Factors affecting exclusive breastfeeding of primiparous mothers: scoping review

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Abstract

Primiparous mother's breastfeeding practice in developed and developing countries is influenced by various factors, such as sociodemographic, socio-cultural and health factors. Primiparous mother's experience of stopping breastfeeding is related to the mother's lack of knowledge about breastfeeding, breastfeeding skills, and the initial painful experience of breastfeeding. The objective of the scoping review is to review the evidence of the factors that influence exclusive breastfeeding in primiparous mothers. This scoping review used the Arksey and O'Malley framework. Identification of relevant studies from 2009-2019 used 5 databases. Data based are PubMed, Scienidrect, Ebsco, Wiley and Proquest. The results of this scoping review consisted of 8 articles out of 421 articles and were rated. Found 2 themes, which were internal factors and external factors. The most influential internal factor is the psychological factor of primiparous mothers, when the mother feels stressed, the mother can decide to stop breastfeeding and switch to giving formula milk to her baby and external factor is socio-cultural. There are still many countries that adhere to socio-cultural practices that can hinder the process of exclusive breastfeeding.

Keywords: exclusive breastfeeding; factors; primiparous mother

INTRODUCTION

Exclusive breastfeeding is recommended by the World Health Organization (WHO) where exclusive breastfeeding is defined as the nutritional intake of infants for the first time up to a minimum of 6 months without additional food and drinks( WHO, 2021.). The average prevalence of exclusively breastfed infants for under 6 months was 43% in 2016, with most data coming from low and middle to lower income countries (UNICEF, 2016). Primiparous mothers are part of the success of exclusive breastfeeding. Primiparous mother is a woman who has a living child for the first time and is a mother for the first time. Primiparous mothers experience many difficulties in breastfeeding because they have no previous experience with breastfeeding. This makes primiparas feel not having an insufficient supply of milk (Brown et al., 2014; Hobbs et al., 2016) and they tend to stop breastfeeding early (Hauck et al., 2011; Mangrio et al., 2018; Wu et al., 2018). The results of another study in the United States, 4 out of 5 adolescents as primiparous mothers gave exclusive breastfeeding for 9 days and only 1 teenager managed to give up to 6 months. For primiparous mothers, stopping breastfeeding is closely related to their experience as mothers who have less knowledge about the
basics of breastfeeding, lack breastfeeding skills, painful initial experiences when they are not ready to breastfeed (Smith et. al, 2012). The cause of stopping breastfeeding in primiparous mothers is influenced by multi-factorial. One of them is that sociodemographic factors (such as age, parity, education, race/ethnicity income) and psychosocial factors (intentions, self-confidence and knowledge) are determinants for breastfeeding and breastfeeding duration. Other factors that influence exclusive breastfeeding for primiparous mothers include behavior, mother-infant contact, and the mother's way of mastering breastfeeding techniques (Kronborg, Harder, & Hall, 2015).

In developed countries, the practice of breastfeeding primiparous mothers is influenced by various factors, such as research conducted by Williamson et al., (2012) in England. Their research provides strong evidence of self-doubt, difficulties in breastfeeding practice and factors that aggravate them at an individual, community, and social level. In developing countries such as in Hatxayfong district, the practice of breastfeeding primiparous mothers is influenced by various factors such as socio-demographic, socio-cultural and health factors where 11 people do not exclusively breastfeed on the grounds of working outside the home, while mothers know that they are exclusively breastfed. The main reason for mothers to do this is that they find it difficult during breastfeeding so that based on suggestions from family, friends, parents or health workers it triggers mothers to decide to provide complementary foods to their babies (Lee, Durham et al., 2013). The many factors that can influence primiparous mothers in giving exclusive breastfeeding are the background of this literature review. The aim is to find out what factors have the most influence on primiparous mothers in providing exclusive breastfeeding.

