### Original Article

# Factors affecting breastfeeding intention and its continuation among urban mothers in West Jakarta: a follow-up qualitative study using critical point contact for breastfeeding

Rachmanida Nuzrina MSc<sup>1,2,3</sup>, Airin Roshita PhD<sup>3</sup>, Dian Nurcahyati Basuki MD<sup>4</sup>

Background and Objectives: Although breastfeeding is recommended by WHO, the breastfeeding rate in Indonesia remains low, because many women fail to maintain their breastfeeding intention during the breastfeeding period. The decision whether to breastfeed or not, like any other nutritional behaviour, may develop over a lifetime and is rooted in many aspects of life; however, many factors may affect a mother's decision about whether to stop or continue breastfeeding during the breastfeeding period. A critical time point of contact for breastfeeding is a time point when the mother experiences difficulties and encounters influences that may affect breastfeeding continuation. Methods and Study Design: A qualitative approach was used to investigate the factors affecting breastfeeding intention and continuation. A follow-up approach was used to assess actual experiences and problems at each time point of contact. The interviewees in this study were pregnant women who lived and worked in West Jakarta and were in at least Week 36 of their pregnancy. The key interviewees for triangulation were 2 grandmothers and 2 healthcare providers. Results and Conclusions: Knowledge, beliefs, and support were the factors affecting the women's intentions. Perceived obstacles; common beliefs; stigmas regarding breastfeeding; and support and influences from husbands, mothers, family members, and relatives were the factors influencing breastfeeding continuation within the first month postpartum.

Key Words: breastfeeding, intention, continuation, follow-up approach

### INTRODUCTION

WHO and UNICEF recommend breastfeeding as the optimal feeding method for infants, because it provides all the necessary nutrients and antibodies.<sup>1</sup> Exclusive breastfeeding is known to be the most effective preventive intervention to improve child health and survival.<sup>2-4</sup> Breast milk benefits not only infants but also mothers. Despite these benefits, the rates of initiation and continuation of breastfeeding in many countries remain less than optimal.<sup>5-7</sup> The practice of exclusive breastfeeding in Indonesia is low; only 27% of mothers breastfeed their infants until the age of 6 months.<sup>8</sup> According to National Health Survey RISKESDAS 2010 data, the exclusive breastfeeding rate in Indonesia is only 15.3%, and on average, Indonesian infants are exclusively breastfed for less than 2 months.

Focusing on both initiating and continuing breastfeeding is crucial because many women fail to maintain breastfeeding for recommended periods. The decision about whether to breastfeed may be made long before delivery; 26% of women make the decision during the third trimester. The third trimester is often believed to be

the time when women develop their immediate social networks and plan parenting strategies, including planning whether to exclusively breastfeed.<sup>10</sup>

Mothers require continued support to maintain exclusive and continued breastfeeding, to implement other methods of infant feeding when breastfeeding is not possible, and to establish adequate complementary feeding when the child is 6 months of age or older. This support ideally can be provided by trained personnel in the community and other health workers. However, health workers do not always have the opportunity to ensure that mothers successfully establish breastfeeding.

Difficulties may arise when the mother is discharged

**Corresponding Author:** Rachmanida Nuzrina, Nutrition Department, Faculty of Health Sciences, Universitas Esa Unggul, Jl Arjuna Utara no.9 Kebun Jeruk Jakarta Barat 11510, Indonesia.

Tel +62 -215674223; Fax: +62215682503

Email: rachmanida.nuzrina@esaunggul.ac.id

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<sup>&</sup>lt;sup>1</sup>Department of Nutrition, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

<sup>&</sup>lt;sup>2</sup>Department of Nutrition, Faculty of Health Sciences, Universitas Esa Unggul, Jakarta, Indonesia

<sup>&</sup>lt;sup>3</sup>SEAMEO RECFON (South East Asia Ministers of Education Organization Regional Center for Food and Nutrition), Jakarta, Indonesia

<sup>&</sup>lt;sup>4</sup>Helen Keller Indonesia, Jakarta, Indonesia

from a maternity facility within 1–2 days after delivery, during the first few weeks with breastfeeding, or when the spouse, family, and other relatives provide advice that might cause the mother to deviate from feeding practice recommended by WHO.<sup>11</sup>

On the basis of this behavioural theory on intention, a study that starts from the motivational phase of breast-feeding and considers the effects of influencing factors during the breastfeeding period until the time when mothers decide to stop or continue breastfeeding their children is necessary. A follow-up approach based on key time points of contact during the breastfeeding period was used to improve the understanding of how mothers decide whether to breastfeed.

