CHAPTER 4

Findings and Discussion

The chapter presents the findings and discussion of the study. It is divided into four parts: 1) parental background and unit context; 2) perceptions and caregiving practices of parents regarding parent involvement in caring for their hospitalized preterm infants; 3) socio-cultural factors influencing on parent involvement in caring for their hospitalized preterm infants; and 4) discussion of the findings.

Part 1: Parental Background and Unit Context

This section presents the background of parents and the unit context in order to provide better understanding of the parent involvement in caring for their hospitalized preterm infants. It includes the demographic characteristics of twenty-two parents and nineteen preterm infants, and context of the sick newborn unit (SNB).

Demographic Characteristics of Mothers and Their Preterm Infants

Table 4-1 shows the total number of parents who participated in this study, consisting of 19 mothers (86.36%) and 3 fathers (13.64%). The age of parents ranged from 20 to 42 years of age, with a mean age of 29.09 years (SD=5.32). All of them (100%) were Thai and Buddhist. About the parent's education level, more than half of them (54.54%) had a Bachelor's degree, while one parent received a primary education. Over half of them (54.54%) worked in a factory, while one worked as a state enterprise officer. Meanwhile, five parents (22.73%) had their own business, one worked as a freelance and three parents (13.64%) were housewives. The majority of parents (86.36%) had a family income of more than 10,000 baht per month. Most, 68.18% of the parents had the first child. Most of them (77.27%) came from other provinces, moved to Chonburi province and lived in a nuclear family.

The table also summarizes the characteristics of the preterm infants in this study, consisting of 12 females (63.16%) and 7 males (36.84%). The gestation age at birth of these preterm infants ranged from 27 to 34 6/7 weeks. Twelve of them (63.16%) were late and moderate preterm infants (GA at 320/7-366/7 weeks), while two infants were extremely preterm (GA < 28 weeks). The mean birth weight of the preterm infants was 1,717 grams (SD = 455.78), with a range from 1,010 to 2,555 grams. More than half (57.89%) had low birth weight (BW=1,500-2,500 grams), six (31.58%) had very low birth weight (BW< 1,500 grams), while two (10.53%) had birth weight of more than 2,500 grams. Approximately 53% of the preterm infants had delivery by caesarian section. Regarding apgar score at 1 minute and 5 minutes, most of the preterm infants were not birth asphyxiated (score=8-10). The current age of the preterm infants ranged from 4 to 44 days, with a mean age of 14.95 days (SD = 10.92). The majority of preterm infants (78.95%) had current age less than 14 days, while one of them had current age more than 42 days. The present weight of the preterm infants ranged from 1,120 to 2,430 grams, with a mean present weight of 1,824.47 grams (SD = 372.17). Most of the preterm infants (84.21%) had present weight between 1,500 grams and 2,500 grams. The top diagnosis of preterm infants who were admitted to the SNB was preterm birth (PT) with respiratory distress syndrome (RDS) (36.84%).

Table 4-1

Demographic Characteristics of Parents (n=22) and Their Preterm Infants (n=19)

Number of parents	Mothers' characteristics									Preterm infants' characteristics							
	Age	Religion	Levels of education	Occupation	Family income	Type of family	Number of child	Home town	Sex	GA	Birth weight	Type of Delivery	Apgar at 1'	Apgar at 5'	Current age	Present weight	Diagnosis
Mother 1	31	Buddhist	High school	Employee	>20,000-30,000	Nuclear	1	Yasothon	Female	33 +2	2,200	NL	5	7	13	2,150	PT, RDS & NEC
Mother 2	31	Buddhist	Bachelor's degree	Employee	>20,000-30,000	Nuclear	1	Udon Thani	Female	34 +3	1,545	C/S	9	10	13	1,570	PT & Neonatal jaundice
Father 1	30	Buddhist	Vocational school	Employee	>20,000-30,000	Nuclear	1	Nong Khai	Same mother 2	-	-	-	-	-	-	-	-
Mother 3	33	Buddhist	Bachelor's degree	Employee	>30,000-40,000	Nuclear	2	Samut Prakan	Male	30 +2	1,630	C/S	6	9	10	1,780	PT, RDS & Neonatal jaundice
Mother 4	24	Buddhist	Secondary school	Freelance	>10,00-20,000	Extended	2	Roi Et	Female	27 +4	1,160	C/S	7	9	44	1,600	PT, RDS & Meningitis
Mother 5	31	Buddhist	Bachelor's degree	State enterprise officer	>20,000-30,000	Nuclear	1	Ratchaburi	Male	33 +6	1,890	C/S	9	10	13	2,165	PT, RDS, Neonatal jaundice & Sepsis
Mother 6	31	Buddhist	Vocational school	Employee	>30,000-40,000	Nuclear	3	Si Sa Ket	Female	34 +6	2,542	C/S	8	9	4	2,290	PT, Anemia &Hypoglycemia
Mother 7	20	Buddhist	Secondary school	Housewife	>10,00-20,000	Nuclear	1	Ubon Ratchathani	Male	34	1,556	NL	9	10	9	1,610	PT& RDS
Mother 8	31	Buddhist	Bachelor's degree	Own business	>40,000	Nuclear	1	Uttaradit	Male	33 +5	2,555	C/S	8	9	5	2,430	PT
Mother 9	26	Buddhist	Secondary school	Housewife	5,000-10,000	Nuclear	2	Samut Prakan	Male	33	2,020	C/S	8	8	12	2,150	PT, Hypo-glycemia & Neonatal jaundice
Mother 10	26	Buddhist	Bachelor's degree	Own business	>40,000	Nuclear	1	Chiang Mai	Female	30	1,500	NL	7	8	32	1,765	PT, RDS & Meningitis
Mother 11	25	Buddhist	Bachelor's degree	Employee	>10,000-20,000	Extended	2	Phetchabun	Female	31 +2	1,260	C/S	7	9	34	1,545	PT& RDS

Table 4-1 (continued)

Number of parents	Mothers' characteristics									Preterm infants' characteristics							
	Age	Religion	Levels of education	Occupation	Family income	Type of family	Number of child	Home town	Sex	GA	Birth weight	Type of Delivery	Apgar at 1'	Apgar at 5'	Current age	Present weight	Diagnosis
Mother 12	23	Buddhist	Vocational school	Housewife	>30,00-40,000	Extended	2	Chon Buri	Female	32	1,490	NL	8	9	13	1,560	PT, RDS & Hypoglyce-mia
Mother 13	28	Buddhist	Bachelor's degree	Employee	>20,000-30,000	Nuclear	1	Khon Kaen	Female	28 +5	1,150	NL	8	9	6	1,120	PT& RDS
Mother 14	30	Buddhist	Bachelor's degree	Employee	>40,000	Nuclear	1	Bangkok	Female	34 +3	1,956	NL	8	9	5	1,860	PT, RDS, Neonatal jaundice & Sepsis
Father 2	33	Buddhist	Bachelor's degree	Employee	>40,000	Nuclear	1	Chon Buri	Same mother 14	-	-	-	-	-	-	-	-
Mother 15	22	Buddhist	Secondary school	Own business	5,000-10,000	Extended	1	Chon Buri	Female	34	1,896	NL	8	9	12	2,080	PT& RDS
Mother 16	25	Buddhist	Bachelor's degree	Employee	>10,000-20,000	Nuclear	1	Chon Buri	Male	34	1,350	C/S	8	9	8	1,375	PT
Mother 17	31	Buddhist	Vocational school	Own business	>10,000-20,000	Extended	2	Samut Prakan	Female	31 +4	2,240	C/S	6	7	14	2,380	PT& RDS
Mother 18	40	Buddhist	Primary school	Own business	5,000-10,000	Nuclear	1	Ubon Ratchathani	Male	32	1,675	NL	9	9	12	1,850	PT& RDS
Mother 19	27	Buddhist	Bachelor's degree	Employee	>40,000	Nuclear	1	Chon Buri	Female	27	1,010	NL	5	9	25	1,385	PT& RDS
Father 3	42	Buddhist	Bachelor's degree	Employee	>40,000	Nuclear	1	Nakhon Ratchasima	Same mother 19	-	-	-	-	-	-	-	-

Table 4-1 (continued)

Number of parents	Mothers' characteristics									Preterm infants' characteristics							
	Age	**Religion**	**Levels of education**	**Occupation**	**Family income**	**Type of family**	**Number of child**	**Home town**	**Sex**	**GA**	**Birth weight**	**Type of Delivery**	**Apgar at 1'**	**Apgar at 5'**	**Current age**	**Present weight**	**Diagnosis**
Number (%)		22 (100)	Primary S. = 1 (4.55) Secondary S. = 4 (18.18) High S. = 1 (4.55) Vocational S.= 4 (18.18) Bachelor's =12 (54.54)	State enterprise = 1 (4.55) Employee = 12 (54.54) Own business = 5 (22.73) Freelance = 1 (4.55) Housewife = 3 (13.64)	5,000-10,000 = 3 (13.64) >10,000-20,000 = 5 (22.73) >20,000-30,000 = 5 (22.73) >30,000-40,000 = 3 (13.64) >40,000 = 6 (27.27)	Nuclear = 17 (77.27) Extended = 5 (22.73)	1st child = 15 (68.18) 2nd child = 6 (27.27) 3rd child = 1 (4.55)	Chon Buri = 5 (22.73) Outside Chon Buri = 17 (77.27)	Male = 7(36.84) Female=12 (63.16)	$34^{0/7}$-$36^{6/7}$ = 6 (31.58) $32^{0/7}$-$33^{6/7}$ = 6 (31.58) $28^{0/7}$-$31^{6/7}$ = 5 (26.32) <28 = 2 (10.53)	>2,500 grams=2 (10.53) 1,500-2,500 grams= 11 (57.89) <1,500 grams=6 (31.58)	C/S = 10 (52.63) NL = 9 (47.37)	Score 8-10=12 (63.16) Score 5-7=7 (36.84)	Score 8-10=17 (89.47) Score 5-7=2 (10.53)	> 42days = 1 (5.26) 29-42 days = 2 (10.53) 15-28 days = 1 (5.26) <14 days = 15 (78.95)	1,500-2,500=16 (84.21) <1,500=3 (15.79)	PT =2(10.53) PT& RDS =7 (36.84) PT, RDS & NEC=1(5.26) PT, RDS & Jaundice =1(5.26) PT, RDS, Jaundice & Sepsis=2(10.52) PT, RDS, Jaundice & Hypoglycemia =1(5.26) PT & Jaundice =1(5.26) PT & Hypoglycemia =1(5.26) PT, RDS & Meningitis =2(10.53)
Range	20-42 years									27-34^{+6} weeks	1,010-2,555 grams				4-44 days	1,120-2,430 grams	
Mean (S.D.)	29.09 (5.32)										1,717 (455.78)				14.95 (10.92)	1,824.47 (372.17)	

* PT=Premature infant; RDS= Respiratory distress syndrome; NEC=Necrotizing enterocolitis

The Context of the Sick Newborn Unit

The sick newborn unit (SNB) that was studied in this ethnographic study is located in Chonburi province in the eastern region of Thailand. Chonburi, which is approximately 80 kilometers far from Bangkok. It is one of major tourist and economic zones of Thailand and also one of the 3 provinces that are home to the Eastern Seaboard Industrial Zone which include Chonburi, Rayong and Chacheongsao provinces. A great number of people from other provinces migrated into this area to earn their livings by working for the factories in the industrial estate. Three aspects of the SNB will be described. First, the characteristics of the SNB provided a description of the physical setting and admission criteria of the SNB. The second part was the information about the SNB's policies and practices of involving parents in caring for babies, and the third part gave the details of the SNB's personnel and working characteristics.

Characteristics of the sick newborn unit.

The physical setting of the SNB. The SNB is one of two neonatal wards of the regional hospital of the East. Proving care for both preterm infants and term infants, the SNB has two service parts: SNB1 and SNB2. The SNB1 is located on the third floor of the pediatric building connecting to the neonatal intensive care unit (NICU). The front wall of this building is built with concrete while both sides are cement walls with the height of 1 meter. Above the wall is sliding windows and glass boxes that are installed up to the clear glass ceiling. The walls inside and outside are painted with old rose color. With an area of 14 x 24.5 meters, the SNB1 has a capacity of 35 baby beds. The service area is divided into 3 parts: Part 1 is the front area of SNB1 which is a waiting area for parents who come to visit their babies and Part 2 is the internal area beginning from the front entrance which has a glass door separating two areas of which the first area has an area of approximate 1.5 x 14 meters and is the personnel's working area, storage of medical records and the staff room, while the second area is a clinical area that has two sides (right-left). The left-handed area beginning from the entrance is for all ill infants and it is divided into 3 blocks according to the length of the building and each block covers an area of 8 x 6 meters. There are approximately 8 incubators or 15 cribs in each block. Beside these incubators or cribs are medical equipment such as a ventilator, infusion pump, syringe pump, oxygen saturation monitor and etc. The right-

handed area of the front entrance is divided into 4 areas: 1) a supply room; 2) area of preparing for medication; 3) nurse's station and 4) breastfeeding room. The size of this breastfeeding room is 3 x 4 meters and there are chairs, U-shape breastfeeding pillows and electric breastfeeding pumps. The Part-3 area is adjacent to the clinical area and breastfeeding room, which is separated by a concrete wall and glass door. This area has one milk supply room, two rooming-in rooms that are 3 x 4 meters for 2 mothers to stay per room in which there is a bed, a bedside table, a wall fan, a sink, and glass sliding windows on 2 sides of walls, and one balcony room that has 8 beds. The balcony room is located between SNB1 and NICU, which accommodates mothers and enables them to supply milk for their babies every 3 hours (See Figure 4-1). However, since July 2015 the balcony room was changed into a clear passage in case of fire.

