

CHAPTER IV

RESULTS

The findings of this study comprise both descriptive and analytical findings. Descriptive findings describe the results at each study phase which cover from the participatory learning training to the five home visit. The quantitative and qualitative results are illustrated separately with a conclusion that integrates both findings together. The analytical findings explain relationships between various factors and breastfeeding pattern. Details of the results may be described below:

4.1 Descriptive Findings

4.1.1 Demographic Data describes the general data and the characteristic of 60 mothers in the study group and 60 mothers in the control, 120 mothers in total.

1) Table 4.1: most mothers in the study group and control group are between 25- 34 years of age (58.3 per cent), follow by the group of mother age between 15-24 years (38.3 per cent) and the age between 35 to 44 is least at 3.4 per cent. When looking at the control group, it indicates that most mothers are between 25-34 year of age (55.0 per cent), follow by the group of mother age between 15-24 years (43.3 per cent) and the age between 35-44 year is least at 1.7 percent. The age average for the mothers in the study group is 24.4 years old, whereas, the average age for the mothers in the

control group is 23.8 years old. The youngest mother in the study group is 16, and the eldest is 38. In the control group, the youngest is 17, and the eldest is 38. Most mothers in both study and control group have primary school education which the numbers turn out to be 63.3 and 55.6 per cent respectively. The numbers of mothers in the study and control group who completed junior high school are calculated to be 20 and 25 percent respectively. The numbers of those who finished senior high school are 6.0 and 11.3 percent, respectively.

In aspect of occupation, most mothers in the sample are agriculturist in both study and control groups, the percentages are 45.0 and 53.3, respectively, follow by employee in factory at 13.0 and 8.0 per cent, respectively. When taking the monthly family income into consideration, most of the monthly household incomes of study group and control group are ranging between 5,801 and 8,000 baht which appear to be 6.7 and 55 percent, respectively. Next, those who have a monthly household income less than 5,800 baht are 43.3 and 25 percent, respectively. Those who have a household income greater than 8,000 baht are 6.7 and 20 percent, respectively. Both study and control group have a maximum monthly household income of 9,000 baht and a minimum of 3,500 baht. The average household income for study group is 5,950 baht while the average for the control group is 6,920 baht. Most mothers in the study group is multi parous pregnancy with 73.3 percent, while in the number of control group is at 60 percent. The figures are described in Table 4.1.

Table 4.1: Numbers and percentage of the Demographic data of the study and control group.

General Data and Demographic Data	Study group		Control group	
	Number	Percentage	Number	Percentage
Total	60	100.0	60	100.0
1. Age group (Years)				
15-24	23	38.3	26	43.3
25-34	35	58.3	33	55.0
35-44	2	3.4	1	1.7
	Max= 38 Min =16		Max= 38 Min =17	
	Mean = 24.4 S.D.=4.9		Mean =23.8 S.D.=5.3	
2. Educational Background				
Primary school level	38	63.3	34	55.6
Junior high school level	12	20.0	15	25.0
Senior high school level	10	6.0	11	11.3
3. Occupation				
Agriculturist	27	45.0	32	53.3
Employee in industry	13	21.6	8	13.4
House worker	12	20.0	10	16.7
General Employee	6	10.0	7	11.6
Merchant	2	3.3	3	5.0
4. Monthly household Income (Baht)				
<5,800	26	43.3	15	25.0
5,801-8,000	30	50.0	33	55.0
>8,000	4	6.7	12	20.0
	Max= 9,100 Min =3,500		Max= 9,000 Min =3,500	
	Mean =5,950 S.D.=1,562		Mean=6,920 S.D.=1,632	
5. Parity				
Primiparous	20	39.33	18	30
Multiparous	40	66.67	42	70

2) In the study group, there are 30 supporters in total. Most of supporters are more than 55 years of ages (41.7 percent) follow by supporters ages between 45-55 (20 percent). The youngest supporter is at 18 years old whereas the oldest is 57 years old. Educational background of most supporters is primary school level and secondary school level is the second largest portion. Occupation of most supporters is house worker and agriculturist at 56.7 and 43.3 percent, respectively. Fifty percent of household average income of supporters is between 5,801-8,000 Baht, while 43.3 percent is less than 5,800 Baht, and 6.7 percent more than 8,000 Baht. The highest monthly household income is 9,100 Baht while the lowest is 3,500 Baht. And the average income of supporters is 5,950 Baht. The details are shown in Table 4.2.