### **METHODS**

### Data collection

This qualitative follow-up study was conducted in West Jakarta. The follow-up approach was planned on the basis of critical time points of contact, which were Week 36 of pregnancy and early breastfeeding-initiation periods, namely Days 1–4 postpartum, Days 5–14 postpartum, and Days 15–30 postpartum. The interviewees in this study were 14 women. Pregnant women were recruited from several healthcare facilities. Pregnant women aged 15–49 years who were at least in Week 36 of pregnancy, lived and worked in West Jakarta, received healthcare from selected healthcare facilities (hospitals, *puskesmas*, maternity clinics) in West Jakarta, had no difficulties in communicating, and understood Bahasa Indonesia correctly were eligible for inclusion.

Pregnant women who met the inclusion criteria were recruited and listed as interviewees and then purposively selected on the basis of the variation required in this study. They were given an explanation regarding the study and asked to provide informed consent to join as interviewees. The variations in maternal characteristics were based on parity, level of education, age, and place of delivery. The in-depth interview guidelines used in this study were pretested, revised, and rewritten on the basis of the pre-test results.

Three in-depth interviews were conducted for each interviewee. The first phase investigated factors underlying the mothers' intentions to breastfeed their children; in this period, the interviewees were at least in Week 36 of pregnancy. The second phase was conducted 1 week after delivery and investigated the mothers' breastfeeding experience and factors affecting it 1) within the early initiation period, 2) on Days 2–3 postpartum, and 3) on Day 7 postpartum. The last phase was conducted within 1 month after delivery. This phase investigated factors or reasons underlying the mothers' continuation of breastfeeding. The mothers were interviewed regarding their breastfeeding experiences and practices on Day 14 postpartum and Day 30 postpartum, which are recommended critical time points of contact during the breastfeeding period. This adaptation of the WHO critical time points of contact was used only as a basis to investigate breastfeeding problems, difficulties, and influences during each time. For triangulation, in-depth interviews of the key interviewees were conducted after all the interviewees were interviewed in

the last visit. The in-depth interviews were conducted separately from the mothers to obtain individual responses both from the mothers and the key interviewees.

### Data analysis

The main steps of data processing in this study were transcribing, coding, data analysis, and data presentation.<sup>12</sup> The records of all interviews (first, second, and third visits and triangulation interviews) were transcribed verbatim by transcribers. When the transcripts were ready, they were coded using an open-coding method. Coding is the process of examining raw qualitative data, which is in the form of words or phrases, and assigning codes or labels.<sup>13</sup> In the open coding method, researchers broke down the data line by-line and word-by-word into distinct concepts and categories. These categories formed the basic units of subsequent analyses.

After all the transcripts were coded, inductive content analysis was performed using the categories generated from the codes.<sup>14</sup> After a detailed examination of the codes, all similar codes were grouped under single higher headings or themes.<sup>15</sup>

To ensure the validity of the data, triangulation was performed by seeking evidence from a wider and broader source of information. Interviewees were encouraged to be forthright and honest from the outset of each visit, and the researchers established rapport at the beginning and clearly indicated that these interviews did not have wrong or right answers.

This study was conducted after obtaining ethical approval from the Ethical Committee of the Medical Faculty of the University of Indonesia. The involvement of the interviewees in this survey was voluntary. The interviews were conducted with the consent of the interviewees only after they received complete and clear information regarding this study and signed the consent form.

### RESULTS

Fourteen women participated in this study. The characteristics of the interviewees are presented in Table 1.

Most of the interviewees in this study were in their first pregnancy (n=10), 3 interviewees were in their second, and 1 interviewee was in her third. Among the 14 interviewees, 2 interviewees had less than 9 years of education and most of them (n=12) had a higher educational level or more than 9 years of education.

**Table 1.** Characteristics of pregnant mothers (n=14)

Characteristics	n (%)
Parity	
First parity	10 (71.4)
Second or more	4 (28.6)
Level of education	
Basic education (9 years)	2 (14.2)
High education	12 (85.8)
Age, years	
21-35	13 (92.8)
Above 35	1 (7.14)
Place of delivery	
Maternity clinics	3 (21.4)
Hospital	10 (71.4)
Midwife clinics	1 (7.2)

**Table 2.** Factors influencing mother's breastfeeding intention during pregnancy

Mother intended to breastfeed exclusively	Mothers intended to breastfeed	Mothers did not intend to breastfeed
(n=9)	(n=4)	(n=1)
<ul> <li>Modern living and role model on BF</li> </ul>	<ul> <li>Common belief about BF</li> </ul>	<ul> <li>Negative belief about BF</li> </ul>
<ul> <li>Learning from experience</li> </ul>	<ul> <li>Bad experience on BF</li> </ul>	• Experience
<ul> <li>Proper knowledge</li> </ul>	<ul> <li>Lack of knowledge and information</li> </ul>	<ul> <li>Lack of knowledge</li> </ul>
<ul> <li>Support from spouse and family</li> </ul>	exposure	<ul> <li>Lack of support for plausible and evi-</li> </ul>
·	-	dence based traditional beliefs

Most of the interviewees went to the hospital for monthly check-ups as well as for delivery (n=10), whereas 3 interviewees chose maternity clinics for delivery, and only 1 interviewee went to a midwife clinic for delivery. Most of the interviewees were aged 21–35 years and only 1 interviewee was older than 35 years.