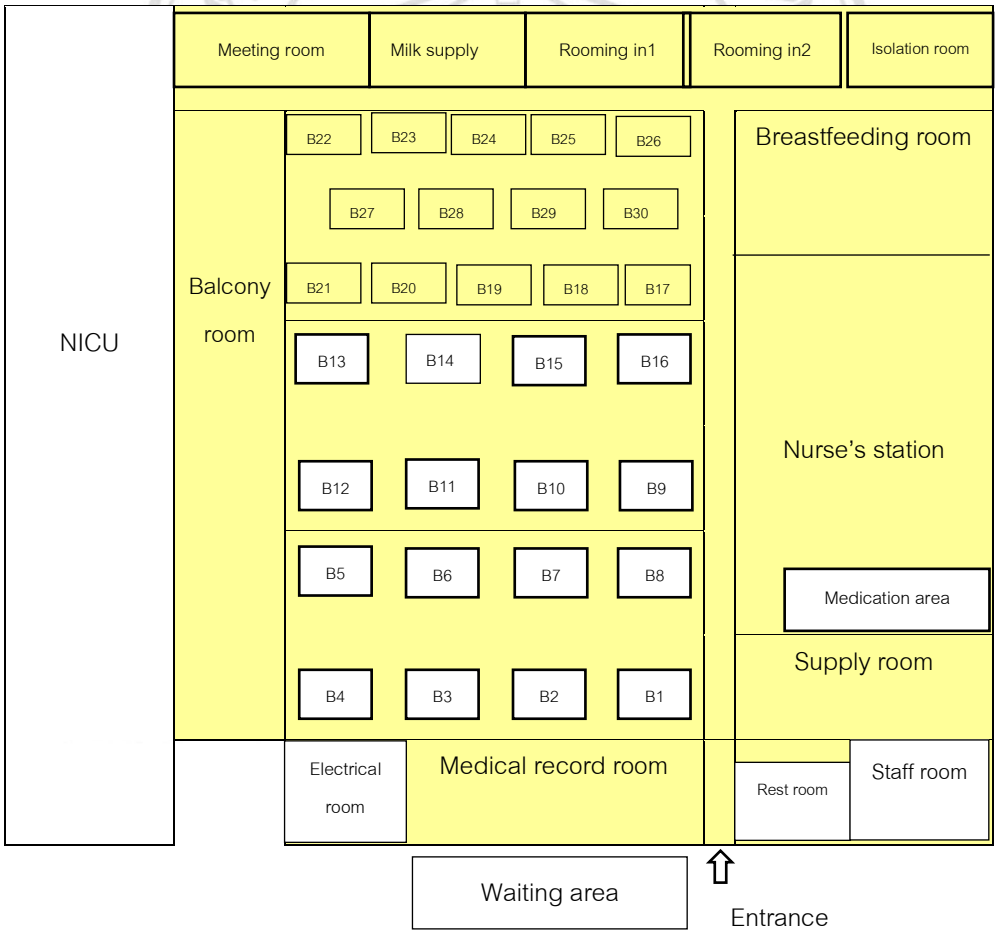

Figure 4-1. The physical setting of the SNB1

The SNB 2 is located on the fourth floor of the Obstetrics and Gynecology Building which are close to the Pediatrics Building and there is a passage connecting these two buildings. With an area of 7.5 x 17 meters, the SNB 2 has a capacity of 12 baby beds and has 8 beds for mothers who come to get trainings on how to breastfeed and care for babies before the babies are discharged from the hospital. The front entrance of the building is a glass sliding door and the internal area is painted with pink paint colour. The windows around this area are fixed and cloudy white windows. Inside the SNB2, there is a large square room of which the space is proportionally divided into 4 parts. The first part has mother's and baby's beds on the left and right of the room while the nurse's counter is located in the middle of the room and the second part which is a waiting area close to the left of the entrance has a sofa for fathers or relatives who come to visit the babies. There is also a breastfeeding corner, which is next to the waiting area that is separated by a 1.5 meter-high partition. The breastfeeding corner has a cream sofa, small breastfeeding pillows and two electric breastfeeding pumps. The fourth part is a corner for bathing and cleansing babies after pee/poo and there are two sinks and baby mattresses near mother's beds. Other baby equipment is also prepared in this SNB2 and includes diapers, a bottle sterilizer, breastfeeding pumps, a refrigerator for storing breast milk and a baby weighing scale. The balcony behind the SNB2 has a dining table for mothers who get involve in caring for their babies and there is also a bathroom/restroom in front of the SNB2 (See Figure 4-2).

Admission criteria of the SNB. The SNB1 has admission criteria of accepting only infants age at birth to one-month with medical and surgical diseases which are both in general illness condition and semi-critical condition that need no endotracheal tube, except infants with palliative care that need specialized care. After these infants are stable, they would be moved to receive further treatment at SNB2. Regarding the admission criteria of SNB2, it accepts infants from birth to one-month old with mild illness of medical and surgical diseases and the infants whom doctors are planning to discharge them from the hospital. These infants include 1) preterm babies whose condition is stable and who need to gain weight and are waiting for their mothers to be able to take care of them; 2) infants with mild illness; 3) babies who are awaiting for completely medical injection; and 4) babies with minor physical abnormalities which do not need immediate treatment and/or awaiting for the consult of specialist doctors.

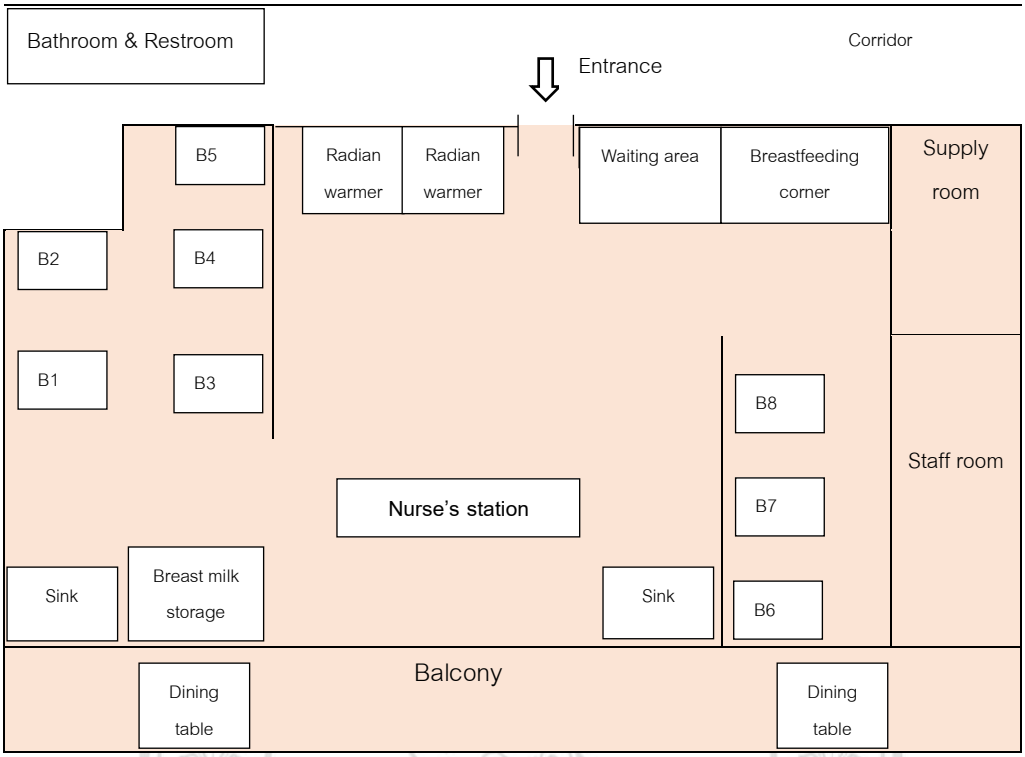

Figure 4-2. The physical setting of the SNB2

Sick newborn unit's policies and practices of involving parents in caring for babies. When babies were admitted to the SNB, the SNB has parental involvement policies, rules and regulations for visiting babies, and practices for working with parents during their involvement of caring for their babies.

Parental involvement policies. The SNB has a policy of promoting bonding and newborn development according to the hospital's breastfeeding project (*Sai-Yai-Rak Project*), when a baby is admitted to the SNB, all mothers would be encouraged to breastfeed their babies. Doctors and nurses give advice/ knowledge on expressing breast milk, storing breast milk, and breastfeeding technique from birth until they are discharged from the hospital. If the mother has been discharged, a father or mother needs to bring breast milk for his/her baby to the SNB. The SNB also has a policy of teaching special care to parents prior to discharge, so that they can provide care for their babies, observe the baby's abnormal symptoms and be prepared to take care of their babies at home and reduce the rate of re-admission (P, Khumpang, personal communication, September 5, 2014). While parents are visiting their baby at the hospital and getting involved in caring for their baby, nurses encourage parents to care

for their baby by changing diapers, expressing milk, breastfeeding, taking infants' temperature, etc.

Rules and regulations of visiting babies of SNB1.

1. When visiting, parents must inform the surname of the father's or mother's infant to the staff. They should pay a visit within the time specified in order that the newborns would receive proper treatment and care. The visiting time is 11.00-12.00, 14.00-16.00 and 17.00-20.00.

2. To protect newborns from infection, only a father or mother is allowed to visit his baby. They must wash their hands before and after contacting the babies. If they have a fever, cough/sneeze, they must wear a face mask provided by nurses before visiting.

3. To have babies to get love, warmth and optimal development, parents should visit their babies every day or at least every 4 days. They should also continuously bring breast milk to feed babies for the physical strength.

4. Parents are welcome to participate in caring for babies.

Rules and regulations of visiting babies of SNB2.

1. When visiting, inform the surname of father's or mother's infants to the staff.

2. To let babies receive proper treatment and care, parent should visit them from 12.00-20.00 and spend no more than 10-15 minutes for each visit and the number of visitors must not exceed 3 people.

3. Washing hands before carrying or contacting the babies is a necessity. If visitors have a fever, cough/sneeze, they must wear a face mask.

4. Families ensure babies are fed breast milk for at least 6 months for the baby's optimal nutrition.

Practices of dealing with parents during their involvement of caring for their hospitalized preterm infants. The SNB has practices for working with parents while involving in the care of their babies. First, after admitting the babies at SNB1, their

parents are informed by the nurses to sign informed consent for baby's admission and other documents. While visiting their babies, nurses teach parents to provide basic care for their babies such as expressing milk for their babies or breastfeeding their babies every 3 hours, giving mouth care, weighing their babies before and after breastfeeding, cleaning and changing diapers. Second, when the infants' conditions improved and doctors refer them to SNB2, nurses tell mothers to bring breast milk or take care of their babies during daytime whichever is convenient for mothers. Third, when babies are about to be discharged from the hospitals, mothers are expected to provide total routine care for 24 hours. Mothers feed their babies with milk every 3 hours (8.00, 11.00, 14.00, 17.00, 20.00, 23.00, 02.00 and 05.00), weigh babies before and after feeding, bath and shampoo the baby's hair at 02.00 or 05.00 and listen to the advice on health education at 10.00. Last, nurses give information about the baby's health book and follow up schedule to the parents, when nurses/interns decided that mothers are capable of taking care of their babies at home, the babies are discharged (P, Srisaovakontorn, personal communication, November 4, 2015).

In addition to providing basic care for their babies, parents take their babies to receive special treatments such as Ultrasound, CT scan, ROP screening and hearing tests and receive direct advice from specialist doctors. For low weight preterm infants who require incubator care until reaching a weight of approximately 1,600 grams, mothers are encouraged to provide a Kangaroo care to promote the love and bond between mother and child (P, Khumpang, personal communication, September 5, 2014).

Sick Newborn's personnel and working characteristics. At the sick newborn unit, there were 3 neonatologists, 25 registered nurses (RN), 3 technical nurses (TN), 12 nurse aids (NA), 2 secretary wards and 2 housekeepers. The nurses' schedule was divided into 3 shifts: morning shift (08.00-16.00), evening shift (16.00-24.00), and night shift (24.00-08.00) and all personnel worked in both SNB1 and SNB2. During the morning shift at SNB1, there would be 6 registered nurses, 2 technical nurses and 2 nurse aids working while there would be 4 registered nurses and 3 nurse aids working in the evening and night shifts, so the ratio of nurses to infants in the morning shift was 1:5-1:7 and other shifts were 1:8-1:10. At SNB2, there would be 4 personnel working in the morning shift including 3 registered nurses or 2 registered nurses and 1 technical

nurse plus 1 housekeeper while 2 registered nurses or 1 registered nurse and 1 technical nurse would be responsible for the evening and night shifts. Thus, the ratio of nurses to infants was 1:4 - 1:6.

The operation of nurses. The SNB1 nurses shared their duties by dividing hospitalized infants into 3 rows and each row would be taken care of by a registered nurse, technical nurse and nurse aid with one in charge nurse receiving a doctor's order and one technical nurse standing by to help mothers in a breastfeeding room. At SNB2, one nurse would take the role of in charge nurse in each shift. The team of nurses both at SNB1 and SNB2 took care of hospitalized infants while helping parents do the activities of caring for their babies (P, Khumpang, personal communication, September 4, 2014).

The operation of doctors. The SNB had different levels of doctors including neonatologists, residents, interns, externs, and medical students. The neonatologist, resident, and interns covered the SNB for 1 month. The SNB 1 had one neonatologist and three residents in the morning (08.00-16.00). Each row of infants would be taken care of by one resident in the morning shift (08.00-16.00) with at least one neonatologist rounding with residents, interns and externs. After 16.00-08.00, a pediatrician on duty would be responsible. The SNB 2 had one intern at the ward and there would be two ward rounds to examine preterm infants with the first round occurring from 08.00-09.00 and another round would happen in the late morning or in the afternoon with a pediatrician (P, Srisaovakontorn, personal communication, November 4, 2015).