**RESEARCH METHODS**

Scoping review is a method used to identify research gaps in a study and identify involvement in decision making (Tricco et al., 2016). Scoping review is becoming an increasingly popular approach to reviewing research. The framework used in this review adopted the Arksey and O'Malley framework, because this method has different stages and is performed in a detailed and transparent manner (Peterson et al., 2017). The steps of the Arksey and O'Malley framework are (1) identification of scoping review questions, (2) identification of relevant articles, (3) article selection, (4) data charting, (5) mapping, collating and summarizing.

**Step 1 Identifying the scoping review question**

The question in this scoping review is "what are the factors that influence exclusive breastfeeding in primiparous mothers?" In developing search strategies and formulating article scoping questions using the PEOs (Population, Exposure, Outcomes) format. The use of PEOs helps identify discrete aspects so that it can be searched for where the population has certain conditions and desired outcomes associated with the intervention.
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Table 1. PEOs

<table>
<thead>
<tr>
<th>Population</th>
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<th>Os</th>
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<tbody>
<tr>
<td>Primiparous women</td>
<td>Factors</td>
<td>Exclusive breastfeeding</td>
</tr>
<tr>
<td>First time mother</td>
<td>breast milk</td>
<td></td>
</tr>
<tr>
<td>Primiparous mother</td>
<td>first time mums</td>
<td></td>
</tr>
<tr>
<td>new mothers</td>
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</tr>
</tbody>
</table>

Step 2 Identifying Relevant Studies

This study used tools in searching through 5 databases, which were PubMed, Sciencedirect, EBSCO, Wiley, and ProQuest. The words that become keywords in the search process include "factors, primiparous women and exclusive breastfeeding" plus supporting keywords and other keywords which are the equivalent words of the main keywords to expand the search then arrange and filter according to the inclusion and exclusion criteria in Table 2. Data were screened according to inclusion criteria with articles published in 2009-2019.

Table 2. Article Criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Articles publish between 2009–2019</td>
<td>1. Opinion article</td>
</tr>
<tr>
<td>2. Article published in english</td>
<td>2. Letters as well as book reviews</td>
</tr>
<tr>
<td>3. Primary research or review article</td>
<td>3. Articles with english titles but fill in the</td>
</tr>
<tr>
<td></td>
<td>articles in another language</td>
</tr>
<tr>
<td>4. Accepted manuscript article</td>
<td>4. Articles not full text available</td>
</tr>
<tr>
<td>5. Document/report/policy draft guideline from WHO/certain formal organization</td>
<td>5. Out of context article</td>
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<td></td>
<td>6. Experience menarche article which different population</td>
</tr>
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</table>

The keywords used to search PubMed and Wiley's papers were (((((((((((women primipara*) OR first pregnant*) OR First time mother*) OR primiparous*) OR primiparous mothers*) OR primiparous mothers*) AND breastfeeding*) OR exclusive breastfeeding*) OR breast milk*) OR breastfeeding exclusive*) AND experience breastfeeding*) OR experience first time mother breast*) OR know breastfeeding*) OR exploring womens view*))). The keywords used to search for articles in scientifedirect were Breast feeding OR (Exclusive AND Breastfeeding [All fields]) OR (Any Breastfeeding [All Fields]) OR (Continued AND Breast feeding [All Fields]) OR Breastfeeding, early initiation, OR Lactation, Human OR Breast Milk [Index terms]) dan “primiparous mothers with exclusive breastfeeding” serta “first time mother with exclusive breastfeeding”. The keywords used to search for articles in EBSCO were (experiences or perceptions or attitudes or views or opinions or feelings AND mother postpartum or women postpartum AND experiences or perceptions or attitudes or views or opinions or feelings). The keywords used to search for articles in ProQuest were “women primiparous experience in exclusive breastfeeding”.

