

The Effectiveness of a Breastfeeding Self-Efficacy Programme on Breastfeeding Self-Efficacy and Breastfeeding Practice among Primigravida Mothers

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Abstract

Introduction: Breastfeeding self-efficacy is a potentially modifiable variable that predict the longer duration and increased exclusivity of breastfeeding. It is defined as a mother's confidence in her ability to breastfeed her child. So improving mother's confidence of breastfeeding by antenatal preparation can improve mothers breastfeeding confidence and thereby breastfeeding outcomes. The aim of the study is to assess the effectiveness of breastfeeding self-efficacy programme on breastfeeding self-efficacy and breastfeeding practice among prim gravida mothers. *Material & Methods:* An experimental approach with pre-test post-test control group design was used for the study. The study was conducted among a consecutive sample of 60 primigravid mothers (first 30 in control group and next 30 in experimental group) attending Kamla Nehru Hospital, Shimla, (H.P). The mothers were recruited for the study on completion of 37 weeks of gestation. After collecting background information, pre-test breastfeeding self-efficacy was measured using Breastfeeding self-efficacy scale and then breastfeeding self-efficacy programme was delivered to the mothers in the experimental group. The post-test breastfeeding self-efficacy and breastfeeding practice was measured three days postpartum. Briston Breastfeeding Assessment tool was used to measure breastfeeding practice. *Result:* The breastfeeding self-efficacy measured before the intervention shows that 7% of mothers had low self-efficacy and 93% had medium self-efficacy (n=60) and the mean self-efficacy score was 24.8 ± 4.8 (max score - 70). There was no significant difference in breastfeeding self-efficacy between experimental (24.53 ± 4.6) and control group (25.06 ± 4.7) in the pre-test (0.677). In the post-test, the breastfeeding self-efficacy of the experimental group (63.96 ± 2.5) was significantly higher than the control group (43.90 ± 5.0) at $p < 0.001$. The breastfeeding practice (max score- 8) measured on the third day postpartum was also significantly higher in experimental group (6.66 ± 0.80) than the control group (2.23 ± 0.97) at $p < 0.001$. A positive correlation was observed between breastfeeding self-efficacy and breastfeeding practice ($r=0.8$, $p < 0.001$). *Conclusion:* The results of the study suggested that breastfeeding self-efficacy can be improved through proper education and support during antenatal period. Improving breastfeeding self-efficacy helps to improve breastfeeding practice and thereby breastfeeding outcomes.

Keywords: Breast Feeding; Breastfeeding Self-Efficacy; Breastfeeding Programme; Breastfeeding Practice.

Introduction

Breastfeeding is one of the most cherishing experiences related to birth of child and the most effective way to provide a baby with a caring environment and complete food which meets the nutritional as well as emotional and psychological need of the infant [1]. Breastfeeding self-efficacy is a potentially modifiable variable that has been shown to predict longer breastfeeding duration and increased exclusivity of breastfeeding. The concept of breastfeeding self-efficacy was introduced by Dr. Cindy - Lee Dennis. It is a concept based on Bandura's (1997) social cognitive theory.² It is defined as a mother's confidence in her ability to breastfeed her child [3]. Maternal breastfeeding self-efficacy is a mother's perceived ability to breastfeed her infant and has been shown to predict breastfeeding duration and exclusivity rates among women in the immediate postpartum period [4]. The first feed is a profoundly important experience for the mother and her baby. Unless an individual circumstance indicates otherwise, the mother should have her baby with her immediately after delivery and breastfeeding should begin as soon as possible. The time of first feed, depend largely on the needs of the baby. Some babies demonstrate a need to feed almost as soon as they are born. Other babies show no interest until they are an hour or so old. Whenever the first feed takes place, the quality of that experience is of utmost importance for the mother and baby. The early feedings might best consist of approximately 5 to 10 minutes sucking on each breast while the nipples are accustomed to it. This frequent sucking stimulates the production and let-down of lactation and reduces the potential severity of engorgement. Therefore, it is essential that there be no missed feeling, including those at night [5].

In Himachal Pradesh, 69% of women had initiated breastfeeding within one hour of the birth of the child. However, 90% of women initiated breastfeeding within 24 hours of birth of their children, ranging from 77.5% in Kinnaur district to 96.3% in Lahul & Spiti. The proportion of women who initiated breastfeeding within one hour, within 24 hours and after 24 hours of birth are 68.7, 90 and 5.6% respectively. Duration of exclusive breast feeding practiced is high (among infant under 2 to 5 months old) and is ranged from 66 to 56% [6]. UNICEF report 2016 on infant and young child feeding in India shows that only 46% of infants less than six months are exclusively breastfed. The proportion of children under six months who are exclusively

breastfed decreases with age, from 69% in the first and second months to 28% in the fifth and sixth months of life [1]. Interventions to promote breastfeeding self-efficacy has shown to improve breast feeding initiation, exclusivity, and duration [8-26].