Table 4.2: Numbers and percentage of the general data of supporter.

General Data	Demographic supporter	
	Number	Percentage
Total	60	100.0
1. Age group (Years)		
<24	2	3.3
25-34	11	18.3
35-44	8	13.4
45-54	12	20.0
>55	25	41.7
2. Educational Background		
Primary school level	42	70.0
Secondary school level	18	30.0
3. Occupation		
Agriculturist	26	43.3
House worker	34	56.7
4. Monthly family income (Baht)		
<5,800	26	43.3
5,801-8,000	30	50.0
>8,000	4	6.7
	Max= 9,100	Mean=5,950
	Min=3,500	S.D.=1,563

4.1.2 Participatory Learning Training

The results of the study of breastfeeding through participatory learning include quantitative result and qualitative result which can be illustrated as follows:

1) Quantitative Results: Quantitative results in this study contain mother and supporters understanding to breastfeeding before and after implementation of health education program with the study group participated in the participatory learning process and the control group participated in the routine health education. Conducted through questionnaire, the data collection was concerned of these following agendas: the values and benefit of breastfeeding to mothers and infants, such as, disease and complications associated with those mothers and infants not breastfeeding, solutions for frequent problems arise from breastfeeding. The results are as follows:

The understanding and knowledge about breast feedings among the supporters, compared before and after the intervention program, is different with statistic significant at 0.05 ($P= 0.00$). This explains knowledge and understanding level is higher in the study group after the program implemented. The details as described in Table 4.3.

Table 4.3 : Average score of knowledge about breastfeeding between the supporters before and after participatory learning program. (Total 16 score)

Knowledge about breastfeeding	Supporters		df	t	p-value
	\bar{x}	S.D.			
1. Before PL Training	9.35	1.38	59	17.80	.000
2. After PL Training	13.48	1.05			

*P-value from paired t-test

The understanding and knowledge related to breastfeeding among mothers in the study group, compared before and after, is different with statistic significant at 0.05 (P= 0.00). This explains knowledge and understanding level is higher in the study group after the program implemented. The details as described in Table 4.4.

Table 4.4: Average score of knowledge about breastfeeding among mothers in the study group before and after participatory learning program. (Total 16 score)

Knowledge about breastfeeding	Study group		df	t	p-value
	\bar{x}	S.D.			
1. Before PL Training	13.93	1.18	59	1.157	.000
2. After PL Training	15.4	0.72			

*P-value from paired t-test

On the contrary, the understanding and knowledge about breastfeeding among mothers in the control group which received the normal routine health education,

compared between before and after, are the same (p-value=0.321). The details as described in Table 4.5

Table 4.5: Average score of knowledge about breastfeeding among mothers in the control group compared between before and after routine health education program (Total 16 score)

Knowledge about breastfeeding	Control group		df	t	p-value
	\bar{x}	S.D.			
1. Before routine health education	13.98	1.18	59	1.00	.321
2. After routine health education	14.13	0.72			

*P-value from paired t-test

Alternatively, comparing between the study and control group before any health education, it is found that the average score of knowledge about breastfeeding is about the same (p-value =.816). However, after the routine health education program was given, it is found that the average score of understanding and knowledge of breastfeeding in both group are different with statistical significance at 0.05 (p-value <.000). The average score of mothers who received the knowledge about breastfeeding through participatory learning was higher than those of mothers with routine learning method. Details are described in Table 4.6

Table 4.6: Average score of knowledge about breastfeeding between the study group and control group before and after health education program. (Total 16 score)

Knowledge about breastfeeding	Study group		Control group		df	t	p-value
	\bar{x}	S.D.	\bar{x}	S.D.			
1. Before Training	13.93	1.18	13.98	1.17	59	.233	.816
2. After Training	15.4	0.72	14.13	1.13	59	7.130	.000

*p-value from t-test

2) Qualitative Results of Participatory Learning Process

The qualitative results are the findings from participatory learning process implemented for 60 pregnant women in study group during their 36 gestational weeks until delivery.

People carrying out the program activities included researcher and 9 health care officers in charged of maternity and children care from each different health care office. With previous experiences regarding to participatory learning programs in other health promotion activities, such as, care for below standard weight infants and eradication of the larvae of mosquitoes, including their potentials, those officers are capable of carrying on the program to its completion. In addition, they are evaluated by lecturer to have potential skills to handle the tasks as a team. And they also have authority to get good collaboration from other health care officers and people in community.