### Factors affecting women's intention to breastfeed

Interviewees who were in Weeks 36–40 of pregnancy were asked about their understanding and beliefs regarding breastfeeding and their intention regarding breastfeeding their infants. The factors influencing the interviewees' intentions are listed in Table 2.

### Beliefs regarding breastfeeding

Today, breastfeeding is viewed not only as a benefit but also as a part of trendy living. The interviewees shared that they first learned about it from social media; many social media accounts promote exclusive breastfeeding as the optimal feeding practice for infants.

'I am an active follower of every pro breastfeeding account on Twitter: Aimi-ASI, id Ayah ASI, Dr Oei, you name it! I found them very informative. I can even interact with other young mothers there.' (interviewee, 26 years old, housewife, first pregnancy)

Some of interviewees believed that every mother should breastfeed her newborn. They said breast milk is the optimal food for their infants and considered it the first food for newborns.

'I believe that my breast milk is the best food for my baby. It is not only nutritious but also natural with no preservatives.' (interviewee, 28 years old, private employee, first pregnancy)

### Learning from experience with breastfeeding

The interviewees used their experience as well as that of others for guidance to perform breastfeeding. Mothers who had favourable experiences of exclusive breastfeeding intended to perform exclusive breastfeeding, and they were confident that they could perform exclusive breastfeeding for the second time:

'I produced a sufficient amount of breast milk then. I even breastfed my son until he was 2 years old, and I am confident now I'll do the same.' (interviewee, 30 years old, hospital worker, second pregnancy)

As for experience from family, an interviewee stated that she watched her sister struggling to breastfeed her baby, and it scared her. If this happened to her, she would supplement breast milk with formula milk.

'My sister waited for 3 days to breastfeed her baby, and the baby contracted jaundice. Hence, I will not wait until I produce breast milk. If my baby needs it, I will perform formula feeding.' (interviewee, 23 years old, housewife, first pregnancy)

### Support and advice from family

For most of the women, support from the family is crucial for making a breastfeeding decision. Support may have several different forms, such as advice, buying books about breastfeeding, and attending breastfeeding seminars.

'My husband suggested that I exclusively breastfeed our baby. He bought books, read several blogs, and shared that information with me. He even enrolled me in some breastfeeding seminars.' (interviewee, 28 years old, housewife, first pregnancy)

### Knowledge and information exposure

Lack of knowledge and information exposure also plays a vital role in affecting a woman's decision to breastfeed. None of the interviewees in this group understood the term 'exclusive breastfeeding'. They understood that breastfeeding is a common practice for new mothers and newborns, but they did not know how and why infants should be exclusively breastfed:

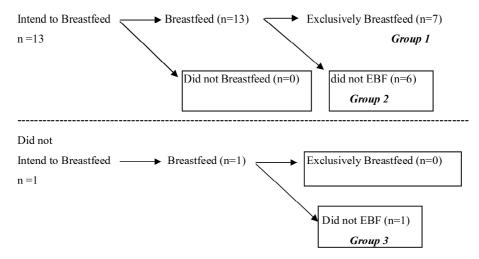
'I do not know what exclusive breastfeeding is, but I know that the baby should drink milk. The baby may drink either my breast milk or formula milk, but I think formula milk is better because it is thicker than breast milk.' (interviewee, 32 years old, cleaning service employee, second parity)

### Breastfeeding continuum within the first month postpartum

The development from mothers' intention during pregnancy to their decision regarding whether to continue breastfeeding, complement breast milk with other foods or formula milk, or stop breastfeeding within the first month postpartum is depicted in Figure 1.

During pregnancy, 13 interviewees intended to breast-feed their children; of them, 9 intended to breastfeed exclusively. Only 1 interviewee did not intend to breastfeed her child (Table 2). Of the 13 interviewees, all of them breastfed their children after delivery, but at the end of 1 month, only 7 interviewees exclusively breastfed their children. By contrast, the other 6 interviewees continued to breastfeed their children, but they fed their children other foods, such as formula milk, glucose water, bananas, or honey.

The only interviewee who did not intend to breastfeed her child eventually tried to breastfeed her child in response to a midwife's suggestion, but after trying for the second time, she gave up and fed her child formula milk.



**Figure 1.** Breastfeeding profile from intention to one month postpartum.

### Reasons for women to continue breastfeeding

At each critical time point of contact, the interviewees faced different types of difficulties, received help and advice, were exposed to various influences, and encountered obstacles that may have affected their breastfeeding practices.