Part 2: Perceptions and Caregiving Practices of Parents Regarding Parent Involvement in Caring for Their Hospitalized Preterm Infants

This section presents the findings that address the first and the second research questions: 1) what are the perceptions of parents regarding parent involvement in caring for their hospitalized preterm infants? and 2) what are the caregiving practices related to caring for their hospitalized preterm infants? The findings are reflected through the key and general informants' perspectives and observations. The perceptions and caregiving practices of parents are divided into four themes: uncertainty about their child's

condition, desire to be close to their preterm babies, lack of confidence in providing care for their preterm babies, and overcoming difficulties in breastfeeding that are summarized in Table 2.

Table 4-2

Themes and Sub-themes of the Perceptions and Caregiving Practices of Parents

Theme	Sub-themes
Uncertainty about their child's condition	- Worrying about their child's condition - Trying to seek information about their child's condition and treatment - Praying to the holy idols for their child's well-being
Desire to be close to their preterm babies	- Longing for performing a maternal role - Seeking opportunity to be involved in caring for their babies
Lack of confidence in providing care for their preterm babies	- Being afraid of their babies being at risk - Receiving insufficient information about caring for their babies - Performing care for their babies with insufficient skills - Following the nurse's advice
Overcoming difficulties in breastfeeding	- Believing in the benefits of breast milk - Attempting to produce enough milk supply - Bonding with their babies through breastfeeding - Confronting problems of breastfeeding

Uncertainty About Their Child's Condition

When infants are born before 37 completed weeks of gestation, they are at risk due to their prematurity and need hospitalization. In such unexpected situation, most parents of hospitalized preterm infants were uncertain about their babies' conditions as they saw their baby's tiny body, breathing with retraction, having many medical devices, and having complications. Due to these conditions, they were worried about their babies. Some parents tried to seek information about their baby's condition and treatment by asking healthcare providers, or searching for information on the internet. In the meantime, some of them prayed to the holy idols for their baby well-being. Each of these sub-themes is described.

Worrying about their child's condition. After premature labor, most parents were worried about their preterm infants' conditions, particularly, in the first few days of birth during which their babies had unstable conditions or complications. They did not expect that their little babies could tolerate the sickness and may not be safe. In addition, they could not see their baby, except during the visiting time and the physician could provide daily updates on their child's condition. Due to these situations, some of them were fearful of losing a child and some were anxious over the child's symptoms.

Fear of losing a child. Preterm birth is an unexpected situation and after preterm birth, some preterm infants required special care. During the first few days after birth, while preterm infants were staying at the SNB, parents visited their babies and saw their babies' clinical conditions such as placing in an incubator with tiny body, breathing with retraction, and having many medical devices. Some preterm infants also had complications from their prematurity as gassiness. Due to these conditions, parents were afraid that their babies might not survive. In other words, they said "*Glua Look Ja Mai Rod*" (*กลัวลูกจะไม่รอด –a child will not survive*).

> *...When I saw my baby at first, I almost cried…I never saw something like this…she was put in an incubator. She was so tiny and she had many lines attached to her body. I was either sad or stressful and everything (said in a trembling voice). I never saw that and when I saw her, I said 'Ouch, will she survive?'... (Mother 04: Int1, Line 146-154, 166-167)*

...in the first few days, his condition was very terrible. It seemed like he was going to die…he was so tired, and breathed so strongly as if he was dying. He was so tired and gasped. He didn't wake up when I awaked him. He just slept. I was so worried that my child won't survive because his chance was only 50:50. I cried all night. I was afraid he was going to die. I never expect that I'll have a premature labor. (Mother 09: Int1, Line 28-29, 34-35, 81-83)

I was worried that it was risky for both my wife and my child…when my baby came, the doctor attached her with oxygen cannula for two days, and on the third and fourth day my baby was gassy...I was so afraid that she would die...she will not survive. (Father 01: Int1, Line 15, 45-50)

One mother who had previous experience in giving a birth to a premature baby at 6 months who died, and a second premature delivery made her very fearful that her second preterm baby might die as well.

…I was so worried as this situation happened to me before just last year. I gave an early birth at 6 months last year and my newborn lived for 2 days before death...at this time I am very concerned because my new baby was born at a gestational age of 7 months…I was afraid my baby won't fight for his life. I was worried that the same situation would happen again. (Mother 03: Int1, Line 22-29, 35-36)

Being anxious over the child's symptom. When preterm infants were born and required medical treatments in the SNB, some parents were anxious over their preterm babies' symptoms. As preterm babies had to be separated from their parents, the parents did not know how their babies' symptoms were. Some parents could not expect that their babies' symptoms to be better or worse, they would be updated by physicians about their baby's condition day-by-day. Due to this situation, they were worried that their babies might be at risk.

I was worried about my baby…because he was placed into an incubator. I didn't see that they allowed me to visit my baby during the visiting time. I didn't stay

with my baby all the time and that concerned me…whether he was okay or he would develop any symptoms. (Mother 07: Int1, Line 121-126)

I was concerned as I talked to a doctor and he said he could update me day-by-day. That made me worried about my baby's conditions. I just kept my fingers crossed...As when I get sick because of any disease, a doctor can predict how many days I'll recover, he can tell me. But for my baby, the doctor could only update me day-by-day. (Father 02: Int1, Line 26-27, 36-37)

...I feared if my baby will be alright. As when I first talked to a doctor and asked him what happened to my baby. He told me the conditions and I asked him if there was anything worrying. But the doctor couldn't tell me and only said that he could update me day-by-day only. I was just shocked by that sentence. I was concerned…when hearing that kind of comment, I was worried. (Mother 03: Int1, Line 123-130)

Trying to seek information about their child's condition and treatment. While parents were visiting their babies at the SNB, they saw their babies' conditions and treatments such as having many medical lines, having intestinal problems, and getting a photo therapy, so they were worried about their baby. Some parents tried to seek information about the baby's condition, treatment, and the baby's test results by asking a physician or nurse.

When I visited my baby, I asked both nurses and doctors every day about my baby's conditions. Sometimes the doctor who treated my baby walked to update me…when I saw my baby at first, I didn't know how to say. I was thinking why my baby was like that and why she had many lines attached to her...,but when the doctor came to explain, I was a bit relieved some of my stress. (said in a long sigh) (Mother 04: Int1, Line 105-108, 115-119)

On that day, my baby's skin turned yellow, so I searched for information why the skin became yellow…and I got the answer that it was one of the conditions of infants who were born before a gestational age of 9 months…I got basic information from nurses. I had my husband ask the nurses what jaundice is and

why a phototherapy is needed. I was shocked on the first day...so I had my husband ask nurses what the blue light was… (Mother 02: Int1, Line 219-224, 237-240)

...It was my ignorance that I never knew that drinking alcohol could affect my breast milk. I wasn't even aware of that, so I fed my baby with that breast milk. My baby then had a problem of intestines and had to have a lumber puncture to check if there was any infection and if there was anything serious…I count time, she had a lumber puncture at 2.00 p.m. and I counted 24 hours and 72 hours and I asked nurses again. It was not three days yet, but I asked nurses every day if the test result was back yet… (Mother 11: Int1, Line 126-129, 159-161)

While one mother sought information about her baby's condition and treatment of their baby's jaundice from healthcare providers, she also searched online.

When my baby's skin became yellow, I immediately searched why she turned yellow…I searched information from Google about the conditions and symptoms of jaundice and how long for an infant to recover from this jaundice. I searched information from the posts of mother who shared their experiences of preterm babies. (Mother 02: Int1, Line 219, 224-227)

Praying to the holy idols for their child's well-being. As preterm birth leads to several health problems among premature babies, some parents of these hospitalized preterm infants feared that their babies might be at risk or die. They prayed to Buddha and made a vow to the shrines, and made a wish for their preterm babies to be healthy and get better on belief that the sacred idols will protect their babies and help them recover as soon as possible.

Praying to Buddha. As all parents in this study were Buddhists, they paid respect to Buddha and most of them had Buddha statues in the house as their spiritual anchor. When a baby was early born and had some illnesses that needed hospitalization, some parents were afraid that their baby would be at risk, so they turned to pray in front of a Buddha statue and ask for a wish for their baby, believing that their babies would be protected from any sickness and would be safe and healthy.

I want to do whatever I can to help my baby get well…when I came in, I didn't know how to help while my baby was lying in an incubator (silent)…I just stood and looked at her…I didn't know what to do, I was afraid that she will not survive…the only thing I could do was pray…I went home to pray to a Buddha statue in a praying room…and wished that my baby get well soon and have a strong health…I hope my wife and my baby to be safe. (Father 01: Int1, Line 70-74, 86-92, Int2, Line 51-57)

...When my baby was getting sick at the hospital, I prayed to Buddha. When I came home, I prayed to a Buddha statue. That was the only thing that I have since I was born because I'm a Buddhist. I prayed to Buddha along with my wife…to wish our baby to be healthy and get well. (Father 02: Int1, Line 292-296)

One mother not only prayed to Buddha statues to make a wish for her baby, but also chanted mantra and begged for the forgiveness from the Khammic.

My mom (the baby's grandmother) told me to pray before going to bed and make a wish. She told me to chant Itipiso (อิติปิโส) as many times as my age plus one, so I chanted and prayed before sleep…I made a wish, begged my Khammic fellows to forgive me and asked them not to take a revenge on me anymore. I made a wish for my little child to be recovered and get healthy soon...I have done that since my baby's condition got worse, particularly when she was often gassy. Doing this helped me feel relieved…I prayed to Buddha and wished Buddha to protect us…(Mother 11: Int1, Line 264-269, 273-274, 283-284)

Making a vow. Preterm infants would be at risk stemming from the immaturity of the organ systems. When seeing their babies having problems with milk digestion and breathing as well as the risks of brain infection –the illness that parents see as risky and life-threatening, parents were then afraid that their babies would die. Some parents told their families or close relatives to make a vow to the shrines in their hometown. Both parents and their families strongly believed and paid respect to the shrines that their babies would be safe and protected by the supernatural power.

...My baby had a problem of being unable to digest milk…and there was blood mixed in with the mucus…At that time my baby had to have a lumber puncture to check if she was infected or had something serious…A nurse told me that if she got any severe infection, her brain would be also infected. I was so fearful that I called my mom to make a vow to the holy idols for me…then my mom went to make a vow with Chao Pho (เจ้าพ่อ –a holy shrine) to wish for my baby and the test result was not so bad. That relieved me. I, myself, felt better. It was my own belief and most people in the rural area also believed in this. (Mother 11: Int1, Line 110-113, 128-129, 152-157)

My baby slept without any clothes on (in an incubator). He was breathing but I wondered if he will survive. When anybody called me, either my relatives, father or sister, I asked all of them to make a vow with the holy idols for me. It's a traditional belief of people in rural area…In my hometown, we have San Klang Ban (ศาลกลางบ้าน –the shrine of the village) that I pay much respect. When my family is going anywhere or do anything, we'll go to the shrine and ask for him to protect us…we'll offer boiled chicken and rice whiskey as sacrificial offerings…and when my sister called me, I asked her a favor to tell the shrine that my baby was born but he was in the sick newborn unit…When I did that, I felt much relieved. (Mother 18: Int1, Line 110-112, Int2, Line 13-15, 19-22)

Desire to be Close to Their Preterm Babies

When preterm infants were hospitalized, they were separated from their parents and most parents wanted to be close to their babies. They longed to perform their maternal role and sought any chances to be near and care for their baby. They sat and waited in front of the SNB ward in case they were allowed to see their babies, came to visit their babies every day, asked for the nurse's permission to stay with their babies at the SNB and kept asking nurses when they would be allowed to stay with the babies all day. Each of these sub-theme is discussed.

Longing for performing a maternal role. While preterm infants were admitting at the SNB, parents provided care for their preterm babies such as cleaning and changing a diaper, doing a mouth care, expressing breast milk, breastfeeding, taking a

baby's temperature, providing kangaroo care and talking with their baby. Most of the mothers said that they want to do as much as possible for their baby because as mothers their duty is to raise and take care of their child.

> *I come here every day. Just seeing my child makes me happy. I, as a mother, can do anything for my child…changing a diaper and doing a mouth care…I feel so good that I am a mother and do a mother's duties. Previously, only nurses came to take care of my baby. (Mother13: Int1, Line 47-51)*

> *...I could do everything for my baby…because she is my child...I'm her mother so I have to take care of her as she is still dependent. I gave a birth to her so I have to raise and look after her. (Mother14: Int4, Line 254-259)*

> *I feel proud of playing a maternal role, even it's not such a big deal, I could still do it. I come and visit my baby every day, expressing breast milk, cleaning my baby's mouth with breast milk to prevent diseases, talking with him, cleaning his bottom, changing a diaper…it's because he's my child. I want to take care of my child. As a mother, I want to raise my child by myself and want to do anything for him. (Mother16: Int4, Line 49-55, 141-148)*

Seeking opportunity to be involved in caring for their babies. During field visits I noted that while the babies were hospitalized at the SNB, most parents sought an opportunity to see and look after their little babies. They often sat in front of the SNB1 to visit their babies during the visiting times of 11.00-12.00 a.m., 2.00-4.00 p.m. and 5.00-8.00 p.m. When the visiting time arrived, parents rushed to see, touch, and talk with their babies as well as take care of them as advised by nurses such as changing a diaper and feeding milk. Parents mostly spent their time with their babies on each visit and they waited to see their babies again in the next visiting time. I found that most parents would bring or send their pumped milk and look after their infants almost every day, except if they fell ill as they feared infecting their babies. For an instance, a mother revealed that *"I did not come to visit my baby for a few days as I caught a cold and was afraid that I would get my baby sick. However, I already got well and hurriedly brought and sent breast milk to my baby." (Mother 15, personal communication, August 27, 2015)*

Besides, while preterm babies were admitting at the SNB, some parents asked for the nurses' permission to stay at the SNB in order to be close to them and look after them.