Media employing for the activities includes manual guideline for breastfeeding, curriculum, case study, video, simulation and role model. The course materials

particularly emphasize on the values and benefits of breastfeeding, breastfeeding support and promotion, and problem solutions of breastfeeding. Having employed such media, the study group is attentive to the materials, as well as, motivated to learn and share the knowledge. This can create and motivate the better learning environment.

Qualitative results of participatory learning process are conducted through in-depth interview and observation in the study group.

In-depth interview conducted from participatory learning activities is subjected to gather information from both opinion and feelings of the study group. The details can be summarized as follow.

1. The approach of participatory learning process

By randomly interviewing the study group's member, initially they did not understand the process. However, they feel the course would be beneficial to them so they did their best to understand the learning process. In addition, with the organizer and other group member's assistance and encouragement including their own past experience in breastfeeding, it helps them to have better understanding about the process and feel confident that they can apply the concept to their daily practices. The following statement is from a mother in the group:

“At the first place, [I] thought I had to sit and listen all day long as ever. But actually we get to talk, having conversations, to exchange knowledge and experiences with other moms. It's just encouraging to breastfeed our child. When problems arise, I can ask group members or officers, so that I know

how to solve them. And this way I can see how they practice it, this assures me I can do it. Unlike I was told by a doctor, this is told by those who already did it themselves. And when I tried, I did it, too. It's not difficult”
The 23rd mother's opinion.

Besides exchanging knowledge and experiences, the study group also discussed various problems from case study. The idea presenting to the group reflects the group's analysis: addressing the problem issue and cause of the problem and how to solve it. According to the researcher's evaluation, the group members solved the problem by brainstorming, and asking problems to members who had encountered such problem. This results in developing guidelines in solving the possible problem from the case study provided.

2. Relevant knowledge to apply for breastfeeding.

Some members have no experiences of breastfeeding. Participating in the program gave member the opportunity to ask and learn so as to understand the practices such as storing the breast milk and cup feeding. For certain activities like cup feeding a baby, learners need to keep practicing, in order, to be successful. One of the participants responded that she needed to practice so many times that her baby can be fed from a bow. In essence, it's crucial to practice constantly, whether it is how to squeeze the milk and breast rubbing. The officers would keep track of individual participant by giving them feedback and demonstration to reinforce their learning. One participant mentioned:

At first, a baby won't be fed from a glass. But [you] need to keep on trying until successful a supporter who had experienced in feeding a baby by glass pass her experience to the group. A supporter (Sister) October 16th, 2004.

3. Opinion and suggestion from mothers and supporters after attending the participatory learning program.

Mothers and supporters mentioned about the satisfaction from attending the program. They also addressed other needs concerning baby nursing; exercising after giving birth, for instance. Moreover, they would like to have other group members to share experiences, knowledge and concern for their babies, such as, development and motivation for a baby.

Based on the above mentioned data, it can be concluded that the study group can apply the participatory learning program to solve the problem in the case study. It reflects the application that the mothers and supporters can adopt to use successfully for daily practices. This results in the higher degree of confidence to breastfeed their babies continuously.

Observation: During the learning activities, the results included opinion and emotion of the study group which can be summarized as follows.

1. Participation in activities: Comparing participatory learning program from course 1 to course 4, participation in activities are increasing, respectively. From the course inception, some members are not familiar with participation or attending the activities. Yet they are more at ease and comfortable with the process, as fun activities

and exchanging experiences. By sharing experiences and knowledge, the group members are encouraged to participate in the group. Examples include sharing the encountered problems in breastfeeding and how to solve them. This helps create more confidence in participating the activities. During participating the activities, the participants can also discuss the problems, practice breastfeeding, solve the other members' problem and exchange the experience among the group. These activities make them feel familiar each other. In short, the participatory learning program helps not only connecting the health staff and group members but also encourage the participants to speak up, open up their ideas, dare to do the role play as assigned and so on. The mothers in study group agree that they can learn more through participatory learning program as they have to think and discuss the case study with the others, do a lot of activities together. This creates a better learning environment. The differences of both groups are: the study group is educated by activities that they need to be a part of. On the contrary, members of control group are supposed to listen only in a more formal atmosphere and only get a chance to answer when asked. The relationship is formal--they exchange a few words only as a group member.

