Effect of Antenatal Educational Sessions on Primigravida Women's Breastfeeding Knowledge, Attitude, and Self-efficacy

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Abstract

Background: Breastfeeding self-efficacy is an important motivating factor that influences breastfeeding success. **Aim:** To evaluate the effect of antenatal educational sessions on primigravida women's breastfeeding knowledge, attitude, and self-efficacy. **Study design:** A randomized controlled trial was conducted on 60 primigravida women (30-intervention group and 30-control group). Three tools were used for data collection: a structured interviewing schedule, Iowa Infant Feeding Attitude Scale, and Breastfeeding Self-Efficacy Scale–Short Form. **Results:** The intervention group exhibited higher knowledge scores, infant feeding attitude scores, and breastfeeding self-efficacy scores as compared with the control group, with highly statistically significant differences. **Conclusion:** Antenatal educational sessions exerted significant positive effects on the knowledge, attitude, and self-efficacy of the intervention group regarding breastfeeding. **Recommendation:** Implementing educational workshops to improve pregnant women's self-efficacy regarding breastfeeding.

Keywords: Antenatal education, Breastfeeding knowledge, Breastfeeding attitude, Breastfeeding Self-efficacy.

Introduction

Breastfeeding (BF) is the most affordable unique single-feeding method for babies and confers many benefits for both mothers and babies. For mothers, breastfeeding reduces the risk of ovarian and breast cancer (**Chowdhury et al., 2015**). It provides environmental and economic advantages to both the mother and family (**Rollinsetal**, **2016**). In addition, breastfeeding is associated with well-recognized benefits for the infant, including improving neurologic, intellectual, and psychomotor development. The benefits of breastfeeding also include strengthening the infant–mother relationship, bonding, and enhancing breastfeeding self-efficacy **(Vida Ghasemi et al., 2019)**.

Breastfeeding self-efficacy (BFSE) refers to the woman's conviction or trust about her potential or skill to successfully conduct the breastfeeding practice **(Rocha, Lolli, Fujimaki, Gasparetto, & Rocha, 2018).** Breast-feeding self-efficacy is one of the important psychological and motivational factors for the beginning, success, and duration of BF. On the other hand, by using the theory of BFSE, health care providers can adopt appropriate solutions to resolving breastfeeding problems and providing appropriate consultations (**Ghasemi, et al., 2019**). Women with higher BFSE are more willing to start and continue breastfeeding (**Didarloo, Rahmatnezhad, Sheikhi, Khodai, 2017**). Therefore, BFSE is a modifiable factor that can be improved with health education (**Husin, Isa, Ariffin, Rahman, &Ghazi, 2017**).

Many studies have indicated that antenatal health education and training programs regarding breastfeeding have positive effects on the mothers' willingness to breastfeed, BFSE, and the incidence of breastfeeding problems. Among these, BFSE is one of the strongly predictive factors for the success of breastfeeding, as it raises the pregnant woman's knowledge and attitudes regarding breastfeeding (**Panahi, Simbar, Lotfi, Rahimzadeh, 2017).**

The decision to breastfeed is influenced by both the knowledge and attitude of the pregnant woman toward breastfeeding **(Leshi, Samuel &Ajakaye, 2016).** A lack of awareness on the part of the pregnant woman of the benefits and importance of breastfeeding results a lack of breastfeeding. In addition, false beliefs and customs regarding breastfeeding are also considered strong predictors of breastfeeding failure (**Manchegowda& Hulugappa, 2018**). On the other hand, positive maternal attitudes toward breastfeeding are associated with a longer duration of breastfeeding and a greater higher chance of breastfeeding success. On the contrary, negative views toward breastfeeding are considered a significant barrier to the initiation and continuation of breastfeeding (**Vijayalakshmi et al., 2015**).

Although some studies have assessed knowledge and attitudes toward breastfeeding, there is a need to increase pregnant women's knowledge, attitudes, and self-efficacy regarding breastfeeding to meet the World Health Organization's (WHO's) 2030 sustainable development goals. Thus, the use of health education for this purpose is very important.

Significance of the study:

Breastfeeding is an art, and the sole purpose of human milk is for feeding. The WHO 2030 sustainable development agenda was devised in 2015 and comprises 17 goals, two of which are directly linked to breastfeeding (United Nations, Sustainable Development Goals, 2015; United Nations, Millennium Development Goals Report, 2015). Although the WHO recommends exclusive breastfeeding up to 6 months of age and emphasizes the importance of breastfeeding, a reduction in the rate of exclusive breastfeeding is one of the most important problems faced by many countries **(Ghasemi et al., 2018)**. Only 35% or less of infants worldwide are breastfed exclusively **(WHO& UNICEF, 2018)**.

In order to promote breastfeeding and encourage mothers to comply with the recommendations of the WHO **(WHO, 2018),** health education is needed for pregnant mothers, especially primigravidas. Traditional oral methods of maternal education have not been effective enough to enhance breastfeeding **(Jamila Abuidhail, Lina Mrayan, &DimaJarada, 2019).** Providing antenatal educational sessions might be considered a cornerstone of enhancing BFSE and the success of breastfeeding.

