The Malay Mothers' Perspective on the Usage of Galactagogue

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Abstract

Breastfeeding confers a lot of benefits to both mother and child. Problems such as insufficient milk production may affect the mothers' breastfeeding process and most mothers opt to consider on using galactagogue. We collected and analyzed questionnaire consists of demographic data and usage patterns of herbal galactagogue during lactating. To summarize, most mothers consume herbal galactagogue due to lack of milk production. A larger scale survey of herbal galactagogues used would be beneficial in future to the state of knowledge and clinical study on the most popular herbs

Keywords: Breastfeeding, Galactagogue, Insufficient milk, Lactating mothers

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1.0 Introduction

Breastfeeding provides many positive outcomes for both mothers and infants for short and long term period. It provides all essential ingredients for the infant development and it hinders the chances of several chronic diseases to both mothers and infants. Breastfeeding is beneficial to improve infant's immunity system development, maximize nutrients absorption, improves neurodevelopment and maternal psychological well-being. In Islam, mothers are responsible to breastfeeding their baby if the mother has no hindrance or limitation until the baby reaches the age of 2 years old. Malaysia's breastfed prevalence declines from 92% (1950) to 78% (1974) but rises up to 85% and 94.7% in 1988 and 2006 (MOH, 1996; Fatimah et al., 2010). The introduction of Malaysian Code of Ethics for Infant Formula Products in 1979 contributes to the increment. The code highlights the importance of breastfeeding practice among mothers and babies as it emphasizes on breastfeeding's benefits in improving health and nutritional uptake among infants and children. However, many mothers often face challenges in their effort to breastfeed their infants such as insufficient milk supply that may lead to early cessation of breastfeeding. Mothers with an insufficient milk supply often consider the usage of galactagogue, which are substances that are believed to increase the amount of a mother's milk (Nursyuhadah et al.,2014). Galactagogue includes foods, herbal preparation, and synthetic galactagogues. Traditional cultures often lead mothers to opt for herbal galactagogues because they believe herbal galactagogue is safer and easily available in the market. Currently, there is only a little information on the rationale and prevalence of using herbal galactagogue during lactating among Malay mothers in Malaysia. We conduct this research to show the usage patterns of herbal galactagogue during lactating, providing information on the galactagogues usage prevalence among Malay lactating mothers in Malaysia. From this research, we hope that there will be further clinical studies on the most widely used herbal galactagogue among Malay mothers.

2.0 Literature Review

Breast milk is the best food source for virtually all children in most situations. Other than eliminating hunger and thirst, it provides the beneficial component in the exact proportion to infancy growth such as enzymes, immune factors, minerals, proteins and growth factors. World Health Organization (WHO) recommends mothers to breastfeed their infants exclusively for up to six months and extend the breastfeeding period until they reach two years old and above with proper complementary solid food (WHO, 2002). Breast milk is a complex fluid. It contains various chemical and cellular components which are absent in commercial formula milk. Breast-milk is unique and exclusive for every pair of a mother and child. It adapts to every child's developing system to provide the exact amount of nutrition for each growth stage (Gartner et al., 2005). During a breastfeeding session, a mother's body releases antibodies and helpful hormones such as oxytocin and prolactin, which strengthen the maternal bond between the mother and her baby. Breastfeeding mothers have less risk of endometrial, ovarian (Robenblatt & Thomas, 1993) and breast cancer (Gartner et al., 2005).

Barriers to breastfeeding initiation include the perception of insufficient milk among mothers, lack of breastfeeding knowledge and lack of support from the surrounding community. Media coverage on the advertisement about infant formula benefits is countless. Lactation physiology, psychological and social factors play an important role in milk ejection. Medical conditions of mothers such as hypothyroidism, diabetes, and polycystic ovarian syndrome may also affect milk production. (Abascal & Yarnell, 2008).

