

Application of the Health Belief Model in Postpartum Health Promotion: Practices and Influencing Factors

Ejimonu, Ngozi Constance

Department of Health Promotion and Public Health Education, Nnamdi Azikwe University, Awka

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ABSTRACT

Health promotion is the key for the survival and wellbeing of both postpartum woman and child. It is essentially the process of improving the degree of health of individuals and communities through their engagement. Most postpartum women have not reached desirable level of engagement in many countries. Understanding factors that influence health promotion practices among postpartum women will help in motivation, promotion and facilitation of women engagement in health promotion practices during postpartum period. This review identified the forms of health promotion practices for postpartum women and presented it using the Health Belief Model as a frame work. Several data bases were searched with specific keywords and findings reveal that maternal socio-demographic characteristic like age, level of education, parity, and socio-economic status influences health promotion practices. Other factors include, socio-cultural factors, lack of information and inaccessible health care personnel's. Postpartum women will adapt health promotion practices as recommended if they are influenced to understand significance of health promotion on their wellbeing and develop a positive perception about health promotion.

Keywords: Health Belief Model, Health Promotion, health promotion practice, postpartum women

INTRODUCTION

The postpartum period, a critical phase in a woman's life, involves complex physiological, psychological, and social changes that necessitate targeted health promotion practices. Defined as the six to eight weeks following childbirth, this phase is crucial for the recovery of the mother and the establishment of effective maternal practices, including breastfeeding and self-care (Williams, 2019). Despite its importance, this period often receives less attention compared to pregnancy and childbirth, underscoring the need for focused health promotional activities (Warren et al., 2015). Health promotion in the postpartum period includes a range of practices aimed at enhancing maternal and child health—ranging from nutritional adjustments to psychological support, which significantly affect long-term health outcomes for both mother and child (American Cancer Society, 2010; Berens, 2005). These practices not only address immediate health needs but also set the groundwork for sustained well-being, making it imperative to understand and implement effective health promotion strategies tailored for this unique period.

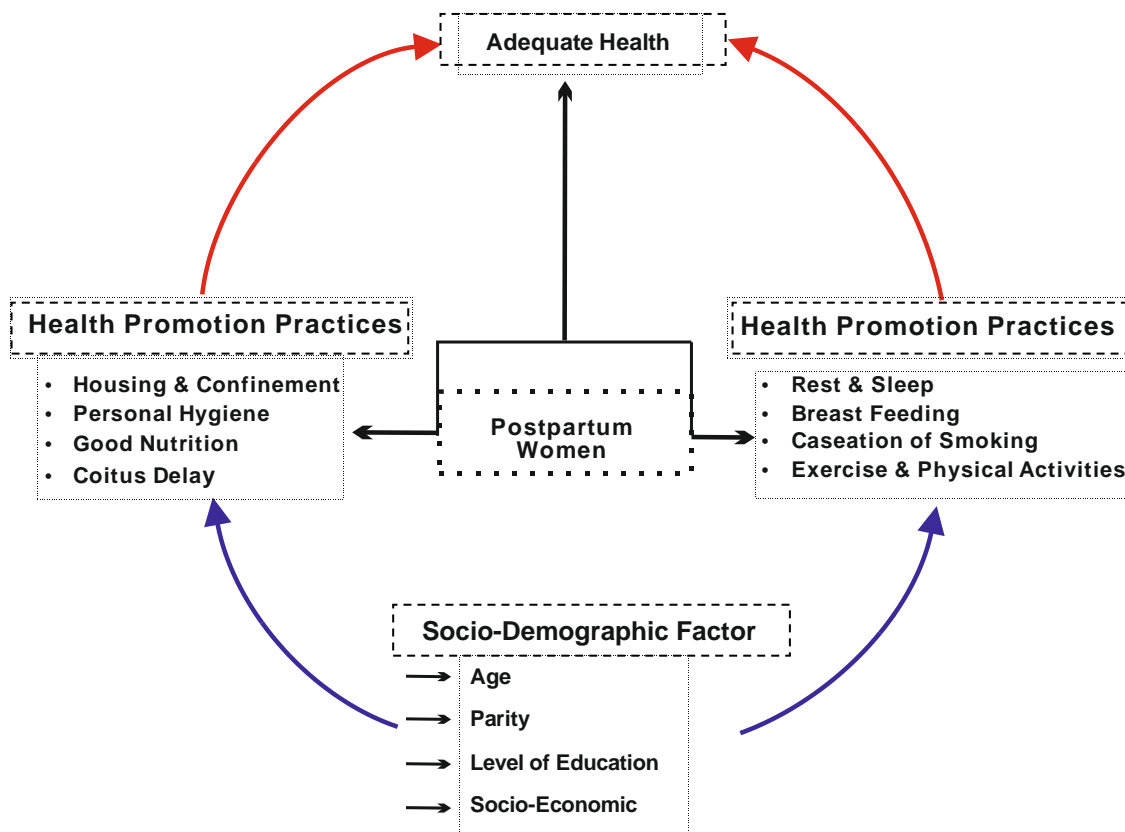
The Health Belief Model (HBM), a theoretical framework developed by Hochbaum in 1958, serves as an excellent tool for understanding the decision-making process behind health-related behaviors, particularly in the postpartum period. According to the HBM, health-related action is influenced by personal perceptions of the risk associated with a health issue and the benefits of avoiding the risk (Kabiru et al., 2011). The model outlines several key components—perceived susceptibility, perceived severity, perceived benefits, and perceived barriers—which together influence an individual's readiness to act. In the context of postpartum health, the model helps explain why some mothers engage in beneficial health behaviors while others do not, highlighting the importance of tailored interventions that address specific perceptions and barriers experienced by postpartum women (Kinuthia, 2014; Schnoll, Patterson, & Lerman, 2007).

Empirical evidence underscores the significant impact of socio-demographic factors such as age, education, and socio-economic status on postpartum health behaviors. Younger and less educated mothers are often less likely to engage in health-promoting behaviors due to limited knowledge and access to resources, while older, more educated mothers demonstrate a higher propensity for engaging in such practices (Kinuthia, 2014;

Rahman et al., 2011). Additionally, socio-economic status profoundly affects a mother's ability to engage in health promotion activities, with those from higher socio-economic backgrounds more likely to access and utilize health services and information (Zere et al., 2010). These disparities highlight the need for interventions that are not only culturally sensitive but also varied in approach to cater to the diverse needs of postpartum women across different demographic profiles.