Aim of the Study

The aim of the study was to evaluate the effect of antenatal educational sessions on primigravida women's breastfeeding knowledge, attitude, and self-efficacy.

Hypotheses

To fulfill the aim of this study, three hypotheses were tested:

- **Hypothesis I:** Primigravida women who receive antenatal educational sessions on breastfeeding exhibit higher knowledge scores than those in the control group.
- **Hypothesis II:** Primigravida women who receive antenatal educational sessions on breastfeeding exhibit positive attitude than those in the control group.
- **Hypothesis III:** Primigravida women who receive antenatal educational session on breastfeeding exhibit a higher self-efficacy score than those in the control

group.

Operational definition

BFSE refers to the woman's perceived confidence in performing any task related to breastfeeding.

Subjects and Methods

Research Design

A randomized controlled trial was used to compare two groups of Primigravida women. The first group received an antenatal breastfeeding educational session (intervention group), and the other group received routine antenatal care (control group).

Study Setting

This study was conducted at the antenatal clinics in the Obstetrics and Gynecological Department at Mansoura University Hospitals. Antenatal clinics provide free antenatal care services to pregnant women. They are located on the first floor and consist of a waiting hall with approximately 30 chairs, 1 laboratory, and 3 examination rooms; one of the rooms is used for four-dimensional ultrasound, and the other two rooms are used for routine medical examination. Each examination room consists of three coach chairs, a weight scale, a sphygmomanometer, and ultrasound. The antenatal clinics are open all days of the week, from 9.00 a.m. to 2.00 p.m., except for Thursday and Friday.

Sampling

The study included primigravida women who were attending the clinic for antenatal care follow-up. Pregnant women were eligible to enroll in the trial if they met the following inclusion criteria: tendency for breastfeeding, more than 32 weeks of gestation, healthy pregnancy, decision to breastfeed, expected to have a singleton baby, and expected to deliver at full term with a normal newborn, either vaginally or by cesarean section.

Sampling Type: Simple random sample was used.

Sampling Technique

Pregnant women were assigned to the intervention or control group using a lottery choice from a piece of paper. At the end of each clinical day, the assigned researcher wrote down the names of the primigravida women who attended the antenatal clinics on similar pieces of papers, folded them well, then mixed the papers and sequentially selected and assigned pregnant women on regular basis to the intervention and control groups, until the total sample size was achieved.

Sample Size: Calculated using G power program version 3.1.9.4 using the following data: mean difference between 2 independent groups, effect size 0.80, α error prop 0.05, and power (1-β err prop) 92%, using an independent two-tailed *t* test to detect the mean between two equal groups. The sample size consisted of 60 pregnant women (30 in each group).

Data Collection Tools: *Tool I: Structured* Interviewing *Schedule.* The researchers designed this questionnaire after reviewing the related literature (***Abuidhail et al., 2017; Padmasree et al., 2017).***The questionnaire consisted of two parts: the first part was concerned with participant socio-demographic characteristics such as age, educational level, occupation and residence. The second part encompassed the Breastfeeding Knowledge Questionnaire, which was adopted from **Ayed (2014)** based on WHO and UNICEF recommendations of breastfeeding. It consisted of 38 questions divided into seven sections. The first and second sections related to the benefits of breastfeeding for both babies and mothers. The third and fourth sections related to colostrum and effective breastfeeding. The fifth and sixth sections related to the duration and the problems related to breastfeeding. The seventh section was concerned with the practical aspects of breastfeeding.

Scoring System for Breastfeeding Knowledge Questionnaire. Each question had two answers. The correct answer was given a score of one, and the incorrect answer was given a score of 0. The total knowledge scores equal 38, with a minimum score of 0and a maximum score of 38. If the total score was less than 50% (score of 19), it was considered poor; if it ranged from 50% to 75% (score of 19–28.5), it was considered neutral; and if it was more than 75%, it was considered good knowledge of breastfeeding.

Tool II: Iowa Infant Feeding Attitude Scale (IIFAS)

This tool was adapted from **Mora et al. (1999**) to measure maternal attitudes toward infant feeding. The scale was designed to cover various dimensions of infant feeding; Questions were concerned with the costs of infant feeding (either formula or natural breastfeeding), the baby's nutrition elements, the interference of feeding methods with a couple's sexual relationship, and infant bonding. The scale consisted of 17 items rated on a 5-point Likert-type scale ranging from one= *strongly disagree* to five= *strongly agree* and then modified to 3-point Likert-type scale. As the 3-points likert type scale was enough in rating the attitude. Approximately half of the questions on this scale were favorable toward formula feeding, and the remaining questions were favorable toward breastfeeding. *Scoring system.* The lowest score that can be obtained from the scale is 17, and the highest score is 51. Higher scores reflect a preference for breastfeeding.

Tool III: Breastfeeding Self-Efficacy Scale–Short Form (BSES-SF). This tool was adapted from **Dennis (2003)**. It consists of 14 items. All items were preceded by the phrase "I can always" and rated by 3 points likert type scale, ranging from one = not confident to three = confident. *Scoring system.* The lowest score is 14, and the highest score is 42. Higher scores reflect a more significant level of BFSE.

