บทความวิจัย

สายใยรักสำหรับทารกเกิดก่อนกำหนด: มุมมองของมารดา พยาบาลและกุมารแพทย์ในจังหวัดนครพนม

ATTACHMENT FOR PRETERM INFANT: PERSPECTIVE OF MOTHERS, NURSES, AND PEDIATRICIANS IN NAKHON PHANOM PROVINCE

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บทคัดย่อ

มารดาที่คลอดทารกก่อนกำหนดนั้นต้องเผชิญสถานการณ์ที่ซับซ้อน ถือว่าเป็นความท้ายทายของบุคลากรสุขภาพในการส่งเสริมสายใยรักระหว่างมารดากับทารกเกิดก่อนกำหนด การศึกษาครั้งนี้มีวัตถุประสงค์เพื่ออธิบายประสบการณ์ของมารดา พยาบาลวิชาชีพและกุมารแพทย์เกี่ยวกับสายใยรักสำหรับทารกเกิดก่อนกำหนดในจังหวัดนครพนม เก็บรวบรวมข้อมูลโดยใช้การสัมภาษณ์เชิงลึกกับมารดาที่มีทารกเกิดก่อนกำหนดจำนวน 8 คน พยาบาลวิชาชีพ 5 คน และกุมารแพทย์ 2 คนในโรงพยาบาลนครพนม วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า สายใยรักสำหรับทารกเกิดก่อนกำหนดตามมุมมองของมารดา พยาบาลวิชาชีพและกุมารแพทย์คือ “สายใยรักจากมารดาที่อยู่บนความไม่แน่นอน” ซึ่งความหมายนี้เกิดจาก 6 องค์ประกอบได้แก่ มารดามีความรักลูกซึ่งเป็นพื้นฐานของสายใยรัก การสนับสนุนจากครอบครัวช่วยให้มารดามีความมั่นใจในการให้สายใยรักกับทารกเกิดก่อนกำหนด การแยกจากทารกหลังคลอดทำให้การพัฒนาสายใยรักล่าช้า มารดาต้องการความช่วยเหลือจากพยาบาลในการส่งเสริมสายใยรักกับทารกเกิดก่อนกำหนด มารดารู้สึกไม่กล้าที่จะส่งสายใยรักให้กับลูกเนื่องจากกังวลจะเกิดอันตราย และบุคลากรสุขภาพเห็นความสำคัญในการส่งเสริมสายใยรักแต่ยังขาดแนวปฏิบัติที่ชัดเจน ซึ่งสะท้อนให้เห็นว่าสายใยรักของมารดาต่อทารกเกิดก่อนกำหนดมีทั้งสิ่งที่ส่งเสริมและสิ่งที่เป็นอุปสรรค ดังนั้นพยาบาลทารกแรกเกิดควรที่จะพัฒนาแนวปฏิบัติที่จะส่งเสริมให้มารดามีความรู้สึกรักใคร่ผูกพันทารกเกิดก่อนกำหนด และลดสิ่งที่จะเป็นอุปสรรค เพื่อส่งเสริมสายใยรักให้กับทารกเกิดก่อนกำหนดต่อไป

คำสำคัญ: สายใยรัก; ทารกเกิดก่อนกำหนด; มุมมองของมารดา; พยาบาล; กุมารแพทย์

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Abstract

Preterm infant birth is a difficult situation for mother, and challenge for professional health care providers to promote mother-preterm infant attachment. This study aimed was to describe experience of mothers, professional nurses, and pediatricians about prematurity situation at Nakhon Phanom province. This study focused on understanding current situation of attachment from the perspectives of eight mothers having preterm infants, five professional nurses, and two pediatricians in Nakhon Phanom hospital. In-depth interview technique was utilized for data collection. Content analysis was used to analyze data.

The study found that the overriding theme was "maternal attachment uncertainty". This main theme emerged from 6 categories that consisted of affection of mothers was a root of attachment, family support enhanced maternal confidence to attach preterm infants, delayed visits affected delayed attachment, mothers needed early help from nurses to promote attachment with preterm infants, mothers felt afraid to attach with preterm infants, and health care providers needed to promote mother-preterm infants attachment but lack of good practice guideline. The results reflected both the promoting and inhibiting maternal attachment to their preterm infants.