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Step 3 Article Selection

Search results from 5 databases and reference lists found 421 articles, then deleted several duplicate articles so that 347 articles were obtained. From 347 articles, we screened by title and obtained 148 abstracts related to exclusive breastfeeding for primiparous mothers. A full text search of 148 articles was identified and the content of the articles was screened based on inclusion and exclusion criteria. From the results of filtering the contents of the articles with the suitability of the population, the method obtained 8 articles that will be used for scoping reviews and are described in Figure 1 of the flowchart prism.

Figure 1. Prism Flowchart

The tool chosen to assess the quality of articles is the Joana Briggs checklist of the Joana Briggs Institute (JBI). JBI is an assessment tool used to assess the methodological quality of a study and to determine the extent to which research has addressed possible biases in its design, implementation and analysis. Critical appraisal was conducted on 8 articles with results, which were 7 articles of good quality and 1 article of sufficient quality.

Step 4 Data Charting

Based on the 8 articles that have been selected, data charting is then performed to classify several points or parts of the article such as research objectives, research design, number of samples, and the results or findings of the study.
<table>
<thead>
<tr>
<th>No</th>
<th>Title/ Article</th>
<th>Country</th>
<th>Objectives</th>
<th>Methods</th>
<th>Theme</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Socially sensitive lactation: Exploring the social context of breastfeeding (Leeming, Williamson, Lyttle, &amp; Johnson, 2013)</td>
<td>UK</td>
<td>The objective of this study is analysis reported in this article is to explore the perspectives of first-time breastfeeding mothers on the broader social context of the eating experience</td>
<td>Qualitative research, interview techniques with 22 female participants.</td>
<td>The data highlight the ways in which the perceived need to practice breastfeeding socially can become an additional burden, if women feel that visibility is their initial attempt to build a mother's self-belief in breastfeeding in order to challenge social norms and build harmonious relationships.</td>
<td>A</td>
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<td>2</td>
<td>First Time Mother’s experiences of breastfeeding their newborn (Kronborg et al., 2015)</td>
<td>Denmark</td>
<td>The objective of this study is to explore mothers’ early breastfeeding experiences.</td>
<td>Qualitative research, Interview Technique with 108 participants</td>
<td>There are 3 themes found in this study, among others: (1) unsteady (2) seeking foothold (3) comfortable with the baby's choice,</td>
<td>B</td>
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<tr>
<td>3</td>
<td>A qualitative study on the breastfeeding experiences of first-time mothers in Vientiane, Lao PDR (Lee, Durham et al., 2013)</td>
<td>Vientiane, Lao PDR</td>
<td>The objective of this study is to gain an understanding of the reasons for decisions about breastfeeding and exclusive breastfeeding</td>
<td>Qualitative research, indepth interview techniques with 16 mothers who are breastfeeding for the first time and 7 key informants</td>
<td>Mothers who stopped breastfeeding in this study have the main reason because mothers work, the existence of traditional beliefs that influence breastfeeding practices.</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>It should be the most natural thing in the world’: exploring first-time mothers’ breastfeeding difficulties in the UK using audio-diaries and interviews (Williamson et al., 2012)</td>
<td>UK</td>
<td>The objective of this study is to explore the challenges of first-time breastfeeding women by focusing on groups experiencing moderation in the postpartum period</td>
<td>Qualitative research, semi-structured interview technique.</td>
<td>In this study, two main themes were found, namely the difficulty of breastfeeding as a threat to a mother's identity and responding to pain</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>Determined to breastfeed: A case study of exclusive breastfeeding using interpretative phenomenological analysis (Charlick, Fielder et al., McKellar, 2017)</td>
<td>Australia</td>
<td>The objective of this study is to understand what makes possible what can happen to a first-time breastfeeding mother between 2 and 6 months in Australia.</td>
<td>Qualitative research with interpretative phenomenology analysis (IPA).</td>
<td>A</td>
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<tr>
<td>6</td>
<td>An exploration of breastfeeding practices by Bhutanese women (Pemo et al., 2019)</td>
<td>Bhutan</td>
<td>The aim was to explore first-time mothers regarding the views, intentions, and experiences associated with exclusive breastfeeding</td>
<td>Qualitative research with longitudinal descriptive study using semi-structured interviews.</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>The private journey: An interpretative phenomenological analysis of exclusive breastfeeding (Charlick et al., 2019)</td>
<td>Australia</td>
<td>This study aimed to explore in-depth, idiographic interpretations of the experience of first-time breastfeeding mothers in exclusive breastfeeding for 6 months in Australia</td>
<td>Qualitative research with interpretative phenomenological analysis. Semi-structured interviews were conducted retrospectively, transcribed and analyzed using 7 steps of interpretive phenomenology</td>
<td>A</td>
<td></td>
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<tr>
<td>8</td>
<td>Factors influencing the practice of exclusive breastfeeding among Hong Kong Chinese women: A questionnaire survey (Ku &amp; Chow, 2010)</td>
<td>Hong Kong</td>
<td>The aim of this article is to explore the relationship between breastfeeding knowledge alone and the demographic factors of breastfeeding patterns among</td>
<td>Quantitative research with cross sectional</td>
<td>A</td>
<td></td>
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<tr>
<td>Chinese Hong Kong primiparous women.</td>
<td>during pregnancy, and thanks to the father-in-law culture of 'pei-yue' (a Chinese practice where new mothers are expected to stay at home and avoid all household chores and social activities during the first month after delivery) and older age would be associated with lower self-efficacy scores. Pei yue is a Chinese ritual in which a woman who has been told has to stay at home for one month and be taken care of by someone else (this Chinese term is used throughout the article to denote the time period described)</td>
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Step 5 Data Mapping, Collecting and Summarizing