Validity. Panels of five nursing experts tested the tools: three in the field of obstetrics and gynecology nursing and two in the field of community nursing. Their suggested configurations were made, such as the rephrasing of some sentences.

***Reliability*:** The tools were assessed by Cronbach's alpha to assess the internal consistency of the tools, which was 0.91 for first part of Tool I, "Structured Interview Questionnaire"; 0.90 for the second part of Tool I, "Breast Feeding Knowledge Questionnaire"; 0.93 for the second tool; and 0.92 for the third tool.

***Pilot Study*:** Pilot study on 10% of the total sample three primigravida women from each group were selected to test the clarity and applicability of the study tools as well as to estimate the time needed to complete the tools. Primigravida women involved in the pilot study were excluded from the total sample.

Research Process: Four phases were performed the study in four phases to fulfill the research aim, namely, the preparatory, Interviewing and assessment, implementation, and evaluation phases. These phases were initiated in the beginning of January 2019 and completed at the end November 2019.

Preparatory phase

During the preparatory phase, we collected relevant national and international literature related to the study, designed and validated the tools, and finally conducted the pilot study. Development of the antenatal breastfeeding educational sessions. The antenatal educational sessions were prepared based on the review of the literature. A colored booklet was used to reinforce the health information provided through the educational sessions. The booklet was prepared in a simple Arabic language and covered the following: anatomy and

physiology of the breast and breastfeeding benefits. In addition, initiation of breastfeeding, benefits of skin-to-skin contact, common position for breastfeeding, signs of effective sucking, baby attachment to the breast, successful breastfeeding tips, milk expression method, common breast difficulties encountered by women during the initial stages of breastfeeding, and ways to overcome theses difficulties were also included.

Interviewing and assessment phase

Early in the morning, the researchers went to the previously mentioned settings and checked the registration book to identify primgravida women who met the inclusion criteria. The researchers then met primgravida women individually and invited them to participate in the study. After they agreed to participate, the researcher informed the primgravida women about the purpose of the study and the time required for participation. Once written consent was obtained, all pregnant women were randomly assigned to either the control or the intervention group. Tools were distributed to the recruited pregnant women as a baseline assessment of breastfeeding knowledge and attitudes toward infant feeding. Finally, the researchers provided all pregnant women with contact information and asked them for their phone number. The researchers informed the primgravida women that contact information would be used to remind them of the date and time of the follow-up. Pregnant women also were permitted to contact the researcher at any time.

Implementation of the antenatal breastfeeding education phase

The colored breastfeeding booklet was given to the intervention group before initiating the antenatal education sessions. The educational sessions were split into two sessions. Each session was conducted in small groups of (5–10) of pregnant women and lasted for 20–40 minutes. In the first educational session, the researcher explained all contents of the booklet to the primgravida women. The second educational session was conducted 2 weeks after the first educational session to open the discussion of breastfeeding issues faced by the primgravida women. Pregnant women in the control group received routine antenatal care.

Evaluation Phase

The effectiveness of the antenatal breastfeeding educational sessions was evaluated 3 months after birth by telephone for both groups using the same tools breastfeeding knowledge questionnaire (part II of the first tool) (IIFAS, second tool; BSES-SF, third tool) to evaluate postnatal BFSE.

Ethical Considerations:

An ethical approval letter attained from Research Ethics Committee, Faculty of Nursing, and Mansoura University to conduct the research. A written consent obtained from every participant involved in the study after clarification the purpose, aim, risks and benefits of the research. All participants reassured about the confidentiality of the collected data and the safety of the intervention. In addition, the right to be withdrawn from the study was permitted.

Statistical Analysis:

All statistical tests were conducted using SPSS for windows version 25.0 (SPSS, Chicago, IL). Continuous data were normally distributed and were expressed in mean ±standard deviation (SD). Categorical data were expressed in frequency and percentage. The comparisons were determined using Student's t test for two variables with continuous data. Chi-square test was used for comparison of variables with categorical data. Statistical significance was set at $p<0.05$. . In addition, A highly significant level value was considered when $p<0.001$.

Results

Table 1denotes the absence of statistically significant differences in socio-demographic characteristics between both groups at the baseline assessment.

Figure1 shows the existence of highly statistically significant mean differences between both groups in the total knowledge score regarding breastfeeding (posttest).

Table 2 clarifies the existence of highly statistically significant mean differences between both groups regarding primgravida women's total feeding attitude at 3 months after birth (posttest).

Table 3 shows that there highly statistically significant differences in the total mean BSES-SF scores at 3 months after birth between the groups, with higher scores observed in the intervention group than in the control group (37.033±1.325 & 27.433±2.410, respectively).

Figure 2 illustrates a positive correlation between the pregnant women's BSES-SF and total knowledge scores regarding breastfeeding for the intervention group (*P*=0.025).

Figure 3 evidence of the absence of a statistically significant correlation between the pregnant women's total BSES-SF and total knowledge scores regarding breastfeeding for the control group (*P*=0.886).

Figure 4 shows a positive correlation between the primgravida women's total BSES-SF and the total infant feeding attitude scores for the intervention group (*P*=0.012).

