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# Role of Baby Caretakers to Sustain Breastfeeding among Working Mothers

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#### Abstract

**Study Objective:** The aim of the study was to identify in depth the role of baby caretakers to sustain breastfeeding among working mothers who express breast milk.

**Methodology:** A qualitative study using grounded theory was conducted from 15 April 2011 to 31 July 2011, among a sampling pool of working women recruited in an earlier study done in the district of Kuala Langat in 2010. Mothers who met the inclusion criteria of being working mothers, expressed breast milk at work, and who exclusively or predominantly breastfeed up to four month were recruited. A theoretical sampling method was applied and the data collection technique was in depth interview. The interview was audio taped and transcribed verbatim. The transcribed data were analyzed via thematic analysis using Nvivo 9.

**Results:** A total of 15 mothers were interviewed and two major themes of facilitating factors related to baby caretaker were identified, which were i) Preparation for the mother's absence including the mother's learning to express breast milk, training the baby to accept expressed breast milk and training the baby's carer the right way to give expressed breast milk, ii) support provided by the baby caretaker such as feeding the baby with expressed breast milk

**Conclusion:** Supportive employers and working environment, as well as baby caretaker assistance play the important role in sustaining breastfeeding among working mothers.

**Keywords:** Breastfeeding; Working mothers; Baby caretaker; Breast milk expression

#### Introduction

A national breastfeeding policy was introduced in 1993 by the Malaysian government to support, promote and protect breastfeeding practices in Malaysia [1]. The revised Malaysian Breastfeeding Policy was announced in 2006 stating that "All mothers are encouraged to breastfeed their babies exclusively with breast milk from birth until six months of age and thereafter to continue until the child is two years old. Complementary foods should be introduced when the baby is six months old" [2]. Although the Malaysian government had introduced the new breastfeeding policy, the prevalence of exclusive breastfeeding was declining 9.7% in the national study done in 2006 as compared to the national study done in 1996 [3].

Breastfeeding can prevent many diseases in infants, particularly infectious diseases [4] and cancer prevention among women [5]. Nevertheless, the prevalence of exclusive breastfeeding has been declining among working mother compared to non-working mothers [6-8].

Many factors contribute to the decline of breastfeeding practice particularly exclusive breastfeeding practice among working mothers. Provision of workplace support was associated with longer breastfeeding practices [9]. The workplace support which include breastfeeding policy at the workplace such as longer maternity leave,

paid breastfeeding leave, parenteral leave, childcare leave and flexible working hours were associated with longer durations of breastfeeding practices [10-13]. The lack of employer support was also documented to be associated with lower breastfeeding practices [14].

There were a few studies conducted to assess the success of strategies for combining employment and breastfeeding. These studies found that pumping or breast milk expression result in longer duration of breastfeeding compared to mothers who neither feed the baby directly nor pump at the workplace [15-17].

Most working mothers leave their babies in the care of child caretakers while they are at work. Childcare has been associated with a reduced likelihood of breastfeeding as compared to being looked after only by a parent. The reduced likelihood of breastfeeding was seen in informal childcare and formal childcare [18]. This study, however, did not explore how child caretakers act to facilitate or discourage breastfeeding.

The aim of this study was to identify in depth the role of baby caretakers to sustain exclusive breastfeeding among working mothers who expressed their breast milk.

**What is already known:** Workplace breastfeeding support as well as peer and employer support increased exclusive breastfeeding rates among working mothers.

What this study adds: The role of baby caretakers to sustain exclusive breastfeeding among working mothers who expressed their breast milk.

# Methodology

## Study design

This is a qualitative study with the application of the grounded theory. The adequacy of sample is through "evidence by saturation and replication" of information [19]. Using this method, data collection was continued until the point of data saturation, which is the point when new information no longer is obtained.

#### Sampling procedures

The initial participants were selected using purposive sampling methods from the sampling pool of working women who were recruited in a 2010 study comparing breastfeeding practices among working and non-working mothers. The inclusion criteria were working mothers, those who expressed breast milk at the workplace, the mothers had breastfed exclusively or predominantly breastfed up to four month of baby's age and baby's age more than 6 months during the interview. Mothers who exclusively or predominantly breastfed up to four months are considered as able to sustain breastfeeding. The sampling method was theoretical sampling.