Effective health promotion tailored to the postpartum period is not adequately reviewed despite the need for a deeper understanding of how socio-demographic factors influence health behaviors among new mothers. Despite the known benefits of postpartum health promotion, many women do not participate in these beneficial practices due to barriers such as lack of information, cultural beliefs, and limited access to healthcare services (Liu, Mao, & Sun, 2006; Dennis et al., 2007). This paper seeks to apply the Health Belief Model to explore these barriers and incentives in depth and develop targeted strategies that can enhance health promotion practice among postpartum women. By focusing on individual perceptions and socio-demographic influences, the study aims to provide actionable insights that can help healthcare providers and policymakers design more effective postpartum health promotion programs, ultimately improving health outcomes for mothers and their children.

CONCEPTUAL FRAMEWORK



Note: A lower blue arrow shows the influence of socio – demographic status on Health Promotion practices while Red- Pointed arrows indicate the positive outcome of engaging in

Figure 1. Schematic of Health Promotion Practices

Note: A lower blue arrow shows the influence of socio – demographic factors on Health Promotion practices while Red- Pointed arrows indicate the positive outcome of engaging in Health promotion practice. Health promotion practices are essentially those practices that improve the degree of health of individuals’ especially postpartum women when they engage in it. They are determinants of general well being of every postpartum woman. When postpartum women engage in healthy practices such as good nutrition, adequate sleep, exercises, rest, sleep and relaxation, personal hygiene, breastfeeding, housing and confinement and delayed

coitus resumption as indicated with a blue and black arrow in schematic, Fig.1. It enhances their overall well being resulting in adequate health as indicated with the red and black arrow in fig.1. Adequate health in this schematic depicts sufficient and quality health to enable every postpartum woman to achieve a desired therapeutic healing recovery and their return to non-pregnancy stage. Adequate health is significant as it reduces incidences and progress of diseases, or any health condition that will ensue during postpartum period. Therefore, postpartum period requires an immediate engagement of health promotion practices to sustain the health of postpartum women and their newborn (Salhan, 2005). However, a postpartum woman level of health practice can be greatly influenced by socio-demographic factors such as age, parity, level of education and occupations as indicated with a blue arrow in the fig.1.

METHODOLOGY

The methodology employed in this paper is a desk-based literature review, meticulously chosen to collate and analyze secondary data from peer-reviewed journal articles spanning from 1990 to 2024. This approach involved extensive searches through online databases such as MedLine, EBSCOhost, JSTOR, and Scopus, utilizing specific search terms including "Health Belief Model," "postpartum health promotion," "maternal health," and "health promotion practices."

A desk-based review is particularly suited for this study due to the abundant existing literature on health promotion in postpartum care. By focusing on secondary data, the study leverages the depth and breadth of previously conducted research, providing a comprehensive overview of the field without the need for primary data collection, which can be constrained by logistical, ethical, and financial factors.

This method enhances the transparency and academic rigor of the research. The structured search strategy ensures that all relevant articles are considered, providing a robust synthesis of the literature. This approach not only aids in achieving the research objectives by identifying and understanding the influence of socio-demographic factors on health promotion practices but also ensures that the review is exhaustive and representative of global research trends.

RESULT

Health Promotion

Health promotion is essentially the process of improving the degree of health of individuals and communities. According to Achalu, (2019) health promotion covers all the activities that are designed to improve the health status of individuals and communities including health education and other economic and political activities that promote health. Health promotion is mostly prevention- oriented which begins with people who are basically healthy and wants to stay healthy through the development of lifestyles that maintain and enhances their state of being (Okafor, 2011). It aims at informing, influencing and assisting both individuals and organizations to accept more responsibility and be more active in matters affecting all aspects of human health. The Ottawa Charter (WHO, 1986) defined health promotion as the process of enabling people to increase control over and to improve their health, to reach a state of complete physical, mental and social well-being. An individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment. WHO reiterated that health is, therefore seen as a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities.

Therefore, health promotion is not just the responsibility of health sector, but goes beyond healthy life styles to wellbeing. For this review, health promotion is the science and art of helping people change their lifestyles to move towards a state of optimal health, which is a balance of physical, emotional, social, spiritual and intellectual health. According to O'Donnell (2009), lifestyle of postpartum women can be facilitated through a combination of learning experiences that enhance awareness, increases motivation and build skills and most importantly through supportive environments that provide opportunities for positive health practices.

Health Promotion Practices

Health promotion practices are fundamental and determinants of general health status of individuals. Health promotion practices among postpartum women are those practices that are geared towards promoting their health and preventing ill-health rather than focusing on at risk for specific diseases. Abdolkarimy, et al., (2017), stated that adapting a healthy practice is significant because it has the potential to prevent the occurrence and progression of diseases and increases control of individuals upon their health. Health promotion practice emphasize on life improving practices such as avoidance of high risk behaviours, stress management, intake of adequate nutrition, rest, sleep and relaxation among others. Healthy practices promote the general wellbeing of persons more importantly women at postpartum period. Postpartum period is an important and interesting period in the life of nursing mothers. It is a medically neglected period that receives relatively less attention than pregnancy and delivery. This period, is defined, as the 6- to 8-week period beginning an hour following the birth of the fetus and expulsion of the placenta and reflects the approximate time required for uterine involution and return of most maternal body systems to a non-pregnant state (William, 2019). The period characterized with +diverse changes and re-adjustments unfortunately, some postpartum women do not succeed in adopting these practices during their postpartum period for example, the level of physical activity of some women reduces at this period despite the emphasis on beneficial effects of physical activity on their general wellbeing (Sui & Dodd, 2013).

