WHAT MOTIVATES MUSLIMS WOMEN TO INDUCE LACTATION?:
AN EXPLORATORY QUALITATIVE ANALYSIS

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Abstract

Induction of lactation occurs when breast milk is produced in a human (female), without going through the process of pregnancy and delivery. Induced lactation is a method of strengthening the bond between the adopted child and the adoptive mother. The primary goal is to encourage bonding solely to develop an emotional connection and as a motivation for the mother to breastfeed her adopted child. This exploratory qualitative study examined the factors influencing women's decisions about induced lactation in Malaysia. Methods: This study used in-depth interviews with women who had induced lactation in five states based on five regions in Malaysia [Central Region (Selangor), Northern Region (Penang), Southern Region (Johor), East Coast Region (Kelantan), Malaysia Borneo (Sabah)]. The qualitative approach helped to establish a comprehensive insight into the women's experiences throughout the journey of induced lactation. All interviews were consented, audio-recorded, and transcribed verbatim, followed by identification of emerging themes. Results: After interviewing 23 induced lactation women, data saturation was achieved. Data synthesized using thematic analysis revealed three themes describing the main factors in determining women's decisions on induced lactation: (1) mahram relationship, (2), and (3) the perceived superiority of breastfeeding. This indicates that the mahram relationship, experiencing motherhood, and the perceived superiority of breastmilk motivated women to undergo induced lactation. Conclusions: Induced lactation is analogous to ordinary life, where favorable attitudes are followed by a strong drive to achieve. We hope that by identifying the various factors that motivate women to induce lactation, health care professionals and the community will be empowered to support breastfeeding in terms of facilitating motherhood, providing breastfeeding aid equipment, and assisting with daily necessities.

Keywords: Induced lactation, motivation, qualitative study, women, Malaysia
INTRODUCTION

Induced lactation is a method of stimulating the production of breast milk in women who have not gone through the pregnancy process (Thorley, 2012). Many women claimed that the choice to breastfeed their adopted child makes them feel more accomplished as women and mothers. Thus, the adopted child and parent can form stronger maternal-infant bonds (Flores-Antón et al., 2017). According to Zilal et al. (2017), awareness among adoptive mothers and their determination to breastfeed are important. However, there are many factors to be considered in induced lactation programs, due to adoptive mothers’ diverse religious and ethnic backgrounds, health status, financial and environmental challenges.

In Malaysia, only 47.2% of women who sought help from Susuibu.com (Peer Counselor Association) reported success in the induced lactation process (Ezura Mariana et al., 2015). Meanwhile, others have been unable to provide breast milk to their adopted children. According to a survey conducted by the Malaysia National Lactation Centre (NLC), 85.0% of women who had never been pregnant, or breastfed were able to breastfeed during the program after service consultation (NLC, 2019). However, only 30.0% of breastfeeding mothers achieved mahram status throughout the national breastfeeding program. The term mahram refers to a level of relationship between close family members, i.e., those with whom the hijab is not required (Islamic Religious Affairs Malaysia, 2014).

The process of induced lactation in Malaysia can be further explored by identifying and comprehending the factors that influence women’s induced lactation decisions. The findings of this study could also apprehend the maternal perspectives on the mothers’ needs and motivations for induced lactation process. Therefore, this study aimed to explore the factors influencing women’s decisions about induced lactation in Malaysia.

METHODS

Study design and setting

This exploratory qualitative study utilized a purposive sampling method and was conducted from June 2017 to November 2017 involved five Malaysian regions representing the East Region, North Region, South Region, Central Region, and Borneo. The chosen states from each named region were Kelantan, Penang, Johore, Selangor, and Sabah. This enabled the recruitment of respondents with a wide range of sociodemographic characteristics, as well as the induced lactation experiences. The qualitative approach helped to establish a comprehensive insight into the
women’s experiences throughout the journey of induced lactation. The design allows for the exploration of respondents’ feelings, behavior, thoughts, insight, and action (Mayan, 2009). This is a continuation of a previous research that used the same sample. The detailed methodology of this study was described and published by Norsyamlina et al. (2020).

Sample

Information on the women who induced lactation was obtained through lactation centers, hospitals, and health clinics that provide consultations on breastfeeding of adopted children in Malaysia. The sample size was estimated based on the saturation concept for qualitative research (Mason, 2010). Data saturation was achieved after interviewing a total of 23 induced lactation women. The saturation occurs when new data collection no longer contributes to new information on the issues under investigation. The respondent’s selection procedure is based on the following criteria: Muslims, has never been pregnant, does not have a biological child, the adopted child must not be more than two years old according to the lunar month calculation during data collection, no previous breastfeeding experience, and undergoing induced lactation procedure (completed or still under treatment).