Using purposive sampling methods, telephone calls were made to invite mothers who met the inclusion criteria to participate in the study. During the phone call, mothers were informed on the purpose and methods of the study before they agree to participate in the study. Out of the initial 25 mothers contacted by phone, 20 agreed to be involved in the study. However, during the day of interview only 15 mothers turned up. Those who failed to turn up cited logistic issues.

#### Data collection technique

In-depth interview technique was used in this qualitative study. A semi structured interview approach using interview guides listed below was performed by the researcher. The interview was performed either at the workplace or in the health clinics according to the mothers' preferences. Most mothers prefer to be interviewed in the health clinics during their child's medical follow up as it did not disturb their working hours. Four mothers agreed to be interviewed at their workplace.

After an appointment was set during the telephones calls, mothers were interviewed at the scheduled place as agreed by the mothers and the researcher. The interview was undertaken in a room which only involved the researcher and the participant. No other persons were involved during the interview. Mothers were briefed on the purpose of the study and were provided with an information sheet. If the mother agrees to participate in the study, informed consent was obtained and documented. After the informed consent was obtained, the participants had to complete the demographic information sheet prior to the interview. The interview was performed using the interview guide and it lasted between 45-60 minutes and was all audio taped. The option was given for the interview to be conducted either in Malay or English. All of the mothers in this study preferred to be interviewed in Malay, although there were some mixed usage of Malay and English by the mothers during the interview. Participants were not paid during the study however they were given a small token as an appreciation of their involvement in the study.

The data collection through in-depth interview was conducted on the first participant and the session was audiotaped and transcribed verbatim. The transcribed interview was then categorized for coding and theme by the researcher and another research assistant. The procedure was repeated for the consequence participants until the point of data saturation, in other words a point when no new information could be gathered. In this study, the procedure continued up to the 15th participant as the data saturated.

# Analysis of qualitative data

Audiotapes of the interviews were transcribed verbatim by two persons who were the researcher and assisted by another university student (a law student). The transcripts were returned to the participants for verification of their agreement that it is consistent with the information given during the interview and for them to make any comments or corrections.

The transcripts were coded and analyzed for themes using the software Nvivo 9. Text that was relevant to the study objectives were identified organized and categorized by the researcher. After the completion of the coding process, categories were clustered into themes. This process was also done with the assistance of another student from the public health course. Both researcher and the assistant were in agreement with the coding and themes that arose from the study. The process was done in the first interview and repeated in the second interview.

#### Ethical consideration

The study protocol was proposed to the Ministry of Health of Malaysia for approval. The study was approved by the National Medical Research Registry of the Ministry of Health of Malaysia with ID number 4434 on 27th January, 2010. The study protocol was also approved by the Ethics Committee of University Malaya Medical Centre on 29th April, 2009 with medical ethics committee reference number 715.21

An informed consent form was signed by each participant who agreed to participate in the study. Confidentiality of the data and the privacy of the mothers were also respected at all times.

#### Results

A total of 15 mothers participated in the interview sessions out of the initial 25 contacted.

#### Participants characteristics

The characteristics of mothers involved in the study were as shown in Table 1

	Characteristics	N		
1.	Age(year)			
	20 -24	1		
	25-29	9		
	30-35	5		

	Baby's age (month)		
	6 month-11 month	4	
	12 month -17 month	11	
3.	Race		
	Malay	13	
	Chinese	2	
4.	Religion		
	Islam	14	
	Buddha	1	
5.	Education level		
	Secondary School ( Form 1-5/6 )	7	
	Degree/Diploma	8	
6.	Household income		
	RM1001-RM 2000 (low income)	6	
	RM 2001-RM3000 (middle income)	3	
	RM3001-RM5000 (middle income)	5	
	More than RM 5000 (high income)	1	
7.	Number of children		
	One	10	
	Two- five	5	
8.	Married	15	
_	Place of work		
9.	1 lass of mone		
9.	Government sector	10	
9.		10 5	
9.	Government sector		
	Government sector  Private sector		
	Government sector Private sector Type of work	5	
	Government sector  Private sector  Type of work  Professional	3	
	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or	3	
	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers	3 2	
	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate	3 2	
	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals	3 2 3	
	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals  Clerical workers	3 3 3	
10.	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals  Clerical workers  Service workers	3 3 3	
10.	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals  Clerical workers  Service workers  Working hours	3 2 3 3 4	
10.	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals  Clerical workers  Service workers  Working hours  Office hour (8 a.m. till 5.00 p.m.)	3 2 3 3 4 13	
10.	Government sector  Private sector  Type of work  Professional  Legislators, Senior Officials or  Managers  Technicians or associate  Professionals  Clerical workers  Service workers  Working hours  Office hour (8 a.m. till 5.00 p.m.)  Shift (morning, evening and night shift)	3 2 3 3 4 4 13 1	