Galactagogues are pharmaceutical agents, food, drink, the herbal preparation used to support initiation, continuation, or augmentation of milk production (Antonia et al., 2012). The most common Western strategy is to boost prolactin production as it is one of the responsible hormones for milk production or lactogenesis (Diana&Lisa, 2009). However, high dosages and concurrent usage of domperidone may increase the risk of arrhythmias and sudden cardiac death (Osborne et al., 1985) while prolonging usage of metoclopramide results maternal depression and tardive dyskinesia (Philip, 2013). Instead of using pharmaceutical galactagogue most mothers decided to use herbal galactagogue. For example, women in North Sumatra, Indonesia consumed torbangun leaves (Coleus amboinicus Lour) as a galactagogue (Damanik, et al., 2006) and studies were done by Gupta et al. (2011) in India, concluded that shatavari has significant galactagogue activity. At the moment, in Malaysia, the most commonly used milk boosters are fenugreek, black seed, and alfalfa.

3.0 Methodology

This cross-sectional behavioral survey conducted in between January to June 2013 and successfully recruited respondents through several online breastfeeding support groups on the voluntary basis. A total of 83 respondents who met the eligibility criteria participated in this research. The eligibility criteria in this research are among Malay mother who is using herbal galactagogue, breastfeeding mothers; submitted a complete form and they agree to take part. A survey instrument developed to assess the following conditions; demographic data, earlier and current use of herbal galactagogue, a rationale for use, referral sources for herbal galactagogue and satisfaction on the effectiveness of the galactagogue used. A member of International Board Certified Lactation Consultant® validates the questionnaire. We tested the questionnaire's reliability by distributing it among breastfeeding mothers in Universiti Teknologi Mara, Bertam Campus, Penang, Malaysia. We coded and entered all data in the questionnaire into Statistical Package for the Social Sciences (SPSS) Version 20.0 for further analysis.

4.0 Results and Discussion

Table 1 shows the characteristics of the population under study. The sample consisted of 65.1% (n=54) mothers range 21-30 years and 34.9% (n=29) mothers range 31-40 years old. Most of the respondents are working mothers (89.2%; n=74) while 10.8% (n=9) of the participants are not working. Majority of respondents (59%; n=49) received first degree education, followed by 18.1% (n=15) with masters degree, 13.3% (n=11) have diploma, 6% (n=5) received secondary education and 3.6% (n=3) completed their doctor of philosophy

studies. According to the survey on breastfeeding duration, 23 respondents (27.7%) breastfeed their child in more than 18 months, 20 respondents (24.1%) breastfeed their child between 2-6 months, 19 respondents (22.9%) breastfeed their child between 6-12 months, 12 respondents (14.5%) breastfeed their child between 12-18 months and 9 respondents (10.8%) breastfeed their child less than 6 months.

A total of 82 respondents (99%) aware of galactagogue. According to this survey (Figure 1), 60.2% mothers (n=50) heard about galactagogue from their friends followed by accessing the information through the internet (n=28; 33.7%). Four mothers know about galactagogue from their support group discussion. One mother gained the information about galactagogue from reading articles published in newspapers and magazine. There was one respondent who doesn't know about galactagogue.

Table 1.Demographic characteristics of the respondents

Characteristics	Respondents *(n)*	Percentage *(%)*
Age (year)		
21 – 30	54	65.1
31 – 40	29	34.9
Mother's occupation status		
Not working	9	10.8
Working	74	89.2
Education level		
Secondary school	5	6
Diploma	11	13.3
Bachelor degree	49	59
Masters	15	18.1
Doctor of philosophy	3	3.6
Breastfeeding duration		
Below 6 months	9	10.8
2 – 6 months	20	24.1
6 – 12 months	19	22.9
12 – 18 months	12	14.5
More than 18 months	23	27.7

(Source: Author)

We asked respondents for the reasons of consuming herbal galactagogue instead of using pharmaceutical galactagogue. 65 respondents chose to use herbal galactagogue due to the natural ingredients in each preparation. Nine respondents certain on the efficacy of herbal galactagogue, 4 respondents considered herbal galactagogue is safer than pharmaceutical galactagogues, 3 respondents believed there is no serious side effect on herbal galactagogue and physicians advised 2 respondents to consume galactagogue after they raised their concern on their unsatisfying milk ejection measure. Figure 2 shows 44 (53%) mothers consumed galactagogue because of the feeling of deficient in milk ejection,

followed by 19 (22.9%) mothers who believe herbal galactagogue is a good supplement for lactating mothers. This study also reveals that herbal galactagogue is used for postpartum treatment in 10 women (12%). Ten mothers don't have any specific reasons on why they consume galactagogue.