> *I came here and went back home for 2 days because my baby's intake of milk was only 1 cc. to 3 cc…When I began staying she got 15 cc. of milk. I asked nurse's permission to stay here, hoping that my stay would help my baby get better. I feel that if I take care of my baby by myself, my baby would get encouragement (said in a trembling voice and her eyes started to fill with tears). (Mother01: Int1, Line 368-376)*

> *Before I was discharged, I asked nurses if I could stay with my baby, but they told me that I just had a caesarean and should take a rest for 2 days to wait until my caesarean incision recovers…Two days later, I told my husband to keep asking nurses. I really want to start breastfeed my baby. I think if my baby doesn't suck on my breasts, my breast milk wouldn't flow well. If I keep breastfeeding him, my milk supply would have a good flow as he would suck until he's full or asleep. (Mother 05: Int3 via phone, Line 309-311, 326, 352-359)*

One father tried to come at the SNB before feeding time because he would like to change a diaper for his baby by himself.

> *While being on the 4th floor, nurses will change a diaper on schedule and I'd be there during that time like 8 a.m. or 11 a.m. As she will check the baby's diaper before feeding time, so I'd be there ahead of time…to change my baby's diaper by myself. (Father 02 Int1, Line 165-167)*

Lack of Confidence in Providing Care for Their Preterm Babies

Most parents lacked confidence in providing care for their babies because they were afraid that they would put their tiny and fragile babies at risks, fear of infecting the baby, and fear of interfering with medical devices. Some parents lacked confidence because of insufficient information on how to care for their babies. Some of them performed care for their babies with insufficient skills, especially during the first few

times. Some did not dare care for their infants unless they were told by nurses, fearing they could harm their infants. As a result, they only provided care for their babies by following the nurse's advice. Each of these sub-theme is discussed.

Being afraid of their babies being at risk. When parents involved in providing care for their babies, they were afraid that they could put babies at risk because of their babies were very small and fragile. Some parents believed that touching or contacting a baby who was in an incubator could lead him to get infected. Others were afraid that when providing care for their babies, they might unintentionally touch the medical devices attached to their babies and that might put their babies in danger.

Tiny and fragile babies. The body of a preterm infant is small and fragile. According my observation, while parents were providing care for their babies such as changing a baby's diaper or carrying a baby in arms to do such caregiving activities as breastfeeding, cleaning them after bowel movement or taking them to have an eye examination, some parents appeared awkward and uncomfortable. Some parents explained that activities as changing a diaper, turning the baby, or simply holding their tiny baby with such weak bones might risk fracturing his or her neck. Some were afraid of falling down a tiny baby.

> *At first, I didn't dare touch my baby. She was so tiny…I was afraid I'd break her neck. Then a nurse taught me to touch her like this and said it wouldn't harm her. I didn't' want to (change a diaper). I was scared. I didn't want to touch my baby. (Mother 01: Int1, Line 199-203,207)*

> *I didn't want to do much because my baby was so small that I didn't dare turn his body to one side. He's very tiny and his bones may not be much strong… When turning his body, head or bottom to one side, I was scared, particularly the neck, as I heard that a newborn baby's bones are still weak. (Mother16: Int1, Line 105-107, 119-122)*

> *I feared I'd drop my baby when carrying her in arms. I was a bit bad at it, my baby is so tiny…I was afraid of dropping her. I got nervous. I didn't know how to hold a baby in my arms. (Mother19: Int3, Line 18, 26-27)*

Fear of infecting the baby. During field visits, I observed that while parents were visiting their baby who was placed in an incubator, some of them brought and sent breast milk to nurses or some parents pumped their breast milk at the SNB, they only stood and watched their baby in an incubator from outside. They avoided activities that required direct contact or touch with their babies. For some parents, when they came to visit their babies who were inside the incubator, they just changed their diapers and cleaned the baby's mouth with breast milk and then they stood and watched their baby who was awake in the incubator. They rarely opened the incubator to talk with the baby or touch the baby. Some parents disclosed that they were afraid of touching their baby and passing on any infection. Meanwhile, some parents did not want to open the incubator for too long, believing that doing such could allow any pathogens in the air to flow into the incubator and cause an infection to their baby.

> *I couldn't do anything else. I didn't dare even touch my baby. I was afraid I'd bring the germs to him…because he was in the incubator and I wanted him to be clean from any germs. I was afraid of everything at that time. I feared my baby would get sick. (said in a trembling voice and her eyes filled with tears) (Mother 05: Int1, Line 47-52)*

> *At that time, I didn't touch my baby much…I feared my baby might be infected. I needed to wash my hands and changed clean clothes…I didn't know what germs were on my body. Even after washing my hands, the germs might be on my hair…If I open the incubator for a long period, the germs might flow inside or they might be around in the air and when the incubator is open, the incubator doesn't have ventilation, the germs might be inside it and make my baby ill. (Mother 11: Int2, Line 98-100, 106-109)*

> *…After delivering my breast milk, I just stood and looked at my baby. I checked if she gained weight and when she could be brought out of the incubator. I did only these…because she was in the incubator and I just kept watching her but didn't dare touch her. I was afraid she might be infected. I was not brave to do anything. (Mother 19: Int2, Line 337-339, 343-345)*

Fear of touching medical device. When providing care for a premature infant who was attached to many medical devices such as an infusion pump, skin temperature probe and oxygen saturation monitor, some parents were afraid they would accidentally contact these medical devices, possibly causing dangers to their infant.

> *I want to do something for my baby. I want to take care of her but I still can't because I'm not sure what I do for my baby will harm her or not. I don't know whether touching any medical devices will be dangerous for her. (Mother 11: Int2, Line 183-185)*

> *My baby has a device placed on her foot and another one on her umbilical cord. I'm afraid that touching these devices might disconnect them. My baby is so tiny that if I touch her body, I might unintentionally unfasten those devices. And I don't know what each device is for. I fear touching these devices might impact my baby. I don't know what these devices are for. (Mother 13: Int2, Line 442-448)*

Receiving insufficient information about caring for their babies. During data collections, I observed that some parents just watched through the incubator window to see their baby who was in the incubator. Some parents said that they just had a chance to touch the baby's hands and legs because the nurses just told that they could. Previously, they did not know that they could touch their baby and they feared spreading infection.

> *Nurses never told me how to change a baby's nappy. So I thought that I can't touch my baby. The only thing I can do is to watch outside the incubator and that's why I can't change a baby's nappy. I thought nurses would do for me. Until that day, my friend who also gave premature birth told me that a nurse told her to change a nappy for her baby, so I immediately changed my baby's nappy…I was brave to change. When my friend told me I can do, I do. (Mother 19: Int2, Line 128-135)*

> *..At first I didn't know that I could change a baby's nappy. I thought that my baby is too young and tiny for parents to touch. If a nurse ask me I really want to*

do it, I do want. But nurses didn't tell me to change my baby's nappy by myself. I thought I didn't have much communication with nurses and I didn't ask them while they didn't tell me. (Father 03: Int1, Line 136-139)

I observed that when parents were involved in providing care for their preterm babies, most parents delivered breast milk to nurses who would feed that milk to the baby through NG. The breast milk was produced by mothers who pumped their breast for milk supply while being at home or while visiting their babies. I observed one mother who did not send her breast milk, like other mothers, but she pumped her breasts only when visiting her baby. This mother disclosed the reason why she did not to do so because she did not know how to store the pumped milk, fearing that the pumped milk would lose its benefits and cause flatulence to her baby.

A doctor told me that my baby was gassy and I didn't know how to store pumped milk and how to take it to the hospital. Nobody told me at that time. They just told me to pump my breast milk at home and bring it to my baby, but no one gave me a clear and direct explanation that I should keep it in an ice cooler. I didn't even know, so I came to pump breast milk here (at the SNB1)…I was afraid that pumped breast milk could cause gassiness to my baby again as the quality of milk might be poor. So I came to pump my breast milk here because I didn't know how to store it. (Mother 12: Int2, Line 173-178)

Some parents expressed that if they receive enough information and advice from nurses, they will feel more confidence to provide care for their infants.

As my baby was in an incubator, I didn't dare do anything...I was afraid of germs. At that time, I didn't get much advice...If I get some recommendations that I can touch my baby here and there, I'll be more confident…(Mother 02: Int1, Line 528-531, Int3, Line 36-37)

Performing care for their babies with insufficient skills. During data collections, I observed that some parents simply watched their baby through the incubator window. Some parents held their baby's hand briefly and then closed the incubator. No parents had prior experience providing care for premature infants and

more than half of them had the first child. Initially, parents were not confident doing activities such as giving a bath and a shampoo, giving a mouth care, changing a baby's diaper, and holding a baby. Some parents said that they never did these tasks before, they did not know how to provide care for their baby. They were not good at it and they were afraid of hurting or harming their babies.

> *At first, a nurse who was on duty came to help me. I asked her to help me give a first bath for my baby. She told me to do this and that and how to shampoo my baby…I never knew it before as I just have my first child. I don't know how to give a bath for a baby…(Mother 02: Int2, Line 190-191, 196)*

> *About mouth care…I was bad at it because I didn't know how to put my hands in an incubator and how deeply I put a cotton bud into her mouth. I feared it would irritate her throat...I can't gauge how deeply I could put a cotton bud into her mouth. I tried to do it for 2-3 times until it was okay. (Mother 13: Int2, Line 422, 425-428)*

> *"...I never changed a baby's diaper, I was quite bad at it…When I changed a diaper for her, I don't know if she'll get hurt because she is so small. I have to try it anyway. As she is so tiny and doesn't stay still, I hold her until I can change her a diaper. Now I'm better at changing my baby's diaper. (Mother19, Int2, Line 95-97, 100-102)*

Following the nurse's advice. During field visits, I observed the caregiving activities of parents and found that while parents were visiting their baby, they only provided care for their babies when the nurses told them to do activities such as pumping breast milk, feeding milk, changing a baby's diaper, and weight baby on the scale. If the parents were not told to do other activities, they did not act on their own. In other words, parents would just follow the nurse's advice, fearing that doing other activities might put their baby at risks or worsen their conditions.

> *I want to do. When I first entered the sick newborn unit, I didn't know what I could or couldn't do. It depended on the nurse's advice because I didn't dare do …because I didn't know that if it is proper or not. When I arrived there, a nurse*

told me to change my baby's nappy. Okay, I see. I can do this. (Mother 14: Int1, Line 5-9)

When my baby was still hospitalized on the third floor, I trusted nurses, rather than myself. I didn't dare do what they didn't tell me to do. They told me to change my baby's nappy and put the baby on the scale. I just did these two activities. I was not brave to do other things. I was afraid I might harm my baby and I was worried what would happen to my baby. (Father 02: Int1, Line 188-193)

Overcoming Difficulties in Breastfeeding

As preterm babies are not fully mature and are not healthy like full-term babies. Most parents of hospitalized preterm infants preferred to feed breast milk to their babies as they strongly believed in the benefits of breast milk that it is good for baby's health. Therefore, most mothers would try many ways to produce enough milk supply such as eating specific foods and stimulants and expressing milk many times. In addition, during breastfeeding, some mothers felt love, gladness and happiness for being close to their babies and being able to interact with them, while some of them were confronting problems with breastfeeding. Each of these sub-theme is discussed.

Believing in the benefits of breast milk. Most parents believed that breast milk was the best for their babies, so they preferred their babies to get breast milk rather than formula milk because breast milk helps their babies get healthy and it is easy to digest.

Being healthy. Most parents would like their preterm babies to get breast milk because breast milk is the source of nutrients and immunity for babies. They believed that if their preterm babies receive breast milk, their babies would be healthier. Some parents also said that when they were babies, they were fed with breast milk and that prevented illness, so they wanted their babies to be fed with breast milk.

I want to breastfeed my baby...Breast milk is good, it's better than everything… It makes my baby healthier as it has more antibodies than formula milk. That's my opinion. (Mother 04: Int1, Line 390, 412, 420-421)

I learned that breastfeeding is good for a baby as it would make her healthy and help her develop her own immune systems…Because my baby is unlike others who were born at term, so I want my baby to get my breast milk to make her stronger. Even if it doesn't give her a 100% strength, just 70-80% is fine. It's like as if we have a medicine and this is my medicine. (Mother17: Int2, Line 41-44)

I just want my baby to be fed with breast milk...Someone said breast milk could help babies develop immune systems. The more my baby get breast milk, the more difficult he will get sick. From my own experiences, I was fed with breast milk for 2 years, I hardly get sick when I was a child. I never fall ill for 2 years. (Mother 16: Int4, Line 99, 113-117)

Easy to digest. Some parents preferred their babies to get breast milk rather than formula milk because it is easy for babies to digest as breast milk prevents flatulence and help babies' bowel movement work smoothly. Formula milk could cause constipation and flatulence, making babies at risk for intestinal infection.

