

Intention of Pregnant Saudi Women to Breastfeed and Their Rational

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Abstract: Breastfeeding provides numerous health benefits for both infants and mothers. Prenatal intention to breastfeed had an influence on both initiation and duration of breastfeeding. The **aim** of this study is to recognize the intention of pregnant Saudi women to breastfeed. A cross-sectional descriptive **design** was used in this study. The study was carried out in the ante-natal clinics in Al-Yammamah maternity & pediatric hospital, Riyadh city, (KSA). The study **population** included convenient sample of 223 pregnant Saudi women in their third trimester. **Data** were collected from February to June, 2013. The **tool** used was an interview questionnaire which developed by the investigators and used to collect the necessary data, comprising personal data, obstetrical history, previous breast feeding experiences, and intention to breastfeed. **Results** showed that more than two thirds of subjects were in age of 20-35 years, three quarters were in secondary & university education, nearly two thirds were housewives. Nearly one quarter of subjects had a negative experience with breastfeeding. Nearly three quarters of subjects intended to breastfeed while more than one quarter of them not intended to do. Nearly half of subjects who intended to breastfeed was for mother & baby's health, while nearly one tens of them was for follow Islamic guidance, nearly one third of them were intended to breastfeed according to their vacation. Nearly one quarter of subjects were not intending to breastfeed due to previous bad experiences, while other one tens due to fear of socialtying and changes in body image. The study **concluded** that large percent of study subjects were intending to breastfeed for mother & baby's health & for follow of Islamic guidance. Age, parity & women with a history of previous breastfeeding was significantly associated with breastfeeding intention among studied women. It is **recommended** that all nurses should be trained to counsel mothers on breastfeeding during prenatal visits. Attention provided immediately postpartum to support exclusive breastfeeding. Routine lactation consultation integrated into the initial postpartum visit.

Key Words: Intention, breast feeding, rational

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I. Introduction

The World Health Organization (WHO, 2011) and other international health bodies (American Academy of Pediatrics, 2012, Kramer & Kakuma, 2012, Heikkila K., 2011,) have recommended exclusive breastfeeding for six months after birth. Breastfeeding provides numerous health benefits for infants and mothers; however, many infants are not breastfed as long as recommended or desired by mothers. Maternal employment is frequently cited as a barrier to breastfeeding (MirKrovic et-al., 2014). Infants who are not breastfed face increased risks of Otitis media, gastroenteritis, lower respiratory tract infections, obesity, diabetes, childhood leukemia, sudden infant death syndrome, and necrotizing enterocolitis. Among mothers, not breastfeeding is associated with an increased risk of type 2 diabetes, breast and ovarian cancer, and myocardial infarction. (Ladomenou et-al., 2010 & McNiel ME., et-al., 2010 & Mendoza et-al., 2015). Women's attitudes and decision making about whether or not to breastfeed are often established early in pregnancy, and are predictive of initiation and duration of breastfeeding (Thulier & Mercer, 2009).

Women's Intention to breastfeed are influenced by many factors as, women's age, education, backgrounds, consultation with trusted sources and trends within their culture, and past experience with breastfeeding guides further beliefs about the feasibility of breastfeeding. Together, these beliefs coalesce into intentions about initiating and maintaining breastfeeding, (May et-al., 2015). Previous research has shown that breastfeeding intention are particularly influenced by personal beliefs related to breastfeeding self-efficacy, perceived personal strength and ability, and comfort level with breastfeeding in public (de Jager et al., 2013). Other researches indicates that support and education are the factors influencing breastfeeding initiation and duration, (May et-al., 2015). Tarrant et al (2010) recently reported that breastfeeding intention is a significant predictor of breastfeeding initiation and any breastfeeding at six weeks among Irish women.

Breastfeeding is a significant predictor of health outcomes for mother and child (Stuebe et-al., 2010). An estimated \$13 billion would be saved and 911 infant deaths prevented if 90% of women complied with

exclusive breastfeeding, (Bartick M., 2010). Mothers planning to return to work before 12 weeks and/or full-time were less likely to plan to exclusively breastfeed, (MirKrovic et-al., 2014).