### Days 1-4 postpartum

### Mothers' feelings and emotions

Happiness and confidence because of high production of breast milk encouraged the interviewees to continue to breastfeed their children:

'I'm very happy that I produce a large amount of breast milk. Now I feel confident that I can exclusively breastfeed my child.' (interviewee, 25 years old, hospital worker, first pregnancy)

### Positive influences from other people

Help, encouragement, support, and advice from close friends, family, and experienced people prevented the interviewees from feeling left behind in the new experience. Such support enabled the interviewees to stay calm and continue to breastfeed their children:

'The midwives and nurses always helped me to breastfeed my baby. They taught me how to put my baby in the right position.' (interviewees, 24 years old, housewife, first pregnancy)

### Days 5-14 postpartum

During this time frame, interviewees faced new challenges in nurturing their children, including breastfeeding. When returning home from healthcare facilities, the interviewees experienced a lack of the support they received from nurses and midwives.

### **Encouragement from parents**

Although some of the interviewees lived in nuclear families, parents were considered the most valuable supporters. Most interviewees said that they required their parents' advice because of their parents' experience.

'I asked my mother to stay with me and help me. My mother encouraged me to keep breastfeeding my baby; she said it is the first precious thing that a mother can give her children.' (interviewee, 26 years old, private employee, first pregnancy)

### Support and help from healthcare providers

Support from nurses and midwives usually stopped when the interviewees left the hospitals. However, one interviewee continued to receive that support at home:

'I called a nurse who helped me once when I was in the hospital. She was very kind and assisted me to breastfeed my baby at home.' (interviewee, 28 years old, housewife, first pregnancy)

### Constant support from husbands

Although most of the husbands left their wives on the third day to return to work, the interviewees said that their husband's help, even as simple as a massage, would cheer them up.

'I know my husband had to go to work, but when he was at home, he helped me carry our baby, gave me a back massage, and even bought me delicious food. These acts made me feel that I'm not alone, and I was relaxed while breastfeeding my baby.' (interviewee, 27 years old, private employee, second pregnancy)

### Days 15-30 postpartum

Within this period, the children's growth became increasingly visible; the interviewees had already developed feelings towards and techniques for breastfeeding. The interviewees became habituated to breastfeeding.

### Beliefs regarding breastfeeding concerning the child and mother

When the child was 2–4 weeks old, more relatives and family visited to congratulate the interviewees. Popular beliefs, such as the best mother is the mother who exclusively breastfeeds her child, and children who exclusively receive breast milk are the healthiest children, encouraged some interviewees to continue breastfeeding.

'My neighbour said she admire me for trying to exclusively breastfeed my child. Almost every young mother in around my house is an exclusive breastfeeding supporter, so it encourages me to exclusively breastfeed my child.' (interviewee, 31 years old, housewife, second pregnancy)

## Reasons for women to stop breastfeeding or supplement breast milk with other foods

### Days 1–4 postpartum

### Perceived obstacles faced by mothers

The interviewees shared that they struggled to position the baby correctly. Sometimes they required 3 people to help them:

'My baby was very restless. It took 3 people to get him in the right position. I feel exhausted, and I'm sure that my baby is exhausted as well.' (interviewee, 23 years old, private employee, first pregnancy)

### Mothers' feelings and emotions

What mothers felt at this time was extremely influential for the continuation of breastfeeding. If the mother felt stressed or sick or if she experienced fear, she decided not to breastfeed the child for some time, or she substituted breast milk with formula milk. One reason for discontinuation shared by the interviewees is the fear that they had insufficient breast milk, and their children remained hungry or became sick.

'I'm really worried about why the quantity of my breast milk is not as high as that of other mothers. What is wrong with me?' (interviewee, 26 years old, housewife, first pregnancy)

One reason for performing formula feeding on the first day postpartum was postsurgery feelings:

'I felt groggy and numb after surgery; I did not think I wanted to breastfeed my baby at that time.' (interviewee, 28 years old, private employee, first pregnancy)

### Negative influences from family members

Family members, particularly those who are highly respected, could speak in a strong, fear-inducing manner to the mother, and that could affect the mothers' breastfeeding continuation:

'My mother-in-law said that my breast milk is low and that if I insist on exclusively breastfeeding, my baby will be hungry. She told me to give formula milk to my baby.' (interviewee, 21 years old, private employee, first pregnancy)

### Days 5-14 postpartum

Within this time frame, the interviewees experienced more complex situations. Sore nipples, breast engorgement, common beliefs, and influential acts and words from others may have caused mothers to stop breastfeeding.

### Sore nipples and breast engorgement

Sore nipples and breast engorgement are common problems that can deter mothers from continuing to breastfeed their children.

'My baby likes to bite on my nipples during breastfeeding, so my nipples became sore. I haven't felt like breastfeeding since then.' (interviewee, 27 years old, private employee first pregnancy)

### Latching skills

Although the interviewees said that they had already been taught how to put the baby in the correct position in the hospital, when they were at home, they felt alone, lacked assistance, and forgot how to breastfeed.

