desired.

Guideline from WHO (2010), noted that postnatal care for mothers are to maintain and promote the health of the woman and to foster an environment that offers help and support to extended family and community for a wide range of related health and social needs. These needs can involve physical and mental health as well as social and cultural issues that can affect health and wellbeing.

## **1.2 Problem statement**

The postnatal period is a very stressful period for women worldwide due to the changes that occur during this time, such as life, physical, and emotional changes (Alharqi & Albattawi, 2018). Based on Dutta (2015), maternal death is a tragedy for an individual woman, for her family and also to community. Showed that nearly 600,000 women between the age of 15 and 49 die every year due to complications from pregnancy and childbirth and this means, almost every minute of every year, there is a maternal death, 99% of this death occur in the developing countries and majority (80%) of these deaths are preventable.

The mainly factors preventable that are cause of maternal and perinatal deaths now days were: unregulated fertility, unsafe of abortion, inadequate of antenatal care and also lack of trained birth attendants (Dutta, 2015). In the Zainur & Loh (2006) study found that, many complications can occur during postnatal period when lack of postpartum knowledge and incorrect practice has be done. Such as major acute obstetric morbidities include haemorrhage, pregnancy-related hypertension, obstetric pulmonary embolism, sepsis, depressive illness, urinary and faecal incontinence, sexual problems, anaemia, wound breakdown, breast problems, headache, backache, constipation and sometimes contraception.

Based on Abdul Ghani & Salehudin (2018) study, culture believe regarding postnatal care of baby and mother is very strong among postnatal mother in Malaysia. 14% of postnatal mothers suffer moderate to severe postpartum depression in developed countries and they believe this is due to the traditional postpartum care. In same study found that the most important factor that influenced both postpartum care practice and knowledge was family tradition. That why mother should be exposed to the possibility of complications due to extreme practice of traditional postpartum care for avoid complication the harmful from that practice (Abdul Ghani & Salehudin, 2018).

Although postnatal care coverage in Malaysia has improved, many of the primipara mothers still have lack of knowledge and practice regarding postnatal care (Nazura, Lee, & Khuan, 2014). Meanwhile according to Laili Ismail (2018) finding, many modern mothers are resourceful and love to doing their own research on motherhood. In other words, based on Mohsen & Khosrojerdi (2017) study, a majority of morbidities and mortalities occur due to unawareness of parents, especially the mothers' insufficient knowledge or misunderstanding regarding maternal care during postnatal period.

One problem is when nannies would rather cite their extensive experience, than give a logical explanation and expect the worried mothers to trust them (Laili Ismail, 2018). This because why the mother mortality still happens. That why currently their knowledge and practice are inadequate and form informal source (Nazura et al., 2014). Mother get information from incorrect resource and still not be stressed and ignored by many people.

Malaysia has remarkable achievement in maternal child health over past decades (Record et al., 2018). This we can see it when the postnatal care services at home are free for all Malaysian Citizens (My Health, 2017). Based on Kaur & Singh (2011), study, the proportion of births attended by health personnel increased from 92.9% in 1990 to 98.6% in 2008.

Inform of postnatal care, based on My Health (2017), in Malaysia the nurse will visit mother's house according to the standard schedule of postnatal care visits and for high-risk mothers, postnatal care will be more frequent depending on the mother's condition. At day 30, the mother must go to the health clinic for a postnatal check-up and family counselling planning should commence for them.

Future more, based on Shariffah & Jamaludin (2014) study, in this rural Malay community, people held a common belief that women and infants are vulnerable during the immediate postpartum period. It is the duty of health care workers to provide quality postnatal care and to be able to identify the problems earlier so that proper intervention can be initiated (Zainur & Loh, 2006). This because any things can happen to mother during postpartum period if do not take a good care during that time (Shariffah & Jamaludin, 2014). With good health care support, hopefully most mothers will be able to achieve full recovery to the pre pregnancy state sooner or as before getting pregnant (Zainur & Loh, 2006).