	6-10 years	4	
	More than 10 years	2	
13.	Childcare		
	Grandmother	4	
	Baby sitter	8	
	Nursery	3	

Table 1: Participants characteristics.

# Themes Derived From the Study

There were two major themes of facilitating factors to sustain exclusive breastfeeding related to baby caretaker were identified which were i) Preparation for the mother's absence including the mother's learning to express breast milk, training the baby to accept expressed breast milk and training the baby's carer the right way to give expressed breast milk, ii) support provided by the baby caretaker such as feeding the baby with expressed breast milk.

# Theme One: Preparation for the Mother's Absence

Preparation for the mother's absence was divided into preparation during confinement and during working.

# Preparation during confinement leave

The preparation during confinement leave includes preparation of mothers, preparation of babies and preparation of baby caretaker. All mothers in the study had started their preparation to express breast milk during their confinement leave. The preparation includes learning to express breast milk and preparing and storing the stock, training the baby to drink expressed breast milk and in some cases, the mothers train the baby to use artificial nipples and bottle feeding, and lastly, educating and training the caregivers to give the expressed breast milk to the babies.

#### **Preparation of mothers**

The majority of mothers in the study started to learn to express their breast milk since they were in confinement leave. As most mothers in the study were first time mothers, according to them this was very important because they have to be familiar with expression before they start working. Majority of them also making stock of expressed breast milk while they still on confinement leave. This was important so that their baby had enough expressed breast milk supplied when they were left with the baby carer while their mothers had gone to work.

"I had started expressed my breast milk while I still on confinement leave to make stock. When the baby was sleeping suddenly, I felt 'heavy'. I went to pump and kept the expressed breast milk in the freezer. Then I breastfed the baby directly when he woke up. I did not give the milk which was stored in the freezer. It was just for storage and stock. I kept doing it until I finished my confinement leave." (working mum #4, 30 y.o, plan designer, government servant).

"I had started to express and store my breast milk early.. I had a lot of stock. My freezer was full with the expressed milk.." (working mum #7, 31 y.o, accountant, private sector).

Besides preparing for stock during confinement, some of the mothers expressed their breast milk at home in addition to expression at the workplace when they had started working. They expressed it at night and stored it in the refrigerator for the baby's need while mothers were at work.

"I had enough stock. I had other bottles on standby. I also had other supplies in the freezer. I had prepared early.. since my confinement leave.. When I started working, I expressed in the morning and afternoon while at work and at night after maghrib prayer and lastly before sleep. It was four times a day... The stock was always enough for the next day." (working mum #9, 34 y.o, Human resource manager, private sector).

"After I breastfed the baby, when the baby was sleeping, I expressed and stored more in the refrigerator. I had a lot of expressed breast milk stock. Until sometimes, my baby sitter said that she still had the stock so, no need for me to send the new stock for that day.." (working mum #12, 27 y.o., community nurse, government sector).

# Preparation of babies: Trained baby to accept and drink expressed breast milk

More than half of the mothers in the study had trained their babies to accept expressed breast milk using artificial nipples and bottles since their confinement leave. This was because they want to familiarize their baby to sucking expressed breast milk using artificial nipples and bottles. Some mothers stated that it took time for the babies to accept and suck the expressed breast milk using the artificial nipples and bottles. This became the greatest challenge that they faced and they felt depressed and sad when they saw the babies crying and refusing to suck the milk using the artificial nipple.