2. Enthusiastic to participate in activities: Based on observation, the participants are enthusiastic to cooperate in all activities and to share ideas. When they get to meet, they exchange ideas on the issue of nursing their babies, its problem, and solutions. Also, members keep their guideline manual and bring it along for the next meeting and ask the questions for what they do not understand in manual. This reflects their interest to acquire the knowledge of breastfeeding. And for each meeting, they are punctual and willing to stay until the meeting is over.

3. Create positive atmosphere that affects the concept of participatory learning process by motivation sharing and collaboration. The problems regarding breastfeeding will be solved by knowledge transfer by which lead to discussion and brainstorming. And finally the knowledge will be conceptualized by the group members themselves-not by the lecturer, and applied to the daily practice. In effect, those who are successful at breastfeeding are content, in that, they are able to apply the knowledge to daily practice which gives tremendous benefit not only to her, but others who she can pass on such knowledge and experiences. As a result, learning by experience exchange and practicing can cause a better understanding and realize the benefit of breastfeeding. Asking the queries concerning the breastfeeding manual can reflect the interest in the breastfeeding content and their enthusiastic in activities participation.

3) Conclusion According to statistic analysis concerning the average score of knowledge about breastfeeding between the study group and control group, difference was found. From the above mentioned information, the study group is more contented and satisfied to participate in the participatory learning program than the control group who underwent the routine health education program. The most crucial factor is collaboration and participation of the group members because it measures the program's success. The maximum participation of group member in exchanging their past experience of breastfeeding, sharing the idea and solving the related problems may result in the better understanding and gaining knowledge about breastfeeding of mother and supporter. As a result, this method called for the willingness and true interest of participants as a basic requirement, in order, to achieve the program goal. The process of the program allows group members to exchange knowledge and experiences, and

finally to determine solutions for their problems. In short, this is an appropriate method to encourage breastfeeding among the mothers and supporters.

4.1.3 Home Visit

It is the evaluation process after implementation of the participatory learning program. It consists of five visits: at 1-2 weeks, 1, 2, 3, 4 months postpartum, respectively conducted from July to November 2004. The study results comprise of both quantitative and qualitative as described below.

1) Quantitative Results

The quantitative data has been collected from the second to fifth visit, excluding the first visit. For the first visit, there is no effective quantitative data because the study is concerning with problems arise from breastfeeding which assume to take place after first week postpartum. The results of the study after implementing the participatory learning program are described in Table 4.7.

Table 4.7: The average score and standard deviation (S.D.) of breastfeeding supportive

Supportive Factors	The 2 nd Home Visit			The 3 rd Home visit			The 4 th Home visit			The 5 th Home visit		
	\bar{x}	S.D	Level	\bar{x}	S.D	Level	\bar{x}	S.D	Level	\bar{x}	S.D	Level
<u>Feeding Brest Milk</u>	2.89	.88		3.92	.62	High	4.07	.58	High	4.30	.85	High
1. Advising mother to breastfeed baby.	3.90	.31	High	4.90	.31	High	4.95	.22	Highest	4.96	.23	Highest
2. Reminds mothers as per feeding schedule.	3.30	.92	Medium	4.50	.61	High	4.70	.47	High	4.72	.46	High
3. Reminds mothers as per baby demands.	3.10	1.02	Medium	4.35	.81	High	4.40	.82	Highest	4.45	.86	Highest
4. Providing general assists.	2.90	.97	Medium	4.10	1.02	High	4.50	.95	Highest	4.55	.98	Highest
5. Advising for milk preparation.	2.15	1.14	Low	3.00	1.34	Medium	3.15	1.27	Medium	3.52	1.29	High
6. Equipment Preparation.	2.00	.92	Low	2.65	1.31	Medium	2.75	1.29	Medium	3.51	1.30	High
<u>Supporting Mothers</u>	3.33	.83	Medium	4.45	.39	High	4.68	.54	Highest	4.75	.56	Highest
1. Helping with Chores	3.70	.57	High	4.75	.55	Highest	4.95	.22	Highest	4.96	.29	Highest
2. Encouraging mother to have healthy foods.	3.60	.60	High	4.60	.60	Highest	4.80	.10	Highest	4.82	.16	Highest
3. Encouraging mother to drink lots of water	3.25	.91	Medium	4.55	.69	Highest	4.70	.66	Highest	4.75	.65	Highest
4. Reminding mother to take sufficient rest	3.25	1.07	Medium	4.20	.06	High	4.35	1.04	High	4.56	1.06	Highest
5 Giving mothers for general assists.	3.10	1.02	Medium	4.15	.99	High	4.45	.69	High	4.56	.79	High
Taking Care baby when parted from mothers.												
Total	3.05	.83	Medium	4.45	.60	High	4.85	.37	Highest	4.87	.39	Highest
<u>Encouraging mothers</u>	3.15	.73	Medium	4.35	.68	High	4.48	.66	High	4.56	.65	Highest
1.Encouring mother to breastfeed	3.25	.64	Medium	4.55	.51	Highest	4.60	.50	Highest	4.70	.52	Highest
2. Asking questions to motivate	3.15	.75	Medium	4.40	.60	High	4.60	.50	Highest	4.65	.53	Highest
3. helping mothers solve problems	3.10	.79	Medium	4.30	.73	High	4.35	.75	High	4.45	.71	High
4. soothing mothers when worry.	3.10	.85	Medium	4.15	.88	High	4.35	.88	High	4.45	.85	High
Total	3.12	0.81	Medium	4.24	0.56	High	4.41	0.59	High	4.53	0.68	Highest