At postpartum period, women are subjected to various vulnerabilities and problems which must be noted and given appropriate care by the health service units and engagement of women decisively in health promotion practice. Thus, health promotion practices include housing and confinement, cessation of smoking, personal hygiene; coitus delay, daily exercises and physical activities, adequate rest and sleep, good nutrition and breast feeding. Fundamentally, the health promotion practices are geared towards promoting health and preventing ill-health rather than focusing on people at risk for specific diseases. Health promotion practices enable people to increase control over and improve their health. For this review, health promotion practice is significant to postpartum women because it reduces premature deaths by focusing on preventive measures and reduction of health care cost or burden on postpartum women. Therefore, health promotion practice is the practice that would enable women increase control over their health and health determinants, and thereby improve their health. It would positively influence the health behaviours of women at postpartum period as well as the living conditions that influence their health. Carter, Crubb, and Allegrante, (2009) opined that women after delivery engage more in taking care of the baby, multiple family responsibilities and those around her; putting their own health as secondary importance. Postpartum period is one of the most important phases in women's lives, when they undergo physiological changes and lifestyle changes that influence their health and contributes to postpartum health challenges. Thus, health promotion practices would serve or provide a powerful means for improving postpartum women's health (Kosh & Chen, 2010). Examples of health promotion practices include the followings:

Housing and Confinement

Culturally, postpartum period is often characterized by seclusion for the mother and the baby, whereby family members and well-wishers visit the home to render specific care to postpartum women (Warren, Daly, Toure, & Mongi, 2015). Many societies in the world have specific practices applicable to a woman in the few days that follow childbirth. In some cultures, they call it confinement; these among others include sitting at home and lying at home. According to World Health Organization (2013), some tribes, like in Zambia, confinement at postpartum is a traditional practice meant to facilitate recovery of a new mother from the process of childbirth. Housing involves exclusion of a new mother within the house where the mother is exposed to some prescribed rituals. Demirel, Egri, Yesildag, & Doganer, (2018) also indicated that postpartum rituals are meant to avoid future ailments for the mother and the baby in some cultures while in others; they are meant to facilitate rest for the mother, promote healing process and determine mother's compatibility with the complications of the period.

The first month of having a new born at home can be quite overwhelming, every postpartum woman should know that the baby needs her to be as healthy as she can be, therefore, postpartum woman is expected to limit visitors for the first two weeks so that she can rest and get breastfeeding well established. The postpartum

period ultimately connects mother to child and supports physiological, emotional and hormonal transition from being pregnant to being a parent and the only way to actually achieve this is to keep mothers in their bedrooms as it is believed to contribute favourably to the positive health outcomes. When a mother is without confinement, they will be called on to come out and pay attention to the world in a way that they are not allowed doing in their bedroom. When women are in confinement, certain restrictions are imposed on them including not participating in home chores (Dennis, et al., 2007). It is of standard for women to go into a kind of confinement or housing after birth. Chung (2015) stated that many years ago, women would stay home for at least three weeks, they will be cared for by their mothers and during this time, the woman was to eat special foods as well as other practices to observe such as staying very warm, which will nurture, support, empower and enable them to thrive in recovery of their health. This confinement facilitates recovery process due to healthy practice that the woman will be subjected to which will promote her general wellbeing.

Furthermore, women in South Korea would move from hospital to a place call “Sanhu Jonwon” also known as Postpartum Resting Place. According to Chung (2015), the resting place specializes in creating a healing environment/ home for postpartum women. It is believed in their culture that the bones and joints are pushed out of place (from birth) and a woman’s body takes at least four weeks to regain full energy. Obviously, 90 percent of women still adhere to this postpartum practice till date .This postpartum confinement or housing also known as “lying-in”, which, as the term suggests centers around bed rest which lasts for a culturally variable length: typically for one month or 30 days (Yeh-Chung, et al., 2008); or up to 40 days, two months or 100 days (Baby Center, 2016). This practice is known as “Sitting the month” in China, “Sango no hidachi” in Japanese and Koreans as Sanhujori which means “recovery after giving birth”. In Latin America countries it is called La-Cuarentena that is “forty days” the source of the English word “quarantine” and in India it is called Jaappa, finally in Pakistan it is called SawaMahina (i.e. “Five weeks”) (Tung and Wei-Chen, 2010). This lying –in, is a cultural practice that serves as a health promotion practice because it helps women to regain fully their energy. Contrary to this opinion, Ekanem et al. stated that postpartum women stay in warm rooms at this period but the weather in Calabar is hot and humid so nursing new borns in warm rooms with poor ventilation may predispose them to respiratory infections with associated perinatal mortality.

Cessation of Smoking

American Cancer Society (2010) opined that cigarette smoking is the primary cause of lung cancer in women, which in turn is the leading cause of female cancer death in the United States. It is also the major cause of coronary heart disease, and chronic obstructive pulmonary disease among women and increases a woman’s risk for esophageal, liver, colorectal, pancreas and kidney cancers. Smoking is one of the most important modifiable causes of poor pregnancy outcomes and is associated with maternal, fetal morbidity and mortality. The physical and psychological addiction to cigarettes is powerful and of public health concern. Cessation of smoking at postpartum is significant because it prevents the exposure of the child of the smoker to second-hand smoke (SHS). Smoking during pregnancy and at postpartum contributes to sudden infant death syndrome and changes in brain and nervous system development. The direct medical costs of a complicated birth for a smoker are 66 percent higher than for non-smokers (Orleans, Johnson, Barker, Kaufman, & Marx, 2001). Return to smoking at postpartum is a significant problem, since the child of the smoker will be exposed to second-hand smoke (SHS). According to Schnoll, Patterson, and Lerman, (2007), smoking and smoke exposure during pregnancy have important deleterious effects on the fetus and on the baby at birth and throughout his or her early development, including miscarriage, stillbirth, placental abruption, placenta previa, low birth weight, cognitive impairment, and risk of death from certain conditions such as sudden infant death syndrome (SIDS). Also ,children living in homes where the mother and/or father continues to smoke during the postnatal and early childhood period are at greater risk for respiratory illnesses, middle-ear infections, and reduced lung growth (Centers for Disease Control and Prevention, 2006).

Personal hygiene

According to Encyclopedia (2020) personal hygiene refers to maintenance of body cleanliness and clothing to preserve overall health and well-being. It includes a number of different activities related to the following general areas of self-care; washing and bathing and total grooming. It refers to maintaining the body’s cleanliness (WHO, 2020). Postpartum woman personal hygiene includes perineal hygiene, breast hygiene, and

general newborn care and toilet hygiene. Personal hygiene is very essential during this period of time as it aids the prevention of infections, speeds up the healing process of women, enabling them return faster to the pre-pregnancy state. It is a healthy practice that ultimately promotes the wellbeing of the mother, child and people around her. Neglecting to engage in personal hygiene practices by postpartum mothers will result to their chances of having infection. Perineal area is a conducive region for pathogenic growth and if adequate care and attention is not given to postpartum women during this period, they may contract infections like sepsis which leads to increase in maternal morbidity and mortality rates.

