

A Cross-Sectional Study on the Practice of Wet Nursing Among Muslim Mothers

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Abstract

Background: The practice of wet nursing or the breastfeeding of another woman's child in Malaysia is on the rise due to the emergence of awareness among the public about the importance and advantages contained in breast milk. This can be further explored by examining the benefits of breastfeeding, and society is acting by making breastfeeding a complement to breastfeeding in a variety of ways and circumstances. This study aims to investigate and determine the practice of wet nursing among Muslim mothers in Selangor.

Methods: This cross-sectional study was conducted on 100 women who had breastfed another child in Selangor. Data were obtained using a validated questionnaire (Cronbach alpha = 0.8) and processed using the SPSS software.

Results: Results showed 43.0% of respondents had at least breastfed one someone else's child. Meanwhile, there were 3.0% of the respondents who were nursing seven to ten other children. A total of 237 children has been nourished by the respondents (n = 100). Of these, 21.5% were breastfed less than five times, while 78.5% were ever breastfed less than five times. Most mothers recorded milk child background data were breastfed, and this shows that the community aware of the importance of data documenting the suckler and indirectly proves that the authorities should act on these current needs.

Conclusions: This study obtained a lot of useful information that indicated there is a wet-nursing practice in society. We hope the authorities take appropriate measures so that wet-nursing practices can be officially recorded and monitored to maintain the sustainability and welfare of the Muslims in the state and Malaysia in general.

Introduction

The practice of breastfeeding has the role of medical and socio-cultural factors. It has many aspects of anthropology's "power structure" that find their expression in breast milk and practices that formed around it, socially, scientifically, and legally. It is widely accepted that breastfeeding has been recognized as the best method of infant nutrition for the first two years of a baby's life. Breast milk contains all the vitamins, minerals, and other nutritional elements that are appropriate to the needs of the baby [1, 2, 3, 4, 5]. In Malaysia, the practice of breastfeeding is increasing due to the awareness the importance of breastfeeding. This practice is also in line with the development of the practice of wet nursing [6], where a certain number of mothers in Malaysia were willing to share their breast milk with other children of mothers for nourishment itself [7].

The term "wet nursing" is used to portray whatever form of breastfeeding provided by someone other than the infant's biological mother [8]. This practice is not a personal issue, but it involves the development of civil society because such practices can be convicted of consanguinity between children breastfed by a wet nurse and her family, as specified by the legislation. This includes involving legal based on sharia law and responsibilities, the relationship between mother's milk and suckling, effects

involving marriage, genitalia, wages of breastfeeding mothers, and various legal aspects of breastfeeding [9].

Breastfeeding by a wet nurse also gives rise to several tenements in Islam known as a forbidden command, which means that wet nursing creates impediments to marriage between a nurse and her nursling, as well as between male and female (strange) nurslings suckling from the same nurse [10]. Besides, all the writings and research done in Malaysia are focused on the technical implementation of breastfeeding in accordance with Islam. There is no specific evidence from the study that showed the practice of wet nursing, according to Islam.

Therefore, researchers aim to determine the practice and processes implemented by Muslim mothers in practising wet nursing to other children in the context of the society in Selangor. The findings of this study are expected to provide an accurate picture to the authority in drawing up measures more aggressively to avoid duplication of consanguinity as breastfeeding, and it is reasonable to enforce the practice of wet nursing recorded and monitored in a systematic and formal. Researchers also hope that this research can open an ample space in the study related to wet-nursing practice in the other states in Malaysia.

Methods

Study design and setting

The recruitment and selection of the respondents were carried out using a purposive sampling method. A purposive sample is a non-probability sample that is selected based on the characteristics of a population that may fulfil the objectives of the study. Individuals who have consented to participate and had rich information were the target because they were able to provide more extensive data. This criterion sampling involved searching for practitioners who had experience in managing induced lactation cases for their clients and met the study objectives.