*Average Score of supportive level at 5 points

The results of home visit in the study group, concerning the supportive level can be described as following

The 2nd home visit: As shown in Table 4.7, the supportive levels from supporters are at medium level (the average score at 3.12) When considering three supportive factors, feeding the baby, supporting and encouraging mothers, the supportive level was at the medium level. Breastfeeding with “advising mother to breastfeed” is at high supportive level; “helping mother with chores”, “motivating mother to have healthy food” are at high supportive level; encouraging aspect is at medium supportive level with all components.

The 3rd home visit: When looking at the 3rd visit, it shows that the supportive levels from supporters are at medium level (the average score at 4.24). When considering three supportive factors which include feeding the baby, supporting and encouraging mothers, they are at high level in all aspects. Feeding the breast milk which included “advising mother to breastfeed”, “reminding mother as per feeding schedule”, “giving her a hand such as feeding, preparing the milk, equipment” are at the highest supportive level; “helping mother with chores”, “motivating mother to have healthy food”, “motivating mother to drink at least 10-12 glasses of water”, “reminding mother to have enough sleep” are at the maximum supportive level; encouraging factors included encouraging mothers to breastfeed”, “asking the problem regarding to breastfeeding” are also at the maximum supportive level.

The 4th home visit: As can be seen from Table 4.7, the supportive levels from supporters are at high level (the average score at 4.41). Considering three supportive factors, supporting and encouraging mothers, they are at the maximum level. Feeding the breast milk factor included “advising mother to breastfeed”, “reminding mother as per feeding schedule”, “giving her a hand such as feeding, preparing the milk, equipment” are at the maximum supportive level; “helping mother with chores”, “motivating mother to have healthy food”, “motivating mother to drink at least 10-12 glasses of water”, “reminding mother to have enough sleep” are at the maximum supportive level ; encouraging factors included encouraging mothers to breastfeed”, “asking the problem regarding to breastfeeding” are at the highest supportive level.

The 5th home visit: The supportive levels from supporters for the fifth home visit are at maximum (the average score at 4.53). When considering three supportive factors, supporting and encouraging mothers are at the maximum level. Feeding the breast milk factor included “advising mother to breastfeed”, “reminding mother as per feeding schedule” ,“giving her a hand such as feeding, preparing the milk, equipment” are at the highest supportive level; “helping mother with chores”, “motivating mother to have healthy food”, “motivating mother to drink at least 10-12 glasses of water”, “reminding mother to have enough sleep”, “are at the maximum supportive level ; encouraging factors included encouraging mothers to breastfeed”, “asking the problem regarding to breastfeeding” are at the maximum supportive level.

According to analysis of three factors—feedings baby with breast milk, supporting mothers and encouraging mothers—it is found the increase of support from supporters in all aspects in each home visit as can be seen in Figure 4.1.

