Maternal and infant bonding: Concept Paper

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Abstract

Maternal-infant bonding is a maternal-driven process that occurs primarily throughout the first year of a baby's life, but may continue throughout a child's life. It is an affective state of the mother; maternal feelings and emotions toward the infant are the primary indicator of maternal-infant bonding. The first hour of life is very critical in any baby's life and it is the critical hour to create a bond between a mother and her baby.

Objective: The purpose of the concept analysis was to describe the importance, barriers and consequences of Maternal-infant bonding.

Methods and materials

Walker and Avant model of concept analysis which looks into the attributes, antecedence and consequences, exemplars and recommendations was used. Literature search was conducted in a month's and a half's time using, bonding journals, Pub- med and MEDLINE, Google and Google Scholar as search engines. Twenty four studies that were found relevant to the concept of interest were included in the description of maternal and infant bonding. Maternal and infant bonding was encouraged in most of the studies.

Results

It was noted that preconception care plays a vital role in the bonding process as pre conception women can learn how to bond with their babies even when they are pregnant and not to wait for the baby to be born.

Conclusion and recommendations

Midwives and all other health professionals are encouraged to include maternal and infant bonding in most of the health education sessions.

Key words: Maternal and infant bonding, breastfeeding, skin to skin contact.

1.0 Introduction and Background

The mother-infant bonding relationship results in infant social-emotional development. Kinsey et al (2014). Maternal-fetal bonding in the antenatal period is important because a mother's behaviours through pregnancy may be influenced by this bond. Problems with bonding have been associated with a broad range of outcomes including negative health behaviours in pregnancy, such as alcohol and nicotine. Failure of mother infant bond results in alterations in the regulatory functions of the child's brain; maladaptive childhood and adult mental health;

poorer attachment and later social and parenting relationships, Shore (2015). Establishing a bond between a mother and her newborn is essential for the infant to grow and thrive in the mother's care. Hospital staff can promote the creation of this bond by providing continuous support during labour, by placing the newborn skin-to-skin on the mother's chest immediately after delivery until the infant latches on for the first feeding, by encouraging continued breastfeeding, and by keeping mother and infant always together in the first hours and days after delivery.

1.1 Maternal bonding

Douglas (2010) defined bonding as a special connection between individuals

Bonding is a description of feelings that encompasses measurable parameters of attachment to another individual land reward by being attached. In the case of maternal and infant bonding there is recognition of the infant, and desire and action to give warmth, comfort, food and protection.

1.2 Importance of bonding

Bonding enhances the development of the newborns' brain. The baby interacts with the mother during the process of bonding. When a child has secure bonding with a caring adult, there are tremendous benefits to the family and child. Bonding helps children to:

- Handle stress.
- Learn new things
- Solve problems
- Develop self-control
- Trust others
- Develop caring relationships

- Seek help when needed
- Be confident and independent
- Feel good about themselves NCCAH (2013).
- Another reason it is important to promote maternal-newborn bonding is highlighted by new research showing newborns are capable of forming memories that remain in their subconscious thoughts for life (Chamberlain, 2013).

1.3 Barriers to bonding

Delivering a preterm baby or delivering through a caesarean section pose as barriers to bonding as it is difficult to be close to the baby the first hour of birth. Lack of support, lack of maternal confidence especially in the prime up and teenage pregnancies as well as lack of support to the mother contribute to ineffective bonding, Ross (2012).

1.3.1 Teenage pregnancies

Young maternal age and immaturity makes the mothers less responsive to infant cues thus deceasing mother infant bonding. Maternal bonding is not very effective especially in the first hour as they also need to be taught how to take care of the child, Baker & McGrath (2011).

1.3.2 Child sexual abuse

The rampant child sexual abuses is also a contributor to lack of maternal bonding as they will not be able to take care of the babies hence bonding does not take place or they even opt to dump the babies. Women who have been exposed to childhood maltreatment are more vulnerable to maladaptive psychosocial outcomes and they experience more mental health problems across their life span Edwards et al. (2003). Mothers with childhood sexual abuse histories are more likely to be emotionally withdrawn, Lyons-Ruth and Block (1996) or more frequently

demonstrate hostile caregiving behaviours and physical punishment subsequently; children are more likely to develop disorganized attachment relationships with these mothers.