...I want my baby to be fed with breast milk. I try to avoid other kind of milk, if I can. Breast milk has benefits for my baby as it helps her have a better bowel movement. If she gets regular milk or formula milk, her poo would be hard, whereas breast milk helps her poo softly. (Mother 02: Int2, Line 166-168, 174-175)

My baby must be fed with my own breast milk as people said breast milk is easy to digest, helps to pass stool easily and prevents gassiness. Formula milk could cause gassiness and when a baby is gassy, she would be at risk of intestinal infection…Breast milk is the most important, it is the best. It's better than formula milk. (Mother 11: Int2, Line 202-206)

Attempting to produce enough milk supply. As earlier mentioned, most parents preferred to feed breast milk to their babies, so most mothers attempted to produce milk supply by eating specific foods and stimulants and expressing milk every 2-3 hours.

Eating foods and stimulants. While informant mothers were staying with their babies at the SNB, I observed that most of them drank warm water and ate foods that contained ginger, Chinese chives and pumpkin in order to help boosting their milk supply and these foods were provided by the hospital for mothers who came to care for their hospitalized babies or they were sometimes prepared by themselves or their relatives. Most mothers and their families believed that this kind of food and motilium drug could help increase breast milk production and could help express more breast milk.

> *…At first, I drank a lot of instant ginger and warm water, I could produce breast milk without taking any milk stimulant, but the supply was quite low, so when I took motilium, I could express more breast milk. (Mother 08: Int2, Line 360-362)*

> *…When I first came here, nurses told me to try to express my milk, but no milk was produced. When I took motilium, my milk gradually came out a little bit…And I also tried to eat foods that can boost milk supply such as banana blossom, pumpkin and Chinese chives. I ate them all. I also ate ginger that I used to dislike it. I can eat a bit of ginger now…and I drank warm water. (Mother 16: Int2, Line 145, 152-159)*

Expressing milk many times. Some mothers attempted to express milk every 2-3 hours to help stimulate breast milk production and to maintain milk supply for their babies to prevent a lack of milk supply, particularly during the period that babies have not yet sucked.

> *I use a breast pump every 3 hours. After giving a birth, I didn't have my newborn suck my breasts to stimulate milk supply, so my milk supply came late. Then I use a breast pump to stimulate milk production every 3 hours. When my breasts were stimulated, milk was produced… (Mother 14: Int1, Line 271-273)*

> *…Since my baby was admitted to the NICU, moved to the SNB 1 and then moved here (the SNB 2), I never stopped pumping my breasts even a single day or a single time because I'm afraid if my baby starts getting milk, there would be no*

milk for her…I have to pump and express milk often because my baby doesn't suck milk from my breast. So I try to express milk every 2-3 hours to keep my milk flow more or less. (Mother 17: Int2, Line 45-53)

Bonding with their babies through breastfeeding. While mothers were breastfeeding their preterm babies, I observed that mother behaviors were congruent with effective bonding which included smiling, kissing, holding and touching their babies gently. Mothers expressed that they felt glad and happy for being close to their babies and they could have an interaction with their babies such as touching baby's body and hands, looking at baby's face, and talking with baby.

Being close to their babies. Some mothers were so glad or happy when their baby sucked milk from their breasts. In their opinion, breastfeeding babies helped they have a close contact with their babies as they could have a skin-to-skin contact and provide warmth for their babies. It was different from bottle feeding or expressing milk and feeding milk through gastric tube which they would not have a chance to have a close touch with their babies.

I'm happy for carrying my baby in arms and let him get milk from my breasts…When he was there (the SNB1), I couldn't access him and wasn't close to him, but I only expressed milk for him. Then nurses would be fed milk for him through nasogastric tube. Here (the SNB2) he's with me and gets milk from my breasts…it's great…very great. I don't know how to say, but I feel so happy and good that my baby is close to me. (Mother 07: Int2, Line 33, 36-42)

I'm glad that she can suck after having been placed in an incubator for a month. It was for a month that...I just changed a baby's nappy, did a mouth care for her and gave a kangaroo care. But now my baby's mouth is on my breasts and she sucks milk from my breasts without using either a bottle or nasogastric tube. We have a closer contact. (Mother 13: Int2, Line 346-350)

How do I feel? I don't know how to say, but I feel very great. Breastfeeding is better than bottle feeding. It's totally different…For me, although I carry my baby in arms when bottle feeding her, she doesn't touch my skin closely.

Breastfeeding makes her get a closer touch with me. She can hear my heartbeat, feel that I make milk for her and feel my warmth. She gets milk from a bottle while she's in my arms, but we're still separated by the clothes and it just only satisfies her hunger but she would feel nothing. (Mother 15: Int1, Line 166-173)

Having an interaction with their babies. I observed mothers while they were breastfeeding their babies, they touched the baby's body, hands, feet and watching the baby sucking milk from their breasts, had an eye contact and talked with them. Mothers expressed that interaction with their baby during breastfeeding made them feel happy, glad and love their baby.

I'm so happy (said in a laugh) and glad too. When looking at my baby's face, I think wow the feeling is like this. I don't know how to explain. And when I look at his face, while his eyes keep closed, his mouth is sucking milk from my breasts. My baby is so cute (said in a laugh). I don't know if our bond is stronger, but I love him so much. It's called love… (Mother 03: Int3, Line 203-206)

...When I breastfeed my baby and he is right before me, that just makes me happy. I can see my baby's face and talk with him. It's better than bottle feeding. (Mother 18: Int3, Line 155-157)

...When my baby sucks milk from my breasts, a lot of feelings occur, but I can't explain…I feel like I can see my baby and play with him…(Mother13: Int3, Line 329-331)

Confronting problems of breastfeeding. Most parents preferred to feed breast milk to their babies, however, preterm infants could not suck mother's breast well as full-term infants could. Over half of mothers encountered problems in breastfeeding due to conflicts of forcing their preterm babies to suck, babies who were unable to latch, and exhaustion from breastfeeding due to sleep deprivation.

Conflicts to force their preterm babies to suck. I observed that most preterm babies received breast milk through gastric tube at first, then when they gained weight and had signs of sucking reflex, nurses would encourage mothers to breastfeed. I

observed mothers while they were breastfeeding their babies, and most preterm infants fell asleep. Sometimes during the beginning of breastfeeding, they were awake and could suck well but after 5-10 minutes, they would fall asleep and refuse to suck. When a mother put her baby on the scale to measure the quantity of milk it was less than it should be. A mother would be encouraged by nurses to awake her baby to suck more milk, some babies were awake but they did not open their mouth to suck, these babies would be given a gentle massage by a nurse around their lips and some might start crying. Some mothers said that when they had to try to wake a baby or breastfeed a baby who refused to suck, this felt like forcing the baby which they did not want to do.

> *…Being able to bottle feed my baby just makes me happy…I don't need to force her. I sympathize with her when forcing her to latch on my breasts…I feel so sorry when I force her to latch onto my breasts, but she doesn't want to. Her eyes are wide open…She doesn't want to suck. It's like she doesn't want it anyway. I feel sorry for my baby. (Mother 01: Int2 via phone, Line 409, 414-421)*

> *…I know that my baby must get milk, but I don't want to force him. When my baby gets a little milk, why do I have to force him to get more? It's like two-sided pressure. A nurse pressures me to force my baby. He sleeps already and doesn't wake up even after I awake him. I need to force him, is it right? (Mother 09: Int2, Line 167-168, 171-173)*

Suffering from babies unable to latch. Some preterm babies fell asleep, while some were awake but refused to suck milk or did not open their mouth wide enough to latch onto the breasts. These situations made mothers stressed, tired, and disheartened for not being able to make their baby suck milk from their breasts.

> *I felt nervous at first. When I breastfed my baby, she didn't react. My baby mostly sleeps and I don't know how to wake her up. She just sleeps. Even when she wakes, she doesn't open her mouth. I felt so stressed that my baby can't get milk. (Mother 01: Int1, Line 515-522)*

...I didn't know how to do this while she is sleeping...I feel like I want to cry… Sometimes I feel very tired and discouraged. I don't know how to deal with it. My baby doesn't cooperate with me at all. (Mother 14: Int2, Line 189-190, 200-203)

...I thought that making my baby latch onto my breasts was easy, but it's really not easy. I first thought that latching on is to make my baby take my nipple and areola into her mouth and suck, but in fact my baby doesn't open her mouth wide enough to cover my areola, her mouth is too small and her jaws are stiff, making it hard for her to open her mouth wide enough. (Mother11: Int3, Line 261, 268-270)

Exhaustion from breastfeeding due to sleep deprivation. I observed that all mothers breastfed their babies every 3 hours all day long, which followed the schedule of the SNB. As a result, some were exhausted and sleepy because they had to breastfeed their babies during the day and the night.

I feel tired, sleepy and fatigued. I don't have enough sleep. I don't have time to take a rest during the day and I have to stay awake at night. I sleep for an hour and a half only. I have to finish many things for my baby, breastfeed her…and get her to sleep then until I can sleep. And then it's 5.00 p.m. and that's the time for breastfeeding again. And then, it's 8.00 p.m, blah (said with a sigh). I'm still up even it's 11.00 p.m. ...I can sleep at midnight and wake up at 2.00 a.m. and again at 5.00 a.m., so I get tired. (Mother 06: Int2, Line 57, 63-71)

…while I'm staying with my baby here, I know what time I have to breastfeed my baby…The first feeling is 'What! Again!'...I feel so sleepy. I sometimes close my eyes and fall asleep while breastfeeding my baby. But I have to keep awake to see whether my baby sucks. (Mother 07: Int4, Line 224, 228-230)

In summary, parents were uncertain about their baby's condition, so they tried to seek information about their and prayed to the holy idols. Most parents wanted to be close to their babies, they longed for performing a mother role and seeking an opportunity to be involved in care for their babies. Most parents lacked confidence in

providing care for their preterm babies because of being afraid put their babies at risks and perceiving received insufficient information. Some parents performed care with insufficient skills and some only provided care for their babies according to the nurse's advice. Moreover, mothers were overcome difficulties in breastfeeding as they strongly believed in the benefits of breast milk, they tried many ways to produce enough milk supply. Some mothers bonded with their babies through breastfeeding and some encountered problems with breastfeeding.

Part 3: Socio-Cultural Factors Influencing on Parent Involvement in Caring for Their Preterm Infants during Hospitalization

This section presents the findings that answer the third research question of what socio-cultural factors influence on parent involvement in caring for their hospitalized preterm infants. The findings revealed that Thai parents involvement in caring for their hospitalized preterm infants are influenced by the socio-cultural factors which included 1) parental involvement policy; 2) lack of parental involvement guidelines; 3) passive recipient of health care; 4) employee leave policy; and 5) family support.

Parental Involvement Policy

To encourage parents to be involved in caring for their hospitalized preterm infants, the SNB implemented the policy of promoting bonding and newborn development through the *Sai-Yai-Rak Project* (โครงการสายใยรัก– the Family Love Bonding Project) and the *Sai-Sam-Phan-Mae-Look* (โรงพยาบาลสายสัมพันธ์แม่ลูก– the Baby Friendly Hospital) and the policy of preparing parental skills for discharge by spurring parents to participate in caring for their babies during their hospitalization. These policies helped parents be involved in caring for their babies.

Promoting bonding and newborn developments. The SNB promoted bonding and newborn development by implementing the *Sai-Yai-Rak Project* (โครงการสายใยรัก) and the *Sai-Sam-Phan-Mae-Look* Hospital (โรงพยาบาลสายสัมพันธ์แม่ลูก) that mainly focus on breastfeeding. A bulletin board containing several announcements to promote babies to get love, warmth, and good development was in the SNB. Parents were welcomed to be involved in taking care of their babies by visiting their babies at the SNB every day or at

least every 4 day, bringing and sending breast milk to their babies constantly for the healthiness of their own babies.

Congruent with the policy of promoting bonding and newborn developments, I observed nurses encouraging parents to breastfeed, do kangaroo care and other caregiving activities for their babies such as changing a diaper, giving a mouth care, touching, and etc. To promote breastfeeding, the SNB arranged a room for mothers to breastfeed and accommodation so that they could provide breast milk day and night. Meanwhile, nurses did not only gave parents advice or knowledge about breastfeeding such as pumping milk, storing milk and stimulating milk production, and breastfeeding techniques, they also assisted or supported parents in the breastfeeding process for their babies. However, kangaroo care was only given to premature babies with low birth weight requiring an incubator for a long period of time so that parents and their babies could have a chance to develop a close contact. Nurses encouraged parents to provide kangaroo care for their babies when the babies' weight was approximately 1,600-1,700 grams -- a baby with this range of weight is nearly ready to be moved out of the incubator into a crib. While providing kangaroo care, nurses would assist parents and babies by letting the parent hold their baby in a skin-to-skin contact with a piece of clothing supporting the parent and their baby. Kangaroo care would be given before feeding milk to a baby and it would be done for an hour once a day and for a total of five times. The policy of promoting bonding and newborn developments, and the goals of the Sai-Yai-Rak Project that promotes breastfeeding as its main activity. These policies allowed parents to be involved in caring for their babies as told by a mother and two nurses.