Data collection

In-depth interviews (IDIs) were conducted using a topic-based protocol to explore respondents’ experiences and their perspectives on induced lactation process. The interviews were conducted in home settings, with some conducted in other locations at the requests of the respondent. Interviews were conducted in the Malay language because most of the respondents were Malays who understood and preferred the language. The respondents provided written consent, and brief socio-demographic information prior to the interview sessions. Confidentiality and anonymity of respondents were maintained. All interviews were conducted for approximately 45 to 90 minutes per session.

Data analysis

The interviews were audio recorded with some notes taken by the researcher. The Malay language audio files were transcribed verbatim. These interview transcripts were then coded and managed using ATLAS.ti version 8.0 software. Thematic analysis was chosen as the method to analyze the data from the interviews. The analysis represents a systematic framework to code qualitative data to identify patterns across the data (Braun and Clarke, 2014).
RESULTS

Respondent characteristics

Out of 23 women undergoing induced lactation procedures, six respondents were housewives (26.0%) and 17 respondents worked in the government or private multi-sectors (74.0%). The respondents ranged in age from 26 to 40 years old. Three respondents had two adopted children (one respondent had a twin as adopted children). The others had only adopted one child. In total, 25 children were adopted from 23 women; 14 were boys (53.9%), and 12 were girls (46.2%). The adopted children’s ages ranged from 20 days to 24 months when the interview was conducted. In this study, respondents barely were ethnic Malay Muslims. The mean duration of marriage before treatment among the adoptive couples was nine years (with marriage duration ranging from four to 15 years). Seven women were married for more than ten years, 15 women were married for less than ten years, and one woman was single and not married. Those married for more than ten years were between the ages of 32 and 40. Three of the 15 women married for less than ten years were between the ages of 26 and 38. They were all reproductive age, which ranged from 26 to 40 years old. Their background characteristics are shown in Table 1.
Table 1: Descriptive characteristics of respondents

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Age (year)</th>
<th>Occupation</th>
<th>Duration of Marriage (year)</th>
<th>Adopted child.</th>
<th>Sex</th>
<th>Age of child during interview (month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>37</td>
<td>Housewife</td>
<td>8</td>
<td>Girl</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>32</td>
<td>Housewife</td>
<td>11</td>
<td>Girl</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>38</td>
<td>Teacher</td>
<td>12</td>
<td>Boy</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>38</td>
<td>Lecturer</td>
<td>NA</td>
<td>Girl</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>38</td>
<td>Liaison officer</td>
<td>9</td>
<td>Girl</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>33</td>
<td>Lecturer</td>
<td>8</td>
<td>Boy</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>A7</td>
<td>27</td>
<td>Housewife</td>
<td>4</td>
<td>Boy &amp; Girl</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>A8</td>
<td>34</td>
<td>Housewife</td>
<td>5</td>
<td>Boy</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>A9</td>
<td>36</td>
<td>Teacher</td>
<td>12</td>
<td>Boy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>34</td>
<td>Teacher</td>
<td>10</td>
<td>Boy</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>40</td>
<td>Librarian</td>
<td>13</td>
<td>Girl</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>38</td>
<td>Nurse</td>
<td>12</td>
<td>Girl</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>A13</td>
<td>34</td>
<td>Industry officer</td>
<td>9</td>
<td>Boy</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>A14</td>
<td>31</td>
<td>Housewife</td>
<td>7</td>
<td>Girl</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>29</td>
<td>Lecturer</td>
<td>4</td>
<td>Girl</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>A16</td>
<td>40</td>
<td>Administrative assistant</td>
<td>13</td>
<td>Girl</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>30</td>
<td>Accountant</td>
<td>9</td>
<td>Girl</td>
<td>20 days</td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>34</td>
<td>Safety guard</td>
<td>7</td>
<td>Boy</td>
<td>20 days</td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>26</td>
<td>Assistant pharmacist</td>
<td>5</td>
<td>Boy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>36</td>
<td>Medical laboratory technologist</td>
<td>9</td>
<td>Boy</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>A21</td>
<td>35</td>
<td>Nurse</td>
<td>10</td>
<td>Girl</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>A22</td>
<td>37</td>
<td>Teacher</td>
<td>10</td>
<td>Boy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A23</td>
<td>36</td>
<td>Housewife</td>
<td>15</td>
<td>Boy (Twin)</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
The factors influencing women's decisions about induced lactation

Based on the findings of 23 interviews, various factors influence women's decisions on induced lactation. There were three main themes that described the main factors in influencing women's decisions on induced lactation which were: (1) *mahram* relationship, (2) experiencing motherhood, and (3) the perceived superiority of breastfeeding.