Sample and recruitment

This study was carried out on 100 wet nurse women who had been nursing their other children. Data was collected for a period of six months from January 2019 to July 2019. The questionnaire was distributed online using a questionnaire via Google form. The inclusion criteria of respondents were i) Mothers who breastfeed other children; ii) Resident mother in Selangor; iii) Mothers aged 50 and below; iv) Consented for interview. The exclusion criteria were: i) Non-Muslim respondents; iii) Muslims who are outside of Selangor or living in other states of Malaysia. The locations of this study involved all nine districts in Selangor, Malaysia.

Pilot test

To begin the process of data collection, the researchers first conducted a pilot study using an online questionnaire (Likert scale) involving 29 respondents. This pilot study is essential for assessing the validity of the instrument and evaluate the level of difficulty of the questions posed. The level of understanding of the language has been translated into languages other than English, the estimated time spent by respondents to answer all questions and other things that might interfere with the process of data collection and analysis real. Also, the purpose of this pilot study was to examine the reliability test (internal consistency) using Cronbach's alpha. Cronbach's α was used to assess the homogeneity of the questions for internal consistency within the test. Researchers have checked Corrected Item Total Correlation (CITC) and made a comparison of the Cronbach alpha if item deleted. The overall value of Cronbach Alpha assessment instruments for the pilot study exceeded the reference value ($\alpha = 0.8$) [11].

Data collection

The primary method used in field studies was the online questionnaire using *Google form*. This questionnaire was able in the Malay language and was distributed to 100 respondents. The sample of this study was selected by purposive sampling. Among the criteria set for the selection of respondents in this study were: (1) Muslim mothers who breastfeed other children (at least one child); (2) Selangor residents; and (3) Age under 50 years old.

Data analysis

This article involves an analysis of the data obtained from the 100 questionnaires returned to the researchers. The data from this questionnaire were analysed using the Statistical Package for Social Sciences (SPSS) version 22. Categorical variables were summarized as numbers and percentages, whereas normally distributed continuous variables were presented as means and standard deviations. p-value less than 0.05 was considered statistical significant.

Results

Respondents Characteristic

Table 1 showed that all respondents are comprised of a wet nurse who lived in Selangor. Variable of the study were age, marital status, several children are breastfed, residence, education level, occupation, and total income. The respondents in this study were 20 to 50 years old. Most of the respondents aged between 31 and 40 years old (64.0%), second highest respondents from aged between 21 to 30 years (30.0%) and the lowest were among respondents aged 41 to 50 years (6.0%).

In terms of marital status, the results showed that all respondents were married (100.0%). All respondents lived in Selangor, covering nine districts, namely Sabak Bernam, Hulu Selangor, Kuala Selangor, Kuala Langat, Sepang, Hulu Langat, Gombak, Petaling, and Klang. Of these nine constituencies, most of the respondents live in the Petaling district of 28.0%. Meanwhile, Hulu Langat was the second-largest

occupancy of 26.0%. This study also showed that there are two districts (Sabak Bernam and Hulu Selangor) that did not have the respondents.

In terms of education, the respondents were examined from various educational backgrounds: *Sijil Pelajaran Malaysia* (SPM), Certificate, Diploma, Bachelor's Degree, Master's Degree, and the highest level of Doctor of Philosophy. The study showed that respondents with a bachelor's degree outperformed respondents from other education levels of 48.0%. In terms of employment, 37.0% of the respondents were civil servants. While 32.0% of respondents worked in the private sector, and only 3.0% of respondents were students. Therefore, most of the respondents in this study consist of professionals who have a monthly income from RM3001 to RM6000 (40.0%). Whereas 31.0% of respondents had RM1001 to RM3000 salary, and only 17.0% of respondents had below RM1000 salary.