From 8 articles that were suitable and of good quality based on inclusion criteria, the selected articles came from Upper Middle-Income Countries (UK, Australia, Denmark, and Hong Kong) and Low Middle-Income Countries (LMICs) (Vientiane and Bhutan).

![Diagram 1. Country Characteristics](image1)

It is known that all articles found using qualitative research methods are 7 articles and 1 article using quantitative methods with cross sectional approach.

![Diagram 2. Method Characteristics](image2)

Of the 8 articles that were critical appraisal, articles that were of good quality with an A score were articles 1,3,4,5,6,7,8 and a score of B was article 2.
Diagram 3. Grade Articles

In this mapping step, the authors classified the study findings that were interesting to review in these articles, including:

1. Internal factors
   a. The initial response of primiparous mothers applying exclusive breastfeeding
   b. Psychology of mothers while breastfeeding
   c. Primiparous mother coping while breastfeeding
   d. The commitment of the primiparous mother in giving exclusive breastfeeding

2. External Factors
   a. Social support
   b. Socio-cultural

RESULTS AND DISCUSSION

This review is to explore the factors that influence exclusive breastfeeding in primiparous mothers including internal factors and external factors.

Internal factors;

Primiparous Mother's Initial Response to Exclusive Breastfeeding

The positive response of mothers in giving exclusive breastfeeding is described in the results of the study by Lee et al. (2013), where in the study, primiparous mothers in Lao really enjoyed the process of breastfeeding their babies, the mother said she was very happy because it could create a bounding attachment between herself and the baby. A study conducted by Williamson et al. (2012) also describe mothers who have a positive response when breastfeeding, mothers feel proud because they can provide breast milk to their own babies, so that good bounding attachments are established. It is in line with
research conducted by Kronborg et al. (2015) in their research, some primiparous mothers had a positive response which was shown by feeling happy being a mother and a feeling of difficulty being a mother in meeting the needs of their babies. The negative response arises because the mother has had no prior breastfeeding experience, as shown in several studies. Research conducted by Pemo et al. (2019) describes primiparous mothers six weeks after giving birth feeling unprepared for the reality of breastfeeding, indicated by a surprised expression of the conditions and reality of breastfeeding that do not match the mother's image. Primiparous mothers say that breastfeeding looks easy, but the reality is the opposite. With the initial response applied by primiparous mothers while breastfeeding, it can affect the success rate of primiparous mothers in providing exclusive breastfeeding, this is supported by the results of the study showing that 51.2% of mothers practice breastfeeding at six weeks postpartum and the rate of exclusive breastfeeding is only 19.5% (Ku & Chow, 2010). It also affects psychologically; the mother feels depressed with her condition.