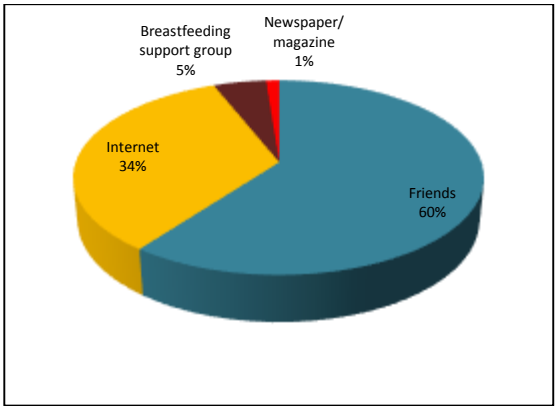

Figure 1: Source of information on herbal galactagogue
(Source: Author)

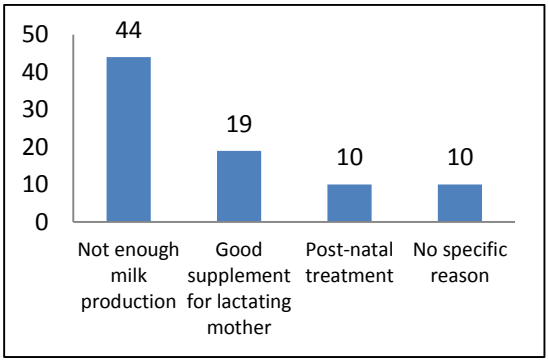

Figure 2: Reasons on using herbal galactagogue
(Source: Author)

From 44 respondents unsatisfied with their milk ejection, we conducted a further assessment on maternal indicators and baby behaviors that contribute to lack milk production feeling. Table 2 shows 88.6% (n=39) of mothers consume galactagogue because they are unable to express the desired measure of breast-milk while 3 mothers (6.8%) felts that little or no breast engorgement at all and 2.3% of respondents experience softer breasts and thin milk consistency. We also investigate the baby behavior that leads to the shortage of milk production perception from the mothers' point of view. Most of the respondents (n=21; 47.7%)

felt that frequent feeding is a sign to little milk ejection. Nine mothers (20.5%) felt that the inability for the baby to sleep in a long period is a cue for low milk production while six mothers do not have any idea about the baby behavior that may give to an assumption of low milk production. Three mothers assumed the short feeding is a sign of unsatisfied milk production. Softer breast or no breast engorgement often related to the condition when the milk supply adjusted according to baby's need. Mothers' diet often affects milk consistency. The amount of breast-milk ejection via pumping may depend on many factors such as breast pump quality, the efficiency of the kit, breast tissues density and the overall comfort and response to pumping (Diana & Lisa, 2009). The amount of the expressed milk may give some clues on the produced milk but mothers should not depend on this measurement alone. Some mothers misinterpreted when babies breastfeed often especially during the early weeks, it shows that the amount of milk ejection was not enough. Some babies need frequent feeding to fulfill their needs for growth (Diana & Lisa, 2009) or for the reason that breast-milk digestion process is faster as compared to formula milk which leads to frequent hunger among the growing babies.