II. Significance Of The Study

Prenatal intention to breastfeed had an influence on both initiation and duration of breastfeeding (Donath et-al. 2013). The American Academy of Pediatrics recommends 6 months of exclusive breastfeeding, however, only 16% of US infants meet this recommendation (Kelsey et-al., 2014). Less is known about the Saudi community, there is insufficient data available on breastfeeding in Saudi Arabia to monitor progress and develop promotion programs. The World Health Organization does not report any breastfeeding data in the country profile because there are no national data on breastfeeding, (Al Juaid D., 2014), therefore this study done to investigate the intention of pregnant Saudi women to breastfeed and their rational.

III. Aim Of The Study

The aim of this study is to recognize the intention of pregnant Saudi women to breastfeed and their rational.

IV. Subjects And Methods

Research design: A cross-sectional descriptive design was used in carrying out this study.

Research Setting: This study was conducted at ante-natal clinic in Al-Yammamah maternity & pediatric hospital, Riyadh city, (KSA).

Subjects: A convenient sample of 223 pregnant Saudi women in their third trimester was recruited for this study. There were no inclusion criteria, apart from being pregnant Saudi woman & in third trimester.

Tool of data collection: An interview questionnaire was developed by the investigators in an Arabic language, after reviewing the related literatures, and was used to collect the necessary data. It comprised the following parts: socio-demographic data which include (age, level of education, occupation) Obstetrical history, include (number of pregnancy, delivery, abortion and living children). Mother's past experience of breast feeding, mother's knowledge about advantages of breast feeding. Intention of women to breastfeed and their rational

Procedures

An official permission was obtained from the Ministry of Health as well as the nursing college.

Pilot study: After the development of the tool, a pilot study was carried out on 20 pregnant Saudi women. The aim was to ascertain the relevance of the tool, to detect any problems peculiar to the statements as sequence and clarity and to estimate the time needed to complete the questionnaire. According to the results of the pilot study, the needed modifications were done. Before actual study work, a jury acceptance of the final form was secured from both pediatric and obstetrical fields to test its contents' validity; whilst the reliability was assessed by measuring its internal consistency using Cronbach's alpha coefficient method. These 20 questionnaires were included in the study.

Field work: This study was carried out from February to June 2013. The study was announced to the director of the hospital. The aim of the study was clearly explained to the participants of the study. The interview was carried out on Monday each week (the off day of the investigators), during the study period. The women were interviewed individually in the outpatient clinic (eight to twelve /day approximately), to complete the questionnaire.

Ethical considerations: Participants were assured that all their data are highly confidential and used only for the research purposes, anonymity was also assured through assigning a number for each questionnaire instead of names to protect their privacy.

V. Statistical Analysis

Data are entered using Epi-Info 6.04 computer software package, and are statistically analyzed using SPSS 19.0 statistical software packages. Data are presented using descriptive statistics in the form of frequencies and percentages for qualitative variables, and means and standard deviations for quantitative variables. Statistical significance is used at p-value <0.05.

VI. Results

Table 1- showed the distribution of the study subjects by their socio-demographic characters. The age range of the mothers was from 16 to 50 years with a mean of 29.7 years. The majority of women were in secondary &

university education (36.3 & 39% respectively), while house wives constitutes 63.2% of subjects. Consanguinity was present among 51.1% of subjects. Most of the mothers (93.7%) were married.

Figure 1- showed distribution of the study subjects by their health condition. Bronchial asthma was the most medical complaint among the participants (14.8%), followed by diabetes & hypertension, (10.3 & 7.6%) respectively.

Table 2- showed distribution of the study subjects by their obstetrical history. Multigravidity constitutes 50.2% of participants.

Table 3- showed distribution of the study subjects by their past experience of baby feeding. More than three quarter (75.8) had a history of breastfeeding ranged between 1-24 with the mean duration of 5.8 ± 5.2 months. Nearly one quarter (23.8) of subjects had a negative experience with breastfeeding.