Therefore, neonatal nurses should crate the nursing program to encourage mother to maintain the promoting maternal attachment, and solving the inhibiting maternal attachment for enhancing attachment in preterm infants.

Keywords: attachment; preterm infant; perspective of mother; nurse; pediatrician

Introduction

Preterm birth is the delivery of a baby before 37th week of gestational and the leading to risk for a range of developmental impairments, especially in the very preterm infant (Wolke, Eryigit-Madzwamuse, & Gutbrod, 2014). Accordingly, preterm infants at 12 months of corrected age will have a lower quality of play and attention skills, more sober, and withdrawn mood in the mother-infant interaction situation than full-term infants (Korja et al, 2008). As a result, preterm infants might have attachment insecurity leading to delay of psycho-social and cognitive development in the future. Therefore, the factors related to ameliorate attachment security for preterm infants that should be concerned and managed covers all dimensions of preterm infant, mother, and the environment in nursery and NICU.

Mother is the closest and the most significant attachment figure for a preterm infant. Mother should have high sensitivity which includes mutually give and take with the preterm infant that is congruent with the preterm infant's cues. Maternal sensitivity is an important precursor for maternal-infant attachment, infant attachment security, and infant development (Bakermans-Kraneuburg, van Ijzendoorn, & Kroonenberg, 2004; Shin, Park, Ryn, & Seomun, 2008). A mother's sensitive behavior must be contingent on her infant's behaviors and have quality of reciprocal interaction with her infant. It is a dynamic process which accompanies the adaptation and changeability (Shin et al., 2008). Mothers who show higher maternal sensitivity tend to have higher maternal attachment and mother-infant attachment (Shin, Park, & Kim, 2006). However, most of mother had a stress when mother can not cope with a perceived threat of preterm infant birth (Howland, 2007). Mothers of preterm infants indicated lights and sounds in the NICU and nursery unit, the preterm infant's appearance, her relationship with her preterm infant, and the enactment of her maternal role were related to feeling of stress (Miles, Funk, & Carlson, 1993). Inability to read the preterm infant's cues or fear of medical equipment and the uncertain environment of the neonatal intensive care unit (NICU) increases maternal stress (Miles et al., 1993; Shin et al., 2008). Maternal stress tends to decrease maternal sensitivity over time (Shin et al., 2008). Moreover, maternal stress is an important factor inhibiting attachment process (Schenk, Kelley, & Schenk, 2005). Mother needed to receive emotional support (Walker, 1992).

Therefore, the factors related to ameliorate attachment security for preterm infants that should be concerned and managed covers all dimensions of preterm infant, mother, and the environment in nursery and NICU. Nurses should understand the context of the mother-preterm infant attachment such as family relationship, culture, belief, and competency of mothers. Due to the complex of family and preterm infant situations inherent in the NICU, today more than ever before, nurses need to be aware and be active facilitators of the attachment process for these families (Schenk et al., 2005).

Nakhon Phanom province is one province of Thailand that has an increasing rate of preterm infant birth every year. The numbers of preterm infant birth were 178 cases in 2010, 185 cases in 2011, and 188 cases in 2012. In addition, the family care for infant in this province was coexist family care that was farraginous caring between modern and local wisdom care (Eamkusolkit & Reangworaboon, 2015). This family care might be difference with other countries. From the reviews, only few studies of mother-preterm infant

experience that included perspectives from mother of preterm infants, nurses and pediatricians in nursery unit and NICU were founded. In addition, all of studies were conducted outside Nakhon Phanom province. Thus, the purpose of this study was to describe the perspective of mothers, nurses, and pediatricians toward maternal attachment with preterm infant at Nakhon Phanom province.

Research objective

To describe perspective experience of mothers, nurses, and pediatricians toward maternal attachment with prematurity situation at Nakhon Phanom province.

Research methodology

A qualitative study was used. The methodological rigor of this study was established through assessment by the evaluative criteria for trustworthiness developed by Lincoln and Guba (1985).