'In the hospital, I thought I had already mastered the technique, but when the nurse was no longer helping me, I felt clumsy all over again.' (interviewee, 25 years old, hospital worker, first pregnancy)

### Mothers' feelings and emotions

The interviewees reported that waking up every 5 hours to change diapers and breastfeed the baby was very exhausting and caused mood swings:

'I felt very exhausted when waking up every 5–6 hours by myself. In the end, I got a fever, so I took a rest and let my mom feed my baby with formula milk.' (interviewee [single mother], 23 years old, private employee, first pregnancy)

When the interviewee felt stressed and sick, she decided to rest. Her mother suggested that she take a break and let her take care of the baby. The interviewee's mother decided to feed the baby formula milk.

### Formula milk sample provided by clinics

When one interviewee faced difficulties in breastfeeding her child, she decided to feed her baby with the formula milk provided by maternity clinics:

'When I was stressed because of my low quantity of breast milk, I remembered that the clinic had given me formula milk. I thought it would be the next best food for my baby because it was provided by doctors and midwives.' (interviewee [single mother], 23 years old, private employee, first pregnancy)

### Beliefs regarding breastfeeding

One of the reasons that interviewees supplemented their breast milk with food or formula milk is a common belief that their breast milk alone would not be sufficient for their babies:

'My baby seems unsatisfied with my breast milk alone. Maybe because he's a boy, he drinks more than I can produce.' (interviewee [single mother], 23 years old, private employee, first pregnancy)

Another interviewee believed that she has the 'small breast gene', so she had already prepared formula milk in her house.

'You know, I have small breasts, and my breasts will not produce enough milk. I learnt it from my experience with my first son.' (interviewee, 33 years old, cleaning service employee, second pregnancy)

### Discouraging words from relatives

Having visitors is very common in Indonesian culture. Negative words and advice from relatives may cause mothers to stop exclusive breastfeeding.

'My neighbour said that my baby is small. She advised me to perform formula feeding like she did. She said that if my baby drinks formula milk, the weight increase will be good.' (interviewee, 25 years old, physiotherapist, first pregnancy)

### Early complementary feeding practice

An infant's grandmother, as the new caregiver, had her

own method of feeding the child with bananas and fruit juice.

'My mother gave her [interviewee's baby] banana and fruit juice in the first month. She said it will be good for my baby, and my baby would be healthier.' (interviewee, 38 years old, third pregnancy)

### DISCUSSION

The intention of mothers to breastfeed their infants was divided into 3 categories: the intention to breastfeed exclusively, as recommended by WHO and UNICEF; the intention to breastfeed, and the intention not to breastfeed. The differences in intention were attributed to differences in the understanding of breastfeeding and reasons underlying the mothers' decisions.

A study conducted by Wen, <sup>16</sup> in 2009 regarding the awareness of health recommendations revealed that mothers who were completely aware of the breastfeeding recommendation intended to exclusively breastfeed their infants. The study reported that most of the mothers knew the WHO recommendation of exclusive breastfeeding for 6 months. Compared with only 11% among those mothers who were not aware of the recommendation, 61% of mothers who knew the recommendation intended to follow it

Some of the mothers were unaware of exclusive breast-feeding. They intended to breastfeed their children, but did not mention how and how long they intended to breastfeed their children. They reported that breast milk is the best food for their infants, but they also stated that they would not refrain from feeding other liquid-based foods, such as formula milk, to their newborn babies.

Mothers who knew the benefit of exclusive breastfeeding, both for them and their children, had a stronger breastfeeding intention than that of mothers who did not have knowledge of the benefits. Among the mothers who did not know the benefits of exclusive breastfeeding, the intention was merely based on their own beliefs and common beliefs that have been held in the community for a long time, such as that breastfeeding is a basic instinct that every mother should have and that breast milk is the first food for a newborn baby.

Swanson,<sup>17</sup> in his study revealed that women's decision to breastfeed or bottle feed is largely influenced by cultural norms and socially accepted and desirable practices. These norms or social influences can come from close family, neighbours, or relatives. The beliefs of these people unintentionally become the mothers' beliefs. Swanson's findings can support the observations in this study that social pressure and common beliefs can differ among mothers. If friends, mothers, mothers-in-law, or husbands perceive that the mother should exclusively breastfeed the infant, then the mother's intention will be the same as that of the surrounding people. By contrast, mothers who are exposed to opposite social pressures are likely to have the same perceptions as their closest friends.