Personal hygiene to a postpartum woman is a necessity. At perineal region, cleaning involves the external genitalia and surrounding areas. This area is moist and limited to air exposure; hence it becomes conducive to the growth of pathogenic organisms. Also, Samanta (2011) opined that there are many orifices situated in this area such as urinary meatus, vaginal orifice and the anus which promote the entrance of microorganisms or pathogenic organisms. Frequent urination after childbirth leads to infection if the postpartum woman does not clean herself properly and promptly immediately after using the toilet. The postpartum woman is expected to clean her genital area with warm water from front to back and put her hands dry after toilet use and subsequently rinse her breast in water after breastfeeding (Amazon Watch, 2017).

Coitus Delay

Days immediately following childbirth, the body of a woman needs sometimes off after delivery because post-delivery hormonal changes may make vaginal tissue thinner and more sensitive, early resumption of coitus during postpartum period is harmful and should be discouraged. Most common issues with sex after delivery that impact on postpartum reproductive health are vaginal dryness, thin vaginal tissue, loss of elasticity in vaginal tissue, perineal tear or episiotomy, bleeding as the uterus heals, pain, “loose” muscles, soreness, fatigue and low libido (Holland, 2019). More so, oestrogen helps to supply natural vaginal lubrication, so commencing breastfeeding sinks level of oestrogen production below pre-pregnancy levels, invariably lowers the level of the hormone increase in the vagina, bringing about vaginal dryness. According to Holland, (2019) dry tissue can lead to irritation, even bleeding during sex and it is not a healthy practice as it increases their risk of infection. If the postpartum woman had a vaginal birth or episiotomy during vaginal birth, it may take longer recovery period; therefore resumption of early coitus, increases their risk of infection. Vaginal birth stretches the muscles of the vaginal canal, demanding that the muscles should be given time to recover their strength and stability (Holland, 2019). A cesarean delivery can also affect vaginal sensation, which will make the tissues/muscles of the vagina dry and thin, possibly leading to injury and painful sex. The vagina may even become inflamed and swollen making bleeding a common appearance hence; commencement of coitus early in postpartum period is a harmful sexual health practice. Previous studies in Nigeria by Ekanem, et al., (2004) noted associated maternal morbidities like vaginal lacerations, hemorrhage and associated vaginitis. Also, Ibekwe, Ugboma, Onyire, and Muoneke, (2011) affirmed that early resumption of coitus predisposes postpartum women to dangers of unwanted pregnancy because they resumed sexual lives without contraception. Consequently, mothers may get involved in illegal induced abortion because of unwanted pregnancy in order to breastfeed their young baby who has not reached 6 – 12 months of age. Delaying the act of coitus should be seen as promoting the healing and health recovery of postpartum women. Awareness of these health implications will increase their control over their health and other determinants of health.

Exercises and Physical Activities

Pregnancy, birth and postpartum period are important events in the reproductive lives of women and exercises during these periods would be beneficial to mothers; and their health gains abundantly realized throughout their lifespan. Anatomical and physiological changes occur during pregnancy and postpartum period which have the potential to affect the musculoskeletal, cardiovascular and respiratory system. Postpartum exercises are as important as antenatal exercises, its duration needs not be long but should be done twice or thrice a day, repeating each set of movements about ten times in every period (Health and Hong Kong Physiotherapy Association, 2018). It is important that postpartum women keep their breath smooth and work gradually according to their capability based on the recommendation of a physiotherapist who may make modifications to the exercise based on your physical conditions. Postpartum exercises strengthen pelvic floor muscle to prevent incontinence, it prevents low back pain, speeds up the restoration of body shape, stimulates blood

circulation, enhance appetite and maintain vitality and self confidence which make you feel good. According to Hong Kong Physiotherapy Association, postpartum woman with normal delivery should start exercises two days after normal delivery or seek doctor's advice if she had caesarean section. Also, Koltyn and Schuttes (2006) stated that physical activity during postpartum has been associated with decreased incidence of postpartum depression, anxiety and sleep disorders and prevention and treatment of urinary incontinence.

Primarily, Scott, (2006) opined that postpartum women are less likely to retain weight gained during pregnancy and preventing lactation-associated bone loss. Postpartum exercise also improves women aerobic fitness, flexibility, muscle toning, cardiovascular fitness and it increases their positive mood providing more energy to them; thereafter, improves high-density lipoprotein-cholesterol levels, insulin sensitivity, prevents constipation and improves psychological well-being (Larson-Meyer, 2002). Physical activity during postpartum is both a recommended and an essential contributor to maternal health (Evenson, Aytur, & Borodulin, 2009). Postpartum exercises that will enable mothers increase control over their health and improve their well-being are:

The First Day:

1. Abdominal breathing:

The postpartum woman should lie on her back, inhale deeply using abdominal muscles. Then exhale slowly through pursed lips, tightening the abdominal muscles.

Pelvic rocking:

2. Lying on your back with arms at sides; then, knees bent and feet flat.

Tighten the abdomen and buttocks and attempt to flatten back on floor.

Hold for a count of 10, and then arch the back, causing the pelvis "to rock"

Second Day

3. Chin to chest: Lying on your back with legs straight, raise head and attempt to touch chin to chest, slowly lower head

4. Arm raises- lying on your back, arms extended at 90 degree angle from body, raise arms so that they are perpendicular and hands touch, lower slowly.

Fourth Day

5. Knee rolls: Lye on your back with your knees bent, feet flat and arms extended to the side , roll knees slowly to one side, keeping shoulder flat, return to original position and then roll to opposite side.

6. Buttocks left: lying on your back, arm at sides, knees bent and feet flat, slowly raise buttocks and arch the back, return slowly to the starting position

Sixth Day

7. Abdominal tighteners: lying on your back, knees bent, and feet flat, slowly raise hand towards knees, arms should extend along either side of legs, return slowly to original position

8. Knees to abdomen, lying on your back, arms at sides, bend one knee and thigh until foot touches buttocks, straighten leg and lower it slowly, and repeat with other leg. (Adapted from Getting in Shape after your Baby is Born, (Cram and Stouffer, 2009, p.53-60).