Participants

Eight mothers, two pediatricians, two staff nurses from NICU, and three staff nurses from Nursery unit of Nakhon Phanom hospital were participated in this study. The average age of mothers who had preterm infants was 28 (*SD* = 2.56) years. Most of mothers finished lower than bachelor degree (62.5%) and 37.5% of them were labor occupation. All mothers were married. Most of them had extended family (87.5%), first order of infant (75%), and had maternal support (75%). Every mother had a complete antenatal care, and non-experience of preterm infant birth. The average age of nurses was 36 (*SD* = 7) years. Most nurses finished bachelor degree of nursing science (60%), and had experienced in nursery unit/NICU for 5-10 years (60%). The average age of pediatricians was 33 (*SD* = 2) years. Every pediatrician finished residency of pediatric, and had experienced in nursery unit/NICU for 5-10 years.

Research instruments

Instruments of this study consisted of 2 parts of instruments as the following:

Part I: General Information Record

Mother's general information record contained a checklist of demographic characteristics of the father, mother, and other attachment figure in families. These include age, current marital status, education, occupation, monthly income, intention to plan pregnancy, antenatal care, complications in pregnancy, type of delivery, separation time, number of child, experience of preterm infant care, and significant person. In addition, nurses and pediatrician's general information record included a checklist of demographic characteristics of the pediatrician including gender, age, education, and experience of working in NICU or nursery unit.

Part II: An interview guide of participants' perception

The semi- structured interview guide was developed based on mother-infant attachment, attachment theory, and review of literature regarding enhancing attachment for preterm infants. It explored the mother's feeling, knowledge, needs, beliefs, and competency for attachment with preterm infants. For the nurses and pediatrician, it revealed their thoughts, knowledge, skills, and routine care to promote attachment in NICU and nursery unit of the hospital. Each interview was arranged with audio tape record and lasted for about 30 minutes..

Data collection

Qualitative data was collected by the researcher in order to gain an understanding of the situation with the key informants. In-depth interview was performed to collect data from mothers, nurses, and physicians by using a semi- structured interview guide. The face-to-face interviews were conducted to offer the researcher opportunity to interpret the non-verbal cues through the observation of body language such as facial expression and eye contact, whereby it enhanced the interviewers' understanding of what was being said. The interview began with comprehensive open-ended question, such as "Please describe any experience of coming to be a mother of preterm infant" and moved onto more detailed questions smoothly. The questions were generated based on the purpose of this phase. In addition, field notes were used to supplement other forms of data collection that were written after in-depth interview in the ward. Moreover, documentary data sources consist of nurses' notes and other records used to support data. The data collection was stopped since no new story was drawn, and similar content were found in all of the three groups because of possible data saturation.

Ethical consideration

The Research Ethic Committee of Faculty of Nursing, Burapha University approved this study according to the Declaration of Helsinki (IRB no. 06-04-2557)

Data analysis

Qualitative data were analyzed by using content analysis (Marshall and Rossman, 2006). The researcher transcribed the tape-recorded from the interview data. Then, the data were read, reread line by line and extracted the essential data for coding. The lists of codes must relate to the research questions. After coding, the subcategories, categories, and subthemes were generated by classifying the patterns according to their similarity and differences; thereafter, the characteristics coding were assigned. Finally, the themes were emerged by grouping subthemes to the answers of the research questions.

Results

1. Perspective of mothers towards attachment to preterm infants

The results of this content analysis are described as the following:

The theme expressed in the overall temporal meaning of attachment with preterm infants was **"Maternal attachment uncertainty"** that formulated from subcategories, categories, and subtheme in table 1.