Figure 5 evidence of the absence of statistically significant correlation between the pregnant women's total BSES-SF and total infant feeding attitude scores for the control group (*P*= 0.218).

Table 1: Socio-demographic characteristics of the studied women at the baseline assessment

Socio-demographic characteristics	(N=60) Intervention group (n=30)		Control group (n=30)		Significance test *P* value	χ^2
	No.	%	No	%		
Age, years						
▪ <20	8	26.7	8	26.7	0.220	3.030
▪ 20–25	14	46.7	19	63.3		
▪ 26–30	8	26.7	3	10		
Mean± SD	22.566 ± 3.318		21.90 ± 3.30		0.439	*t*=0.780
Educational level						
▪ Basic	2	6.6	6	20	0.355	6.641
▪ Secondary	4	13.3	5	16.7		
▪ Intermediate	11	36.7	11	36.7		
▪ University	10	33.3	7	23.3		
▪ Postgraduate	3	10	1	3.3		
Occupation						
▪ Housewife	21	70	18	60	0.589	0.659
▪ Working	9	30	12	40		

Residence						
▪ Rural	24	80	15	50	0.129	5.934
▪ Urban	6	20	15	50		

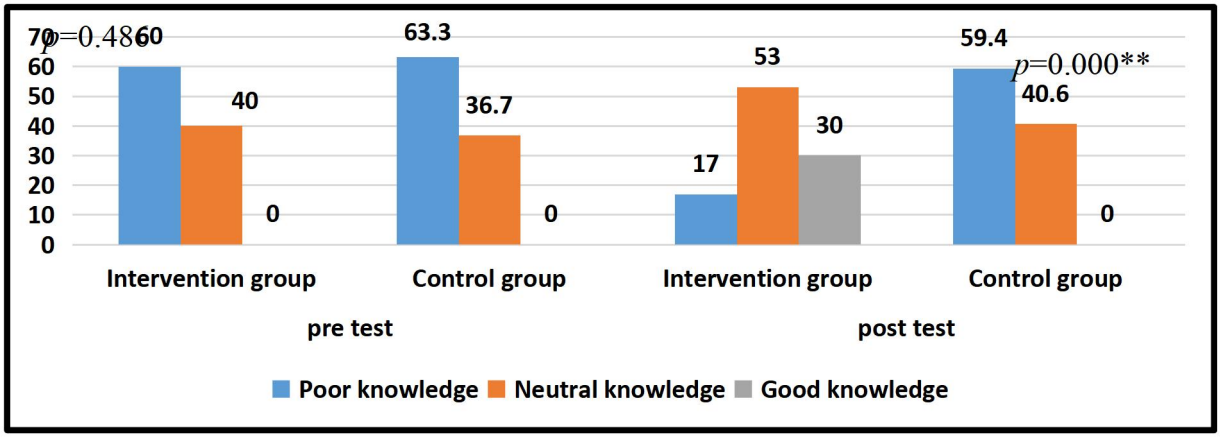

Figure 1: Comparison between both groups regarding total knowledge score

Table 2: Mean differences in the studied women's total infant feeding attitude between the intervention and control groups before and after the intervention(3 months after birth)

(N = 60)				
Infant feeding attitude	**Pre intervention**		**Post intervention**	
	Intervention group (n=30)	**Control group (n=30)**	**Intervention group (n=30)**	**Control group (n=30)**
Mean of infant feeding attitude ± SD	36.033 ± 4.012	34.833 ± 5.825	43.1333± 3.757	35.000 ± 4.948
Significance test	***P* = 0.357 *t*=0.929**		***P* = 0.000** *t*= 7.170**	

***P <0.05, Statistically significant.**

****P =0.000, highly statistically significant.**

Table 3: Mean differences in the studied women's breastfeeding self-efficacy between both groups (3 months after birth)

(N=60)			
Breastfeeding self-efficacy	**Intervention group (n=30)** Mean (SD)	**Control group (n=30)** Mean (SD)	***P* value (two tailed)**
Accurate determination that baby is getting enough milk	2.666 (0.479)	1.566 (0.499	0.000**
Successfully use coping strategies with breastfeeding tasks	2.333 (0.606)	1.666 (0.475)	0.000**
Breastfeed exclusively without any supplement	2.666 (0.479)	1.800(0.546)	0.000**
Correct latching on technique all the feeding period	2.7333 (0.445)	2.266 (0.445)	0.000**
Satisfied about breastfeeding process management	2.733 (0.449)	1.933 (0.685)	0.000**
Proper manage breastfeeding even during baby cry	2.666 (0.479)	1.866 (0.566)	0.000**
Keeping on breastfeeding	2.766 (0.430)	1.800(0.546)	0.000**
Breastfeeding in front of family	2.066 (0.691)	2.100 (0.476)	0.789
Satisfied about breastfeeding experience	2.933 (0.253)	2.200 (0.403	0.000**
Breastfeeding is not time consuming	2.466 (0.507)	2.011 (0.0125)	0.000**
Feeding the baby to both breast after full empting of the first breast completely	2.866 (0.345)	2.033 (0.609)	0.000**
Breastfeeding continuously	2.933 (0.253)	1.966 (0.609)	0.000**
Keep up the baby demands to feed	2.533 (0.507)	2.166 (0.375)	0.000**
Easily determination of baby satisfaction with feeding	2.666 (0.479)	2.066(0.516)	0.000**
Total mean ± SD	**37.033 ± 1.325**	**27.43 ± 2.41**	**0.000****