> *It's the hospital that has a policy of supporting mothers to take care of babies …The Sai-Yai-Rak Project promotes breastfeeding, allowing a mother to have a close bond with her baby and they pushed me to be here to have a chance to care for my baby. (Mother 01: Int1, Line 645-653)*

> *Previously, the hospital didn't join the Sai-Yai-Rak Project and paid no attention to breast milk…the relatives were permitted to visit babies for only half an hour per person. Parents could not visit their baby at the same time…However, when the hospital implemented the Sai-Yai-Rak Project which*

promotes breastfeeding as its main activity…Later on, we have a lot of activities that help forming the bond between mothers and babies. (Nurse 02: Int1, Line 730-737)

Preterm babies need to be at the hospital for a long period…Some parents felt that they less bonded with their babies…At first, they came here often to visit their babies but later they rarely came here until they stopped coming. Previously, we didn't focus on breast milk. Many babies were abandoned, so we tried to attract parents or relatives to play a role or visit their babies at the hospital and these babies are given continuous care and warmth. (Nurse 03: Int1, Line 5-6, 9-16)

Preparing parental skills. The SNB has a policy of preparing parental skills for discharge by encouraging parents to get involved in caring for their babies during their babies' hospitalization. Nurses taught parents to provide care for their babies such as breastfeeding, hygiene care, observing such abnormal symptoms as fever, jaundice, breathing with tiredness, and gassiness and so on to assure that parents would be able to take care of their babies at home and to reduce the rates of re-admission. At first, fathers and mothers were encouraged to provide care for their babies while visiting them and when babies were about to be discharged from the hospital, mothers would be told by nurses to stay with their babies and provided care for their babies for all day long.

During data collection, I observed that when parents were visiting their babies at the SNB, nurses would give assistance and advice to parents on baby care in person and in groups and that advices included expressing or pumping milk, breastfeeding, changing a diaper, bathing a baby and shampooing a baby's hair. Nurses usually demonstrated the methods on an individual basis and let parents practice, except breastfeeding which was quite difficult for parents of preterm infants. Nurses would help parents and their babies during the first 2-3 days and would let them feed by themselves later. Giving advice on infant care in groups was done daily at SNB2 from 10.00-11.00 a.m. with nurses or technical nurses teaching parents about health education of how to take care of babies at the hospital and at home. Two sessions of health education included 1) basic health care; bathing, observing a baby's abnormal symptoms and providing preliminary aid and 2) preparing baby equipment / supplies for

home, breastfeeding and storing breast milk, feeding a baby supplementary food, vaccinations and follow-up examinations. All topics were covered by giving one sessions every day. All nurses said that the SNB taught parents to equip them with the knowledge and skills to care for their babies at home.

> *Fathers and mothers would be prepared before we discharge their babies…We give them both knowledge and skills of looking after babies, beginning from bathing a baby, letting a baby get milk, observing any abnormalities, and a baby's pre-existing conditions. After discharge, they should take their baby to have a scheduled vaccination, medical examination and use their right to medical care at a nearby their home. (Nurse 01: Int1, Line 23, 30-33, 39-40)*

> *When an infant is admitted, we have to give parents information and get them prepared before the baby can be discharged. It starts from when babies are admitted, all mothers must feed breast milk to their babies. We will give them advice on how to express milk and store milk…When it is about time for discharge, mothers have to learn to take care of babies until they are assured they can do it. We'll check their preparedness by our assessment and nurse's observation. (Nurse 02: Int1, Line 5-7, 12-13)*

> *…We teach them from the first step of looking after babies and doing daily routines. We'll attract mothers to take part in caring for their babies. It's not teaching them to do this and that…but we want them to learn from hands-on experience. We demonstrate for them and let them learn everything so that they can apply what they've learnt to use at home such as expressing and storing milk. (Nurse 03: Int1, Line 122-126, 131-132)*

Likewise, some parents perceived that the hospital, doctors and nurses supported or facilitated them to get involved in providing care for their hospitalized babies with an aim to enable them to take care of their babies at home.

> *A nurse let me stay with my baby, told me how to breastfeed my baby and taught me to look after my baby, so when my baby is discharged, I can take care of her on my own. If not, I might look after her in a wrong way, probably making her*

get sick or get infection. So they told me to stay and take care of my baby for a few days. (Mother10: Int2, Line 235-240)

...The hospital and doctors played a great role in pushing parents to get involved in caring for babies. Actually, if they didn't encourage me to join, when my baby is fine and can be discharged, it would depend on parents to decide on infants' feeding. At the hospital, parents are encouraged to participate in caring for babies the right direction…and mothers have a chance to practice rearing a baby, changing a diaper, getting advice on how to do care for a preterm baby and acquaint myself with several devices and tools. (Mother 14: Int4, Line 267-271, 289-291)

Lack of Parental Involvement Guidelines

The SNB had policies to enable parents to take part in caring for their babies; however, it did not have parental involvement guidelines such as steps of caring for preterm babies, guidelines for breastfeeding, bathing, shampooing a baby's hair, and giving a mouth care. Each parent was given information about caring activities for their babies in each visit and the information provided by each nurse was varied, depending on each nurse's advice.

During field visits, I observed that after a baby was admitted to the SNB, a nurse would give advice to parents according the protocol for new patient admission. According to the protocol, when a baby is admitted to the SNB, a father would represent the mother while a mother is still in the labor room or operation room. The father would be informed by a doctor or nurse of the baby's conditions and treatment and would be asked to give his consent including an in-patient informed consent, consent to let a baby receive a medical procedure, and agreement about baby visitation. Parents must promise to visit their baby throughout the baby's hospitalization; however, if they do not visit their baby for a consecutive period of over a month, the baby would be sent by the hospital to government agencies for protecting and fostering this baby.

The father would be then informed of the application of birth certificate for his baby and the baby's rights to free medical treatment and he would take his wife to visit

their baby after she has recovered from the birth. On the first visit, the parent would be given information about the baby's conditions, treatment, procedure for expressing breast milk and sending milk to their child. When parents come and visit their baby later, they would be told by nurses to do caring activities for their baby on each visit. During my field visits, the head nurse of the SNB, she disclosed that "the SNB did not have a guideline on parents' involvement while paying a visit to their baby at the hospital. Instead, nurses chose to tell parents about caring activities during each visit which included changing a diaper, expressing milk, breastfeeding, taking infants' body temperature, giving a mouth care, and so on" (P, Khumpang, personal communication, September 28, 2015).

I found that information provided by each nurse was varied as some nurses told parents to do caring activities for the babies without explanation whereas some only told and explained in words, but they did not give them a demonstration. However, some taught parents to do through a demonstration and let them repeat it. In addition, sometimes nurses did not provide information to all parents, especially the first caring activities that they were supposed to do for their babies such as sending pumped milk to babies and changing a baby's diaper.

> *After my baby was moved out of an incubator, there were two caring activities to do for her including changing a baby's diaper and feeding breast milk. At first, I didn't know what time I could feed milk to my baby and one day I came here around 10.00 a.m. or 10.30 a.m. Oh, that's it. That's around the time for feeding a baby. So I tried to come earlier than that in order to feed my baby. (Mother 02: Int2, Line 28-41)*

> *A nurse didn't teach me how to change a diaper. At first, a nurse unwrapped a diaper and let me wrap him a new one. I didn't know how to it at the first time, so I observed from an old one that a nurse did…I tried to do it and finally did it. (Mother 16: Int2, Line 216-218)*

In the meantime, some parents received the information or advice about child care from nurses.

While I was taking a rest and didn't go to the SNB, a nurse came to teach me how to change a baby's diaper. She gave me advice because I couldn't do it. At first, she showed me how to change and later she let me do it on my own. (Mother 01: Int1, Line 37-38, 120-124)

When I was visiting my baby, a nurse told me to check if my baby pees. If she does, I should change a diaper for her. I couldn't do it at the first time, so the nurse taught me. She told me where to pick up cotton pads and diapers. And then she told me to wipe my baby's bottom from top to bottom, make it clean, lay a diaper under her bottom, lift up her bottom a bit, insert the diaper and then tie it. (Mother 07: Int1, Line 372-378)

The SNB developed a guideline for nurses to teach about kangaroo care and a pamphlet for parents. The pamphlet explained the steps of giving a kangaroo care and its benefits for parents and infants. These pamphlets were in a box of pamphlets for parents located near the seats in front of the SNB. What parents learned depended on their own observation and their nurse's preferences as some nurses made appointments with parents to teach kangaroo care with explaining information and giving a pamphlet. Other nurses provided no explanation or pamphlet on kangaroo care, so some parents received no information about kangaroo care.

Passive Recipient of Health Care

When parent involved in caring for their hospitalized preterm infants, they were passive recipients of care from physicians/nurses, rather than taking an actively role in care. In particular, parents were less involved in decision making and left care decision to physicians/nurses. They only followed what were instructed by physicians/nurses without sharing information or telling their true desire. In addition, they felt considerate of physicians/nurses, making them afraid of asking about their baby's conditions, treatment and methods of caring their baby. Parents chose to be passive rather than engage in a mutual exchanging information.

Having little chance in making decision in caring for their babies. Parents had little chance to take part in making decision regarding their baby's care. Mostly, nurses

decided if parents should do caring activities or not. When a baby was admitted to the SNB, parents were informed by nurses of general basic care activities such as feeding breast milk, changing a diaper, giving a mouth care, bathing, and shampooing baby's hair; however, they were not allowed to get involved when their baby was receiving a medical procedure such as blood draw, intravenous insertion, nasogastric tube insertion, and vaccination. When a baby needed a medical procedure, parents were told to wait outside the SNB or other areas and they followed the instruction without telling nurses their true desire.

> *At first, I stayed here with my baby, I breastfed my baby…but after my baby had to stop getting breast milk. I was told by a doctor and nurse to go home to take a rest…I didn't want to go home because my baby was still sick and I really wanted to be with her. But they told me to take a rest at home as I just gave birth. (Mother 01: Int 2, Line 65-73)*

> *(Blood draw) I guess the nurse didn't want me to see my baby crying, so she told me to wait outside. But actually I wanted to be with her. I was worried about her. I wanted to lull her, hold her and be close to her. (Mother 10: Int1, Line 408-409, 414-421)*

> *(While doing a lumbar puncture), the nurse didn't allow me to be with my baby. She told me to wait outside. I think she didn't want me to see it in case if more punctures were needed, I would not agree with her. Actually, I want to be with my baby. If allowed, I want to be with my baby to see her. (Mother 12: Int1, Line 68-69, 79-81)*

Sometimes parents had a chance to make decisions about their babies care as some decided to stay with their babies when their babies were moved to the SNB2; other had a chance to choose between bottle feeding and breastfeeding when they had time constraints of waiting to teach the babies to suck milk from the mother's breasts.

> *When my baby was moved to the fourth floor, she was moved out of an incubator and a nurse asked whether I wanted to sleep with my baby and I replied her 'Am*

I allowed?' She then asked if I wanted to, I told her 'yes, I do want', so she told me to prepare to sleep with my baby. (Mother 04: Int2, Line 725-726)

A nurse asked me when I had to return to work, I told her early next month, so I had only a few weeks left. It might take a long period if I want to have my baby latch onto my breasts, so she recommended bottle feeding. But this method has some disadvantages as my baby would not suck milk from my breasts anymore. This way took less time, anyway, I told her let me consult with my husband first. (Mother 13: Int3, Line 316-321)

Being considerate of healthcare provider. During parents' visits to their hospitalized babies they were considerate (เกรงใจ– *Kreng-jai*) to ask physicians/nurses about the baby's conditions, medical treatment or methods of taking care of their babies. While physicians/nurses were busy examining or providing medical treatments, parents stayed away and if physicians/nurses did not provide information, the parents did not ask questions. When physicians/nurses did offer explanations, parents listened but did not ask for clarification even when they seemed to have questions. Parents did not dare question unless physicians/nurses gave them a chance to ask. While a few parents dared to ask more information, they did it in a considerate manner as some parents because there were other patients needing attention. When parents saw physicians/nurses busy with other cases, they were considerate and reluctant to ask about their baby's conditions or care.

...I felt considerate of nurses. They were working…When I asked them, they told me to wait a moment. Every time I visited my baby, I often saw them keeping busy…Actually, I felt considerate and afraid to ask them…And I thought if they were available, they would come to me. (Mother 13: Int1, Line 193-198)

I want to hold my baby and want to be updated on my baby's conditions on each day. But I didn't ask because I didn't know whom I could ask. I saw doctors/ nurses keeping busy with their work. That prevented me from asking them as I felt considerate of them. So I observed my baby's condition to see what's going on, if there were any medical devices increasing such as a tube feeding milk,

skin temperature probe and pulse oximeter. They were all the same, so I didn't ask doctors/nurses. (Father 03: Communication on Sep 22 & 28' 2015)

Employee Leave Policy

According to the Thai labour law, Thai employees are eligible to take sick leave, maternity leave, personal business leave and other leaves of absence. Thai female employees are eligible to take maternity leave for 90 days under the Labour Protection Act. Most mothers in this study worked in a factory and some of them said that their maternity leave enabled them to be involved in caring for their baby.

The reason why I could be here to provide care for my baby is that I have holidays. I'm now on maternity leave so I have time to visit my baby. I don't have to think about work or anything. I focus on my baby only. (Mother 03: Int2, Line 773-776)

I have a 3-month maternity leave, so I can devote myself to taking care of my baby. This helps a lot. I don't have to worry about anything that could prevent me from visiting my baby conveniently. (Mother14: Int4, Line 459-461)

Likewise, one father who worked for a logistic company, he was able to visit and help his wife take care of their child. He said that he was eligible to take annual leave of 7 days to handle family affairs involving the father, mother, wife or child.

…I can take leave. I can clear with the company…Other people may not take leave to take care of a baby like me. The company allowed me, saying it's about the family's special affair. I submitted my baby's birth certificate as a supporting document to take leave…If it's related to the family, spouse, parents and children, the company allows staff to take 7 days leave for the special affair per year. (Father 02: Int1, Line 226-227, 246-250)

One mother was a housewife and her husband was a day labourer whose wages were earned on a daily basis and he has no rights to take leave. When this mother had to take care of her baby at the SNB and the father went out to work, nobody looked after their eldest child. As a result, the mother could not stay at the SNB for several days to

let her preterm infant learn to breast feed as she had to be home for her eldest child. Hence, this mother was instructed by a nurse to bottle feed her baby.