Table 1 Subcategories, categories, and subtheme of finding

Subtheme	Categories	Subcategories
Inhibiting maternal attachment	Delay visits affected delay attachment	*Mothers have no early bonding after birth*
		Preterm infants have no early attach with their mothers after birth
	Mothers felt afraid to attach with preterm infants	*Mothers fear and afraid to touch preterm*
		Mothers have anxiety about illness of their preterm infants
		Mothers feel sad
		Mothers feel shock
		Mothers feel guilt
		Mothers feel uncertainty to attach with preterm
	Nursing care for promoting attachment was important & ambiguous	*Nurses and pediatricians concern to promote maternal attachment*
		Guideline for mothers to promote attachment is not available
		Methods to promote mother-preterm infant attachment are inconsistency
Promoting maternal attachment	Affection of mothers was a root of attachment	*Mother feel pity for her child*
		Mother is close attention to caring preterm
		Mother worry of preterm's health preterm during separation period
	Family support enhanced maternal confidence to attach preterm infants	*Father attach with preterm infant*
		Grandmother attach with preterm infant at home
	Mothers needed early help from nurses to promote attachment with preterm infants	*Mothers need early teaching by nurses about the method to attach her preterm infant*
		Mothers don't understand behaviors of preterm
		Mothers need multimedia and hand out to help her understand preterm and attach them

Mothers explained maternal attachment at early state (0 - 10 days) after birth as uncertainty since the mother had feeling of both promoting and inhibiting maternal attachment. The promoting maternal attachment starts with the affection of mothers that is a root of attachment. Mothers showed their affection, and close attention to care for their preterm infants. The affection of mothers invited them to visit and interact with their preterm infants. In addition, it also stimulated mothers to seek a way to attach with their preterm infants. Mothers believed that the nurse should coach them and enhance their knowledge and skill relevant to attach with their preterm infants. Moreover, fathers were facilitated and involved in caring for their preterm infants. Grandmothers planned to help mothers care for preterm infants at home. On the other hand, attachment for preterm infants also had inhibiting maternal attachment because mothers were delayed visiting preterm infants. As the mothers separated with preterm infants after birth (1-5 days), bonding and attachment between mothers and preterm

infants will be delayed. Besides, mothers were afraid to touch their preterm infants, anxiety about illness of their preterm infants. When mothers visited preterm infants, most of them could not interact with their preterm infants, they only stood behind the incubators. They feared to interact with their preterm infants because they were very small and sick. Accordingly, mothers had a low confidence to attach with preterm infants, which inhibit maternal attachment for preterm infants.

This theme was generated from the 5 categories as the following:

Affection of mothers was a root of attachment: Mothers also needed to have close attention for caring of preterm infants because they love preterm infants, felt pity on them. Moreover, mothers concerned with health problems of the preterm infants, and missed them when they were in a period of separation (1-5 days after delivery), some mothers expressed that:

"Even I have not seen my baby, I still miss him every day" (28 year old mothers)

"It is uncomfortable for him. Every time I see him stay alone in the incubator"

(25 year old mothers)

Mothers needed early help from nurses to promote attachment with preterm infants. Mothers required early coaching from nurses to clarify about the attachment for preterm infants. Mothers didn't understand ttheir preterm infants' behaviors, and how to promote positive interaction with them. Moreover, mothers required information related to the progress of preterm infant's health. They need to interact appropriately with their preterm infants, nevertheless they did not want to interrupt their babies' sleep or hurt them, and some mothers stated that:

"I would like some nurses to teach me, how to understand my baby behaviors, and how to build right and no-harmful relationship with my baby in a nursery unit. Later, we can continue doing it at home" (22 year old mother)

"It would be the best if we have a nurse coach us at the first week in nursery unit. Because I don't know how to take care our baby.....I am afraid if any problem occurs" (22 year old mother)

Family support enhanced maternal confidence to attach preterm infants. Mothers felt content when their husband accompanied them to visit the baby at a hospital. Moreover, most of the grandmothers plan to help the mothers care for the preterm infants at home. It would increase self-confidence of mothers to attach with their preterm infants and decrease maternal stress, some mothers addressed that:

"It makes me feel comfortable when my husband come to visit our baby along with me every time" (25 year old mother)

"My mother will help me to care for my baby when I go home. So, I don't worry about that" (23 year old mother)

Delay visit affected delay attachment. Mothers and preterm infants were separated at the early state after birth for caring preterm infants in the intensive care unit or nursery unit, caring the suture of the mothers, or mother went back home to work. Mothers had no early bonding after birth, and preterm infants had no early attach with mothers immediately after birth, as some mothers stated that:

"I cannot visit my baby earlier because I need to care the wound first" (29 year old mother)
"I did not see my baby since birth. I did not know what happen with my baby" (28 year old mother)

Mothers felt afraid to attach with preterm

infants. Mothers felt shock, sadness, and guilt when they knew their babies were preterm infants. Mother felt scared, afraid, fear, as illustrated in some mothers' responses, especially in NICU because preterm infants had many types of medical equipment on the body, small size, and less responsiveness that made them uncertain to attach preterm infants, some mothers expressed that:

"He is very small and skinny...when I look at him I feel sorry for him. I don't want to see him for long time, it make me unhappy" (23 year old mother)

"When I see him in the incubator with many types of equipment in his body, I'm very sad. I want to hold him but I cannot, it will make him hurt" (30 year old mother)

2. Perspective of health care providers

The results of this part are described as the following:

The theme was expressed in the overall temporal meaning of attachment with preterm infant in perspective of health care providers at Nakhon Phanom Hospital. This theme was **"Promoting attachment was important and ambiguous"** in table 1. Health care providers are concerned that promoting mother-preterm infant attachment is very important in order to enhance the development, especially psycho-social development for preterm infants. Most of them promoted attachment between mothers and preterm infants at nursery unit/ NICU. However, nursing care for promoting maternal-preterm infant attachment was inconsistent. No guideline aimed to make mothers understand behavioral cues of preterm infant, and the attachment security for preterm infants. They promoted attachment between mothers and preterm infants by their own experiences, some nurses and pediatricians state that:

"Maternal-infant attachment is the most important in creating the relationship between mothers and preterm infants such feeding and touching. Indeed, it should be better, if nursing service has the proper guidelines for promoting attachment. ...Besides, we do not have if now. So, nurses will do this nursing care inconsistently" (pediatrician)

"We promoted attachment between mothers with preterm infants by encouraging mothers to visit their babies, gave breast milk to babies, touching, and set the bed for mothers to stay in this unit for taking care of their babies. Now, we did not have guidelines, everyone promoted attachment by using their own experiences". (Nurse)

From the perspective of mothers and health care providers about attachment between mothers and preterm infants, attachment is very important and necessary for mothers and preterm infants to begin at the first week in the hospital. Mothers need close interaction with their preterm infants. However, mothers did not have enough competence to attach with their preterm infants. They need nurses to help them to understand their babies' behavior, and method for positive attachment with their preterm infants. Moreover, nursing guidelines for promoting attachment between mothers and preterm infants need to be developed to make sure that mother and preterm infants have received a consistency and quality care for enhancing attachment. As results, mothers, preterm infants, nurses, pediatricians, and family were factors that affect attachment between mothers and preterm infants as demonstrated in Figure 1 for the inhibiting maternal attachment and promoting maternal attachment.

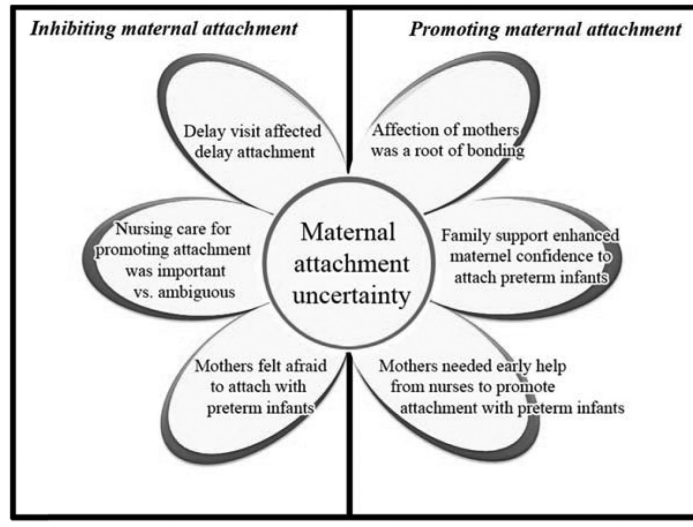


Figure 1 Mother-preterm infant attachment as perceived by mothers, nurses, and pediatricians at Nakhon Phanom hospital