Table 2: Themes and sub-themes of the factors influencing women's decisions about induced lactation

<table>
<thead>
<tr>
<th>Sub theme</th>
<th>Main theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Awrah</em></td>
<td>1) <em>Mahram</em> relationship.</td>
</tr>
<tr>
<td>Touch.</td>
<td></td>
</tr>
<tr>
<td>Marriage.</td>
<td></td>
</tr>
<tr>
<td>Fulfilment of religious duty.</td>
<td></td>
</tr>
<tr>
<td>Genuine satisfaction.</td>
<td>2) Experiencing motherhood.</td>
</tr>
<tr>
<td>Mother’s instinct.</td>
<td></td>
</tr>
<tr>
<td>Mother-infant bonding.</td>
<td></td>
</tr>
<tr>
<td>Pleasure of breastfeeding.</td>
<td></td>
</tr>
<tr>
<td>Increased self-esteem.</td>
<td></td>
</tr>
<tr>
<td>Natural antibodies.</td>
<td>3) The perceived superiority of breastfeeding.</td>
</tr>
<tr>
<td>The primary source of nutrition for new-born.</td>
<td></td>
</tr>
<tr>
<td>Breast milk for growth.</td>
<td></td>
</tr>
<tr>
<td>Help protect babies from many infectious illnesses.</td>
<td></td>
</tr>
</tbody>
</table>

**Main theme 1: Mahram relationship**

The main factor that drives the mother to be a wet nurse is driven by Islamic law and it is a part of the fulfillment of religious duty. As a Muslim, this is a matter of responsibility and obligation. This is part of Sharia law (religious law forming part of the Islamic tradition and derived from the religious precepts of Islam, particularly the Quran and the hadith) and is intended to build a *mahram* relationship. During the interviews, women repeatedly mentioned the following phrases and terms: “cover your *awrah*”, “be a *mahram*”, “to have a *halal* relationship”, “touching”, “hugging”, “keep *wudu*”, “cannot get married”, “to get rewards from Allah (Almighty God)” and “know the rewards and sins”. In the context of this study, the main motivation for a mother to become a wet nurse is to establish a *mahram* relationship between the baby and herself and her family. They described it as:

“I wanted to adopt a child because I know that the child is male. So, my concern was to get the *mahram* status.” (Woman A4)

“Yes, I would like to have a child, so I need to breastfeed them to achieve *mahram* status. Either a boy or a girl, both need to be breastfed.” (Woman A1)
This study found that majority of the women were concerned about their awrah (body parts which must be covered from others) with the (adopted child) non-mahram. They were aware that adopted children were not mahram, which would cause significant problems when the adopted children reached puberty. Therefore, the women decided to undergo induced lactation to get the privilege of not covering themselves. Some women realized the importance of breastfeeding an adopted child when they heard about other women’s experiences. They expressed their feelings as:

“I know the awrah of my husband that is why I need to breastfeed the baby.” (Woman A16)

“It is important to achieve mahram status while it is still possible because after they grow up, they might not understand the awrah restrictions that they have with the family if they are not mahram. It includes activities like hugging and touching, and it is not possible for a girl to wear hijab (scarf) all the time. They do not understand that aspect.” (Woman A11)

They also knew that the physical interaction between the adopted child and the parent is permitted and does not break their wudu’ (a cleansing ritual or ablation that is an important part of purity and cleanliness in Islam before performing worship):

“Because there might be a problem like cancelled wudhu’ if we are non-mahram, I choose to breastfeed to prevent that from happening.” (Woman A18)

Women wanted to breastfeed an adopted child to improve their family relationship with their adopted child. In addition, being a wet nurse is one of the obligations to maintain the importance of Sharia law and the fulfilment of religious duty. It is believed that it is a significant sacrifice to take good care of an adopted child, least of all because the mother willingly goes through a very complicated process to induce lactation. Adoptive mothers are also believed to be greatly rewarded and blessed by Allah (Almighty God) for undertaking this task. The women’s feelings are reflected in the quotations below:

“I feel relieved because we had fulfilled one big responsibility in religion thus do not feel guilty living in a house together.” (Woman A11)