Adequate Nutrition

Adequate nutrition is necessary for good health; it allows the body to reach its maximum genetic potential. Just as adequate nutrition is important during pregnancy, it is also important during the postpartum period. Consuming a healthy diet during this period is needful to rebuild the nutrient stores that were depleted during pregnancy. It is needful at this critical period because it helps the woman to replenish nutrient lost during delivery specifically, calcium, vitamins B6, and folate and also to support lactation requirements of postpartum woman when breastfeeding (Berens, 2005). This continues to be a special time for the postpartum woman as she experiences many physical and emotional changes which may be linked to nutritional status and diet. Therefore, replenishing the body’s nutrient stores is important for the health status of the mother; as mother’s nutritional status before she becomes pregnant again can affect the outcome of future pregnancies. It is very critical for the mother to practice healthy nutritional habits during postpartum period because the benefits of maintaining a good nutritional state are extended to her health as well as to the health of any future children she may have. Postpartum women require diets rich in minerals, iron, calcium and other vital vitamins. This period may present a good opportunity to promote healthful eating for the entire family.

Iron is an important mineral that helps to carry oxygen through the body. According to Institute of Medicine, (2001), a woman require more iron than men due to monthly blood loss during menstruation and loses a significant amount of blood during childbirth, depleting their stores. It is necessarily needful for a postpartum woman to eat a very well-balanced diet with plenty of iron-rich foods and food high in vitamin C will increase iron absorption in the body system. Calcium intake is needful for women of all ages because it is such an important nutrient for bone health. Although this mineral is important throughout the woman lifetime, including before, during and after pregnancy and breastfeeding, the body demands for calcium is greater during pregnancy and breastfeeding because both the mother and the child needs it (National Institute of Health, 2018). Studies have shown that women often lose 3 to 5 percent of their bone mass during breastfeeding, although they recover rapidly after weaning. The amount of calcium the mother needs depends on the amount of breast milk produced and how long breastfeeding continues. The National Academy of Sciences (2012) recommends that women who are pregnant or breastfeeding consume 1,000mg (milligrams) of calcium each day; other key nutrients are folic acid and protein. Matched key nutrients for postpartum health with the food sources are shown in fig 2.

Folic acid	Beef, chicken, pork, fish, dried beans, tofu, fortified cereals
Calcium	Milk,
Iron	Eggs, beef, chicken, pork, fish, beans, lentils, nuts, milk, yogurt, cheese
Protein	Legumes, leafy greens, orange, juice, asparagus, fortified cereals and breads

(Adapted Arizona WIC Training Nutrition Educator Guidebook, 2018, p.6).

Breastfeeding

Breastfeeding is a healthy practice that every postpartum woman should indulge in. It promotes good physical and emotional health of the mother during the postpartum period and all through her future life. It is indeed mother and infant contact, skin-to-skin contact recommended as soon after birth as possible. Rollins et al., (2016), opined that breastfeeding helps the infant maintain body temperature and glucose levels. They reiterated that breastfeeding is a health promotion practice and it’s on mother and child a fundamental for survival and qualitative living during postpartum period. The benefits of breastfeeding are considered not to be limited to the duration of the practice, but to extend until adult life, with repercussions on the long term quality of life.

It improves the general well-being of the mother and the child through natural child spacing which ensures optimal well-being of the child and automatically encourages physical recovery of the woman to non-pregnant state (Gunderson, et al., 2015). This finding is also linked with the weight loss and metabolic work to which

the maternal organism is submitted for the daily production of milk, which may persist even after weaning. It does contribute to a beneficial effect on the maternal organism.

According to Medical Research Institute (2017), breastfeeding lowers risk of developing uterine cancer. Data obtained from over 26,000 mothers indicated that women who breastfeed, two children for nine months each had around 22 percent lower risk of uterine cancer than women whom never breastfed their children. Postpartum women are expected to embrace breastfeeding as a healthy practice expected of every woman at this period to indulge in because breast milk contains immune molecules called antibodies that destroy germs. The mother's immune system makes these antibodies and they constantly adapt to them. When a baby or a mother is exposed to a new germ, the mother's immune cells are activated to produce these antibodies to combat that specific germ. These antibodies and disease fighting cells will quickly appear in the milk and the mother will pass them to her baby at the next feeding. The inherent benefits of breastfeeding in a woman last longer in them even after many years of weaning their last child. Exclusive breastfeeding reduces the risk for mortality and morbidity in the first month of life and improves post-neonatal outcomes. It also encourages improved birth spacing by delaying the return to fecundity (WHO, 2015). Sleep and relaxation is hard to come by, postpartum woman struggles in adjustment to self, child and family demands; as a postpartum woman breastfeeds, they experience improved sleep and relaxation. Statistics showed that the woman falls asleep more quickly and actually gets more sleep when breastfeeding their new born's (The Pump Station and Nurtury, 2018).

Adequate Rest and Sleep

Women at Postpartum period need to take good care to rebuild their strength. According to Stanford Children Health (2020), adequate rest and sleep are essential and helps recovery during the first few weeks of postpartum period. Also, Family Education (2020) stated that mothers who stay particularly healthy at postpartum are the ones who allow themselves to sleep as much as they feel necessary. It was indicated that mothers who took two-to-three hours nap everyday for the first six months of their babies' lives, without jumping to clean house, cook or pay bills when baby falls asleep, that is, she sleeps when babies sleep, have bonding and snuggling time between her and the baby. Also, Nicole, (2018) stated that women who rest and spend their body's resources on what really need to be done, helps them significantly by recovering totally. Doing so will help build the body balance back up faster, help their long-term health, and prevents postpartum women from going into postpartum deficit later which is holistically unhealthy. Common signs and symptoms of postpartum deficit include insufficient lactation, heart palpitations, dizziness, fatigue, prolonged bleeding, hot flashes, night sweats, anxiety, sadness and tearfulness. More so, being on the same sleep-wake cycle during the first months of the baby's life also helps to establish a trusting rapport between mother and child. Mothers who go back to work within weeks of giving birth do not receive the benefit of these daytime naps and rest with their little ones and their health can suffer as a result because, deep sleep allows the brain to restore its supply of neurotransmitters that allow the cells of the nervous system to communicate with one another and with the rest of the systems of the body enabling the mother live a healthier life at this transitional phase (Family Education, 2020).