"It was first during confinement leave.. Sometimes, he refused to drink it. I threw away that expressed breast milk as he refused it. It took long time for him to accept and suck the expressed breast milk. Earlier, he was not familiar with the bottle.. It was during the earlier part. As the time went on, he was familiar with it. He sucked it when he was really thirsty, after a short while, he refused to suck.. It took time for him to accept it.. When I was at the workplace, I called my mum a few times because I was worried.. However my mum said, he will accept and suck it.. No need to worry." (working mum #13, 26 y.o,, laboratory assistant, private sector).

"Earlier, my baby was not familiar with the bottle feeding. After a short while, he knew it was from an artificial nipple and he finally sucked the milk, however, he did not drink much. Sometimes, it was like a waste. When we gave the expressed milk in the bottle he only suck a little...When I breastfed him directly, he sucked a lot..." (working mum #8, 27 y.o., communication executive, private sector).

"I trained my baby within two weeks before I started working during my confinement leave. I gave the expressed milk using a bottle... Maybe when I trained early, the baby accepted the expressed breast milk using the artificial nipple and bottle feeding." (working mum #9, 34 y.o, Human resource manager, private sector).

## Preparation of caregivers: Educate and train the child caretaker

The majority of mothers in this study had educated and trained their baby carers the right ways to give expressed breast milk. Usually, they educate and train them before the mothers started working, while they were still on leave.

"My mum took care of this baby.. I had educated her and trained her and she knew how to do it. I already kept the milk in the bottle. I told her to take it out from the freezer when she wants to feed the baby. After it has thawed, put the bottle in warm water. It was easier for my mum because I already set the limit and stored the expressed breast milk in many small bottles...about 5 oz per bottle. One bottle for each feeding.. Most of the time he could not finished it all. He sucked only about 3 oz. (working mum #10, 33 y.o., clerk, government sector).

"I educate my baby sitter how to give the expressed breast milk. It was easier as she only had to put the milk in the bottle and put the bottle in warm water and give to the baby.. No need for other preparations.". (working mum #12, 27 y.o, community nurse, government sector).

"I did educate and show her the methods... I told her that we could not boil the milk on the fire..". (working mum #14, 28 y.o., assistant accountant, private sector).

"I explained to her how to keep and store the breast milk. I taught her how to do it. I informed her, when she wants to feed the baby, the first thing she had to do was put the milk in the second door of refrigerator. Warm it with warm water and do not boil it direct on the fire..". (working mum #3, 29 y.o, staff nurse, government sector).

A few mothers in the study felt that it was easier to educate the baby care taker because they already knew the methods to give expressed breast milk. This was because there were other babies taken care by them who were also on expressed breast milk. They already had been told and trained by the other baby's mother how to give the expressed

"I had educated my baby's carer how to give the expressed breast milk.. I'm glad; she knew the management of expressed breast milk. I did educate and train the caretaker and she seems familiar to give the expressed breast milk as she also took care of other children too. I had provided her with a warmer to warm the expressed breast milk...No problem.. Maybe she had experience in doing that". (working mum #8, 27 y.o., communication executive, private sector).

"When I went to the nursery and told the care givers that I gave expressed breast milk to my baby, they seemed already familiar with it. They were familiar with it because there were a few other mothers also gave expressed breast milk to their babies. They already knew the methods. Furthermore, there was a refrigerator provided especially to keep or store the expressed breast milk stock for the baby in the nursery... (working mum 2, 27 y.o., dietician, government sector).

Most mothers had educated and trained the care givers the methods to give expressed breast milk because they were afraid that if they did not inform properly, the care givers might spoil the expressed breast milk before feeding the baby. The most important factor the mothers were afraid of was the care giver might boil or heat the milk with hot water which can spoil the expressed breast milk. When they observed the care givers had done the right ways to give expressed breast milk to their babies, they felt relieved and confident to leave the baby with the care givers while they were working.