> *When my husband goes to work, we have to hire a babysitter to look after our eldest child…We live from hand to mouth, we don't have anyone to take care of my eldest child. We earn 400 baht a day, if we hire a babysitter for 100 baht, we'll have 300 baht left. If we look after her by ourselves, our wage of 400 baht would be mainly used for our family. I told a nurse that I don't have anyone to take care of my eldest child, so a nurse started to bottle-feed my baby whether she can suck or not. Even though she couldn't do it in the first two rounds, she finally did. (Mother 09: Int2, Line 69-70, 91-101)*

Family Support

Most informant mothers were primarily supported by their family members. This support included housework support, information support, and emotional support. Particularly, fathers and grandmothers of preterm infants helped mothers take care of their eldest child, did household chores, gave advice about caring for babies, and offered encouragement. This support from family enabled mothers to involve in caring for their baby at the SNB and learn how to take care of their babies.

Housework support. The family members, especially, fathers and grandmothers of preterm infants helped mothers look after their eldest child and do household chores which were mothers' responsibility before. Some mothers and a grandmother explained that these support form family, allowing mothers to take care of their babies at the SNB.

> *My husband and mother would help taking care of my eldest child, so I can care for this little baby…If I don't have my mother or if our family has only 3 persons: my husband, eldest child and me, who else would take care of my eldest kid when my husband goes to work? (Mother 04: Int2, Line 787, 846-848)*

> *…My husband worried about the baby. He wants me to take care of this baby… He would do all the housework and everything at home that was used to be my duty. That relieves me and allows me to take care of this baby. (Mother 06: Int2, Line 316-317, 321-322)*

While my grandchild was staying at the hospital, I didn't go and visit her there. I stayed home, so my daughter (the preterm baby's mother) would not worry…I told her that I can take care of home and she can stay there (the SNB) and doesn't have to come and go. The hospital is quite far and I'm afraid of accidents. She said she's concerned about me because I stay home with my grandchild only and work at home. (Grandma of preterm infant 17: Int1 via phone, Line 11, 48-50, 55-56)

Information support. Most parents had the first child and none had previous experiences caring for a preterm infant. Some parents expressed that they were given advices about caring for babies by their mothers and relatives such as eating milk supply-boosting food, breastfeeding, bathing and caring a baby's umbilical cord stump. This helped parents learn to take care of their babies.

My mother (the baby's grandmother) gave me some tips. She told me to drink a lot of warm water to increase milk supply. She didn't give advice about taking care of my preemie as she was still at the hospital…Mostly, my mom told me to eat food that helps boost milk supply and avoid unhealthy food. She said what I eat, my baby would eat too. I followed her advice. (Mother13: Int4, Line 379-386)

My mom (the baby's grandmother) told me that after bathing my baby, I have to make the baby's umbilical cord stump clean and dry, unless he might get infected…After that, I must dress my baby as he might feel cold. My mom gave me some tips as did my relatives including my aunts who had experiences of rearing children. They advised me on everything including eating. They said what I eat, my baby eats too as he gets my breast milk…They (the grandmother and relative of baby) gave me advice, so I listened to them and followed their advice as they used to take care of little babies before. (Mother15: Int3, Line 173-176, 194-198, 202-206)

I just told her how to take a bath and what kind of milk to feed a baby. When bathing a baby, she should pour some water on the face first to prevent a baby from getting cold and then pour water on the body. Be careful not to wet her

umbilical cord stump as it might get infected. And when feeding milk to the baby, carry her and let her suck milk like this. For the baby's eating, I told her to feed only milk to the baby and avoid eating unhealthy food as it might cause diarrhea to the baby. (Grandma of preterm infant 12 via phone: Int1, Line 44, 49-50, 56-61)

Emotional support. During field visits, I observed that most informant mothers received emotional support from their family members or their relatives including the baby's father, grandmother and aunt. While a mother was taking care of her baby, a father stayed beside or stayed around to help picking up things such as cotton pads and diapers. If she had to take care of the little baby for all day long, the baby's father, grandmother and other relatives would talk with her to give her encouragement and to push her to keep fighting and be patient with the duty of looking after her baby at the hospital. This support from family members, especially the preterm baby's father and grandmother who were very close to mother, was essential support for mothers.

...My father, mother and brother (the baby's grandfather, grandmother and uncle) helped me take care of the baby…They gave me encouragement, telling me to stay here and be patient. One day my baby would be able to suck milk and go home. (Mother 06, Int3, Line 304-308, 314)

…The family must help. Like my husband, he must help me. It's like giving encouragement. He comes to the hospital every day to mostly support me. He told me to keep fighting and our baby is with me…My mom also encourages me, saying that staying with my baby is the greatest thing. (Mother 08: Int2, Line 338-347)

…If possible, I must come here to support my wife as she feels the same. Although I'm a man, I still worry about my child. My wife would feel like me. Since I'm emotionally stronger than her, I must encourage and comfort her. (Father 02, Int1, Line 256-259)

One nurse explained that receiving emotional support from husbands and family could relieve mothers' stress and enhance their involvement in the care.

It's the family support of a mother. Some mothers are stressed, but they receive good support from their husbands (the baby's fathers) and family, empowering them to stay and keep patience to provide care for their babies for a continuous period. At first, it was very stressful for them and I accepted that it was so stressful that a baby couldn't latch on his mother's breasts as he isn't quite active. Even a friend could not understand the mother's feelings like her own family. (Nurse 01: Int1, Line 644-648)

In summary, while parents were getting involve in caring for their hospitalized preterm infants, their involvement was influenced by socio-cultural factors. Both the key and general informants viewed that parental involvement policy, employee leave policy, and family support facilitated parents to get involve in the care for their babies. However, the findings indicated that the lack of parental involvement guidelines and parents' tendency to be passive recipients of care limited their involvement.

Part 4: Discussion of the Findings

This ethnography study answered the research questions: 1) What are the perceptions of parents regarding parent involvement in caring for their hospitalized preterm infants? 2) What are the caregiving practices related to caring for their hospitalized preterm infants? 3) What socio-cultural factors influence parent involvement in caring for their hospitalized preterm infants? The discussion is divided into two sections: 1) the perceptions and caregiving practices of parents, and 2) the socio-cultural factors influencing parent involvement.

The Perceptions and Caregiving Practices of Parents in Caring for Their Hospitalized Preterm Infants

Uncertainty about their child's condition. The finding of this study revealed that most parents felt uncertain about their babies' conditions when seeing their tiny and fragile baby breathing with retraction, having many medical devices, and having complications. Parents were anxious over the baby's symptoms and they were afraid of losing their baby, especially during the first few days of birth indicating that their babies had unstable conditions or complications. This might stem from the fact that preterm

infants are considered a high risk group. Their physical organs are not fully formed, causing various health problems, and their conditions can change any time. This finding is congruent with the previous studies reporting that when preterm infants were hospitalized, their parents were afraid of infant death, feared the unknown outcome of the infant's condition and were uncertain about their babies' condition (Fernandes & Silva, 2015; Malakouti et al., 2013). In addition, this finding is supported by the existing literature showing that 49.3% of the mothers and 52.6% of the fathers of preterm infants were highly uncertain about the hospitalization of their babies in NICU and their uncertainty was related to the infant's weight that was below 1,500 grams and the mechanical ventilation care (Bolívar & Montalvo, 2016). Similarly to previous studies in Thailand, Rungamornrat et al. (2012) found that mothers of preterm babies on a respirator were uncertain about the baby's life. A study on maternal participation in caring for newborn babies in a NICU by Pathom-aree (2008) found that initially, mothers experienced various emotions, including sympathy, confusion, stress and fear of infant death.

In addition, the findings of this study revealed that some parents feared that their babies might be at risks. They prayed and made vows to Buddha or shrines, wishing for their babies to become healthy. They believed that the holy idols would protect their babies and help them recover as soon as possible. This is different from the situation in Western countries due to the cultural characteristic of Thais who are mostly Buddhists. Also, in this study, all parents were Buddhists who had a strong belief and trusted that when they encountered problems, they would pray to the Buddha or the shrines to wish that their problems could be dispelled and their worries would be relieved. Similarly, when parents had preterm birth that would cause them great distress, they would find every way to help ease sufferings by praying and wishing their baby good health and safety. All of these beliefs were mostly found in Thai culture. This is congruent with the previous studies in Thailand which revealed that mothers felt uncertain about their hospitalized infants. They prayed to the holy idols for their child's recovery (Pathom-aree, 2008; Rungamornrat et al., 2012). Similarly, a grounded theory study among 26 Taiwanese mothers of very low birth weight preterm infant in NICU by Lee et al. (2009) found that Taiwanese mothers placed great faith on their God or used prayer to comfort and instilled hope during preterm infants' hospitalization in NICUs.

Desire to be close to their preterm babies. The findings of this study revealed that most parents wanted to be close to their babies as they longed for performing a maternal role. They sought any chance to be involved in caring for their preterm infants as much as they could such as changing a diaper, feeding milk, taking a bath and providing kangaroo care. This concern is part of parent-infant bonding which begins during pregnancy and continues after birth. Bonding and attachment between parents and their infants are developed through physical closeness and interaction such as touching, smelling, seeing, breastfeeding and caring for their infants (Klaus et al., 2013) and separation between parents and infants could challenge parents' ability to bond with their infants (Mooney, 2010). This is consistent with previous study by Fernandes and Silva (2015) indicating that the possibility of the mothers remaining hospitalized and being closer to their preterm babies facilitated the attachment. Moreover, this findings is similar to a study on Swedish mothers' experience of continuous kangaroo mother care (KMC) by Blomqvist and Nyqvist (2011) indicated that the mothers felt satisfied and liked to have a close contact with their infant. All mothers preferred providing KMC and staying together with the infant in hospital rather than resting at home. Similar findings were reported from a grounded theory study by Pongjaturawit (2005) who conducted a study among 19 Thai parents of hospitalized young children at the pediatric ward and found that parents' need to participate in doing anything for an ill child during hospitalization were driven by their love, bond, concern and desires to be close to their ill child.

Lack of confidence in providing care for their preterm babies. The finding of this study disclosed that most parents lacked confidence when providing care for their preterm infants because their babies were tiny and fragile. They were afraid that they would put their babies at risk of getting infected. Some parents were afraid that they might unintentionally touch the medical devices and that might put their babies in danger. It is possibly due to the unique appearances of preterm infants that may not seem like full-term or healthy infants. Parent-infant interactions were adversely affected by their infant's size and appearance, and parents were hesitant to touch their preterm infants (Fraser, 2013). In addition, this might be attributed to the fact that more than half of parents (68.18%) in this study had the first child and none had experience of taking care of preterm infants, making them feel hesitant to look after their ill preterm

infants. While taking care of preterm infants requires both knowledge and skills because preterm infants are at risk of sepsis, inadequate nutrition and sensitive to inappropriate stimuli. This finding is supported by a qualitative study in Taiwan, revealing that mothers of VLBW preterm infants in NICU would not hold their baby until they were assured that their infant's conditions were very stable because infants' stable conditions allowed parents to feel safe to hold their infants (Lee et al., 2009). In a qualitative study with five fathers of preterm babies in NICU, Hollywood and Hollywood (2011) found that fathers felt helpless when seeing their preterm infants in the glass incubator because they were unable to do anything for them, not even touch them as they were afraid of touching their baby in case of giving baby an infection. Similarly, a study in Thailand by Pholanun et al. (2013) indicated that maternal participation in caring for their preterm infants in NICU was at a low and moderate level, which might stem from the fact that the baby's body was small and severely ill, requiring medical devices such as a ventilator or oxygen, incubator, infusion pump and oxygen saturation monitor. As a results, mothers were afraid that they might unintentionally touch medical devices and that might put their babies in a worse condition.

Consequently, the finding showed that some parents in present study only provided care for their babies by following nurses' advice. If the nurses did not instruct them to care for their baby, they would not be involved as they believed that they might put their babies at risk, so parents passed the care decision to physicians or nurses. This may be because Thai parents place a high level of trust and believe in the capacity of physicians or nurses as they are knowledgeable about baby care. This finding is supported by a Thai study by Pongjaturawit (2005), which found that parent participation in the care of their hospitalized young children emerged under various contexts or conditions, including their beliefs in the capability of health care providers on the perceptions that when their child was ill and admitted to the hospital, physicians and nurses were obviously capable of caring for the child until complete recovery. Similar findings were reported from a study by Rungamornrat et al. (2012), which found that most mothers of preterm babies on a respirator did not dare to perform any caregiving activities for their infants, viewing that the babies' lives were in uncertain and dangerous conditions and needed special care. Therefore, they provided care for

their preterm babies by following nurses' advice, including touching their baby and storing their breast milk.

Overcoming difficulties in breastfeeding. The current study revealed that parents preferred feeding breast milk to their babies instead of formula as they strongly believed that breast milk was good for a preterm baby's health and easy to digest. This is probably because the Ministry of Public Health has launched several campaigns encouraging Thai women to breastfeed their babies. Most Thai hospitals adopted the Family Love Bonding Project (*โครงการสายใยรัก– Sai-Yai-Rak Project*) and the Baby Friendly Hospital Project (*โรงพยาบาลสายสัมพันธ์แม่ลูก– Sai-Sam-Phan-Mae-Look Hospital*) to promote breastfeeding and these projects are very well known in the Thai population. Parents learn the benefits of breast milk not only from nurses but also from the media including television, newspaper, and magazines. They correctly understood that breast milk had more advantages for preterm babies as it provided essential nutrients, contained with antibodies and decreased risk of necrotizing enterocolitis (Carlo, 2016). Breast milk is easier to digest than formula milk because the latter is made from a cow's milk, and it often takes time for a baby' stomach to adjust to digesting it. Importantly, breast milk may play a role in reducing overall infections because it has a higher amount of such immunological factors as secretory IgA (Corvaglia, Martini, & Faldella, 2013).