Figure 2- showed distribution of the study subjects by their intention to breastfeed. Intention to breastfeed was reported by 71.7% of participants

Table 4- showed distribution of the study subjects by their rational for intention or not intention to breastfeeding. Nearly half of subjects

(43.5%)who intended to breastfed was for mother & baby's health, nearly one third of them (30%) were intended to breastfed according to their vacation. Nearly one quarter of subjects (23.8) were not intend to breastfed due to previous bad experiences,while nearly one tens of them was for follow Islamic guidance, other one tens due to fear of social tying and changes in body image.

Table 5- showed distribution of the study subjects by theirknowledge about breastfeeding benefits. Nearly half of mothers (46.2%) were aware of some benefits of breastfeeding for both mothers and babies.

Table 6- showed that the age, parity & women with a history of previous breastfeeding was significantly associated with breastfeeding intention among studied women. The present study showed that student & employed subjects was associated with less breastfeeding intention

Table 1- Distribution of the study subjects by their socio-demographic characters.

Character	(n= 223)	
	No.	%
Age< 20 years	15	6.7
20-35 years	149	66.8
≥ 35 years	59	26.5
Range	16 – 50	
Mean ± SD	29.7±7.1	
Education/Illiterate	10	4.5
Basic education	45	20.2
Secondary	81	36.3
University	87	39.0
Occupation/ House wife	141	63.3
student	42	18.8
employee	40	17.9
Consanguinity:		
Present	115	51.1
Absent	109	48.9
Married	209	93.7

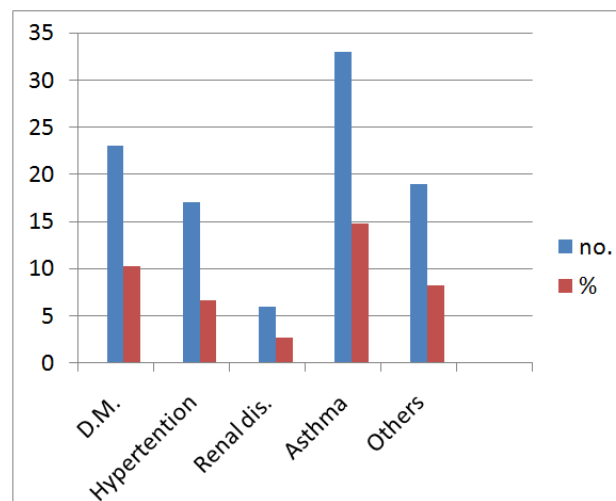


Figure 1- Distribution of the study subjects by their health condition.

Table 2-Distribution of the study subjects by their obstetrical history.

Obstetrical history	(n= 223)	
	No.	%
Gravidity:		
Primi-gravida	31	13.9
Multi-gravida	112	50.2
Grandmulti gravida	80	35.9
Parity:		
Nulli-para	31	13.9
Primipara	52	23.4
Multipara	98	43.9
Grandmultipara	42	18.8
Abortion:		
No	168	75.3
One or more	55	24.3

Others mean hypo-&hyper-thyroidism, anemia, heart diseases, colon, obesity, and epilepsy.

Table 3- Distribution of the study subjects by their past experience of baby feeding.

Past experience	(n= 223)	
	No.	%
Breastfeeding	169	75.8
Duration in months Range/mean± SD	1-24 / 5.8 ± 5.2	
Negative experience	53	23.8
Bottle feeding	140	62.8

Negative experience in a form of (maternal) sweating, abdominal pain. cracked nipple, low milk supply, (neonatal) continuous baby crying, diarrhea and accumulation of gases.

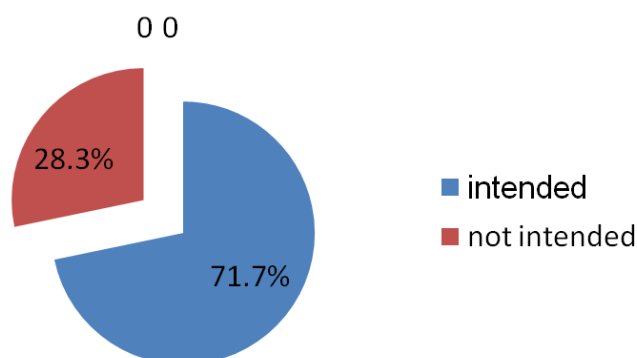


Figure 2-Distribution of the study subjects by their intention to breastfeed.