"Initially, two weeks before I started working, I went to the nursery to educate and train the care givers to take care of my baby for one day. I wanted to observe them for one day how they gave the expressed breast milk to my baby. I noticed that they were already experts at doing that. There was many hospital staff who also sent their babies to the carers. They understood how to heat the milk... The only thing, they did not use the syringe or spoon. They gave it by bottle feeding because they said it was faster.. When I observed the way they gave expressed breast milk to my baby, I felt relieved. I'm afraid if they heat it with hot water but they knew to soak it with warm water. I think I can trust them. I'm afraid they did not know how to manage the expressed milk stock that I sent and I was afraid the milk will become spoiled, but I trust them when I had observed the way they did it. (working mum #2, 27 y.o., dietician, government sector).

# **Preparations after the Mother had Started Working**

The preparation after the mother had start working includes the preparation of breast milk expression instruments and ice bag and the stock of expressed breast milk supplied to care givers before the mothers went out to work.

# Preparation of breast milk expression instruments before going to work

The majority of mothers had to prepare the breast milk expression instrument like the breast pump, bottles to keep the milk and some mothers also prepared the cooler bag and ice pack before they went out to work. They had to spare some time to do the preparation.

"I woke up at 5 o'clock in the morning to prepare the instruments.. I put in the ice pack in the cooler bag.. (working mum #4, 30 y.o., plan  $\,$ designer, government servant).

"I prepared the breast pump, ice pack and cooler bag before went out to work, I brought it all when I went to work.. (working mum #6, 28 y.o., technician, government sector).

# Preparation of stock of expressed breast milk supplied to care taker

All mothers in the study usually prepared stock of expressed breast milk to be supplied to the caretaker for the babies' feed. They usually kept the expressed breast milk in the small containers or bottle before storage. The amount supplied to baby caretaker ranged from four to seven containers but most mothers supplied about four to six containers for one day. The amount kept in each container ranged from three to five oz. According the them, the amount supplied was enough for the baby's need on that day and most of the times they supplied extra in order to make sure the stock is adequate for the baby's need.

"In one day, I gave 5 small bottles to the caretaker. It was about 4 oz in each bottle.(working mum 11, 34 y.o., community nurse, government sector).

"Earlier, during the first 6 month I supplied 20 oz per day. So, it were about 4 to 5 containers.. (working mum 6, 34 y.o., community nurse, government sector).

"On that time, mostly I put 4 oz in each bottle. I supplied five to six bottles to my baby sitter for one day. But sometimes the baby only took about 5 bottles. Sometimes 4 bottles...Less than 6. I supplied extra because I'm afraid it's not enough.. (working mum 2, 27 y.o., dietician, government sector).

# Theme Two: Baby's Caretaker Assistance/Role of Baby Caretaker

The second theme arise from the study was the role of baby care givers to feed the babies with expressed breast milk while their mothers were working. There were two subthemes which were supporting the mothers by feeding the baby with expressed breast milk and maintaining the price of baby's care charges.

# Supporting mothers by giving expressed breast milk to baby

The majority of mothers in the study mentioned that their caretaker accepted their request to feed the baby with expressed breast milk when they approached them to take care of the baby while they went out to work. A few mothers stated that their caretaker were very supportive as they informed the mothers not to worry and continue their work when the baby were under their supervision. However, there were a few mothers in the study who mentioned that their caretaker informed them that they would prefer to give formula milk rather than expressed breast milk. Nevertheless, they fed the baby with expressed milk as requested by the mothers.

Eight mothers sent their babies to baby sitters, four mothers send their child to her mothers and another three mothers send their babies to the nursery. According to the mothers who sent their baby to their mothers, they did not face any problems with their mothers to feed the baby with expressed breast milk. They were very supportive and told them not to worry to leave the baby with them. They could manage to give the expressed breast milk to the baby and the baby accepted the expressed breast milk. They advised the mothers to continue their work.

"When I went to work, my mum gave the expressed breast milk to the baby. When I called her, she said to me not to worry and asked me to continue to work. She told me, the baby accepted the milk and the baby was fine.. (working mum #13, 26 y.o., laboratory assistant, private sector).

"My mum did not face any problem to feed the baby with expressed breast milk. She knew what to do because she had observed me doing it." (working mum #7, 31 y.o., accountant, private sector).