Experience is reported to be one of the factors influencing mothers' intention to breastfeed their infants. Personal breastfeeding experience or observation of someone else's experience may affect a mother's decision regarding breastfeeding. A study by McInnes, Is in 2001 assessing predictors of mothers' breastfeeding intention

revealed that mothers who had experience with breastfeeding their first children were most likely to breastfeed their subsequent children. In this study, mothers with favourable experiences in breastfeeding were very confident that they would perform with equal effectiveness, if not with more effectiveness, as they did during the first experience. By contrast, mothers with unsuccessful first experiences have different perceptions for their second child. Some of the mothers who failed to exclusively breastfeed in the first experience believed that they would fail again the second time because of anatomical shortcomings of their breasts. Specifically, they believed that they would not produce a sufficient volume of breast milk the second time. Moreover, they believed that feeding their children formula milk provided them with health benefits, and they need not undergo the inconvenience of attempting breastfeeding. By contrast, some mothers who had unsuccessful first experiences were willing to improve their breastfeeding ability for their second child. These different outcomes may be due to differences in the social support and pressure, and sources of information and knowledge that these mothers received. They had learnt from their mistakes and were willing to improve. Experiences can enhance intentions, but they can also be negative factors in the case of unsuccessful attempts.

Social influences on the mothers' decisions on breast-feeding were evident during the first 3 days postpartum. Mothers who intended to breastfeed perceived social pressure to breastfeed, whereas mothers who did not refuse formula milk perceived social pressure to start formula feeding their children. These situations are also explained by Swanson's study in 2009. The social pressures perceived by the mothers from family and friends affected their decision on Day 1 postpartum.

In this study, the mothers reported that the reasons they stopped breastfeeding on Day 1 postpartum included common beliefs, social pressures, and lack of support. Mothers' perceptions of their babies' satisfaction and breast milk production significantly affect mothers' breastfeeding continuation. 19 One mother felt that she did not produce sufficient breast milk by the time family and friends visited her, eventhough she consume lactogogue herbal such as katuk leaves and the visitors told her that if she waits until her breast milk production is sufficiently high, her infant will be thirsty, hungry, or even contract jaundice. She was assured that she could perform formula feeding in the beginning and can continue breastfeeding later on. Beliefs about the effects of food on pregnancy and lactation are widespread among women in more traditional societies, for example, Bataknese lactating women in in the North Sumatera province of Indonesia have traditional beliefs that women who have just given birth must consume torbangun soup during their confinement period. This torbangun leaves proven to increase breastmilk production.<sup>20</sup> And there are many women in this study also consider to consume traditional diet such as katuk leaves to increase their milk production. However many mothers in this study feels that the lactagogue effect food did not give many help to their breasfeeding production. Another mother shared that one of her relatives told her that infants who drink formula milk are usually healthier and gain more weight compared with infants who drink breast milk. The belief that large babies with high body weights are healthy affects mothers' decisions to continue exclusive breastfeeding or supplement it with formula feeding. By contrast, some mothers feel happy because they produce large amounts of breast milk, and with the help of midwives and nurses, they manage to breastfeed their babies effectively. These feelings apparently provide mothers with additional confidence to decide to continue breastfeeding their children.

Within Days 1–4 postpartum, mothers usually are in healthcare facilities, and they receive considerable assistance from nurses and midwives. Mothers who experienced baby-friendly hospital practices were more likely to breastfeed exclusively than those who did not.<sup>21</sup> A mother shared that assistance from nurses and midwives calmed her, and she learnt many facts regarding feeding the child. A study conducted by Graffy, 22 in 2001 revealed that mothers require practical help with positioning, effective advice, encouragement, and acknowledgement of feelings. Mothers who receive this type of support are encouraged and are more likely to continue breastfeeding than mothers who do not receive it. Mothers who do not receive this support experience stress and prefer to formula feed their infants. Support and effective advice are essential at this critical time point. If the mother receives frightening and degrading words at this time, she may lose her confidence to continue breastfeeding.

When mothers return home from healthcare facilities, they face similar problems but in completely different situations. Perceived barriers and obstacles, such as difficulty in latching and positioning, sore nipples, and breast engorgement, deter the mother from continuing exclusive breastfeeding. Nankunda,23 mentioned that these problems should be overcome by consulting a communitybased peer counsellor. However, this type of intervention is not common in Indonesia. One of the mothers reported that a nurse was willing to help her to breastfeed her child, and it helped her to a large extent to overcome her problems. Mothers who had already received advice and support in the hospital may be able to overcome problems, but they still require constant support from family, particularly from the husband. Husbands contributing by supporting breastfeeding, anticipating needs, providing encouragement, and sharing the experience has been proven to help mothers continue breastfeeding.<sup>24</sup> A mother shared that support from her husband, as simple as giving her a massage, buying food, and waking up with her at midnight, was extremely influential.

Perceptions such as perceived insufficiency of milk, feeling too sick to breastfeed, and perceived wateriness of breast milk are most common in this period. The reasons for introducing formula feeding, such as a decrease in breast milk, pain during breastfeeding, the baby crying, and the ease of formula feeding during work, agreed entirely with those reported in other studies. The fear of producing insufficient milk universally appears to be the most crucial reason for introducing formula feeding. This is also similar to the findings of a study assessing breastfeeding barriers by Moland.<sup>25</sup>

Mothers' willingness also plays a role in this situation. If the mother is willing, she will find a way to overcome problems. However, most of the mothers who initially did

not have a strong intention to exclusively breastfeed cited the aforementioned reasons for stopping breastfeeding or providing formula milk as the main food. Therefore, supportive and consistent advice for women at time points of vulnerability may help them to effectively cope with the demands on new mothers. <sup>26</sup> Mothers in this study who received constant support from their mothers and husbands were more likely to continue breastfeeding.