Table 4- Distribution of the study subjects by their rational for intention or not intention to breastfeeding

Rational	No. (223)	%
Mother and baby's health	97	43.5
Bad experience	53	23.8
According to vacation	68	30
Religious duty	21	9.4
To be socially free	12	5.4
To maintain body image	13	5.8

More than one answer may be reported

Table 5- Distribution of the study subjects by their knowledge about breastfeeding benefits.

Benefits of breastfeeding	Maternal Knowledge No.	%
Prevent maternal hemorrhage & some types of cancers	171	
Increase immunity of baby	204	91.5
Increase bonding	199	89.2
Improve infant teeth development	178	79.8
All of the above	103	46.2

More than one answer may be reported

Table 6- Relationship between the study subjects'age, level of education, occupation, parity, history of Previous breastfeeding, and intention to breastfeed.

Factors affecting the intention	Intention to breastfeed				P. value
	Yes (n=160)		No (n=63)		
	No.	%	No.	%	
Age groups					
Less 20 years	5	3.1	10	15.9	0.002**
20 - 35 years	109	68.1	40	63.5	
More than 35 years	46	28.8	13	20.6	
Education					
Illiterate	8	5.0	2	3.2	0.280
Primary	14	8.8	3	4.8	
Average	23	14.4	5	7.9	
Secondary	52	32.5	29	46.0	
University	63	39.4	24	38.1	
Occupation					
House wife	109	68.1	32	50.8	0.046*
Student	25	15.6	17	27.0	
Employee	26	16.3	14	22.2	
Parity					
Nulli	15	9.4	16	25.4	0.001**
Primi	32	20.0	20	31.7	
Multi	81	50.6	17	27.0	
Grand multi	32	20.0	10	15.9	
previous bf					
Yes	135	84.4	34	54.0	0.001**
No	8	5.0	12	19.0	
Not applicable	17	10.6	17	27.0	

** statistically significant difference (p<0.01)

VII. Discussion

Although breastfeeding is known to be beneficial to both mother and infant, many women encounter barriers to breastfeeding, which may put them at greater risk for early cessation of breastfeeding, (Brand et-al., 2011). The aim of this study was to recognize the intention of pregnant Saudi women to breastfeed and their rational.

The majority of subjects in the present study intended to breastfeed their infants. This is similar to findings reported in Arab study which find that breastfeeding intention between Syrian and Jordanian women was 77.2% & 76.2% respectively, (Al-Akour et-al., 2010). Other study in the United States of America, (Hill *et al.*,2008) found that 78% of respondents intended to breastfeed. In Greece, (Ladomenou *et al.*,2007) found that 89.7% of mothers intended to breastfeed. However, a study from Australia evaluated intention to exclusively breastfeed for six months found that only 42% of all mothers intended to meet therecommendation of exclusive breastfeeding, however 94% of the mothers didplan to initiate breastfeeding, (Wen et-al., 2009). Other study done by Lutsiv, (2013) he found that 85% of women in their study intended to breastfeed their babies.In Australia, a national survey found that in 2004-5, breastfeeding initiation was 88% (Amir et-al., 2008). This result can be explained by following of the participants to Qur'an, the Holy Book of Muslims, which emphasizes the importance of breastfeeding frequently.

Education was not significantly associated with breastfeeding intention among studied women, Other study reported that, higher levels of education were associated with less breastfeeding, (Amin et-al., 2011). Khassawneh *et al.* (2006) found that mothers who had lower education were more likely to breastfeed than mothers with higher education. This may be explained by increased levels of education and employment due to rapid advancements in economy, education and other social aspects of life in the KSA, (women with higher education in Arab culture are more likely to be working mothers and their intention to use bottle feeding is higher in a culture that provides minimal support for breastfeeding in the work environment).

The present study showed that students & employed subjects were associated with less breastfeeding intention. Present finding is disagreement with report of study carried out in Saudi Arabia reported a higher exclusive breastfeeding rate among working mothers compared to non-working mothers, (Eldeek, 2012). This can be explained by short maternal leave & overloaded the student subjects by their studying activities.