From the study, the mothers who sent their babies to baby sitter mentioned that there were only a few other children taken care of by the caretaker. For a few mothers, the baby sitter only took care of their baby. The majority of the baby sitters did not face any problems to feed the baby with expressed breast milk while the babies were under their

"I already told my baby sitter about feeding the baby with expressed breast milk. She accepted it and I taught and trained her how to do it. She knew how to do it and she had no problem with it.. I also provided a warmer to warm the milk and other instrument as well..." (working mum #8, 27 y.o., communication executive, private sector).

"At home I breastfed her directly, however she was given expressed breast milk by my baby sitter.. The baby accepted, as I was not around and my baby sitter just gave it to the baby. My baby sitter only took care of three children including my baby and she had no problem with expressed breast milk feeding (working mum #11, 34 y.o., community nurse, and government sector).

My baby sitter only took care of my children - the baby and his elder brother. So far she had no problem to give the expressed breast milk. I told her what to do.. She seemed to know what to do. Maybe she had observed it or had read a magazine on how to give expressed breast milk.. (working mum #12, 27 y.o., community nurse, government

"So far I had no problem with my baby sitter as she understood that I'm working.. I did teach her how to feed the baby with expressed

breast milk.. (working mum #14, 28 y.o., assistant accountant, private

"I asked my baby sitter whether she had any problems to feed the baby. According to her, she had no problems to feed her with the expressed breast milk. The baby accepted it... The baby was ok.. She only took care of two children, the baby and another five years old child.. (working mum #13, 26 y.o., laboratory assistant, private sector).

Only one mother in the study mentioned that she had some problem with her baby sitter. It was the first experience for her baby sitter to give expressed breast milk to the baby. The baby sitter claimed she had to take care of the baby and also feed him with expressed breast milk. She also requested the mother to feed the baby with formula milk rather than expressed breast milk. She had difficulty to prepare expressed breast milk for the baby's feeding. Nevertheless after the mothers appeal and provided a warmer to her, she accepted to feed the baby with expressed breast milk.

"There was some problem. Maybe, it was the first time for her to take care of the baby and also feed the baby with expressed breast milk. In one occasion, she requested to me and my husband whether she can give formula milk to the baby as she was unable to prepare the milk.. According to her, she had to do extra work to prepare expressed breast milk before feeding the baby.. I tried to reduce her difficulties by providing a warmer. Finally, she accepted my request.. and agreed to continue feeding the baby with expressed breast milk... (working mum #1, 26 y.o., executive, government sector).

Another two mothers in the study who had sent their babies to nurseries mentioned that their caretakers accepted when they mentioned they wanted to feed the baby with expressed breast milk. They had taught and trained the care givers on the right methods to give expressed breast milk. One mother had provided a book on the right ways to give expressed breast milk to the care givers to increase their knowledge. The other mother mentioned it was helpful as the caregivers were familiar with giving expressed breast milk as there were other babies too that were on expressed breast milk in the nursery.

"I had briefed my baby's caretaker. At the same time, I also provided her with a book as an additional information for them because this is the first experience for them...no other baby was on expressed breast milk before.. So far they accepted and did not make any noise on it.. The charge for baby's care was also similar with baby on formula milk.." (working mum #9, 34 y.o., Human resource manager, private sector).

"I did not face any problem. In that nursery, they were already familiar to give expressed breast milk to the baby. There were a few other mothers who supplied the expressed breast milk for their baby. They knew how to do it....There was a refrigerator provided only to keep expressed breast milk in the nursery.. (working mum #2, 27 y.o., dietician, government sector).

One mother who sent her baby to the nursery stated that she had problems with her caretaker. According to her, they were not supportive and mentioned that it was difficult to feed the baby with expressed breast milk compared to formula milk. They did not understand the right ways to give expressed breast milk to the babies as they mixed the remainder milk which the baby did not sucked with the new thawed milk and gave to the baby.

"In the nursery, there was less understanding of the right ways to feed the baby with expressed breast milk. They mixed the excess milk which was not taken by the baby with the new thawed expressed breast milk and fed the baby with it...I didn't know earlier. After sometimes.. I taught and trained them earlier but not in detail... They did mention it was a bit difficult to handle expressed breast milk.... Earlier, they suggested to me to buy formula milk as it was easier for them to prepare. I think it was easy to feed the baby with expressed breast milk but they thought it in different ways... (working mum #5, 27 y.o., dental officer, government sector).