According to Lawlor's (2014), the rest time is not only about recovering from the physical experience of birth, though that's certainly part of it, however, the postpartum rest requirement is about the physiological, emotional and hormonal transition into parenting. The postpartum time is supposed to ultimately connect the mother to the child and support the physiological, emotional and hormonal transition from pregnancy state to postpartum period. Thus, that state of being needs every bit as much protection from disruption as giving birth does. Summarily, quiet and rest in the first weeks of postpartum have major benefits. Although our culture does not support the idea of 'lying' in and many women feel well enough to be up and about their home chores soon after birth, there are many holistic reasons why going slow and doing less is well worth it (Nicole, 2018).

Postpartum mothers must strategically adjust their sleep schedule to match their newborns, the postpartum period is characterized by twice their usual level of subjective day time sleepiness, a decrease in sleep efficiency and three times the number of reported nighttime awakenings compared to during pregnancy. The majority of sleep disturbances are caused by the newborns sleep and feeding schedules so, it makes sense that postpartum woman should adhere to common advice to "nap when the baby naps" and women should devote

much time to daytime napping given that mother's body need to recover fully after delivery and the newborn's health is also dependent on her health, engaging in a proper health practice becomes very essential for mothers optimal health.

Factors Influencing Health Promotion Practices Among Postpartum Women.

Health promotion practice works mutually with individual characteristic, and socio-cultural/ environmental factor and these factors include, knowledge level of women, educational level, income status, age, parity, employment, social support network, limited access to health care facilities, limited resources to meet daily needs and cultural beliefs particularly those beliefs acquired from mother in laws, direct mothers, relatives, loved one and relevant books (Liu, Mao, & Sun, 2006). The following factors influencing health promotion practices of women were considered.

Age: Age is the strongest factor affecting a woman's chance to conceive and have a healthy baby. It is one of the casual factors of postpartum negligence. The majority of the community believes that the appropriate time for a woman to be in labour is between the age of 20 and 30 years old because within that time, it is an optimal period to perform infant and family caring and pay adequate care to her being without the effect of age. As indicated by Maramus, (2005), the woman's age factor during pregnancy, labour and postpartum period is often associated with the woman's mental readiness to become a mother. From the psychological stand point, women between the age 20 and 35 years of old have sound decision that will enhance their health. Their productivity capability is sufficient, in contrast to women younger than 20 year-old who are still too young to be mothers as a result of teenage developmental changes demand, characterized with high sense of dependence and guidance and may require pushing and tutoring on healthful practices to engage in before actual engagement. However, women of older age that is 35 years and above is also subjected to psychosocial stressors that deter them from indulging in health practices. Age plays a significant role in women's health promotion practices. Older and younger women have different experiences which influences their health promotion behaviours. Younger women might have enhanced their knowledge of modern medicine and healthful practices and are more likely to utilize modern health facilities and implement health promotion practices to enhance their overall wellbeing at postpartum period than older postpartum women who may stick to their old fashion way of practice. They are likely to have greater exposure and more access to health education. According to Sharma, Sawangdee and Sirirassamee (2007) women over 35 are less likely to make best use of postpartum services that will promote their health. Also, this finding is supported by Kinuthia (2014) who opined that postpartum women below 20years of age utilized healthful services, 14 percent of those below 30 years employed health promotion practices and none above 35years utilized postpartum services that enhances health.

Parity: This is the term that defines the number of births a woman has had. Parity is the number of times that a woman has given birth to a fetus with a gestational age of 24 weeks or more, regardless of whether the child was born alive or was stillborn (Colin, 2019). According to Rukiyah (2010) Parity is the number of live births which a woman has. It will affect a woman's psychology in performing her roles as a mother and the effect is differing among women because each person's psychology is diverse and is influenced by many factors. Parity affects women's health care, mental readiness and indulgencies to health promotion activities. Sonneveldt, Plosky and Stover (2013) stated that the number of times a woman has given birth determines the level of experiences she has acquired in basic necessities of postpartum care. A mother who only has one child is certainly less in experience compared to a mother with two or more children. A mother, who has given birth to two or more, is experienced and may stand better chance of engaging in healthful practices to promote her health. However, high parity women are overall less likely to access health services for themselves or their children and also less likely to take appropriate measures to promote their health; due to strain on resources. They found it unable to pay attention to their health given the need to care for so many children or reduced sense of urgency as pregnancies mother and child illnesses become repetitive. Mothers who only have one child are less likely to know how to care for the infants as well as for themselves who have transitioned their roles as mothers (Ambarawati & Listiyami, 2014). Women's problems may increase during the postpartum period and there incremental changes may impact on mother's well being. More so, women report considerable limitations in their abilities to function at work and home even up to 6 months postpartum (Mac-Arther et al, 2002).

Educational status: is the basis for development and empowerment for every person in a given society. It plays a vital role in understanding and participating in day to day activities or practice. Education builds one's character and play a significant role in transmitting one's culture, belief, experiences and value to others in society. It creates among people the awareness to environmental realities and inculcates independence of mind and spirit which are of paramount importance for people to become responsible citizens (Melita & Rakhi, 2007). Qualitative engagement in health promotion practices by postpartum women might be greatly influenced by their level of education. Women who received no formal education, who acquired primary education were less likely to engage in health promotion practices (Agas, 2011; Babalola & Fatusi 2019). Invariably, Rahman, (2011) and Singh et al.,(2007) in their studies noted that women who had completed secondary school education and above were the most likely to engage in health promotion practices.

Studies indicated that the higher the occupational status of a mother, the more likely she is to access postnatal services and partake in health promotion practices to ensure her optimal wellbeing (Zere et al., 2010).The income-earning occupations of women and their husbands influence their postpartum care positively. The availability of financial resources will motivate them to imbibe relevant skills necessary for their optimal health and progressive return to pre-pregnancy state. According to Hader et al., (2007), women married to men with well paid jobs or lucrative businesses are more likely to access postnatal care/services and generally indulge in health practices that will improve their health status.