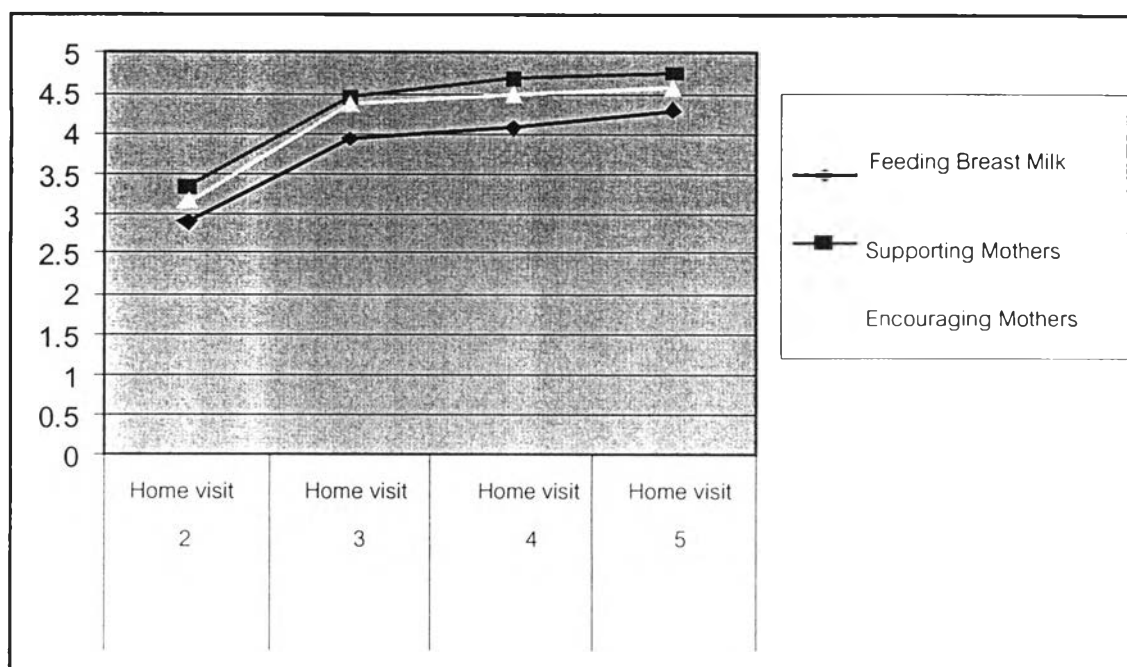


Figure 4.1: Comparison of average mean supportive level score from home visit 2 to home visit 5.

2) Qualitative Results of Home-Visit.

Home-visit approach is an evaluation process after the participatory learning program implemented. It is to assess that the mother can apply the knowledge provided from the learning activities to breastfeeding practice continuously. The visit has been made at 1, 2, 3 and 4 months postpartum, with the purpose to follow up and evaluate not only the group member's capability to breastfeed their child, but health condition of postpartum mothers and their babies. Furthermore, the approach allows the researcher and team to evaluate and solve the problem in an instant manner.

In the study group, observations through each visit has provided the research and the study team the emotions, supports, impacts and motivation of the group members that naturally different from home to home. Yet the advantage of the approach is the problem solving on case by case basis. The problem that was given to mothers and supporters in an instant manner helps alleviate their anxiousness, assuring mothers and supporters the right direction of breastfeeding. In addition, the researcher and the study team have recorded and evaluated as a data collection process--quantitative results such as baby weight. In general, based on home-visit observation, most mothers and supporters develop their breastfeeding skills along with the process.

The qualitative study gathers information by conducting in-depth interviews and observation. There are four visits at month 1, 2, 3, 4 postpartum. The qualitative study yields the following results:

The 2nd home visit at 1 months postpartum. Problems and solutions regarding to breastfeeding are collected. Storing milks and equipment are not essential yet for this step as mothers are still with their child and have return to work. However, mothers need to be encouraged to breastfeed in a constant basis. Most supporters would support and encourage mothers. This is the period at which problems from breastfeeding arise the most, and the solutions also depend on supporters, such as, advising mother to breastfeed on time, and when baby is needed, taking care of chores. The statement from a mother:

Had my mom not been here, I would have been more tired of cleaning, cooking, caring. My mom let me to spend more time with my baby. Mother, November 2, 2004.

My mom is cooking at the back. Do you want to speak to her? I don't have to do anything. My mom does it all. The researcher found the supporter cooking at the back of the house. Mother, October 3rd, 2004

Supporters can help mothers solve the problem arising from breastfeeding. For instance, supporters can motivate mothers to have water 10-12 glasses a day, ask them to take enough rest and encourage them along the way.

My baby throws up whenever taking the milks it's just too much. So my mom told me to squeeze some milk out before breastfeed to the baby. Having done so, the baby no longer throws up. Mother August 5th, 2004.