# Maintaining the similar service charge for baby's care

Majority of mothers in the study stated that their care givers accepted their request to give expressed breast milk to their baby when they went out to work. They maintained and did not increase the service charges.

"...So far they accepted and did not make much noise on it.. The charge for baby's care was also similar with baby on formula milk.." (working mum #9, 34 y.o., Human resource manager, private sector).

"I already had two baby sitters. The first baby sitter did not have any problem. According to her, it was easier to give expressed breast milk and she reduced the charge. She charged a little bit cheaper.. (working mum #9, 34 y.o., community nurse, government sector).

Nevertheless, one mother in the study stated that her baby sitter had increased the care charges as she claimed she took longer time to prepare the milk before feeding the baby. According to the mother, the baby sitter had to look after another four children and she understood why the baby sitter increased the charged. The mother stated that she did not mind paying the care charges as long as the baby sitter could prepare properly and feed the baby with expressed breast milk.

"My second baby sitter did not mind taking care of my child and feeding him with expressed breast milk because the other baby she took care of is also taking expressed breast milk. No problem...Only the cost. She mentioned that she had to do more work when preparing and feeding the baby with expressed breast milk. She charged a bit expensive. Maybe she had to take care of another four children on the same time.. I did not mind.. As long my son was fine and she could feed the baby according to my request.. The difference was RM50. If for other child, the charge was RM250 but for me she charged RM300. (working mum #6, 28 y.o., technician, government sector).

#### Discussion

This study had found that caretakers had influenced the breastfeeding practice among working mothers in which they can help working mothers to sustain exclusive breastfeeding. The exclusive or predominant breastfeeding up to four month was considered as mother able to sustain breastfeeding practice among working mothers as majority of mothers discontinued exclusive breastfeeding after returning to work [20]. In Malaysia since 2012, mothers in the public sector usually return to work after three months of confinement leave. Although in a quantitative study done in UK had mentioned that informal (RR-0.51 (95% CI 0.43-0.59)) and formal (RR-0.84 (0.72 to 0.99)) childcare was associated with a reduced likelihood of breastfeeding as compared to being looked after only by a parent [18]. This study had found that its either formal or informal baby caretaker can sustained exclusive breastfeeding if they were educate and trained to give expressed breast milk to the babies. However, in this study, mothers had to express breast milk and provide the expressed breast milk to the caretakers.

Mothers had to prepare themselves during confinement leave by learning and practicing to express breast milk and stockpiling the express breast milk. A similar finding was found in a secondary qualitative analysis in New Zealand, in which mothers started building up a stockpile of breast milk several weeks prior to their return to work. It was stated in the study that mothers in this study had to learn techniques of expressing, producing, handling and storing breast milk [21]. Another study done in another province in Malaysia also stated that among women who were able to exclusively breastfed their child up to six month, they had started expressing breast milk from early postpartum period [22].

Artificial nipples, bottle feeding and the use of pacifiers were not recommended as it had been documented to reduce the breastfeeding practice. In a study done in Kuala Lumpur, those who let babies use pacifiers had significantly shorter breast feeding duration and it was significantly associated with non-exclusivity in breastfeeding, while those who do not use the pacifier were significantly associated with having ever breast fed [23]. However, in this study, all babies were given expressed breast milk using bottle and using artificial nipple as according to mother it was easier to be given by the baby caretaker and less time consuming as compared to spoon feeding. Health education should be given to the caretakers on the hygiene of bottle and artificial nipple used. Other than that, health education should also target the mother and care givers to give express breast milk using the recommended guidelines by WHO.

Mothers also prepared the amount of small packed expressed breast milk according to the baby's needs before sending the baby to the caretaker. The amount supplied to baby sitter should be sufficient according to the needs of the baby. In most study, it did not stated on the need to supply adequate supply to baby care taker [22,24].

From this study, babies who were taken care of by grandmothers had more support by the grandmothers to give the mother's expressed breast milk. This contradicts the finding in studies done in the UK in which informal childcare was documented to have lower breastfeeding practice as compared to formal childcare. Similarly, in a study in Taiwan stated that one of the independent factors that increased the likelihood of formula feeding during the first one to two months of life was grandmothers or other people were the main child caretakers [25].