The present study findings indicated that women aged less than 20 were more likely to report less intention to breastfeed their infants. This finding is in agreement with Al Juaid et al., (2014) who reported that breast feeding intentions increased with maternal age. Results from a recent study revealed that increased

maternal age was significantly associated with exclusivity of breastfeeding & early initiation of breast feeding, (Amin et-al., 2011). This finding may be explained by a new trend for younger generation within their culture. This can also be a rational for breastfeeding promotion through media, inclusion of breastfeeding benefits in school curriculum or higher education in young women. Also this group of mothers is a challenge for breastfeeding promoters, but an important one, because they face greater health risks than the general community, being younger, less well educated and more likely to be unemployed.

The present study reporting an association of infant feeding intention with maternal age, previous breastfeeding experience, and parity. Several other studies reporting an association of infant feeding intention with maternal age, previous breastfeeding experience, and a lack of association between parity and feeding intention. Other studies, however, have demonstrated an association between parity and feeding intention, (McInnes RJ., 2001 & Al Juaid et al., 2014).

The findings of the current study showed that pregnant women were more likely to intend to breastfeed if they had previous breastfeeding experience.

This result is agreement with Humphreys et al., (1998) & Al Juaid et al., (2014) they reported that previous breastfeeding experience was the strongest predictive factor associated with breastfeeding intention. When previous breastfeeding experience and increasing maternal age were both independently associated with feeding choice, emphasizes the need to support and encourage breastfeeding in first time mothers.

Studies have described many factors associated with the intention to breastfeed [Humphreys et-al., 1998, McInnes et-al., 2001, Leung et-al., 2003, Mitra et-al., 2004, Shaker et-al., 2003, Persad et-al., 2008]. These factors include maternal age, mother's educational level, mother's knowledge about the benefits of breastfeeding, and previous breastfeeding experience.

Breastfeeding is widely acknowledged to have health benefits for mothers and babies. The present study showed that most mothers were aware of some benefits of breastfeeding for both mothers and babies, which are consistent with the findings of other authors (Wen et-al., 2009), who found most mothers in their study were aware of some benefits of breastfeeding for both mothers and babies. Also a study done by Stuebe and Bonuck (2011), found that the maternal knowledge about health benefits, was directly related to intention to exclusively breastfeed.

In the present study women who not intended to breastfeed was for previous bad experiences, maternity leave, social tying & change of body image. A study of Barnes et-al., (1997) stated that women who were particularly concerned about their own body shape was less likely to express an intention to breast feed. And a study of Brodribb, et-al., (2007) reported that the women in their study decided whether or not to breastfeed before or in early pregnancy, and their decisions were based on baby- or mother-centered factors. The baby-centered factor most frequently reported was concern for infant health. Mother-centered factors included either a preference to bottle-feed or a dislike of breastfeeding, because of the reasons that included inconvenience, social barriers, or work-related barriers.

A study by Forster et al., (2006) revealed that breastfeeding intention was a strong indicator for breastfeeding initiation and duration across all groups of Australian women, including those with less formal education, younger women and those with less social support. Therefore, focusing on mothers' intention to breastfeed may be an important strategy to increase breastfeeding rates and duration.

However, the present study did not test whether the intention to breastfeed translates into breastfeeding practice. The results of this study invite further longitudinal studies in this aspect. Qualitative studies using focus groups can be helpful in providing more insight about barriers to breastfeed intention among pregnant women.

VIII. Conclusion

Breastfeeding intention was reported by the majority of women and it was significantly associated with age, parity & previous breastfeeding experience. Mothers intended to breastfeed was for mother & baby's health & for follow Islamic guidance. While those who not intended to breastfeed was for previous bad experiences, maternity leave, social tying & change of body image.

Recommendations

- 1-All nurses should be trained to counsel mothers on breastfeeding during prenatal visits.
- 2-Attention provided immediately postpartum to support exclusive breastfeeding.
- 3- Routine lactational consultation integrated into the initial postpartum visit.

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