I came to stay here to help [my daughter] take care of her baby. She told me she wants to breastfeed her baby and so do I because I breastfed all of my children.

So now I am helping her, accompanying her as her husband works away from home. Grandmother November 22nd, 2004.

According to the interview, majority of mothers claims that babies wake up at night more often, so mothers are afraid of not having enough milk for their baby. The statement from a mother and supporter mentioned below:

Mother is sleeping since she doesn't get to sleep at night. I let her sleep during the day time instead, so she can take care of her baby at night. The doctor said she needs to take rest a lot or she'll have no milk.

The 3rd home visit at 2 months postpartum. Emotional aspects of mothers who are successful at breastfeeding were collected. Most mothers are more confident to breastfeed their babies. And they are consistently supported from supporters. At this very period, mothers develop the relevant child care skills, such as, child carrying and feeding. At this visit, mothers also are given advices for problems they encountered, such as, insufficient milk, breast engorgement, surplus milks etc. Most mothers admit that this period baby has a lengthy sleep at night, so mothers can take more rest and less exhausted. Due to a mutual support from supporter, it keeps mothers to breastfeed continuously.

The 4th home visit at 3 months postpartum, the information was given through conducting the interview. This is the period which the majority of mothers need to get back to work. As such, this is also the period mothers and the supporters need to be prepared for such change. The change allows the supporters to take the main roles in nursing baby while mothers are away from home. The mothers can not come back home to breastfeed the baby during the day, so the supporters need to help prepare the milk squeezer and other equipment, feeding baby with stored milk, and nursing the baby instead. From one visit-observation, there is preparation for milk-storing equipment and found a mother is storing while being visited. The supporter says:

She is storing the milk inside the house the next two days while she's away.
Supporter (Grandmother) October 16th, 2004.

The 5th home visit at 4 months postpartum. The information was given through the interview regarding the support for breastfeeding, for instance, milk preparation, and equipment preparation. The supports come handy at month 3-4 postpartum, since it is about the period mothers need to get back to work. Yet the supporter is prepared according to the program. Based on the observation, the supporter is agilely feeding the baby. She claims that:

Firstly [the baby] can't be fed from glass. It takes several tries to succeed as she wanted to have it with the bottle-the supporter is feeding the baby by glass while visiting. Supporter (sister) October 16th, 2004.

According to the interview from family members, supporters help mothers in breastfeeding, they can take care of house works and of the baby when being parted from mothers. Examples of supports include preparing and feeding milk as mothers work outside.

In this study, observation is one crucial approach for data collection. For instance, absence of equipment for preparing formula milks indicated the existing of breastfeeding. The health staff can observe the supportive level from supporters, but also see the development of breastfeeding skills. In addition, the health staff can check

the quantity of milks, ensuring it is sufficient for baby demands. This eliminates mother's anxious of not feeding the baby enough milk.

The followings are the causes that prevent mothers in the study group from breastfeeding their child continuously.

1. The mother need to work away from home, and not be able to take days off. Instead, nursing baby relied on the relatives who in most case are grandmothers, despite they intended to breastfeed their babies themselves in the first place.
2. The mother's illness prevent the mother from breastfeeding: one mother in the group came down with mental problem after giving birth.
3. The supporters who attended the program are relocated and not capable of helping mothers.

3) Conclusion

The qualitative and quantitative results concluded in the same direction: the supporters not only assist, support and encourage those mothers to breastfeed, but help alleviate the load of housework. While there are emotional and obstacles for mothers while breastfeeding, it is very effective to have supporter encouraged and helped sooth their worries, assuring their capability to successfully breastfeed.

4.1.4 Duration and pattern of Breastfeeding in the study and control group.

The result of the study concerning the **duration and pattern of** exclusive breastfeeding at least 4 months in the study group and in control group can be summarized as follows:

At 1 month postpartum period: It illustrates that the rate of exclusive breastfeeding for the study group is 90 percent while the figure of the control group is 33.3 percent and the differences are statistically significant (p-value < 000).

At 2 month postpartum period: As can be seen from the below table, the rate of exclusive breastfeeding in the study group is 80.0 percent, while the figure of the control group is 28.3 percent and the differences are statistically significant (p-value <000).