Psychology of Primiparous in Exclusive Breastfeeding

Psychology of mothers is depicted with feelings of frustration, and worry during breastfeeding, homework cannot be handled. This is in line with the research conducted by Williamson et al. (2012) where primiparous mothers blame themselves for feeling unable to provide breast milk to their babies, so they experience acute stress which causes mothers to stop breastfeeding their babies. Primiparous mother psychology can also be disturbed due to environmental factors. Family and friends illustrate that breastfeeding is painful so that the mother has feelings of fear when experiencing pain while breastfeeding so that the mother does not want to breastfeed her baby (Pemo et al., 2019). Research conducted by Charlick et al. (2019) stated that primiparous mothers can experience trauma in giving breast milk to their babies. It happens because there is a feeling of pain when the nipple is blistered when breastfeeding. The mother experiences lack of sleep and feels isolated from the surrounding environment because she is busy with her new life as a breastfeeding mother. Research conducted by Kronborg et al. (2015) explained that the mother is psychologically good if the mother has the confidence to give exclusive breastfeeding to her baby. The mother will feel confident, if the milk given is enough for her baby. Each mother has a level of psychological experience described by pain or trauma to the nipple. Some also have times of feeling like they're in chains for their baby, feeling sleep deprived and isolated from others. Apart from physical challenges, mothers recognize that breastfeeding also requires social and cultural elements (Charlick et al., 2019a). It is also related to the mother's initial response to breastfeeding, where the mother can overcome the difficulties that occur during the early stages of breastfeeding so as to build coping for herself so that she continues to breastfeed her baby.

Coping of Primiparous Mother When Giving Exclusive Breastfeeding

Based on the research of Leeming et.al (2013), it is explained how primiparous mothers defend themselves by managing emotions and maintaining household relationships, which is reducing conflicts that occur in the household and practicing breastfeeding so as not to become an additional burden in the family. Other studies have explained that breastfeeding problems often arise in the early postnatal period (Bica & Giugliani, 2014; Feenstra, Kirkeby, Thygesen, Danbjørg, & Kronborg, 2018). Continued postnatal support is essential to improve breastfeeding outcomes (Schreck et al., 2017).
Research by Williamson et al. (2012) revealed that primiparous mothers do not want to see themselves failing to provide exclusive breastfeeding, so they feel obliged to stick with routine breastfeeding and try to overcome obstacles to achieve success in breastfeeding. It is a form of self-defense from the mother to the surrounding environment. In line with research conducted by Kronborg et al. (2015) where the mother has coping for herself when the surrounding environment used a lot of formula milk, the mother grows a strong determination and decides to go through this phase on the grounds that their baby will have the ideal weight. Determination and self-confidence emerge as coping practices so that mothers are committed to breastfeeding their babies. Studies have shown that mothers who participate in a 1 hour counseling session breastfeeding within 24 hours of birth are found to be supportive and beneficial to breastfeeding mothers (Liu, Zhu et al., 2017)

**Primiparous Mother’s Commitment in Providing Exclusive Breastfeeding**

Primiparous mother's initial response to breastfeeding was related to the mother's psychology and the mother's way of defending herself against her environment. It is related to the strong commitment of the mother in breastfeeding her baby. Primiparous mother's commitment comes from self-efficacy in exclusive breastfeeding. The consistency of mothers in giving breast milk to their babies begins because of the commitment from mothers to breastfeeding their babies. Thus, confidence in the mother appears and the mother feels confident because she has provided the best nutrition for her baby, which is breast milk. This statement is also supported by research conducted by Charlick et al. (2017) where the commitment to exclusive breastfeeding focuses on the intention and willingness to breastfeed which are the main factors in breastfeeding. It is supported by Kronborg et al. (2015) which explains the same thing.