As a nurse, it our responsible to make sure that mother get the correct postnatal information from a correct resource to prevent future complication because of getting incorrect knowledge and practice incorrect technique of postnatal care after deliver the baby. In this study I aim to explore the knowledge and practice regarding postnatal care among postnatal mother in Hospital USM and also to find out association of mother knowledge and practice on postnatal care with their socio-demographic variable (age, ethnicity, educational status, employment status, parity, monthly income and source of information on postnatal care).

### **1.3 Research questions**

Guiding the research study and to inform the research, the following research question were formulated:

- I. What is the level of knowledge regarding postnatal care among postnatal mother in Hospital USM?
- II. What is the level of practice regarding postnatal care among postnatal mother in Hospital USM?
- III. Is there any relationship between the knowledge and practice regarding postnatal care among postnatal mother in Hospital USM?
- IV. Is there any relationship between the knowledge and demographic data (age, ethnicity, educational status, employment status, parity, monthly income and source of information on postnatal care) regarding postnatal care among postnatal mother in Hospital USM?

## **1.4 Research objective**

Research objective are divided into general and specific objectives.

### **1.4.1 General objective**

General objective of this study is to assess the knowledge and practice regarding postnatal care among postnatal mother in Hospital USM.

### **1.4.2 Specific objectives**

- I. To identify the level of knowledge regarding postnatal care among postnatal mother in Hospital USM.
- II. To identify the level of practice regarding postnatal care among postnatal mother in Hospital USM.
- III. To identify the relationship between the level of knowledge and practice among postnatal mother regarding postnatal care in Hospital USM.
- IV. To identify the relationship between the knowledge and demographic data (age, ethnicity, educational status, employment status, parity, monthly income and source of information on postnatal care) regarding postnatal care among postnatal mother in Hospital USM.

## **1.5 Research Hypotheses**

### **1.5.1 Null hypotheses**

The research hypotheses for this study are as follow:

- I. There is no significant relationship between postnatal mother's knowledge and practice regarding postnatal care.
- II. There is no significant relationship between the knowledge and demographic data (age, ethnicity, educational status, employment status, parity, monthly income and source of information on postnatal care) regarding postnatal care among postnatal mother in Hospital USM?

### **1.5.2 Alternative hypotheses**

- I. There is a significant relationship between postnatal mother's knowledge and practice regarding postnatal care.
- II. There is a significant relationship between the knowledge and the demographic data (age, ethnicity, educational status, employment status, parity, monthly income and source of information on postnatal care) regarding postnatal care among postnatal mother in Hospital USM.

## 1.6 Conceptual of Operational Definitions

Definitions for the operational term used in this research are shown as below:

- Postnatal care - A postnatal care is defined as a care given to the mother and her new born baby immediately after the birth of the placenta and for the first six weeks of life (WHO, 2015). In this study, refer to care giver to the mother within 6 weeks puerperium. Postnatal care includes breast care, perineum hygiene, diet, and exercise.
- Postnatal mother - A woman who is pregnant then deliver the baby and undergo the period after childbirth (United State Agency for International Development, 2002). In this study postnatal mother refer to the postnatal mother that have been deliver their newborn at Hospital USM and admitted to Ward 2Topaz.
- Knowledge - Understanding of information about a subject that you get by experience or study, either known by one person or by people generally (CambridgeDictionary, 2019). For this study, knowledge refers to postnatal mother's understanding and ability to answer the structured questionnaire survey that will be provide to them regarding knowledge of postnatal care among postnatal mother.

Practice - Doing something regularly in order to be able to do it better.

A practice is one of these periods of doing something (Collind Dictionary, 2019). In this study practice mean the routine postnatal activities that has be done by postnatal mother as a need during postnatal period that involve breast care, perineum care, postnatal diet and postnatal exercise.