At 3 month postpartum period: While the rate of exclusive breastfeeding for the study group is 68.3 percent, the figure of the control group is 11.7 percent and the differences are statistically significant (p-value < 000), as shown in Table 4.8.

At 4 month postpartum period: While the rate of exclusive breastfeeding for the study group is 63.3 percent, the figure of the control group is 8.3 percent and the differences are statistically significant (p-value < 000).

Despite the rate of breastfeeding decreases on monthly basis, the rate in study group is still higher than that of the control group 4 times as described in Table 4.8.

Table 4.8: Illustrated the nursing pattern and breastfeeding duration compare between the study and control group at month 1, 2, 3 and 4 postpartum.

Sample Group	Pattern of milk						df	X ²	P-Value
	Breast Milk		Breast milk + Formula		Formula				
	Number (person)	%	Number (person)	%	Number (person)	%			
<u>1st Month</u>							2	41.31	.000
Study Group	54	90	6	10	-	-			
Control Group	20	33.3	33	55	7	11.6			
<u>2nd Month</u>							2	32.45	.000
Study Group	48	80	8	13.33	4	6.7			
Control Group	17	28.3	32	53.33	11	18.33			
<u>3rd Month</u>							2	40.28	.000
Study Group	41	68.3	13	21.7	6	10			
Control Group	7	11.7	39	65	14	23.3			
<u>4th Month</u>							2	39.55	.000
Study Group	38	63.3	16	26.7	6	10			
Control Group	5	8.3	38	63.3	17	28.33			

4.2 Relationships Between Various Factors and Breastfeeding Pattern.

Hypothesis of the study is the participatory learning program has an effect on exclusive breastfeeding for at least 4 months which is in accordance with the goal of Ministry of Public Health and WHO. Nonetheless there are also other factors that may

affect breastfeeding which include:, supporting breastfeeding, ages, income, educational background, occupation, parity. Based on the analysis of logistic regression, the study yields the results as follows:

1) Based on the relevant literature review and research, it is found that 1-month postpartum period is the duration mothers and supporters is likely to encounter with problems and turn to formula milk instead. Therefore, one month is key turning point for continuation of breastfeeding. This study showed that mothers who went through the participatory learning education program are 12 times more likely to breastfeed to one month. Other factors have no effect on the duration of breastfeeding. The details results are described in Table 4.9.

Table 4.9: Logistic Regression results of factors that contribute to breastfeeding.

Independent Variable	B	S.E.	Wald	df	Sig.	Exp(b)	95.0% C.I. for	
							EXP(B)	Lower
Participatory Learning Program	2.492	.892	7.806	1	.005	12.090	2.104	69.471
Supporting breastfeeding	.126	.144	.771	1	.380	1.135	.856	1.505
Ages	-.001	.000	11.100	1	.001	.999	.999	1.215
Income	-.574	.585	.963	1	.327	.563	.179	1.773
Education background	-.109	.562	.038	1	.846	.897	.298	2.699
Occupation	.343	.364	.885	1	.347	1.409	.690	2.877
Parity	-.001	.000	11.100	1	.001	.999	.999	1.505
constant	-.080	2.190	.001	1	.971	.923		

According to the data gathered through the interview with mothers, it illustrated that mother preferred to go back to work at 3-4 months postpartum. Refer to the study about the factor associated with breastfeeding duration at least 4 months, it is found that the factor affecting exclusive breastfeeding duration of 4 months included participatory learning program with OR= 11.336; p-value = 0.015, CI (1.614, 79.630). Mothers who received health education through, the participatory learning program is 11 times more likely to exclusively breastfeed their babies for 4 months Detailed results are described in the Table 4.10.

Table 4.10: Logistic Regression Results of factors that contribute to breastfeeding.

(Independent Variable)	B	S.E.	Wald	df	Sig.	Exp(b)	95.0% C.I. for	
							Lower	Upper
Participatory Learning Program	2.428	.995	5.959	1	.015	11.336	1.614	79.630
Supporting breastfeeding	.097	.172	.319	1	.572	1.102	.787	1.542
Ages	.026	.058	.200	1	.655	1.026	.917	1.149
Income	-.001	.000	8.971	1	.003	.999	.999	1.000
Education background	-.629	.595	1.117	1	.290	.533	.166	1.712
Occupation	.379	.529	.514	1	.474	1.461	.518	4.124
Parity	.491	.399	1.513	1	.219	1.634	.747	3.575
constant	-1.641	2.437	4.53	1	.501	.194		