Table 1
Socio-demography of respondents

Item	Respondent	
	Frequency (n)	Percentage (%)
Age (year)		
21–30	30	30.0
31–40	64	64.0
41–50	6	6.0
Marriage status		
Single	0	0
Married	100	100.0
Divorce	0	0
Residence (district)		
Kuala Selangor	3	3.0
Kuala Langat	5	5.0
Sepang	8	8.0
Hulu Langat	26	26.0
Gombak	12	12.0
Petaling	28	28.0
Klang	18	18.0
Sabak Bernam	0	0
Hulu Selangor	0	0
Education level		
SPM	7	7.0
Certificate	2	2.0
Diploma	20	20.0
Bachelor	48	48.0
Master	19	19.0
PhD	4	4.0

Item	Respondent	
Occupation		
Civil sector	37	37.0
Private sector	32	32.0
Self-employed	13	13.0
Housewife	15	15.0
Student	3	3.0
Income		
Below RM1000	17	17.0
RM1000-RM3000	31	31.0
RM3001-RM6000	40	40.0
RM6001-RM9000	10	10.0
RM9001- above	2	2.0

Wet Nursing Practices

Influence factor to a wet nurse

Table 2 shows the frequency, percentage, and mean amount of each item questions answered by the respondents. Analysis based on the mean found that the item with the highest mean value was the third item, "I breastfeed other milk children because I want to help mothers who do not have enough milk" by reaching mean = 3.36. Followed by the first item, "I breastfeed milk children because I have more milk" (mean = 3.18) and the fourth item, "I breastfeed milk children because their mothers are suffering from health problems preventing her from breastfeeding" (mean = 3.01). While the least favourite item was the second item, "I breastfeed other milk children as a source of income" (mean = 1.41). On average, although the number who agreed more than disagreed, some respondents decided to make breastfeeding someone else's children as a source of income.

Table 2
Influence factors to wet nurse

No	Influence factors in breastfeeding others child	Strongly disagree	Disagree	Agree	Strongly agree	Mean ± SD
		n	n	n	n	
		%	%	%	%	
1	I breastfeed another child because I have more milk	4 4.0	12 12.0	46 46.0	38 38.0	3.18 ± 0.80
2	I breastfeed another child as a source of income	60 60.0	39 39.0	1 1.0	0 0.0	1.41 ± 0.51
3	I breastfeed another child because I want to help mothers who do not have enough milk	2 2.0	6 6.0	46 46.0	46 46.0	3.36 ± 0.69
4	I breastfeed another child because her/his mother suffering from health problems preventing her from breastfeeding (maternal debility)	5 5.0	22 22.0	40 40.0	33 33.0	3.01 ± 0.87
Note: 'f': frequency of respondents; '%': Percentage of respondents						

Frequency of wet nursing

This study found a total of 42 respondents had at least one feeding someone else's children. While one of the respondents stated that they had a total of 10 nursing someone else's children. Table 3 also shows a total of 237 children have been breastfed by the respondents (N = 100). Of these, only 78.5% were breastfed five times, while 21.5% were breastfed less than five times. The findings show that there is still a wet nurse who did not achieve the conditions that can be categorized as a milk child that "the number of milk shall be five feedings" as determined by the National Muzakarah of Malaysia [12]. The study found a total of 42 respondents at least breastfed one someone else's child. While one of the respondents stated that they had a total of ten nursing someone else's children.

Table 3
Frequency of wet nursing

No.	Total of children	Total of respondents	Frequency of wet nursing				Total of children
			Less than five times		Five times or more		
			n	%	n	%	
1	1	42	10	23.8	32	76.2	42
2	2	17	7	20.6	27	79.4	34
3	3	22	19	30.6	43	69.4	62
4	4	10	9	22.5	31	77.5	40
5	5	2	3	30.0	7	70.0	10
6	6	4	0	0.0	24	100.0	24
7	7	1	0	0.0	7	100.0	7
8	8	1	2	25.0	6	75.0	8
9	10	1	1	10.0	9	90.0	10
TOTAL		100	51	21.5	186	78.5	237

Method of feeding

Table 4 shows the feeding method that has been used to feed someone else's child. Most respondents provided breast milk using bottles (82.0%). They were followed by direct breastfeeding (58.0%). While 11.0% of respondents used a cup to feed the child, and 10.0% were using a syringe. Only 8.0% of respondents used the tube (Supplemental Nursing System) to help mothers deliver milk to the children. This indicates that almost all respondents understand the practice is required by legislation, including the practice of milk extraction condition, sipped milk must reach the baby's stomach.