### **1.7 Significance of the study**

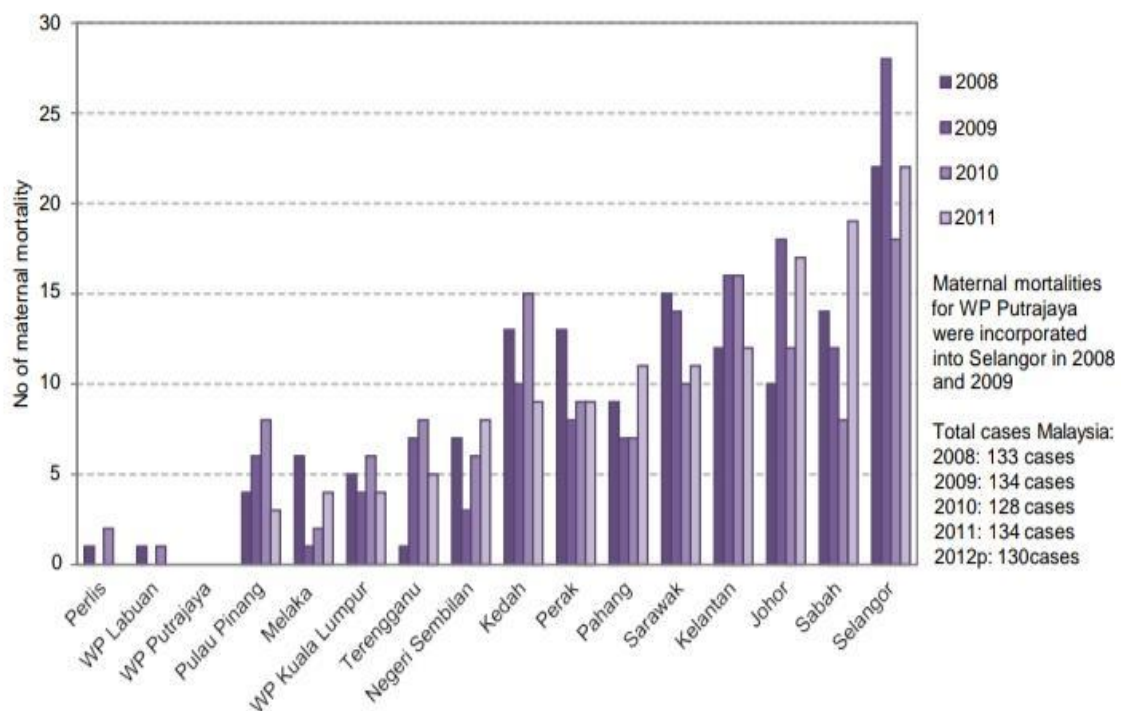
Based on WHO (2018), the maternal mortality ratio in developing countries in 2015 is 239 per 100 000 live births versus 12 per 100 000 live births in developed countries. Mortality high in developing country compare to developed country. With conducted this study, we will provide information on postnatal mother' knowledge and practice among postnatal mother regarding postnatal care after deliver the baby at Hospital USM.

Hopes this finding of this study will highlight the need of education regarding postnatal care among postnatal mother in order to increase their awareness toward postnatal care and hence can prevent it from happen any complication because of lack of knowledge, awareness and practice regarding postnatal care during postpartum period. Based on Sharma et al. (2018) study, the most infectious complications of puerperium are avoidable and simple measures like increasing awareness about proper hand hygiene, sanitary precautions while dealing with normal vaginal discharge, proper breast care and feeding practices.



With this study it also can influence other researcher to do same research in this fields because not many research has been done in Malaysia regarding postnatal care compare to other country. Perhaps a nurses responsible to increase and gain their knowledge to give correct and complete information to postnatal mother regarding postpartum care, so the mother can do better practice during postpartum period and complication can be avoid.

In the other words, the postnatal mother will be able maintain a good postnatal care if they have knowledge about postnatal care and practice on it. Based on Wymen et al. (2014), Kelantan is in the fourth place of maternal mortality in Malaysia. Show as in figure 1.1, Number of maternal mortality by states in Malaysia, 2008-2012.



**Figure 1.1:** Number of maternal mortality by states in Malaysia, 2008-2012  
 Source: Department of Statistics Malaysia (2014).

Based on Moumita et al. (2017), the study concluded that there is a need to create awareness among mothers regarding various aspects of postnatal care in order to reduce maternal and neonatal complications. Perhaps with the proper knowledge that they obtain

and receive additional with the practice regarding postnatal care can decrease mortality among postnatal mother, improve quality of live, and longevity. Lastly postnatal mother can enjoy their life with their newborn and have productive life in future.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The purpose of doing literature review is to gain an understanding of the existing and previous research and debates relevant to a particular topic or area that we are currently study (Western Sydney University, 2017). In this chapter it reviews the past and current literature related to general information about postnatal care, breast care, perineum care, postnatal diet, postnatal exercise, knowledge related to postnatal care, practice of postnatal care and socio-demographic characteristics. The chapter also discuss details about conceptual framework that guiding this study.