1.3.3 Isolation of mothers

There are conditions like tuberculosis and hepatitis that will lead to a mother being isolated hence the condition becomes a barrier since there is separation of the mother and the baby

1.3.4 Sick mother

Eclamptic clients usually recover gradually after about 24 hours hence bonding is delayed.

1.4 Promoting bonding

According to McLeod (2009), skin to skin contact promotes bonding as the baby gets into contact with the mother. The baby also learns bonding through breastfeeding as release of oxytocin during breastfeeding creates comfort. Oxytocin also helps the baby to relax .Prolactin and oxytocin released during breastfeeding helps the mother to relax thus reducing her stress levels, Young (2013).

According to the Breastfeeding initiative 2013 by UNICEF pregnant women formulate mental images of their baby in utero. This helps to stimulate the bonding process with their babies. The mother who is reluctant or does not know how to communicate with her baby in utero ,or does not need the pregnancy impact negatively on the mother –infant relationship in the postnatal period.

1.5 Why Maternal- Infant Bonding?

The purpose of the maternal and infant bonding concept analysis is to review some pertinent aspects of maternal and infant bonding and findings from other researches on the same topic Research discovered differences in children who established bonding with the mothers and those

who did not so analysis will help to find ways to encourage bonding especially in this day and age where mothers are caught up in the busy schedules of life.

1.6 Objectives

The objective of the study was to define maternal and infant bonding, to describe how maternal and infant bonding occurs and identify consequences of lack of bonding.

1.7 Methods and materials

Walker and Avant 8 step model was used in the analysis of maternal and infant bonding concept. The above model highlights the steps that were taken to analyse this concept starting with identification of a concept, determining aims or purpose of analysis. It was chosen because it provides an in-depth analysis into a concept. This is followed by identifying uses of the concept discovered, and determining model case, related, contrary, and borderline case. The next step then is to identify antecedents and consequences and then define empirical referents. The researchers used the following search engines Google, Google scholar, Pub med among others. Data search was done from the 1st of September to the 2nd of October 2017.

1.8 Operational definition

Maternal and infant bonding is the relationship between a mother and her baby from the womb ,in the early hours of life and thereafter which is expressed through gazing, breastfeeding, touching, and other stimuli.

1.9 Attributes

2.0 Defining Attributes

Attributes constitute a ‘real’ definition of a concept, providing its characteristics, rather than being a nominal expression, Rodgers (2000). Conceptual definitions give theoretical meaning to

the concept under study, and guide nursing research, Polit & Beck (2004). The goal of this stage in the concept analysis is to underscore a collection of attributes most frequently associated with the concept and that set it apart from other similar concepts, Walker & Avant, (2011). The following attributes were gathered from literature:

2.1 Skin to skin contact

Skin to skin contact during the early hours of life promotes bonding. In a survey in the United Kingdom in 2010, 81 per cent of mothers reported skin-to-skin contact with their babies within the first hour of birth, a significant increase since the 2005 Infant Feeding Survey (72 percent). For some mother and baby pairs, in some maternity units, skin-to-skin contact at birth has become normal practice

The importance of that skin-to-skin contact for mother and baby is now well established in maternity care as best practice, UNICEF BFI (2012). One study has found that skin to skin contact for 25-120 minutes after birth was linked with more positive later maternal – infant interaction than those between mothers and babies that had been separated at birth, Bystrova et al (2009).

2.1.2 Infant

The significant number of physiological transitions that the neonate experiences in the first moments and hours of extra uterine life lead to a state of significant behavioural arousal, with neonates generally in an alert wide-awake state in the first hours, Nagy (2011). From this very early stage, babies are an active agent in interpersonal interaction.

2.1.3 Maternal

Zimbabwean women know the importance of maternal and infant but most women do not know that it starts when the baby is still in utero. The unfortunate thing is there are very few clinics

who offer preconception care. Preconception care helps women to know a lot on maternal and infant bonding. Midwives can provide the information but they fail to provide enough information on maternal and infant bonding.