Table 4
Method of feeding

Method of feeding	Frequency (n)	Percentage (%)
Direct breastfeeding	58	58.0
Using a cup	11	11.0
Using a bottle	82	82.0
Using a syringe	10	10.0
Using a Supplemental Nursing System (SNS)	8	8.0
Others method	7	7.0

Providing breastmilk with a combined of other foods and other beverages

Most respondents provided only breast milk without mixing it with other foods. However, this study also showed that 17.0% of respondents mixing breast milk with a variety of different foods such as porridge (17.0%), followed by formula milk and biscuits, which was 14.0%. While there is also breast milk mixed with a cereal of 7.0%. Breast milk is also combined with fruit/vegetable puree (3.0%) and breast milk from another mother (1.0%).

Table 5
Breastmilk combined with other foods and other beverages

Food and other beverages	Frequency (n)	Percentage (%)
Breastmilk only	57	57.0
Breastmilk + another mother's breastmilk	1	1.0
Breastmilk + formula milk	14	14.0
Breastmilk + cereal	7	7.0
Breastmilk + porridge	17	17.0
Breastmilk + biscuit	14	14.0
Breastmilk + fruit/ vegetable puree	3	3.0

Issues related to wet nursing

Payment received during wet nursing

Based on Table 6, the majority of respondents did not receive or charge any fees for wet nursing (94.0%). However, some respondents received payment of RM100 (4.0%) for wet nursing. While there were still respondents receiving a fee of RM1 and RM50 each in which each provides a percentage of 1.0%, this clearly shows that almost all respondents breastfed other children by volunteering at no charge.

Table 6
Total payment was received during wet nursing

No	Total payment (RM)	Frequency (n)	Percentage (%)
1	No charge	94	94.0
2	1	1	1.0
3	50	1	1.0
4	100	4	4.0

Affinity relationships between breastfeed mother and milk child

Table 7 shows the majority of respondents (93.0%) gave answers to recognize other mother's children are breastfed. However, there were still respondents who did not identify milk children. Although the number is only 7.0%, this is a worrying situation. Meanwhile, 13.0% of respondents did not know the identity of their infant. When asked about relationships with the milk children, the majority of them were still in contact with the milk children (95.0%) and knew where they live suckler (91.0%). However, some respondents had lost contact with the children as they did not have any information regarding the presence of their infants/milk children.

Table 7
Affinity relationships between wet nurse and milk child

No.	Affinity relationships	Yes		No	
		n	%	n	%
1	Do you recognize your milk child?	93	93.0	7	7.0
2	Do you and your family know the identity of the milk child?	87	87.0	13	13.0
3	Are you still in touch with your milk child?	95	95.0	5	5.0
4	Do you know where / residence milk children?	91	91.0	9	9.0

Note: 'f': frequency of respondents; '%': Percentage of respondents

The practice of wet nursing documentation

Questionnaires were distributed to obtain information on the importance of wet nursing data records. The findings show that not all the respondents recorded data on milk children. Only 72.0% of them documented on data milk children's background. When asked about the importance of the milk child background's recorded information, there are still 15.0% of respondents who thought that the data were unnecessary to record. Although the majority of respondents felt that it should be recorded (85.0%).

Nevertheless, this awareness must be increased among breastfeeding mothers because someone else is likely to occur after wet nursing; the two sides may move or settle elsewhere and no longer met. There may even be living outside the state or perhaps residing abroad and so on. This situation can result in disconnected and inaccessible contact.