#### **2.2 Postnatal care among postnatal mother**

According to United State Agency for International Development (2002), postnatal mother is a woman who is pregnant then deliver the baby and undergo the period after childbirth. The period after childbirth is postnatal or postpartum period. Based on Akmal (2015), the postnatal or postpartum period begins immediately after the birth of the baby and extends for about six weeks during which, the mother's body return to the non-pregnant state

While according to WHO (2015), postnatal care includes counselling on family planning, maternal mental health, nutrition and hygiene, and gender-based violence. The report also noted that all women should be given information about the physiological process of recovery after birth and told that some health problems are common, with advice to report any health concerns to a health care professional, in particular, signs and

symptoms of postpartum haemorrhage, pre-eclampsia or eclampsia, infection and thromboembolism.

Based on WHO (2015), women should be counselled on nutrition, hygiene, birth spacing and family planning, and safer sex including use of condoms. Contraceptive options also should be discussed and contraceptive methods should be provided if requested by them.

Future more all women should be encouraged to mobilize as soon as appropriate following the birth. More than that they should be encouraged to take gentle exercise and make time to rest during the postnatal period. For this study, will more focus on breast care, perineum care, postnatal diet and also postnatal exercise during postpartum period among postnatal mother.

### **2.2.1 Breast care**

Breast milk is the best food for the babies as breast fed babies are healthier than formula fed babies because human milk is a remarkable and renewable resource. Breast feeding are unique experiences for every mother and it cannot be duplicated with other things because human milk has no substitute and the breast is nature's apparatus for feeding the infant (Jagadale et al., 2015).

Regarding to Degefa et al. (2019) study, found that the mothers who have attended no formal education have poorer positioning while breastfeeding. Mothers with a higher level of education are more likely to look for health information and implement it properly. However educational level was not significantly associated with either attachment or positioning.

Based on Verma (2015) study, found that postnatal mothers didn't wash their hands before breastfeeding, didn't completely empty their breast at alternate feeding and didn't offer breastfeed at an interval of 2-3 hours. While study by Mirzaee et al. (2015) found that, most women were not aware that washing the nipples with soap and water before breastfeeding is not necessary. In fact, by washing the nipples with soap and water it will leads to irritation and cracks, which is a common cause of early discontinuation of breastfeeding among baby and start formula feeding. Same study also found that the impact of breastfeeding is can reduce risk of ovarian and breast cancers among mother.

In addition, mothers relieve breast pain using the popular methods of hot pack and breast massage, but many mothers continue to suffer from severe pain. A pre and post study was done by Cho et al. (2012), to examine the effect of Oketani breast massage compared with conventional massage on breast pain and breast milk pH of mothers, and sucking speed of neonates, which indicates that breast massage may have effects on relieving breast pain.

### **2.2.2 Perineum care**

Perineal trauma may lead to long-term physical, physiological, social and psychological problems immediately after birth and in the long term. The complications depend on the severity of the trauma and the effectiveness of its treatment (Vasileva, Strashilov, & Yordanov, 2019). Postpartum perineal care is cleaning and caring for your perineum after having a baby (Drugs.com, 2019). The perineum is the anatomic area between the urethra, the tube that carries urine from the bladder, and the anus. In women, the perineum includes the vaginal opening. This area undergoes a lot of stress and change during pregnancy and delivery, and it needs special care afterward (Trupin, 2018).

In the first few weeks after childbirth, you will probably have soreness or pain in your perineum and you will also have discharge coming out of your vagina (Drugs.com, 2019). Discomfort and risk of infection can be reducing by proper cleansing of perineal (Brown, 2019). Also always wash your hands before using the bathroom or changing pads, gently pat the area dry with toilet paper and making sure to start at the front and end at the back to avoid spreading germs from the rectum to vagina after drying the area. Other than that can use any wipes and apply ice pack if necessary to reduce pain and lastly always wash your hands after caring for your perineum.