****P =0.000, highly statistically significant.**

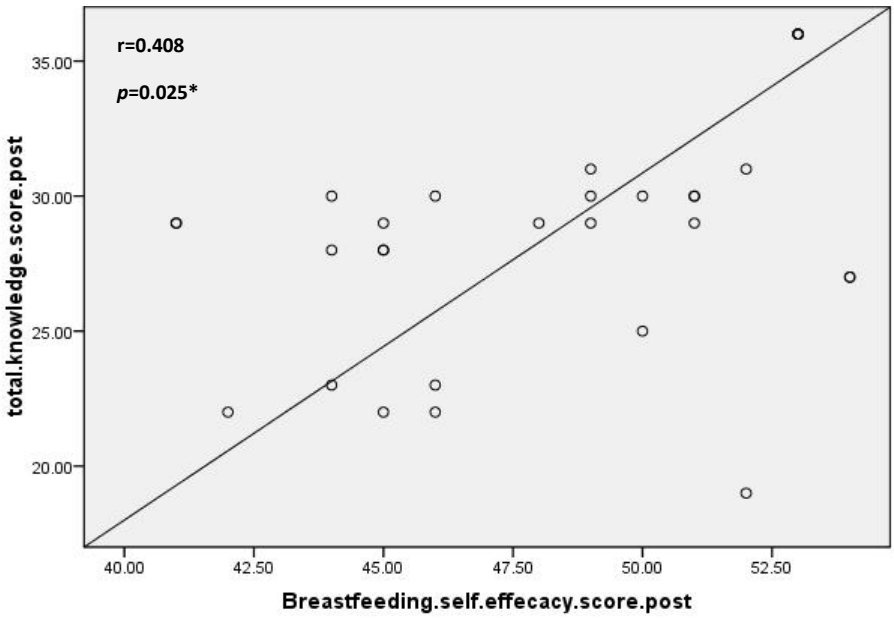

Figure 2: Correlation between the total breastfeeding self-efficacy (BSES-SF) and total knowledge scores regarding breastfeeding for the intervention group (posttest).

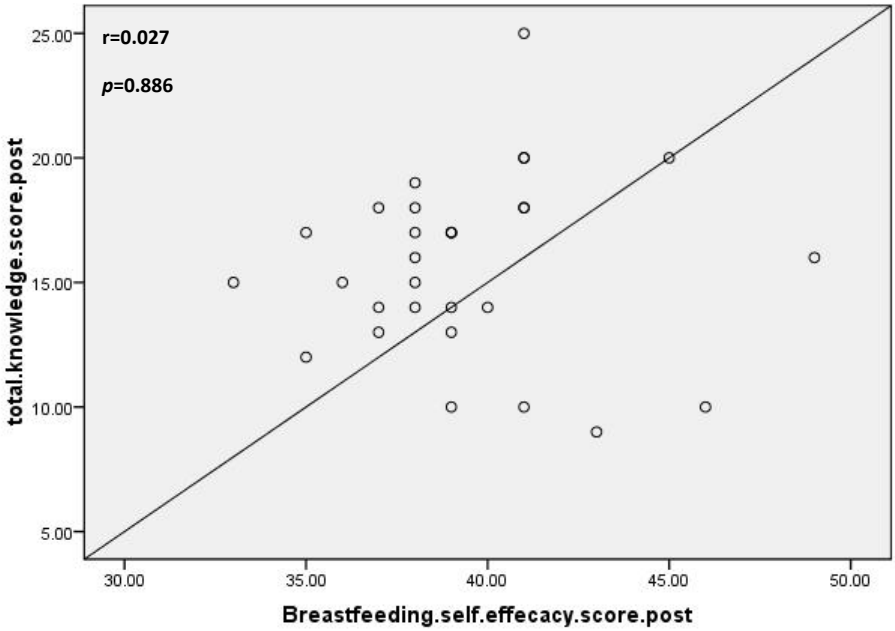

Figure 3: Correlation between the total breastfeeding self-efficacy (BSES-SF) and total knowledge scores regarding breastfeeding for the control group (posttest).