Table 8
The importance of recording breastfeeding information

No.	The importance of wet nursing documentation	Yes		No	
		n	%	n	%
1	Did you record your infant's milk child background data?	72	72.0	28	28.0
2	Do you feel the need to record your infant's milk child background data?	85	85.0	15	15.0

Note: 'f': frequency of respondents; '%': Percentage of respondents

Discussion

Here we commence our discussion of the results that the practice of wet nursing in Selangor is on the rise. This practice is due to the emergence of awareness among the public about the importance and advantages of breastfeeding. These findings proved to have been established by these findings of the percentage and frequency of wet nursing practices by Muslim mothers in Selangor is very satisfying. In the work presented here, we concluded that respondents had extensive experience related to wet nursing. This indicates that respondents have extensive experience in marriage and the intricacies of breastfeeding. They had the number of children who are breastfed until reaching ten children. Most of these children are breastfed five times or more. This means when a baby is being breastfed by women other than his or her biological mother for five times or more within the period of the first two years, and the baby then becomes her milk son or milk daughter. Therefore, that mother becomes *mahram* or *haram* (illegal) to be awed by the child she nursed [13]. The term *mahram* is used to denote a level of relationship between close family members, i.e., those with whom the hijab does not have to be observed [14].

However, there are still some respondents who breastfeed their milk children less than five times in any legislation that does not meet the requirement of the child can be classified as a suckling. This indicates that there are still some respondents who do not understand that breastfeeding will only be convicted of breastfeeding at least five times. According to Zulkifli [15] that it would condemn the child-mother relationship when the total breastfeeding rate is five times full. However, this is contrary to the National Fatwa Councils of Malaysia [12] opinion on conditions of fullness that were not touched on in the discussion but were expressed fivefold. Siti Zainab [16] stated there is no language or legal standard for determining to breastfeed. However, one possible method is to adhere to the custom or recognition of the mother [17, 18, 19, 20]. Besides, the baby's need for breast milk also varies depending on his age, stomach capacity, level of activity, and sleep patterns. According to Nazirah and Zaharah [21], infants are given the ability to determine the level of their food. Naturally, babies will show signs when they are hungry and stop by themselves when they are full.

In the case of feeding method, the majority of respondents know that there were two methods of feeding agreed by the majority of Scholars to make the baby *mahram* because of breastmilk. They were feeding directly from the breast and breastfeeding indirectly with the aid of breastfeeding such use tubes, bottles, Supplemental Nursing System (SNS) and the like with the proviso that inhaled by the baby milk must reach the stomach [12]. The argument is that breast milk is a staple food for babies who grow flesh and bone lengthening, just as babies feed directly from the breast. However, if the procedure is done by injecting milk through the anus, liquid milk dripping into the eyes, ears, or in the wounds of the body, then the baby is not valid as a suckling [12]. Fatwa Selangor [22] explained that breast milk mixed with other ingredients is the same as breast milk and not mixed with food, beverages or any other because of the suckler milk child is found to be necessary to meet the conditions prescribed by the Islamic Law. The results showed that many respondents were mixing breast milk with a variety of other foods such as formula milk porridge, biscuits, and cereal. Breast milk was mixed with pureed fruits/vegetables. However, most respondents provided only breast milk without mixing it with other foods.

In Malaysia, the demand and supply of breast milk are becoming increasingly widespread and widely accepted [23]. In fact, at the same time, some women who have a surplus of milk were prepared to sell it to those in need. However, this research found most respondents voluntarily provided their milk without charge. Nonetheless, this study also shows that several respondents make wet nursing practice as a source of income. This proves that the media [24] reported stating that the activity of offering breast milk to anyone who wants it and earning a fair amount of money is happening. This development can lead to an unhealthy phenomenon as if it could be considered a lucrative career. We hope the authorities take this activity seriously and take more aggressive steps to curb it. The 153rd Fatwa Census issued by the Federal Territory Mufti Office also made it clear that the legal sale of breast milk is not allowed. This is because the sale could result in the mixing of *mahram* and bringing Muslims into doubt and illicit affairs.

It is crucial to record the wet-nursing practices to avoid any misunderstandings between a breastfeeding mother and her milk child and their descendants. Although most respondents took their initiative to record wet nursing data, there were still some respondents who felt that recording was unnecessary. The study conducted by Siti Fatimah et al. [25] shows that documenting evidence of breastfeeding by individual bodies such as the National Registration Department is an essential step in harmonizing the Islamic family system. This was also touched upon by the Federal Territory Mufti, Dr. Zulkifli al-Bakri [15], who recommended the creation of a special card for breastfeeding infants from not his/her biological mother, to avoid problems of misunderstanding the relationship between the giver and the recipient. In the absence of any specific record, it reveals the problem from the angle of Islamic law as well as health. According to Azizah [26] states that the adoptive mother breastfeeds the child to provide a witness or proof that she has breastfed the child to avoid any problems later. It thus leads to the issue of notes or records as a wet nurse as proof of the practice. In addition, each milk donor should write on the bottle the name of the contributing mother. A total of five times as much as possible will convince the child and the mother of the relationship based on the majority of Scholars.