**Main theme 2: Experiencing motherhood**

The second factor that motivated women to breastfeed was the experience of motherhood; this strong mother instinct comes within the women. Even though the women were unable to experience pregnancy and labor, they still desired to experience motherhood through the breastfeeding process. All the women stressed that they wanted to breastfeed their adopted child to build a better maternal-infant relationship with the infant. One of the women said that it was a success for the mother to be able to breastfeed the adopted child until he/she was full:
“In my opinion, being successful in breastfeeding means that the baby can suck until they are full. It is my intention since earlier to breastfeed the baby. Please, pray for me.” (Woman A9)

“I wanted to breastfeed the baby because I wanted to experience the moment of feeding because I do not have my own child.” (Woman A5)

The nature of the women and their strong desire to become mothers encouraged them to adopt and subsequently breastfeed their adopted children. Most women who have had experience in induced lactation programs agree that breastfeeding is a rewarding journey. It has taught them how to be a birth mother and the joy of breastfeeding too. One woman described how she was impressed with the breastfeeding journey:

“I feel happy that I can breastfeed because I do not have my own children. I am happy that I can still produce milk, although not much, but enough to breastfeed the child that I adopted. Alhamdulillah, I get to experience it.” (Woman A15)

“I have already exceeded the five-time full-fed but will continue breastfeeding my child if the child still wants it.” (Woman A8)

The true definition of success was the good feelings, or the satisfaction gained when the women successfully breastfed their adopted babies. Most of the women said that this feeling was subjective and unique to each of them. One of them described her situation as follows:

“My motherly instinct is stronger within me. If it is possible, I would like to breastfeed all the children in this welfare house, not just my adopted child. When I knew that I could breastfeed, I felt passionate to breastfeed the child and the feeling came naturally.” (Woman A10)

Most of the women who attempted to induce lactation wanted to improve the mother-infant relationship. For them, it was sufficient that their baby was breastfed. The decision to nurse their adopted baby often hinged on the mother-infant relationship and emotional benefits to the baby. The women stated that breastfeeding fosters love between two people who were total strangers previously. A respondent expressed it in this way:

“We want to adopt a child and bond with him or her. Breastfeeding is the best way to create the bond.” (Woman A13)

**Main theme 3: The perceived superiority of breastfeeding**

All the women who practiced adoptive breastfeeding appreciated the benefits that their infants gained from breastfeeding. They believed that formula milk would not provide them with the same benefits. This motivated them to continue providing the best nutrition for their infants. All of them noticed that their infants’ resistance against infection is higher than it was before the infant started receiving breast milk. Most women believed that breast milk contained an antibody that protected children from a variety of diseases. One of them said:
“The benefits of breast milk are different from the formula milk. It helps to make the baby’s antibodies stronger to prevent diseases.” (Woman A8)

All the women were aware that breast milk provided all the nutrition that babies need, and that it could be the primary source of nutrition for the first six months of a baby’s life. Breastfeeding is the healthiest option and the milk on its own is the best, without adding formula milk, as this woman said:

“If possible, I want to breastfeed my baby until the baby is full and avoid formula milk because breast milk is the best for the baby.” (Woman A15)

“I breastfeed because of its benefits. Old folks also said that breast milk is beneficial for growth in comparison to formula milk that came from cows.” (Woman A15)

Breast milk contains antibodies that fight bacteria, viruses, funguses, and parasites, helping to protect the baby from infection by bacteria and other diseases. One woman expressed her gratitude for the benefits of this:

“Alhamdulillah (Praise be to Allah) that I breastfed, and my baby did not suffer from fever even during teething like the other babies do.” (Woman A15)

DISCUSSION

The results showed that three main themes influence women’s decisions about induced lactation in Malaysia. However, this study found that the recruitment of respondents with a broad range of sociodemographic characteristics, as well as the induced lactation experiences did not influence induced lactation decisions. Our study respondents described the main factors in determining their decisions on induced lactation: (1) mahram relationship, (2) experiencing motherhood, and (3) the perceived superiority of breastfeeding.

All the women who underwent induced lactation procedures in this study were Malay Muslim; thus, being a mahram was the main factor in their desire to breastfeed their adopted child. This study proved that most of the respondents were concerned about their awrah with the (adopted child) non-mahram. They knew that adopted children were not their mahram, which would cause considerable problems when the children reach puberty. This finding aligns with findings of a study conducted by Zilal and Farahwahida (2015), which found that Muslim respondents interviewed stated that their main goal was to obtain mahram status. When the breastfeeding process occurs, they cannot marry each other because they were already mahram. The child also cannot marry their foster family because they are also mahram to the family (Norita et al., 2017).