THE HEALTH BELIEF MODEL

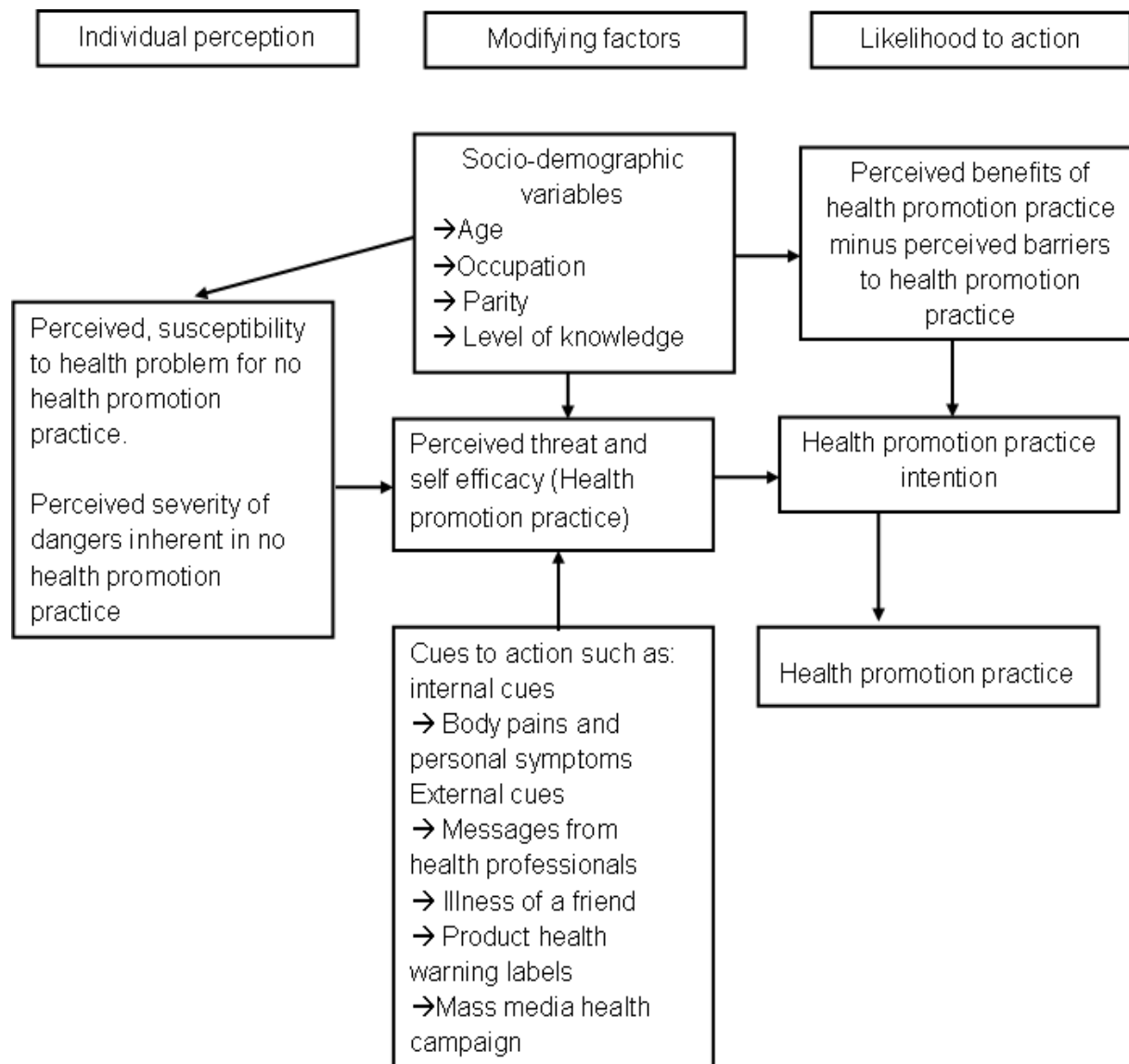


Figure 2: The Health Belief Model (Adapted from Kabiru, Beguy, Crichton, and Zulu, 2011)

The Health Belief Model is a psychosocial compliance model developed to explain and predict health related behaviours at the level of individual decision making in uptake of health services. Hochbaum, G.M. (1958) proposed this theory among others. The health belief model proposes that people are most likely to take preventative action if they perceive the threat of a health risk to be serious, if they are personally susceptible and if there are fewer costs than benefits to engaging in any health practice or activity. The Health Belief Model was based on an assumption that people fear disease and that health actions are motivated in relation to the degree of fear (perceived threat) and expected fear reduction potential of actions, as long as that potential outweighs practical and psychological obstacles to taking actions (net benefits).

Personal Perception

Perceived severity, Perceived susceptibility, Perceived benefits, and Perceived barriers /cost of action are important determinants of health behaviour. Health promotion practice among postpartum women depends on their general perception of the women about health promotion. The four key constructs of the health belief model are identified as perceived susceptibility and perceived severity (two dimensions of “Threat”) and perceived benefits and perceived barriers (components of “net benefit action”). Recently, the model adapted the additional concepts, “cue to action” a stimulus to undertake behaviour, and self- efficacy, and the confidence one has on his ability to perform an action. Health belief model is fundamentally based on these constructs as an intervention that persuades individual to make healthy decisions and it is applied to this review. Postpartum women should be encouraged to see themselves susceptible to certain health problems during the period.

Perceived susceptibility is postpartum women’s judgment of their risk of contracting a health condition at this period. It is a subjective assessment of risk of developing a health problem. The HBM predicts that persons who perceive that they are susceptible to a particular health problem will engage in behaviours to reduce their risk of developing the health problem. Some postpartum women with low perceived susceptibility may deny that they are at risk for contracting a particular illness. Others may acknowledge the possibility that they could develop the illness, but believe it is unlikely. Postpartum women should be encouraged to engage in health practice to avert being predisposed to any health condition.

Perceived seriousness of the condition refers to the seriousness of the condition as perceived by the individual. It refers to the subjective evaluation of the seriousness of a health problem and its potential consequences which may be in form of clinical and social consequences (hospitalization, disability, financial problems, pain or death). It encompasses belief about the disease itself e.g. whether it is life-threatening or may cause pain as well as broader impacts of the disease on functioning in work and social roles. It creates a pressure to act but does not determine how the person will act. Postpartum women of this study should understand that health problems resulting from poor condition of postpartum period would be a serious one.