Based on Gadade (2018) study, perineal care is one of the most important maternal health-care services for not only prevention of impairment and disabilities but also in reduction of maternal mortality. The report also highlights that the majority of women in developing countries receive almost no postpartum care.

### **2.2.3 Postnatal diet**

According to the Javed et al. (2014) study, lactation is a normal physiological process that begins soon after parturition during which the mother starts nourishing her baby. The success of lactation as well as the health status of infant depends entirely on the type of diet consumed by the women during lactation. Diet taken by the mother in this period directly affects process of return back to pre-pregnant state (Rajakumari et al., 2015).

Based on Sundarapperuma et al. (2018) study mention that, postpartum mothers are a special group that face difficulties in maintaining they healthy eating patterns and regular physical activities. Therefore, mother must have a better understanding of the barriers to behaviour changes is needed when we want to plan out of lifestyle interventions for them. The study also noted that there are many factors such as extreme

tiredness, time and financial constraints, needs of the new born, and demands of the family act as obstacles for healthy lifestyles. In addition, food preferences of other family members and confidence and also skills in cooking healthy food were the other psychosocial factors that are influence postpartum dietary behaviours.

A postpartum mother will gradually lose weight of 8 to 9 kg when she chooses a well-balanced diet with nutrient dense foods, even with the increase intake foods with strong flavours may alter the flavour of breast milk (Wagh et al., 2018). It is very important for all mother that breastfeeding her baby to drink a lots of plenty water and must avoid of taking caffeine and alcohol during postnatal period (Wagh et al., 2018).

Next, mothers did not feel the necessity to restrict carbohydrates in the diet after the baby is born. This because almost all mothers attributed restricting carbohydrates to reduced production of breast milk, lack of energy, and gastritis (Sundarapperuma et al., 2018). Also found that the mothers do not have enough time to prepare separate food for themselves to consume during postpartum period. Therefore, they eat anything available at home while attending to the needs of their baby. Besides that, an inadequate diet for breast feeding mother can hurt the ability to take care of both mother and baby. These deficiencies should be avoided by improving the diet or providing supplements to the mother (Javed et al., 2014).

Other than that postnatal mother that came from low socioeconomic status and mostly those belongs rural they are not know what is important of postnatal diet and benefits of it (Pandey, Prabhu, & Nageshwar, 2017).

Can conclude that, during puerperal and specifies postpartum period is a very special phase in the life of a women. Her body needs to heal and recover from pregnancy and child birth, a good postpartum care and well balanced diet during the puerperal period is very important for her health (Pandey et al., 2017).

#### **2.2.4 Postnatal exercise**

Postnatal exercise is as important as antenatal exercise (Department of Health and Hog Kong Physiotherapy Association, 2018). Postnatal exercise is one of the activities recommended for postnatal mother for prevent complication (My Health, 2017). A main reason for the high maternal mortality rate is lack of care at birth and less awareness about the postnatal exercise (Mistry et al., 2017).

Many studies state that different postpartum exercises reduce stress incontinence, postpartum depression, backache, diastasis recti and other health problems. Also create a more relaxed mother-child relationship (Sarkar, Konwar, & Das, 2014). Its duration needs not to be so long but it should be done twice or thrice in a day and postnatal mother must repeat each set of movements about ten times in every session (Department of Health and Hog Kong Physiotherapy Association, 2018).

Based on Alharqi & Albattawi (2018) study the effect of non-exercising postpartum mother result in fatigue which decreases a mother's capability to undertake physical, mental tasks, ability to care her infant's and her responsibilities to other family members also her duties. Also can reduced maternal energy impairs the immune, nervous and mental systems, early discontinuation of lactation, development of stress and mood disorders and increased incidence of postpartum depression. Besides, it also will increase the probability of impairment of the sexual relationship between spouses. Based on one study, majority of the mothers lacked knowledge and had inadequate practice of postnatal exercises (Sarkar et al., 2014)

Perform postnatal exercise can strengthen pelvic floor muscle to prevent incontinence, to prevent low back pain, to speed up the restoration of body shape, to stimulate blood circulation and enhance appetite, and lastly to maintain vitality and self-



confidence which can makes postnatal mother feel more good (Department of Health and Hog Kong Physiotherapy Association, 2018). When doing exercise pelvic muscle, it will increase the blood flow to the damaged tissue and helps to speed up the healing process (Oxford University Hospitals, 2017).