Incorrect beliefs regarding breastfeeding are supposed to be overcome by obtaining proper knowledge and information;<sup>25</sup> however, most of the mothers did not receive this knowledge. They fed their children according to their beliefs, personal experience, and advice from other people. Swanson stated that there are 2 types of influential people that mothers believe. Mothers first believe advice from nurses, doctors, midwives, and partners, and second believe advice from people in general. When mothers live with people with negative influences, they are more likely to be influenced and select formula milk or other food over breast milk.

During Days 15–30 postpartum, the most common problems are similar to those of the previous stage. However, mothers are preparing to return to work and consequently the problem of early complementary feeding arises. Some mothers start feeding their children expressed breast milk by using a bottle when they have to work. Alternatively, the mother's mother or mother-in-law, as a caregiver, may feed the baby solid food. According to their understanding, solid food provides health benefits to the baby. One of the mothers said that feeding the infant bananas makes her baby produce solid faeces, and the infant no longer has diarrhoea. In fact The introduction of solid foods before six months of age is associated with increased rates of infection, reduced breastmilk production, disruption to the microbiome and possibly obesity.<sup>26</sup> The other belief is that the infants are no longer satisfied with liquid food, such as milk. Feeding infants banana or honey makes them gain extra weight. This false understanding is caused by a lack of knowledge and incorrect beliefs.<sup>27</sup>

In a similar study that was conducted to investigate breastfeeding continuation, sociodemographic characteristics; social support; mothers' knowledge, attitude, and skills; environmental factors; and health service providers were the most common factors.<sup>28</sup> Critical time points of contact of breastfeeding were established to assist mothers to cope with problems and obstacles at each time point. Each factor mentioned earlier may appear at different times; for instance, support from healthcare providers while the mother is in a healthcare facility may help mothers to maintain breastfeeding practice, but when the mothers come home with no experienced and trusted person to help them, they face different problems, such as influential words from relatives or feeling exhausted and stressed from taking care of the baby. Some women who think positively believe that the perceived problem is normal and continue to breastfeed. By contrast, other women who are self-doubting and rigid are more likely to focus on negative aspects of breastfeeding. When mothers feel comfortable regarding their choice of coping mechanism, they are likely use this mechanism throughout the breastfeeding period.

### Limitations of the study

This study assessed only breastfeeding behaviour within 1 month postpartum. However, the assessment of exclusive breastfeeding outcomes ideally requires a study duration of 6 months. The time constraint is the primary limitation in this study. A longitudinal study approach on breastfeeding behaviour is required to assess the critical time points and situations in which mothers face crucial problems that may deter them from continuing breastfeeding.

Time points of contact during the breastfeeding period were used as a basis, because each contact is considered a critical time at which the mothers may face breastfeeding problems. By assessing each point, a primary description of exclusive breastfeeding situations may be obtained.

Another limitation on this study is that breastfeeding practice assessment relied on the interviewees' answers to the researcher's questions. An observational approach is likely to provide information regarding the actual practice, but some of the interviewees refused to be interviewed during breastfeeding and chose to be interviewed when their children were sleeping.

#### Conclusion

Factors affecting the intention of mothers to breastfeed are knowledge and beliefs about breastfeeding, information exposure, experience, support from family and friends, influence from the social environment and social media, and the mothers' concerns regarding breastfeeding. Within 1 month postpartum, the reasons for continued breastfeeding were constant support from family, friends, and health workers; positive beliefs about breastfeeding; an encouraging influence from other people; and positive beliefs regarding the breastfeeding mother and baby. The factors affecting the discontinuation of exclusive breastfeeding were perceived obstacles (i.e., sore nipples, breast engorgement, and latching and positioning difficulties), negative common beliefs, early complementary feeding practice, and discouraging words from surrounding people.

### **AUTHOR DISCLOSURES**

This research was part of master thesis of first author at Department of Nutrition, Universitas Indonesia. There are no potential conflicts of interest to be reported. No external funding was received for this project.