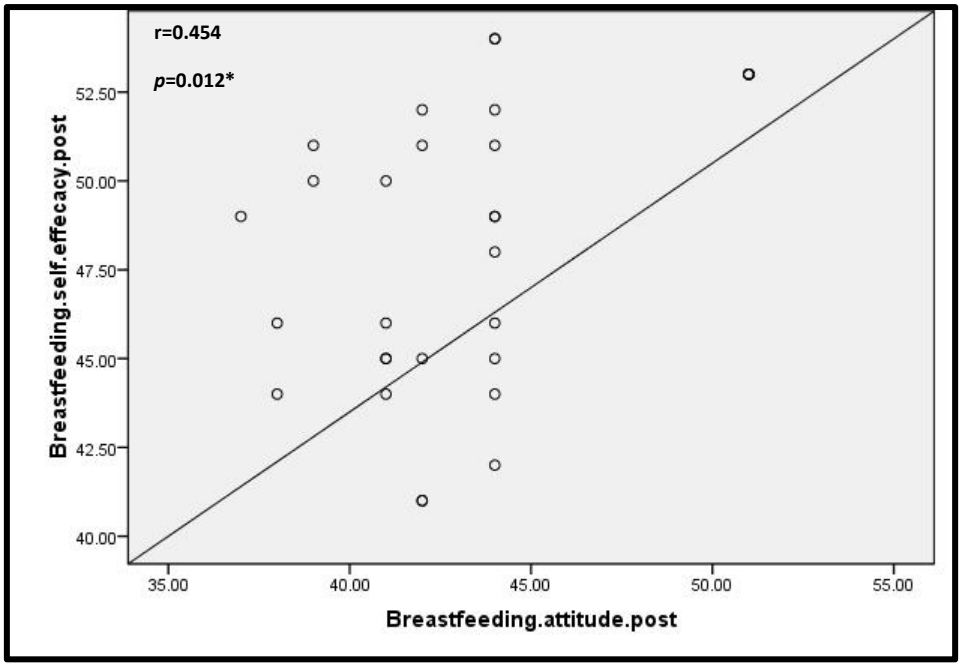

Figure 4: Correlation between the total breastfeeding self-efficacy (BSES-SF) and total infant feeding attitude scores for the intervention group at 3 months after birth (posttest).

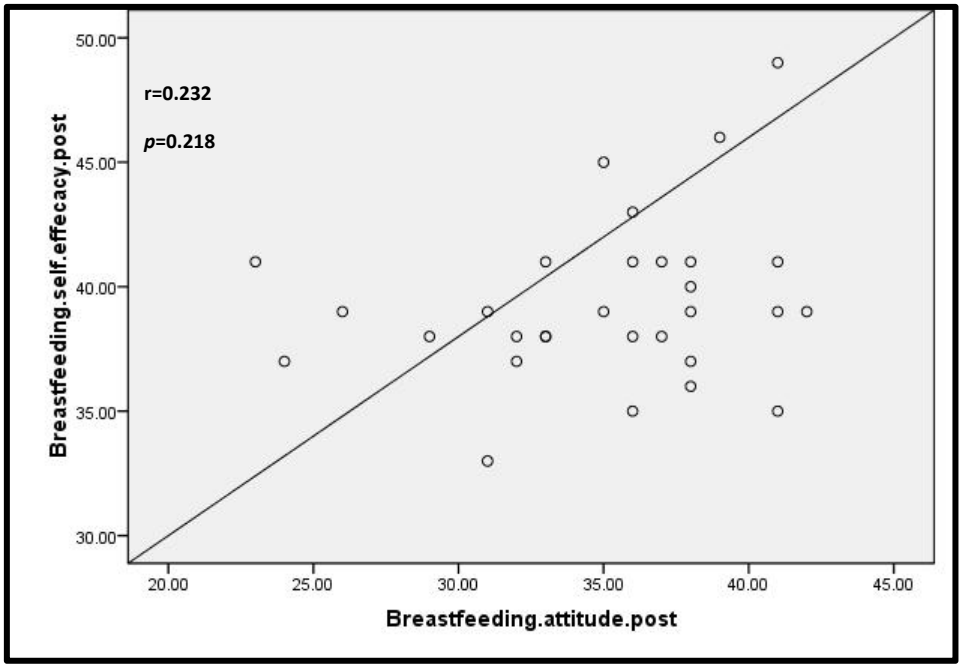

Figure 5: Correlation between the total breastfeeding self-efficacy (BSES-SF) and total infant feeding attitude scores for the control group at 3 months after birth (posttest).

Discussion

Breastfeeding self-efficacy is a modifiable factor that can increase breastfeeding success. Prenatal educational sessions regarding breastfeeding are needed to improve pregnant women's self-efficacy, which in turn increases breastfeeding success ***(Mizrak, Ozerdogan, &Colak, 2017).*** The present study evaluated the effect of antenatal educational sessions on

breastfeeding knowledge, attitude, and self-efficacy among primigravida women. The findings of the present study revealed a greater increase after the intervention in the total mean of the pregnant women's knowledge regarding breastfeeding for the intervention group than the control group. This finding may be attributed to the simple language used in the educational sessions and the quality of the educational booklet. This study finding was congruent with those of an experimental study conducted at Cairo University by ***Mostafa, Salem, and Badr, (2019)*** to measure the effect of training sessions on breastfeeding-related knowledge. The researchers found an improvement in participants' level of knowledge after the training sessions. In addition, the results of the present study are consistent with those of other experimental studies conducted by **Zakarija-Grković& Burmaz, (2010)** in Croatia to investigate the effectiveness of the UNICEF/WHO 20-hour course in improving the breastfeeding knowledge of health professionals in five maternity facilities. The findings of the present study revealed a highly statistically significant improvement regarding pregnant women's total knowledge scores regarding breastfeeding (P=0.001) in the intervention group immediately after the second educational session as compared with the control group 2 weeks after enrollment. Accordingly, the first hypothesis of the study was confirmed **(Figure 1).**