Practice postnatal exercises will promote weight loss, restore muscle strength, improve mother's mood and relieve stress and postpartum depression (Mistry et al., 2017). Next, improved cardiovascular fitness, facilitated weight loss, increased positive mood, decreased anxiety and depression, and more energy following exercise (Mottola, 2002). Postnatal exercises also will help postnatal mother to get back in their shape after they deliver the baby and suitable for mother that have undergo a caesarean section but the postnatal mother must start from gently and progress slowly, never push so hard while doing this exercise (Gloucestershire Hospital, 2018).

### **2.3 Postnatal complication**

Postpartum complications can lead to maternal morbidity begin during the antenatal period, labour and the first 1-2 weeks following delivery (Sharma et al., 2018). More than 500 000 women who die each year due to complications of pregnancy and childbirth (WHO, 2010). This period holds its own set of medical issues with frequent occurrence of gynaecological complaints like hematoma, bleeding, painful discharge and many medical issues like pyrexia, mastalgia, coagulation disorders and depression (Sharma et al., 2018).

Perineal trauma during vaginal delivery can have long-term adverse effects, including perineal pain, dyspareunia, chronic faecal incontinence and may increase the risk of development of recto-vaginal fistulas (Chia & Huang, 2012). Mother that have

been experience perineal trauma it will affects the physical, physiological, psychological and social wellbeing of women both in the immediate postnatal period as well as in the long term if not be treated carefully (Vasileva et al., 2019). In Chia & Huang (2012) study, for the third and fourth degree of lacerations are considered severe lacerations, and they occur in approximately 5% of vaginal deliveries. If a laceration is seen, its length and position should be noted and repair initiated to avoid future complication.

Especially at the perineal body, the external anal sphincter, and the rectal mucosa. Failure repair rectal injury can lead to serious long-term morbidity, most notably faecal incontinence (Chia & Huang, 2012). This main risk factors associated with this is specifically episiotomy, forceps-assisted vaginal delivery, forceps with episiotomy, vacuum-assisted vaginal delivery and vacuum with episiotomy (Chia & Huang, 2012). More than that it can also disrupt the process of breastfeeding, family life and sexual intercourse (Vasileva et al., 2019).

Based on Kim & Lee (2017) study, state that the bladder symptoms and physical activity are different by time after birth and birth mode in postpartum women. Same study also says that the first week after giving birth is an important period for postpartum women whose bladder symptoms and physical activity should be of concern. Future more vaginal delivery is associated with a twofold increased risk of postpartum stress urinary incontinence in primipara women compared with elective caesarean section (Kokabi & Yazdanpanah, 2017).

Age and birth weight are the main risk factors of postpartum Stress Urinary Incontinence (SUI) in both modes of delivery. Tool-assisted delivery and episiotomy were determined as the risk factors of postpartum SUI in vaginal delivery (Kokabi & Yazdanpanah, 2017). Most of the women reported urine leakage in small amounts,

however, it occurred several times a day, in general when coughing or sneezing. Urinary incontinence often appeared first during pregnancy and remained in the puerperal period.

Risk factors for postpartum urinary incontinence were: urinary incontinence during pregnancy, multiparity, gestational age at birth greater or equal to 37 weeks and constipation. In the studied group of puerperal women, SUI was more frequent (Leroy, Lúcio, & Lopes, 2016). Urinary tract infections (UTI), the incidence of which further increases due to urethral catheterization done at the time of delivery in many centers (Sharma et al., 2018).

Physical activity levels were significantly different according to time and birth mode in women with moderate physical activity or walking (Kim & Lee, 2017). Physical activity was the lowest in women with caesarean birth. Moderate physical activity was the lowest in the first week after childbirth (Kim & Lee, 2017).