The sum of perceived susceptibility and seriousness is termed perceived threat. The perceived threat has cognitive impact, which is usually latent and generally influenced by information and impact of special events. When a person feels threatened of a particular disease, he or she is most likely to have a desire to protect themselves against threatened ailments. This desire will initiate some actions that he or she can comfortably undertake that he or she believes will provide them with such protection to avoid a particular health condition outcome and maintained a pattern of healthy behavior. This can lead a person to perceive the benefits of any positive action. **Perceived benefits** of positive action is the belief about the effectiveness of taking action to reduce risk or seriousness of disease or offset a perceived threat. It refers to an individual’s assessment of the value or efficacy of engaging in a health promoting behavior to decrease risk of health problem or disease. If a postpartum woman believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then she is likely to engage in that behavior regardless of objective facts regarding the effectiveness of the action. She may perceive some barriers which may not hinder positive behaviours.

Perceived barriers to adopting the recommended action, is an individual’s perceived negatively valued aspects of taking recommended course of action which may act as impediments to full implementation of health behaviours decided up on how to overcome anticipated difficulties or barriers to taking that action. It is an individual’s assessment of the obstacles to behavior change. Even if a postpartum woman perceives a health

condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent her engagement in a health promoting behavior. That is to say that the benefits must outweigh the perceived barriers in order for behaviour change to occur. Example of perceived barriers to taking action include perceived inconvenience, expense, side effects of a medical procedure and discomfort involved in engaging in the behavior.

Modifying Variables

The four major constructs of perception are modified by, socio-demographic variables. Certain variables have been identified that moderate behaviours of individuals. These variables include demographic variables such as age, sex, race ethnicity and education; socio-psychological variables such as personality, social class and peer group influence and structural variables. These modifying variables could affect health related behaviours of postpartum women directly or indirectly. Associated with HBM are stimuli to undertake a behavior and these are regarded as **Cues to action**. These are factors that activate readiness to change; these are triggers necessary for health-promoting behaviours. Cues can be internal or external. Examples of internal cues include pains and personal symptoms; external cues to action include fleeting events that are elusive to recording, messages from health professional, illness of a friend, product health warning labels, personnel advice and mass media campaign. Upon all these, a postpartum woman should feel capable of carrying out health behaviour and this is her self-efficacy.

Self-efficacy refers to the woman's perception of her competence to successfully perform a behavior. Self-efficacy attempts to explain individual differences in health behaviours. Developers of the HBM recognized that confidence in one's ability to effect change in outcomes was a key component of health behavior change. The construct are implicated to the study in the following ways; threat perceptions depend upon the perceived susceptibility to the illness arising if health promoting practices are ignored and perceived severity of the consequences of exposure to illness. These variables determine the likelihood of women at postpartum period to adopt and follow health promoting practices that will enhance their health during this critical period of recovery and re-adjustment of the body to its non-pregnancy state, and averting complications associated at this period. Perceived susceptibility is a stronger predictor of preventive health behaviours. The model asserts that postpartum women will take action to ward off complications after birth, take up health preventive lifestyles or control ill-health conditions after birth if they regard themselves as susceptible to the condition or prone to any health condition, or if they believe it to have potentially serious consequences on them or if they believe that a course of action or practices required of them to adopt would be beneficial in reducing either their susceptibility to or the severity of the condition. These constructs will determine the likelihood of the postpartum women to follow-up with health promoting practices such as good personal hygiene, coitus delay, housing and confinement, cessations of smoking, breastfeeding, adequate rest and sleep, daily physical exercise, and good nutrition. Although, the effects are modified by demographic variables such as (age, sex, race), Socio-psychological (personality, social class, peer group) and structural variables.

Also, a particular action undertaken by postpartum women is evaluated to determine the possible alternative. This behavioural evaluation depends upon beliefs concerning the benefits or efficacy of the health behaviour and the perceived costs or barriers to performing the behaviour. Thus, postpartum women are likely to indulge in a health promoting behavior, if they believe themselves to be susceptible to a particular health condition accruing from delivery, pregnancy or illness which they consider to be serious or when they believe that the benefits of the health practice undertaken will counteract the condition or illness and outweighs the cost. The combined levels of susceptibility and severity (perceived threat) provide the energy or force to act and the benefit (minus barriers) provides a preferred path of action although, socio-physical factors such as personality of a person, peer pressure, social class exert their effect on them. Cues to action include a multiple range of factors which triggers postpartum women indulging in health promoting practices. These factors will help women at postpartum period to initiate appropriate health behaviour good for their health.

CONCLUSION

Health Belief Model in a descriptive manner explained in this review that a person's belief in a personal threat of an illness or disease together with a person's belief in the effectiveness of the recommended health behavior

or practice will predict the likelihood of the person to adopt a recommended practice. The belief is the key to practice or reject what one has perceived either positively or wrongly. Health promotion practice is the key to unlocking self –meditated factors that could hinder effectual health practices by postpartum women by enabling and empowering them with healthful knowledge, skills and congenial environmental settings that would enable them to thrive in life aligning all sectors of economy to bringing out the best in them. In situations where these women level of health is in deficit, either from a prior existing deficiency or as the result of an extra taxing pregnancy and childbirth (like with twins, cesarean birth, significant blood loss, etc) or the demands of postpartum period; the importance of building back up the body's reserves is that much more important through their engagement in health promotion practices. These women not only run the risk of long term deficiencies, they are more in danger of immediate signs of deficit at this period.

RECOMMENDATION

From the foregoing, the following recommendations were made:

1. The state government should offer in-service training to postpartum care providers to enable them offer their services effectively to postpartum women of all categories, that is, the educated and non-educated with the aim of enabling every woman gain control over health.
2. These health promotion practices should be well spread through the mass media, using individual dilates and giggles with the widest possible coverage.
3. Health care professionals should put a well-defined health promotion practices programme for the health care of the postpartum woman that includes comprehensive education on breastfeeding, displaying required positions for breastfeeding, nutritional guidance and steps for comprehensive hygienic measures

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