The present study revealed that the intervention group had a more positive attitude toward breastfeeding 3 months after delivery as compared with the control group. This finding may be attributed to the effectiveness of the educational sessions and the clarity of the educational materials, which affected the participants' attitude configuration. Similarly, a supportive randomized controlled trial in Saudi Arabia conducted by **Hanafi, Hamid Shalaby, Falatah El-Ammari, (2014),** to determine the impact of health education on attitude toward breastfeeding women. The researchers reported significant differences in the breastfeeding attitude of the intervention group after implementation of the health education as compared with before the implementation. This is due to the similar culture between Egypt and Saudi Arabia, which have favorable attitude toward breastfeeding. The results of our study revealed a highly statistically significant improvement in the intervention group participants' attitude regarding infant feeding as compared with the control group (P= 0.001). Therefore, the second study hypothesis was confirmed **(Table 2).**

The findings of the present study indicate that the total mean score of the BFSE scale at 3 months after birth increased in the intervention group as compared with the control group. This result was in agreement with a randomized controlled trial conducted by **Araban et al., (2018)** on primiparous women in Iran. Those authors found that the mean BSES-SF scores at 8 weeks postpartum were significantly higher in the intervention group than in the control group.

The present study revealed highly statistically significant differences in the participants' BSES-SF scores between the intervention and control groups post intervention (**Table 4**). Thus, the third study hypothesis was confirmed.

The present study finding revealed positive correlation between the BSES-SF and the participants' total knowledge **(Figure 2)** and total attitude scores **(Figure 4),** which indicated that good knowledge of and a positive attitude regarding breastfeeding help to improve BFSE.

The findings of this study were in agreement with an experimental study

conducted by **Iliadou et al., (2018)** to investigate the effectiveness of a midwife-led BFSE education program. The researchers observed a positive correlation between the participants' knowledge, attitude, and BFSE in the intervention groups.

Thus, the aim of the present study was achieved through the present study findings, which revealed that total knowledge scores, attitude scores, and self-efficacy scores were higher in the intervention group than in the control group.

Conclusions

Depending on the study findings, the study hypotheses were accepted. There were significant improvements in the intervention group's knowledge, attitude, and self-efficacy regarding breastfeeding as compared with the control group.

Recommendations

• Implementing further antenatal educational sessions to improve pregnant women's BFSE.
• Improving the pregnant women's knowledge and attitude regarding the importance of breastfeeding.

References

Abuidhail, J., Odeh, A., Ibrewish, T., Alqam, B., Alajrab, I., (2017). Evaluation of postnatal education on breastfeeding technique of Jordanian mothers. Br. J. Midwifery 25 (11), 715–722.

Araban, M., Karimian, Z., KarimianKakolaki, Z., McQueen, K. and Dennis, C., (2018). Randomized Controlled Trial of a Prenatal Breastfeeding Self-Efficacy Intervention in Primiparous Women in Iran. Journal of Obstetric, Gynecologic & Neonatal Nursing, 47(2), pp.173-183.

Ayed, A., (2014). Knowledge, attitude and practice regarding exclusive breastfeeding among mothers attending primary health care centers in Abha city. International Journal of Medical Science and Public Health, 3(11), p.1355.

Chowdhury, R.; Sinha, B.; Sankar, M.J.; Taneja, S.; Bhandari, N.; Rollins, N.; Bahl, R.; Martines, J. (2015). Breastfeeding and maternal health outcomes: A systematic review and meta-analysis. ActaPaediatrica Suppl., 104, 96–113. 7.

Dennis CL. (2003). The breastfeeding self-efficacy scale: psychometric assessment of the short form. Journal of Obstetric, Gynecologic, Neonatal Nursing. 2003; 32(6):734–44.

Didarloo A, Rahmatnezhad L, Sheikhi S, Khodai F. (2017). Relationship of Spiritual Health and Perceived Stress with Breastfeeding Self efficacy: A Survey on Mothers with Hospitalized Neonates. International Journal Pediatric. 2017; 5(12):6179-88.

Ghasemi V, Kheirkhah M, Vahedi M, DarabpourDezdarani S, Abed M. (2018). Comparison effect of herbals tea containing fenugreek seed and fennel seed on the signs of breast milk sufficiency in Iranian girl infants with 0-4 months of age. Journal of Medicinal Plants. 2018; 4(68):166-74.

Ghasemi V, Simbar M, Ghasemi E, Ebadi A, Kiani Z, MahdizadKeyghobad F, et al.

(2019). Predictor Factors of Breastfeeding Attitude in Iranian Breastfeeding Mothers: A Cross Sectional Study. International Journal of Pediatrics. 2019; 7 (3):9103-13.

Hanafi, M., Hamid Shalaby, S., Falatah, N. and El-Ammari, H., (2014). Impact of health education on knowledge of, attitude to and practice of breastfeeding among women attending primary health care centers in Almadinah Almunawwarah, Kingdom of Saudi Arabia: Controlled pre–post study. Journal of Taibah University Medical Sciences, 9(3), pp.187-193.