Discussion

Attachment is very important for establishing a basic sense of trust to the world and developing emotional regulation of newborn via the strong and satisfactory relationship with his/ her parents and caregivers (Goulet, Bell, Tribble, Paul, & Lang, 1998; Klaus & Kennel, 1982). The results showed the mother's affection, and close attention to care for their preterm infants which invited them to visit and interact with preterm infants. It also stimulated mothers to seek a way to attach with their preterm infants. If the mother has more positive interaction with the preterm, the mother will develop maternal attachment and maternal role (Goulet et al., 1998; Mercer, 2004) and preterm will develop secure attachment (Malekpour, 2007). In addition, mothers need the nurse to coach them in order to increase the knowledge and skill relevant to attachment with their preterm infants. The understanding preterm infants' cue will enhance attachment behaviors. Mother intent to learn how is the best way to interact with their preterm infants. The quality interaction between mothers and their preterm infants will enhance maternal attachment and mother-preterm infant attachment (Klaus & Kennell, 1982). Moreover, fathers facilitated and involved in caring for their preterm infants. This could explain that marital relationship might help the mother feel love and care for their preterm infants (Soakeaw, 2007). Thus, they could extend their love and care to their preterm infants. It is congruent with the concept of mother-infant attachment of Klaus and Kennell (1982). They stated the most important factor that affects the maternal-infant attachment was marital relationship because spouse was the best supporter. In addition, grandmothers planned to help mothers care for preterm infants at home. The family support is a part of social support that may act directly to promote health regardless of person's level of stress by protecting persons from the effects of stress (Walker, 1992). Mothers who had low stress, they would have high of maternal bonding (Engler, 2005). Therefore, family support could enhance maternal attachment.

This study found that almost all of the mothers of these preterm infants had a delay visit their babies. It will affect delay attachment. Therefore, preterm infants lose the best bonding from mothers in the sensitive period. The sensitive period of bonding extending was through the first 30-60 minutes after birth (Klaus and Kennell, 1982). Klaus (2009) presented that the early period after birth is not a "critical" period but a "sensitive" period for promoting bonding and attachment, respectively. In addition, the results presented that mothers felt afraid to attach with preterm infants. Mothers felt scared, afraid, fear, as illustrated in some mothers' responses, especially in NICU due to the preterm infants condition such as medical equipment, small size, and less responsiveness. The inability to read the preterm infant's cues or fear of preterm infant condition and the uncertain environment of the NICU increases maternal stress (Miles, et al., 1993; Shin, et al., 2008). Maternal stress tends to decrease maternal sensitivity over time (Shin et al., 2008). When mothers have low sensitivity, the maternal attachment and mother-infant attachment will decrease (Shin et al., 2008), and the preterm infant is more likely to develop attachment insecurity. Therefore, mothers of preterm infants need support from nurses to help them have a high confidence to attach their preterm infants. However, nursing care for promoting maternal-preterm infant attachment was inconsistent. They promoted attachment between mothers and preterm infants by their own experiences. No clear guideline aimed to make mothers understand preterm infants' cues, and the attachment security for the preterm infants. All of this would be barrier factors to promote attachment for preterm infants.

Implementation for nursing practice

Professional nurses should apply promoting maternal attachment for enhancing attachment for preterm infants by encouraging mothers to interact with their preterm infants every day. In addition, nurses should provide some strategies to enhance attachment for mothers, and invite babies' fathers or grandmothers to help mothers care for their preterm infants. On the other hand, nurses should protect or decrease the inhibiting maternal attachment by teaching mothers about the preterm infant's cures for improving their understanding about their preterm infant behaviors. Moreover, nurses should develop the standard care or guideline for enhancing maternal attachment for the mother who have a preterm infant by increasing promoting maternal attachment and decreasing inhibiting maternal attachment. Furthermore, the standard care should appropriate for a family context which will be effective in the real situation.

Future Study

Neonatal nurses should collaboratively conduct research to find out how to promote attachment between mothers and preterm infants.

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