### REFERENCES

- UNICEF. Infant and Young Child Feeding Programming Guideline. New York: United Nation; 2011
- Kramer MS, Guo T, Platt RW, Dzikovich I, Collet JP, Shapiro S et al. Infant growth and health outcome associated with 3 compared with 6 months exclusive breastfeeding. Am J Clin Nutr. 2003;78:291-5.
- 3. Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, Mathers C, Rivera J; Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: global and regional exposure and health consequences. Lancet. 2008;382:243-60. doi: 10.1016/S014 0-6736(07)61690-0.
- 4. UNICEF. Indicators for Assesing Infant and Young Child Feeding Practice. New York: United Nation; 2010.
- World Health Organization. Protecting, Promoting and Supporting Breastfeeding; The Special Role of Maternity Service. New York: United Nation; 1989

- World Health Organization. Infant and Young Child Nutrition: Global Strategy on Infant and Young Child Feeding. WHO: Geneva; 2002.
- Campbell H, Jones I. Promoting breastfeeding: a view of the current position and a proposed agenda for action in Scotland. J Public Health Med. 1996;18:406-14.
- 8. BPS, Indonesian Demographic Health Survey. Jakarta: Statistics Indonesia; 2010
- 9. Kools EJ, Thijs C, Kester ADM, van den Brandt PA, de Vries H. A breast-feeding promotion and support program a randomized trial in The Netherlands. Prev Med. 2005;40: 60-70. doi: 10.1016/j.ypmed.2004.05.013.
- Vermont Child Health Improvement Program. 10 Steps to Empower Mothers & Nurture Babies. Vermont; 2010
- Aidam BA, Perez-Escamilla R, Lartey A, Aidam J. Factors associated with exclusive breastfeeding in Accra, Ghana. Eur J Clin Nutr. 2005;59:789-96.
- Denzin N, Lincoln Y. (Eds.). Handbook of Qualitative Research (2nd ed.). Thousand Oaks, CA: Sage Publications; 2000
- 13. Charmaz. Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis. London: Sage; 2006.
- 14. Burnard P. Using Database Programme to Handle qualitative data. Nurse Education Today; 1994.
- 15. McCain GC. Content analysis; a method for studying clinical nursing problem. Appl Nurs Res. 1998;1:146-7.
- 16. Wen LM, Baur LA, Rissel C, Alperstein G, Simpson JM. Intention to breastfeed and awareness of health recommendations: findings from first-time mothers in southwest Sydney, Australia. Int Breastfeed J. 2009;4:9. doi: 10.1186/1746-4358-4-9.
- Swanson V, Power KG. Initiation and continuation of breastfeeding: theory of planned behaviour. J Adv Nurs. 2005;50:272-82. doi: 10.1111/j.1365-2648.2005.03390.x.
- 18. McInnes R, Love JG, Stone DH. Independent predictors of breastfeeding intention in a disadvantaged population of pregnant women. BMC Public Health. 2001;1:10.
- 19. Kurniawan B. Determinan keberhasilan pemberian air susu ibu eksklusif (Determinants of the successful of exclusive breast feeding). Jurnal Kedokteran Brawijaya. 2013;27:236-40. (In Indonesian)
- Damanik R, Wahlqvist ML, Wattanapenpaiboon N. Lactagogue effects of Torbangun, a Bataknese traditional cuisine. Asia Pac J Clin Nutr. 2006;15:267-74.
- 21. Perrine CG, Scanlon KS, Li R, Odom E, Grummer S. Baby friendly hospital practice 2nd meeting exclusive breastfeeding intention. Pediatrics. 2011.
- 22. Graffy J, Taylor J, Williams A. Randomised controlled trial of support from volunteer counsellors for mothers considering breast feeding. BMJ. 2004;328:26-31.
- Nankunda J, Tumwine JK, Soltvedt A, Semiyaga N, Ndeezi G, Tylleskär T. Community based peer counsellors for support of exclusive breastfeeding: experiences from rural Uganda. Int Breastfeed J. 2006;1:19. doi: 10.1186/1746-4358-1-19.
- 24. Tohotoa J, Maycock B, Hauck YL, Howat P, Burns S, Binns CW. Dads make a difference: an exploratory study of paternal support for breastfeeding in Perth, Western Australia. Int Breastfeed J. 2009;4:15. doi: 10.1186/1746-4358-4-15.
- 25. Moland KM, de Paoli M, Sellen DW, van Esterik P,Leshabari SC, Blystad A. Breastfeeding and HIV: Experiences from a decade of prevention of postnatal HIV transmission in Sub Saharan Africa. Int Breastfeed J. 2010; 5:10. doi: 10.1186/1746-4358-10.
- 26. Binns CW, Lee MK. Exclusive breastfeeding for six months: the WHO six months recommendation in the. Asia Pac J

- Clin Nutr. 2014;23:344-50. doi: 10.6133/apjcn.2014.23.3.21.
- 27. Tarkka MT, Paunonen M, Laippala P. What contributes to breastfeeding success after childbirth in a maternity ward in Finland? Birth. 1998;25:175-81. doi: 10.1046/j.1523-536X.
- 1998.00175.x.
- 28. Hector D. Complexities and subtleties in the measurement and reporting of breastfeeding practices. Int Breastfeed J. 2011;6:5. doi: 10.1186/1746-4358-6-5.