Table 2: Maternal and baby indicators that led to assumption of lack milk ejection

		Baby behavior							
		Frequent feeding	Less frequent feeding	Short feeding	Baby not sleep well	Baby cries after breastfeed	Regular fussiness	No specific reason	Total
Maternal indicator	Inability to express desired amount of milk	19	1	3	8	1	2	5	39
	Little or no engorgement	1	0	0	0	1	0	1	3
	Softer breasts	0	0	0	1	0	0	0	1
	Thin milk consistency	1	0	0	0	0	0	0	1
Total		21	1	3	9	2	2	6	44

(Source: Author)

Sixty-nine respondents consume one type of herb as galactagogue at a time and 14 respondents consume two types of galactagogues at a time. The frequently used herbal galactagogue among respondents were alfalfa (47 times), black seed (Nigella sativa) (26 times) and fenugreek (19 times). Majority mothers rely on other people's experience before selecting a certain herb as galactagogue (n=72, 86.7%). Seven respondents find the effectiveness of certain herbs as galactagogue from reported journals, articles and pamphlet. One mother discussed with the healthcare personnel before consuming herbal galactagogue. Three respondents believed on their maternal instinct before making decision on using certain types of galactagogues.

From this study, 67 (80.7%) mothers are satisfied on the use of herbal galactagogue while 6 mothers (7.2%) are unsatisfied with their milk production after using galactagogue. Ten mothers (12.1%) are unsure on the effectiveness of galactagogue. We assumed that, the satisfied mothers achieved their desired outcome after consuming the galactagogue while for those unsatisfied mothers; their outcome was not achieved as desired. In the situation where many women experience insufficient milk ejection and seek for alternative from herbal galactagogue, health care providers should have reliable information and evidence to help them in making evidence-based decisions before using these products.

According to Diana and Lisa (2009), there is no specific drug that is specifically designed as galactagogues but they are able to increase breast milk production as one of the drug's reaction. The available pharmaceutical galactagogues are all dopamine antagonists and will increase prolactin levels via this mechanism (Lawrence & Lawrence, 2005). Domperidone and metocloropramide are the most preferred drugs used as a galactagogue. Herbal and food as galactagogues have little or no scientific evidence of efficacy, which does not mean they are all effective, but may serve placebo in many cases which preferred among of lactating mothers (The Academy of Breastfeeding Medicine Protocol Committee, 2011). A study done by Rachell, 2003 shows that though most of the respondents are unable to describe the efficacy of the herbs used as a galactagogue, they believe that these herbs have some value in providing needed nutrients for lactating as well as promoting a sense of relaxation and self-efficacy.

Currently, there is lots of information available on herbal galactagogue, therefore, mothers should gain as much relevant information as possible before deciding to use herbal galactagogue. Efforts should be made to educate the mothers about the safety and convenience of using herbs as galactagogue.

5.0 Conclusion

From this study, the perception of the use of herbal galactagogue to increase breast-milk ejection is common among breastfeeding mothers as they concern about the all the benefits of breast-milk to both mothers and babies. Many mothers believe that herbal galactagogue can increase breast-milk ejection and safe because it is natural and almost preservative-free products. Mothers should get more information about herbal galactagogue from authentic sources in term of the appropriateness of the mother and infant conditions before using the herbs. The best way to overcome insufficient breast-milk ejection is to investigate the real

problems that may lead to a reduction of milk ejection. There are many possible factors that lead to the lack of milk such as the introduction of supplement or artificial pacifiers to the baby, sleepy baby that may interfere breastfeeding process, mother and baby health or anatomical problems that prevent baby from suckling the milk from the breasts. Mothers should understand that by consuming galactagogues it may not totally solve a milk supply problem if milk suction is not sufficiently frequent and effective. It is important to educate mothers about the right time when galactagogue can have the beneficial effect on their health, under which conditions and how to use galactagogue. It is also necessary to educate mothers on the possible adverse reaction of some galactagogues taken in high dose. Mothers who wish to use these products during lactation should consult a health care provider before initiation. Mothers should start weaning down the herbs as soon as they have reached the desired measurement of breast milk and baby is able to sustain it. We are aware of the limitations of the present study. We carried out this study in a small-scale due to the limitation of financial support. Finally, since this questionnaire is only distributed among Malay mothers, this led to a lower sample size and lack of statistic analysis. We suggest for researchers to widen the scope of public area to get the real of public understanding of the usage of galactagogue or milk booster. The outcome of this study can be used to plan advanced clinical research on each type of herbal galactagogue used among breastfeeding mother and eventually promote the use of natural products as the galactagogue.

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