Based on Ethiopia Ministry of Health (2006), the most critical period for complications in the postnatal mother arising from bleeding (post-partum haemorrhage) is in the first 4-6 hours after delivery, due to excessive blood loss from the site where the placenta was attached to the mother's uterus, or from rupture of the uterus during labour and delivery. Based on Lisonkova et al. (2016) study, postpartum haemorrhage that is who delivered vaginally had a blood loss of exactly 500 mL, and who delivered by Caesarean Section had a blood loss of exactly 1000 mL.

Haemorrhage can also threaten the baby's life if it occurs before delivery and the baby is starved of oxygen and nutrients (Lisonkova et al., 2016). Both the mother and the baby are also at high risk of developing other complications if the physiological adjustments that take place in their bodies after the birth do not occur properly. This can result in loss of function or interruption of essential supplies of oxygen and nutrients needed to sustain life (Ethiopia Ministry of Health, 2006).

## **2.4 Knowledge of postnatal care among postnatal mother.**

Regarding to the knowledge, Pradan & Rani (2017) had done the study at Banashankari Referral Hospital, Bangalore. They reported more respondents were having moderately adequate knowledge regarding selected aspects of postnatal care, only three of respondents had adequate knowledge and balance were having inadequate knowledge out of 60 samples. A descriptive study by Timilsina & Dhakal (2015) was conducted in Postnatal and Gynaecological Ward of Western Regional Hospital at Nepal. The result of the study shows that most of the respondents had average knowledge, only 1 respondents had poor knowledge and else are good knowledge on postnatal care.

Other study that conduct by Maharjan & Singh (2017) had found that the half of the postnatal mother had average level of knowledge regarding postnatal care. The highest knowledge was in the area of breastfeeding and the lowest in the area of family planning. In the same study found that there is still lack of knowledge among mother regarding postnatal period, postnatal exercise and timing of first bath after birth of baby. Beside, occupation of mother also had great impact on knowledge regarding postnatal exercise among postnatal mothers (Mistry et al., 2017).

Based on Timilsina & Dhakal (2015) study, there found that knowledge among mother has relationship with selected demographic variables. In contrast, a study conduct by Maharjan & Singh (2017) found that there was relationship between religion and knowledge of postnatal mother.

## **2.5 Practice of postnatal care among postnatal mother.**

Regarding to the practice, Pradan & Rani (2017) had done the study and found that the level of practice most respondents were having inadequate practices, only 05 of them had adequate and balance were having moderately adequate practice on selected aspects of postnatal care. Based on the study conduct by Mansour (2013), slightly less than one half of women performed right practices while else were respectively performed neutral and wrong practices. Based on Missiriya (2016) study found that, most respondents were having poor practice and remaining were having satisfactory practice.

Regarding to Abdul Ghani & Salehudin (2018) study, Traditional Belief and Practice on Postpartum Recovery among Mothers in East Coast of Peninsular Malaysia state that, there were ten postpartum physical practices which were hot compress, corset, massage, herbs bath, param, pilis, sauna, body scrub, omam and oil bath that were associated with socio-demographic data. Based on Mansour (2013) study, there is relationship between the women's practices and their age, educational level and parity. Age and level of education were the most positively influential factors towards practices.

## **2.6 Demographic data and postnatal care**

According to Timilsina & Dhakal (2015) study on Knowledge on Postnatal Care Among Postnatal Mothers, stated level of knowledge had a significant relationship between educational level and occupation. A descriptive cross sectional study done by Maharjan & Singh (2017) on Knowledge Regarding Postnatal Care Among Postnatal Mother: A Hospital Based Study showed that there were significant relationship between religion and knowledge of postnatal mothers.

In Sarkar et al. (2014) study, shows that there was relationship between knowledge with educational and occupational of mother. Regarding to descriptive correlation research design by Pradan & Rani (2017) study on Knowledge and Practice On Selected Aspects of Postnatal Care Among Postnatal Mothers shows that there was a significant association between level of practice and parity of mother.

## **2.7 Conceptual framework**

Researcher used the Health Belief model by Irwain M Rosenstock (Rosenstock, 1974) to explain knowledge and practice regarding postnatal care among postnatal mother. In this study, Health Belief Model explain postnatal care in response to a vulnerability to one's own health such as to protect oneself from infection and complication in future. These perceptions are then influenced by several modifying factors and in this study refer to demographic data.