Breastfeeding plays a vital role in the development of love, attachment and dependence on the mother, has been proven by Muslim scholars [27, 28, 29, 30, 31] and research by non-Muslims [32, 33, 34, 35, 36, 37, 38]. This is consistent with the findings of this study in which almost all the items involving the practice of wet nursing to convict lineage, noting the high percentage and mean. Most respondents were aware of the practice as well as in connection with the implementation of breastfeeding and the implications for milk. It has also been supported by the findings Zanariah et al. [39], which states that the awareness of the Muslim community in Selangor on the effects and laws of breastfeeding, especially on the aspects of genitalia, lineage, and marriage is at an outstanding level.

Strength and limitation of the study

The strengths of this study are that it provides novel information regarding wet nursing trends, influences, and practices among a sample of Muslim mothers living in Selangor. This study is also used primary data that should consider the strength of this study. However, there can be recall bias among the respondents, and since the information was collected retrospectively, one to two years after the wet-nursing practice completed. Due to that, we cannot rule out recall bias in the responses given in the interviews. In this sense, it is possible that the reported breastfeeding rates overestimated the actual rates.

Conclusion

In conclusion, this novel study shows that a lot of useful information that indicates there is wet nursing practice among Muslim mothers in Selangor. However, the issue of breastfeeding has uncovered several findings, including the role of the government in facilitating breastfeeding documentation to the public and researchers being able to identify informal documented situations by those who have adopted breastfeeding practices. In general, the respondent is aware of the fact that it is personal documentation to facilitate any future issues. The public also supports the fact that there is formal documentation by the local authorities to ensure the rights and well-being of the Islamic community in the future. It also directly supports the need for such practices recorded. It will help safeguard the welfare of children breastfed, breastfeeding, mother's milk, and of course, suckler biological family involved. Then, of course, they have difficulty because there are no documents to prove that they have a mahram relationship because of breastmilk. Researchers have also suggested improvements to current practices done either through legislation, policy, policies, or mechanisms in the implementation documentation wet-nursing practices that apply to the Muslim community in the state. However, it is expected that similar efforts are also conducted in other states in Malaysia as an initiative towards keeping the lineage and descendant generations to come because this situation does not happen only in Selangor but also includes other states as well.

Abbreviations

CITC: Corrected Item Total Correlation; SPSS: Statistical Package for Social Sciences; SPM: *Sijil Pelajaran Malaysia*; SNS: Supplemental Nursing System.

Declarations

Ethics approval and consent to participate

The study was conducted after getting ethical clearance from Medical Research and Ethics Committee, Ministry of Health Malaysia with code NMRR-19-1600- 54678 (IIR). Written informed consent was secured from study respondents after explaining about the objective and purpose of the study to each study respondents. The respondents were also assured about the confidentiality of the data. Respondents under the age of 20 (minors are considered anyone under the age of 16) were included in this study and consent to participate was obtained from the parents/guardians.

Consent for publication

This is not applicable.

Availability of data and materials

The data set generated and analysed during the current study will not be shared. This is to protect and maintain respondents' anonymity and confidentiality. Even though the data are with the corresponding author, due to the sensitive nature of the information the respondents provided, the data are kept saved in order not to expose the feelings of the participants to the public.

Competing interests

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Authors' contributions

NCAR designed the study, developed the search strategy, and drafted the manuscript. NCAR, SHH, LAM and ZK refined the search strategy and searched and collected the articles. NB, NMH, MZI and NAA conducted the quality assessment and critically reviewed the manuscript. Lastly, all authors have read and approved the final version of the manuscript.

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