Internal factors that can influence primiparous mothers in providing exclusive breastfeeding are psychological factors based on article reviews. more than 50% of the articles reviewed discuss the psychology of primiparous mothers in exclusive breastfeeding

**External Factors**

**Social Support for Primiparous Mother in Providing Exclusive Breastfeeding**

The breastfeeding phase is assisted by the support of health workers by increasing mother's confidence in breastfeeding (Kronborg et al., 2015). Other support comes from immediate family. It is explained in the research of Charlick et al. (2019) where breastfeeding mothers feel happy when family and neighbors support breastfeeding. This is in line with research conducted by Leeming et al., (2013) which states that positive support comes from the mother herself in giving exclusive breastfeeding to her baby. Furthermore, in a study conducted by Pemo et al., (2019), support came from the mother's closest relatives by providing motivation to mothers to continue breastfeeding even though they were sick and advising mothers to continue breastfeeding.

**Socio-Cultural Affects Primiparous Mother in Exclusive Breastfeeding**

Breastfeeding in public is a culture that is still taboo in some countries. Although it is largely thought that there is nothing wrong with breastfeeding in front of others, breastfeeding in public can be seen as inappropriate, but also as sensitive to the feelings
of others (Leeming et al., 2013). Research on breastfeeding in public was also disclosed by Charlick et al. (2019) where the culture in Australia still considers the taboo of breastfeeding women in public. Most of the primiparous mothers in this study felt comfortable breastfeeding in public places, while others found it more difficult, and previous studies had negative reactions that could cause mothers to feel embarrassed and not give their breast milk in public places. Another culture that influenced primiparous mothers in giving exclusive breastfeeding was revealed by Pemo et al. (2019) where some primiparous mothers give babies water droplets when bathing them because it is believed that if they do not do this the baby will be considered the mother does not love their baby. Another culture is to provide solid food before 6 months of age is supported by other studies, which is research by Charlick et al. (2017) by providing food after the baby is 4 months old and in practice mothers introduce a number of solid foods and fluids before 6 months of age (Thet et al., 2016). The results of research conducted by Ku & Chow (2010) stated that the culture that supports primiparous mothers to provide ASI is traditional culture in China, the 'pei yue' culture refers to the practice where new mothers are expected to stay at home and avoid all household chores and social activities during the first month after delivery. The “pie-yue” tradition is supported by the grandmother's personal breastfeeding experience which influences mothers' decisions about how to breastfeed their babies. Although it affects the self-efficacy of mothers in breastfeeding, the presence of mother-in-law does not significantly affect the duration of exclusive breastfeeding (Dennis 2002, Avery et al. 1998) in (Ku & Chow, 2010).

External factors that can influence primiparous mothers in providing exclusive breastfeeding are psychological factors based on article reviews. more than 50% of the articles reviewed discuss the socio-cultural of primiparous mothers in exclusive breastfeeding

CONCLUSION

There are 2 factors of exclusive breastfeeding in primiparous mothers, which are internal factors and external factors. Internal factors include the initial response of primiparous mothers in exclusive breastfeeding, maternal psychology when giving exclusive breastfeeding, coping of primiparous mothers during the process of giving exclusive breastfeeding, commitment of primiparous mothers in exclusive breastfeeding. External factors of mothers include social support for primiparous mothers in providing exclusive breastfeeding and socio-culture to primiparous mothers in giving exclusive breastfeeding. The internal factor that most influences primiparous mothers giving exclusive breastfeeding is maternal psychology, while the external factor is socio-cultural.

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