2.2 Antecedents

Antecedents are the prerequisites of the concept under analysis, Eriksen (1995). Walker and Avant (2011) define antecedents as, "events or incidents that must occur or be in place prior to the occurrence of the concept (p.167), which can help elucidate social contexts in which the concept occurs in. Maternal and infant bonding will be successful if preconception care is offered to women. Health education is given to women before pregnancy, during pregnancy and post- natally. Health professionals play a vital role in spreading the word about bonding.

2.3 Consequences

Walker and Avant (2011) described consequences as defining outcomes as a result of the concept. Babies who fail to bond with their mothers develop behavioural problems later on in their life. Bonding can be delayed due to babies being born prematurely, or hospitalisation of sick babies or the mother can be ill or have postpartum depression. Steinfeld (2017) noted that failure to do so profoundly affects future development and the ability to form healthy relationships as an adult.

2.4 Results

The researchers came up with 30 articles and discarded 6 articles which did not have much on maternal bonding. Some articles looked at maternal bonding in animals so they were irrelevant. However not all articles described or explain the concept of interest (Maternal and infant bonding) Thirteen articles were considered in the description and explanation of the concept Maternal and infant bonding (Barber 2015, Douglas 2010, Davidson 2012,Fieldman2011,

Goldberg 2002, Klaus 1976, Kinsey 2014, Palmer 2013, Rodgers 2000, Stratheam 2009, UNICEF 2013, Young 2013 and The national collaborating centre for aboriginal health 2013).Four researchers described maternal and infant bonding in the context of attachment though these terms are used interchangeably but they did not really come up in the open to clearly define maternal and infant bonding(Benoit 2004, Cadwell 2007, Fegran 2008, Mcleod 2009 and six articles did not also clearly defined the concept of interest. The other six articles were discaded because they did not described or explain the concept maternal and infant bonding in a way that can be measured or evaluated.

2.5 Discussion

The goal of purpose of this paper was to give an in depth description regarding knowledge on maternal and infant bonding in a way that can be well understood by the nurse midwife whom the client report to at entry to the hospital in maternal child health service provision. While a lot of studies have been done on maternal and infant bonding, there is no study that has evaluated this concept without mixing it with attachment as they are not really the same. In the context of this study, maternal and infant bonding starts in the utero and not at birth as postulated by other authors. Bonding is the formation of a mutual emotional and psychological closeness between parents (or primary caregivers) and their newborn child. Babies usually bond with their parents in the minutes, hours, or days following birth.

Douglas (2010) noted that bonding is a special connection between individuals. It might be observed between mothers and their babies, lovers, family, friends, or even between owners and their pets. Bonding is a description of feelings that encompasses measurable parameters of attachment to another individual and reward by being attached. These parameters are sometimes

used to scientifically define love. In the case of the mother-infant bond, there is recognition of the infant, and desire and action to give warmth, comfort, food, and protection.

Bonding--the term for the close emotional tie that develops between parents and baby at birth--was the buzzword of the 1980's. Doctors Marshall H. Klaus and John H. Kennel (1976) explored the concept of bonding in their classic book Maternal-Infant Bonding. These researchers speculated that for humans, just as for other types of animals, there is a "sensitive period" at birth when mothers and newborns are uniquely programmed to be in contact with each other and do good things to each other. By comparing mother-infant pairs who bonded immediately after birth with those who didn't, they concluded that the early-contact mother-infant pairs later developed a closer attachment. Kennelet al (1976) really wanted to note that bonding is not just physical but can be supernatural in that the mother can recognise that the baby is crying even if she is not near the baby.

Goldberg and Divitto (2002), described bonding as the establishment of an emotional connection between the parent and the infant. They went on to say that bonding begins during pregnancy and further after birth. This definition includes all the attributes of bonding in which were in agreement that bonding starts during pregnancy and not after the birth of the baby as most health professionals and other authors think. The Scotland National Health Survey described bonding as the parent’s relationship with the child. It did not specify at what time does the relationship starts which is a weakness to the definition. The definition does not have the attribute of skin to skin contact soon after birth.

Barber (2015), defined maternal bonding as involving skin to skin contact with the mother soon after birth, body massage of the baby for 15 minutes and eye to eye contact .This definition is comprehensive in that it touches all other attributes of bonding. Bonding describes the parents’

relationship with the child and came up with great points which mentioned the skin to skin attribute, and said bonding starts at birth and it also includes singing and talking to the baby.