Analysis of the data showed that all the respondents who sought to induce lactation had a strong desire to breastfeed their adopted child. All the respondents stressed that they wanted to breastfeed their adopted child to improve the maternal-infant relationship. The primary purpose is to get mothers bonding only to establish a relationship of love and as a motivator for
a woman to breastfeed their adopted child (Cazorla-Ortiz et al., 2019; Goldfarb, 2009). The respondents from these interviews said the true definition of success was the good feelings or the satisfaction gained when she breastfeeds the adopted baby. They also experienced a sense of joy and satisfaction, as well as felt relieved and relaxed whenever they breastfed their babies. As stated in the study by Antón Flores et al. (2017), mothers often decide to undergo induced lactation to strengthen the mother-child bond. It is common for a woman to have a strong desire to be a mother, which motivates them to have children, and, in this context, to adopt a baby then breastfeed a baby.

All respondents who induced lactation and practiced adoptive breastfeeding appreciated the benefits that their infants gained from breastfeeding. They believed that they would not get similar experience from giving formula milk. This motivated them to continue providing the best to their infants. They noticed that their adopted children have higher resistance against infection. Breastfeeding was accepted as a natural form of nutrition for babies, and it was considered the best food for them. Breast milk is not only the ideal food for babies, but it is also the only food a baby needs from the time he or she is born until the age of six months (Victora et al., 2016). Breast milk contains an antibody that helps to protect babies from many diseases. Breastfeeding offers immunological, metabolic, and psychosocial benefits for both mother and infant (Berlanga-Macias, 2020). Breast milk contains secretory Immunoglobulin A (IgA), anti-inflammatory agents, and other immunomodulators that provide infants with immunological advantages over formula-fed infants (Ballard and Morrow, 2013).

STRENGTH AND LIMITATION OF THE STUDY

This study used primary data sources and was representative of different backgrounds (locality, age, and working status) to bring different experiences. The study was conducted across Malaysia, which represents the five regions. Women in the current sample reported having no children of their own; however, as questions primarily focused on societal attitudes towards adoptive breastfeeding, the nulliparous sample offered unique perspectives related to perceived social norms of breastfeeding. However, there was a possibility of recall bias among the respondents since the information was collected retrospectively, one to two years after the induced lactation practice completed. As a result, we cannot rule out recall bias in the responses given in the interviews.

CONCLUSION

In conclusion, mahram relationship, experiencing motherhood and the perceived superiority of breastmilk were the factors influencing women’s decision on induced lactation in this study. All the women who underwent induced lactation procedures in this study were Malay Muslims, and their desire to breastfeed their adopted child was primarily motivated by their mahram status. The above is intended to provide insight into the challenges faced by mothers who wish to induce lactation and breastfeed their adopted children. Many of these women seek out a means to induce lactation and breastfeed in the hope their bodies will function as they should, thereby providing them with a means of healing the psychological impact of infertility. Furthermore, it is the researcher’s aspiration that adoptive mothers will discover protocols or
procedures to bring in their breastmilk, and feed their infants at their breast, as nature intended. Researchers equate the lactation process to everyday life where positive attitudes are followed by a strong desire to succeed. Through identification of the various factors that influence the decision to induce lactation, we hope that this paper will motivate health care professionals and the community to provide breastfeeding support in terms of facilitating motherhood, assisting in providing breastfeeding aid equipment, and assisting in providing daily necessities to help women achieve their breastfeeding goals.

DECLARATIONS

Ethics approval and consent to participate

This study was authorized by the Human Research Ethics Committee University Sains Malaysia with the code project USM/JEPeM/14044139 and the Medical Research Ethics Committee (MREC), Ministry of Health of Malaysia (MOH) and was registered under NMRR-15-1600-26147 (IIR). Written informed consent was secured from study respondents after explaining the study's objective and purpose to each study respondents. The respondents were also assured about the confidentiality of the data.

Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to the sensitive nature of the information of the respondents provided. Still, they are available from the corresponding author on reasonable request. This is to protect and maintain respondents’ anonymity and confidentiality. The data are kept saved in order not to expose the feelings of the respondents to the public.

Authors' contributions

NCAR designed the study, developed the search strategy, and drafted the manuscript. NCAR refined the search strategy and searched and collected the articles. NCAR, ZS and TATI conducted the quality assessment and critically reviewed the manuscript. Finally, all the authors read and accepted the final version of the manuscript.

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