Husin H, Isa Z, Ariffin R, Rahman SA, Ghazi HF (2017). The Malay version of antenatal and postnatal breastfeeding self-efficacy scale-short form: reliability and validity assessment. Malaysian Journal of Public Health Medicine. 2017; 17(2): 62–9.

Iliadou, M., Lykeridou, K., Prezerakos, P., Swift, E. and Tziaferi, S., (2018). Measuring the Effectiveness of a Midwife-led Education Programme in Terms of Breastfeeding Knowledge and Self-efficacy, Attitudes towards Breastfeeding, and Perceived Barriers of Breastfeeding among Pregnant Women. Materia-Socio Medica, 30(4), 240.

Jamila Abuidhail, Lina Mrayan, Dima Jarada (2019). Evaluating effects of prenatal web-based breastfeeding education for pregnant mothers in their third trimester of pregnancy: Prospective randomized control trial. Elsevier,Midwifery Journal, 2019; 69:143-149.

Leshi, O., F. O. Samuel and M. O. Ajakaye. (2016). Breastfeeding knowledge, attitude and intention among female young adults in Ibadan, Nigeria. Open Journal of Nursing 6 (01): 11.

Manchegowda R, &Hulugappa L, (2018). Knowledge and attitude regarding breastfeeding among lactating mothers in a rural area, Bellur. International Journal of Community Medicine and Public Health. Five (11):4870-4873. DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20184587

Mizrak, B., Ozerdogan, N., &Colak, E. (2017). The effect of antenatal education on breastfeeding self-efficacy: Primiparous women in Turkey. International Journal of Caring Sciences, 10(1), 503.

Mora, A. D. L., Russell, D. W., Dungy, C. I., Losch, M., &Dusdieker, L. (1999). The Iowa infant feeding attitude scale: analysis of reliability and validity 1. Journal of Applied Social Psychology, 29(11), 2362-2380.

Mostafa, O. A., Salem, M. R., &Badr, A. M. (2019). Effect of an educational intervention on breastfeeding knowledge and attitude among interns at Cairo University Hospital. Journal of the Egyptian Public Health Association, 94(1), 1-7.

Padmasree SR, Linda V, Aswathy SK., (2017). Effectiveness of prenatal teaching on prevention of breast engorgement. International Journal of Reproduction Contraception Obstetrics and Gynecology; 6(9):3927–31.

Panahi F, Simbar M, Lotfi R, Rahimzadeh M. (2017). The effect of parents' training on their knowledge, attitudes and performance in exclusive breastfeeding up to four months: A

randomized clinical trial. International Journal of Obstetrics, Gynecology and infertility; 20(5):48-57.

Rocha IS, Lolli LF, Fujimaki M, Gasparetto A, Rocha NB (2018) Influence of maternal confidence on exclusive breastfeeding until six months of age: a systematic review. Ciênc Saúde Coletiva. 2018; 23(11):3609-19. doi: https://doi.org/10.1590/1413-812320182311.20132016

Rollins, N.C.; Bhandari, N.; Hajeebhoy, N.; Horton, S.; Lutter, C.K.; Martines, J.C.; Piwoz, E.G.; Richter, L.M.; Victora, C.G. (2016). Lancet Breastfeeding Series Group. Why invest, and what it will take to improve breastfeeding practices? Lancet 2016, 387, 491–504.

United Nations. Millennium Development Goals Report–(2015). [Internet]. United Nations; 2015 [cited 2015 Jul 12]. Available from: http://www.undp.org/content/dam/undo/library/MDG/English/UNDP_MDG_Report_2015.pdf.

United Nations. Sustainable Development Goals (2015). [Internet]. Sustainable Development Knowledge Platform. 2015 [cited 2016 Jan 4]. Available from: https://sustainabledevelopment.un.org/?menu=1300# 10. United Nations. Millennium Development Goals Report–2015 [Internet].

Vida Ghasemi, Masoumeh Simbar, hra 1, Mojdeh Banaei, Marzieh Saei Ghare Naz, Zahra Jahani, Haniyeh Nazem (2019). The Effect of Interventions on Breastfeeding Self-efficacy by Using Bandura's Theory in Iranian Mothers: A Systematic Review, International Journal Pediatric, Vol.7, N.8, Serial No.68, Aug. 2019.

Vijayalakshmi, P., T. Susheela and D. Mythili. (2015). Knowledge, attitudes, and breast-feeding practices of postnatal mothers: A cross sectional survey. International Journal of Health Science. 9(4): 364.

World Health Organization (WHO), (2018). Breastfeeding, retrieved fromhttps://www.who.int/topic/breastfeeding/en.

World Health Organization& UNECEF (2018). 10 Facts on Breastfeeding, WHO Updated August 2018. Retrieved fromhttps://www.who.int/featuresfactfles/breastfeeding/en.

Zakarija-Grković I, Burmaz T. (2010). Effectiveness of the UNICEF/WHO 20-hour course in improving health professionals' knowledge, practices, and attitudes to breastfeeding: a before/after study of 5 maternity facilities in Croatia. Croat Med J. 2010; 51(5):396–405.