This study found that out of 15 mothers interviewed, two of them had been discriminated by the baby caretaker in which one taken care by baby sitter and another by nursery in which they did not support to feed the baby with expressed breast milk compared to formula milk. Nevertheless, in this study, the childcare was able to be advised by the mothers to continue to feed their babies with expressed breast milk. In Australia, in a study done on discrimination of breastfeeding mothers in childcare, five per cent reported having themselves experienced discrimination against breastfeeding in childcare. The proportion was higher (10 percent) among the currently breastfeeding mothers [26].

In Malaysia, currently there is no specific act to protect working mothers against discrimination of breastfeeding in childcare. Although Malaysia has legal provisions on maternity leave, a study done in 2014 reveals that in Malaysia, female employees require legal support on breastfeeding rights because there is no regulation, policy, or law to protect or support them in breastfeeding in the workplace and childcare. The study found that in Malaysia, employees' breastfeeding rights are not provided under the Employment Act 1955 [27]. Australia, on the other hand, has extended its protections to include discrimination on the ground of breastfeeding, since July 2011. The changes established breastfeeding as a specific ground of discrimination prohibited by the Act (section 7AA). Direct discrimination under section 7AA includes treating a breastfeeding woman less favorably than someone who is not breastfeeding. For this act, direct discrimination by childcare services could include, for example, a family day care educator refusing to accept care of a child that was currently breastfed until it was weaned, staff refusing to handle expressed breast milk, or women being prevented from breastfeeding on the childcare premises. Indirect discrimination under section 7AA of the Act occurs if a person imposes a condition, requirement or practice which has the effect of disadvantaging persons who are breastfeeding. According to the act, indirect discrimination includes lack of suitable place to breastfeed or express milk, or lack of lactation breaks for breastfeeding staff. Requiring exclusively breastfeeding mothers to pay childcare fees which cover the service's costs of supplying formula was also included as indirect discrimination. In a qualitative study in Australia, one mother reported of being told by caretakers that it would be easier to give her baby formula rather than continue struggling with breast milk supply [26].

Apart from the availability of workplace breastfeeding support, there is a need to give education to a baby's caretaker on expressed breast milk. In a study in Australia, significantly lower breastfeeding prevalence was evident mothers whose babies were in childcare services that did not offer certain breastfeeding support measures. They also found, unsurprisingly, that the types of breastfeeding support that were important to breastfeeding prevalence among children enrolled in childcare varied by the age group of the children [26].

Mothers will depend on the babies' caretaker to make sure the babies are receiving expressed breast milk while working and measures should be taken to ensure breastfeeding practices can be maintained until the recommended duration by WHO. In this study, there were a few baby caretakers who increased the service charge for babies receiving expressed breast milk. In Australia, this would have been considered as an indirect discrimination to breastfeeding mothers [26]. Baby care takers should maintain the baby care charges and should not increase the baby care charges for baby's receiving expressed breast milk. It is advisable to reduce the baby care charges. The Malaysian government should monitor the charges of childcare particularly when the babies are receiving expressed breast milk, and income tax reduction should be considered for mothers who expressed breast

The strength of this study is that this was a qualitative study which can explore in depth the role of baby caretakers to assist working mothers to sustain exclusive breastfeeding. This study also include Malay and Chinese participants as the study participants although the Chinese has been documented to have lower breastfeeding practices compared to other ethnicities in Malaysia [8].

The lack of Indian participants limits the study. Other than that, the study only assesses the working mothers. Further studies should be done among various child care providers whether formal or in formal childcare to assess the support of breastfeeding for working mothers and discrimination against them.

# Conclusion

Supportive employers and the working environment, as well education and the support by baby caretaker can aid in improving breastfeeding practice among working mothers. Baby caretakers play an important role in ensuring the babies are continuously provided with breast milk up until 6 months and the working environment should be mother friendly.

A new policy to protect working mothers to continue breastfeeding against childcare discrimination should be considered in Malaysia particularly in maintaining or reduction of service charge.

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