Phillips (2013) described bonding as the skin to skin contact during the first hour of life.The author did not mention about the fact that bonding starts in utero rather than after birth.

Mcleod (2013) noted the benefits of bonding both to the mother and the baby especially during breastfeeding and skin to skin contact. UNICEF (2013) went on to note that pregnant women formulate mental images of their babies in utero thus establishing bonding in pregnancy. This analysis really helped to bring about the meaning of maternal infant bonding as it had different definitions.

2.6 Exemplars

2.6.1 Model case

A model case is an example of the concept that exhibits all of its defining attributes and qualities. Walker and Avant (2011) describe a model case as, "a pure case of the concept, a paradigmatic example, or a pure exemplar" (p.163).

A 25 year old 36 week pregnant woman attended her first antenatal visit at a clinic. She was attended to by a very cheerful midwife who provided information about **bonding.** She got so much interested and wanted to know more. She requested to be attended to by the same midwife at every visit and also promised to communicate with her unborn baby on a daily basis. She later on delivered safely and was one of the best moms as she even surprised the attending midwife to give her baby soon after delivery without putting her clothes on. She wanted to practice **skin to skin contact** and practice talking to her baby.

2.6.2 Analysis

The first midwife to attend to the woman provided enough information to convince the client on maternal and infant bonding to an extent that the client got so much interested and practised it. This helped her to try and bond wither baby soon after delivery

2.6.3 Contrary case

Clients with depression usually reports at a clinic for help. The midwives refer them to a psychiatric nurse for counselling and treatment if need be. Among the clients are teenagers who cannot cope with staying with their parents whom they say are overprotective.

2.6.4 Analysis

This case talks about clients who are treated for depression. Teenagers also do get counselling from the nurses. The case has no relation to maternal and infant bonding.

2.6.5 Borderline case

A borderline case has many of the same elements as a model case however one or more of the defining attributes differs in some way.

It is closely connected to the case, but has some dissimilarity that makes it inherently distinguishable from the concept being studied (Walker & Avant, 2011).

Masvingo municipality clinic caters for a large number of pregnant clients. The midwives are very few and they have submitted a complaint that they cannot cope with the number of clients. A survey was done and most clients did not really know how they could **bond** with their unborn or delivered infants. The women are taught on how to bond with their babies when they breastfeed.

2.6.6 Analysis

The shortage of midwives is causing other problems like lack of enough information tithe clients because the midwives are overwhelmed so it is very difficult to give the information on bonding comprehensively let alone provide preconception care.

2.6.7 Related case

Mrs Mucheke delivered a live bouncing baby boy. This is her first birth and has never attended any visit as she did not have Antenatal fees needed at the hospital. Midwives taught her how to **breastfeed** her baby soon after delivery before she was transferred to post- natal ward.

2.6.8 Analysis

Mrs Mucheke was an unbooked client. She however received the care like any other pregnant woman and was taught on breastfeeding which promoted bonding with her baby**.**

2.6.9 Measurements and empirical referents

Empirical referents are groups of actual phenomenon that unfold and bring to the light the concept itself by their presence, (Walker and Avant, 2005). They put the concept to test by increasing the transparency of attributes of integration process. In the context of this concept paper the attributes of empirical references are pregnant woman, delivered woman, baby and skin to skin contact.

3.0 Recommendations

1. Midwives check on the infant's condition frequently in the first 2-3 hours after birth to make sure the infant's position is safe and their mouth is not occluded.
2. Irrespective of feeding intention, all mother and baby dyads should be offered skin-to-skin contact at birth, or as soon as possible after birth because after the first two hours post-birth, infants often become sleepy and difficult to arouse (Moore et al, 2012)

It is recommended for hospital protocols to include an hour of uninterrupted skin-to-skin contact after vaginal and low-risk caesarean births in order to promote optimal maternal-newborn bonding.

3.1 Empirical reference

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3.2 Conclusion

Preconception care is not a familiar concept in Zimbabwe and hence most pregnant women do not know about maternal infant bonding until they deliver.Maternal and infant bonding is covered in mystery unless it is taught before pregnancy, during pregnancy and postnatally.

Consequences which develop later on in life are detrimental to the person and half the time there is a very small link of behavioural problems in adulthood to maternal and infant bonding.

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