Due to the benefits of breast milk, most parents tried many ways to produce enough milk supply by eating specific foods and expressing milk every 2-3 hours. Most parents drank warm water and ate foods that contained such milk supply booster as ginger, Chinese chives and pumpkin in order to help to increase their milk supply. With the benefits of these kinds of food, these mothers and their families thought that it helped to increase breast milk production. Interestingly, the belief in milk supply boosting foods exists in all cultures, particularly those in the region of Asia such as Thailand, China, Indonesia and India. Breast milk supply-boosting foods in each culture rely on various raw materials available in their country. In Thailand, people believe that foods containing vegetables or herbs such as banana blossom, lemon basil, pumpkin, ginger, Chinese chives, sweet basil, and papaya have attributes of boosting milk supply (Luecha & Unehara, 2013; Taechaboonsermsak, 2014). The finding is consistent with a

study in Taiwan by Lee, Lee, and Kuo (2009), revealing that mothers of VLBW preterm infants tried different ways to boost their milk supply such as expressing breast milk at least every 3 hours or more frequently, eating specific soup (fish soup and chicken soup) and maximizing rest after midnight.

Moreover, some mothers strove to bond with their babies through breastfeeding as they could be close and have an interaction with their babies. This might be due to the fact that, during breastfeeding, parents can have an interaction with their babies such as touching the baby's body and hands, watching the baby's face and talking with the baby. This is supported by the attachment theory which indicated that parent-infant bonding and attachment is developed though touching, smelling, seeing, breastfeeding and caring for the infant (Klaus et al., 2013). In addition, this might stem from the situation when the SNB encouraged parents to breastfeed their babies and inspired them to take part in caring for their babies at the hospital in order to build parent-infant bonding and attachment. Similar finding were reported from the study by Boucher et al. (2011) indicating that a mother could feel close to the baby and form an attachment with the baby when she had a chance to breastfeed her baby. Also, this finding is confirmed by a qualitative study on mothers' experiences of breastfeeding a preterm infant in a Swedish neonatal ward by Bjork et al. (2012) indicating that a deep loss was felt by mothers of preterm infants when they were not able to breastfeed their baby during the night. Additionally, Flacking et al. (2006) found that most mothers of very preterm infants in a neonatal unit experienced something that occurred naturally, without expectations of a nutritive feed, but just for comfort and attachment during breastfeeding.

However, more than half of mothers encountered problems with breastfeeding because their preterm babies could not yet suck a mothers' breast well. They were conflicted about forcing their preterm babies to suck and suffered when babies were unable to latch. According to the socio-cultural context, it was due to the SNB policy which promoted breastfeeding and all mother were encouraged to breastfeed their little babies. In addition, this is likely because the majority of infants (68.42%) had a gestational age at birth of less than 34 weeks, while direct breastfeeding is less likely to succeed in very preterm infants because the effort of sucking is usually a limiting factor

(Carlo, 2016). The finding is congruent with the study result of Swift and Schoten (2009) who found that the parents, whose infants had feeding difficulties at post-36 weeks of gestation age, had to delay taking the babies home, making them frustrated. In addition, another problem that mothers experienced was that breastfeeding a baby every 3 hours all day long exhausted mothers. This finding is supported by Nabulsi (2011) who conducted a qualitative study with the mothers in three hospitals in Beirut, Lebanon. It was found that sleep deprivation and exhaustion among mothers was the cause of early breastfeeding discontinuation. On the other hand, one French study contrasted with this finding. Callahan, Séjourné, and Denis (2006) studied 247 mothers who breastfed or bottle-fed in a private hospital in France and indicated that breastfeeding did not significantly affect the experience of fatigue in the postnatal period. This may be due to the fact that there were more staff who provided full maternity services at a private hospital. Additionally, a decrease in the return rates of questionnaires after 6 and 12 weeks reflected certain biases towards fatigue as mothers who did not return questionnaires might have been experiencing greater fatigue (Callahan et al., 2006).

The Socio-Cultural Factors Influencing Parent Involvement

This focused ethnography found that socio-cultural factors such as parental involvement policy, lack of parental involvement guidelines, passive recipient of health care, employee leave policy, and family support affected parental involvement. Each of these socio-cultural factors is discussed in the following section.

Parental involvement policy. The findings revealed that parental involvement policies, including the policy of promoting bonding and newborn development through the *Sai-Yai-Rak Project* (โครงการสายใยรัก) and the *Baby-Friendly Hospital Project* (โรงพยาบาลสายสัมพันธ์แม่ลูก) and the policy of preparing parental skills for discharge allowed parents to take part in caring for their babies. WHO and United Nations Children's Fund (UNICEF) recommend exclusive breastfeeding for the first six months and continued breastfeeding for two years or more because of the benefits of breastfeeding, both to children and mothers (UNICEF, 2015). Recognizing the importance of breastfeeding, the National Breastfeeding Project in Thailand began in 1992 and its main activities

were held as part of the Baby-Friendly Hospital Initiative launched by WHO and UNICEF to promote the success of breastfeeding (Hangchaovanich & Voramongkol, 2006). Moreover, the Ministry of Public Health has launched the *Sai-Yai-Rak-Jak-Mae-Su-Look Project* (สายใยรักจากแม่สู่ลูก– love and care from mother to children) which was initiated by HRH Princess Srirasmi at that time to promote breastfeeding among Thai women (Luecha & Umehara, 2013; Thai Health Promotion Foundation, 2009). This project was later changed into the *Sai-Yai-Rak- Haeng-Krob-Krua Project* (โครงการสายใยรักแห่งครอบครัว) under the patronage of HRH Crown Prince Maha Vajiralongkorn (presently King Rama X). In the Eleventh National Economic and Social Development Plan (B.E.2555-2559), the target of breastfeeding rate was that at least 50% of newborns should be exclusively breast fed for at least 6 months, and fed with breast milk coupled with age-appropriate food until the baby was at least 2 years old (Ministry of Public Health, 2014).

The SNB encouraged parents to take part in providing care for their babies during hospital stay in order to prepared parental skills for discharge and reducing re-admission rates. Supporting and involving parents in the care gave them confidence in caring for their preterm infants during the hospital and at home. The finding is congruent with the study by Jefferies and Canadian Pediatric Society, Fetus and Newborn Committee (2014), who stated that discharge planning initiated at the time of NICU admission by promoting family involvement in their infant's care while providing education from the time of admission improved parental confidence, decreased parental stress and anxiety, and facilitated safe transition to home. On the other hand, Rabelo, Chaves, Cardoso, and Sherlock (2007) explored the feelings and expectations of mothers when their premature babies were being discharged from an NICU in Brazil. The finding revealed that some of the mothers were not sure about their abilities to perform such tasks as bathing, holding, feeding and changing their baby's nappy because caring for a premature baby was more complex. Many of them reported a lack or absence of pre-discharge education and preparation, and they emphasized their need for this. This finding is congruent with a Thai previous study which indicated that all nurses (100%) conducted the following discharge planning practices every time, including diagnosing problems and physical assessment of premature newborn infants, supporting the participation of the family in

discharge planning, giving the knowledge of premature newborn infant care to the mothers and determination of follow-up (Srimala, Yenbut, & Urharmnuay, 2013).

Lack of parental involvement guidelines. This study found that although the SNB had policies to involve parents in providing care for their babies, it did not have parental involvement guidelines. It was found that the information given by each nurse was different because some nurses just told parents to perform caring activities for babies without explaining anything while some told and explained in words, but they did not demonstrate the methods. Some nurses gave parents a demonstration first and then let them follow the steps. Sometimes, nurses did not give information to the parents, especially regarding the first caring activities. This might obstruct parent involvement as some parents do not know what they could do for their babies. This finding is congruent with a qualitative study in Brazil, showing that mothers of preterm infants suggested some forms of manual or handbook on what they can expect and actions to take care of their premature babies (Rabelo et al., 2007). The finding of this study is also consistent with the existing literature showing that parents needed more advice about their role at the NICU as the unit did not have any guidelines for them (Toral-López et al., 2016). This finding is in accordance with the study by Srimala et al. (2013) revealing that most nurses (61.54%) never gave handbooks or documents about infants care to the mothers and/or families. However, these findings were much different from a study by Broedsgaard and Wagner (2005) who found that mothers needed information to be repeated, which was satisfied by the availability of written informational materials.

Passive recipient of health care. The present study reflected that parents took on a passive role rather than active caregiver. Parents provided care, particularly basic care and technical care by following the nurses' advices, they were less involve in the decision-making process about their babies care. Most of them left it to physicians or nurses to make the decision and they just did what they were instructed by physicians or nurses without sharing information or telling them their true desire in providing care for their babies. This might be because physicians or nurses are perceived by clients or patients to have great capabilities of giving a medical treatment, so the patients take on a role of listeners and do only what doctors or nurses tell them to in hopes that their ill

babies will get better and be safe. This finding is supported by the existing literature showing that most Thai parents did not dare to involve in a decision-making. Hinsil (2006) conducted a study on maternal participation in caring for high-risk neonates and found that most mothers (78.6%) did not participate in a decision-making process. The researcher indicated that it was probably the result of mothers' loss of their parental roles and their perception that healthcare providers could take better care of their babies. This is also in line with the study on maternal participation in taking care of premature infants with respirator by Rungamornrat et al. (2012) who indicated that mothers only asked information from physicians or nurses. As the baby's conditions were critical, they let physicians or nurses make a decision on their babies care. Similarly, others Thai studies indicated that parents believed in the capability of physicians and nurses, as they were knowledgeable about providing care. As a result, they took care of their ill children based on the physicians and nurses' advice (Jintrawet, 2005; Pongjaturawit, 2005).

Interestingly, Thai parents in this study played a role of passive recipients of health care because they felt considerate of physicians or nurses, preventing them from asking about their baby's conditions, treatment and methods of caring for their baby. Parents chose to act as recipients of information from physicians or nurses instead of mutually exchanging information. This is different from Western culture in that Thai parents feel considerate or *Kreng-jai* (เกรงใจ) for physicians or nurses. In Thai culture, Kreng-jai seems to be a daily element of Thais' social interaction. The word "*Kreng-jai*" means having a consideration for another person's feelings, being reluctant to disturb or offend, or being fearful of approaching someone. Stemming from the Buddhist beliefs of the majority of Thai people, Kreng-jai particularly manifests the idea of karma that determines one's actions towards others on expectation that one will get the same thing in return. There is a relation between the consideration or Kreng-jai and one person's personal background, education and seniority (Chitrada, 2004). Moreover, this is may be due to the social and cultural characteristic of Thai people, particularly healthcare professionals in the government hospitals who have long been considered authorized person with a superior status than clients. As a result, the relations and communication between parents and healthcare professionals were distant (Pongjaturawit, 2005).

Employee leave policy. Some parents revealed that they enabled to get involve in taking care of their preterm babies because of their employee leave, especially their maternity leave. This finding is supported by Thai Labour Law stating that Thai female, who are civil servants and state enterprise employees, are entitled to take a maternity leave of not exceeding 90 days with full salary (Ministry of Labour, 2009). Female civil servants will receive a salary from the government, while employees will receive a salary from their employers for 45 days and the Social Security Office for 45 days during the maternity leave (Ministry of Social development and Human Security, 2016; Social Security Office, 2015). Male and female employee are also eligible for other leaves and holidays such as weekly holiday, traditional holiday, and annual holiday (Ministry of Labour, 2009). The finding of this study is congruent with a phenomenological study by Jackson et al. (2003) revealing that some fathers of preterm babies were able to take part in the care for their babies during the hospitalization because they were on parental leave, while others could not as this depended on the attitudes and policies of their employers. This finding is also supported by a study by Hollywood and Hollywood (2011) who found that work was a primary factor in relation to the level of involvement. Fathers of premature infants could not spend much time in the NICU because of the constraints of their works.

Family support. The finding showed that most mothers were mostly supported by father and grandmother of preterm infants to take care of their babies at the hospital. This support was offered in terms of housework, information and emotional support. A majority of families (73.68%) were nuclear families, the fathers and grandmothers played a major role of supporter of the mother. Fathers provided household and emotional support, while the grandmother gave emotional support and information support in terms of advice about milk boosting food and giving some tips about baby care to the mothers. Mothers mostly received information support from the grandmothers via telephone because they lived in other provinces. In Thailand, the structure of Thai family has undergone socio-economic changes from agriculture to a more urbanized or industrialized form and the structure of families changed from an extended family to a nuclear family (Sakunphanit, n.d.). Even though, Thai family structure has changed to a nuclear family, family relationships remain. They still love and help each other. This is supported by a survey research on family relationship

among Thai families from five regions by Chompikul, Suthisukon, Sueluerm, and Dammee (2009) and found that 46.2 % of families were nuclear families and 35.3% were extended families. Around half (50.7%) Thai family relationships were high attachment. The finding is also congruent with the study by Rungamornrat et al. (2012), indicating that spouses were an important factor that could either encourage or hinder maternal participation in caring for their premature baby on a respirator. Similar findings have been reported by the existing literature from others countries, showing that mothers of hospitalized preterm infants were supported by their husbands and family members (Fernandes & Silva, 2015; Lee et al., 2009).

In summary, these findings revealed the perceptions and caregiving practices of parents regarding parent involvement in caring for hospitalized preterm infants and Thai socio-cultural factors influencing their involvement. Therefore, to promote effective parent involvement in care, it is important to understand beliefs and values of Thai parents as well as the socio-cultural context that influences their involvement.