The present study intends to develop a Breastfeeding Self-Efficacy Programme (BSEP) based on the concepts of breast-feeding self-efficacy theory and to evaluate its effectiveness on breastfeeding self-efficacy and breast-feeding practice among primi-gravid mothers. The breastfeeding self-efficacy programme uses vicarious experience through teaching, video, demonstration and breastfeeding support to improve breastfeeding self-efficacy and thereby improving the breast feeding practice.

Materials and Methods

The study used an experimental approach with pre-test post-test control group design. A consecutive sample of 60 primi-gravid mothers between the age of 18-35 years, and who have completed 37 weeks of gestation admitted in Kamala Nehru Hospital Shimla (H.P.) was recruited for the study. Mothers who are HIV positive, mothers with multiple pregnancy, and foetal congenital anomalies were excluded. First 30 mothers were recruited to control group and next 30 to experimental group to avoid contamination.

The Breastfeeding Self-Efficacy Programme is a breastfeeding support intervention developed by the investigators based on the breastfeeding self-efficacy theory of Dr. Cindy - Lee Dennis. According to this theory, person's self-efficacy may be influenced by four factors; personal accomplishment, vicarious experiences, verbal persuasion and physiological and affective states. The breastfeeding self-efficacy programme is prepared by incorporating these four factors. Teaching on various aspects of breastfeeding, videos on latching techniques, demonstration of positions provided vicarious experience while return demonstration of positions facilitated performance accomplishment. Involving a family member in teaching and breastfeeding support, and breast feeding assistance by nurse provided for verbal persuasion. The program involved a 45 minutes session in the antenatal period and a follow up session in the immediate postnatal period, which included breast feeding assistance and clarification of doubts and concerns.

Breastfeeding self-efficacy scale-short form (BFSE-SF) and Briston Breastfeeding Assessment tool (BBAT) were the tools used to measure breastfeeding self-efficacy and breastfeeding practice respectively. BFSE-SF is a 14 item 5 point scale developed by Dr. Cindy - Lee Dennis to assess breast feeding self-efficacy. Not at all confident, not very confident, sometimes confident, confident and very confident are given a score of 1, 2, 3, 4 and 5 respectively. A score above 52 was considered as high self-efficacy, score below 32 was considered as low self-efficacy and score between 33 and 51 is considered as medium self-efficacy. Briston Breastfeeding Assessment tool (BBAT) was developed by Jenny Ingram to measure the breastfeeding practice. It measures breastfeeding practice under four domains; positioning, attachment, sucking and swallowing. All the domains are scored from 0, 1 and 2 as poor, moderate and good respectively.

A detailed explanation was given to eligible participants including the nature of intervention and nature and frequency of data to be collected. Participation was based on their willingness and written informed consent was obtained from each participant prior to data collection. They were allowed to withdraw from the study at any time during data collection. On recruitment, background information was obtained with the help of a semi-structured interview schedule followed by measurement of breastfeeding self-efficacy using Breastfeeding self-efficacy scale-short form (BFSE-SF). The mothers in the experimental group then received breastfeeding self-efficacy programme along with routine care, while control group received routine care only. Routine care does not involve antenatal teaching on breastfeeding. The mothers may get assistance from nurses, doctors or paediatrician as they have some problems with breastfeeding. Post-test on breastfeeding self-efficacy and breastfeeding practice was done on third postnatal day in both groups. The data was analysed using appropriate descriptive and inferential methods.

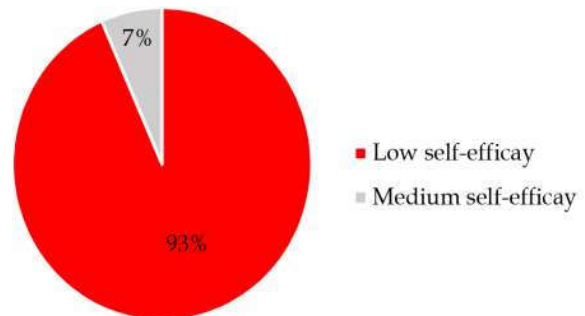
Findings

Background Information

Majority of mothers in experimental group and control group were in the age group of 20 to 30 years. Most of them had primary or secondary education and majority of them were home makers. Both groups were homogenous with respect to age, education, occupation, income, type of family and place of residence. None of them in both groups received any teaching or formal information on breastfeeding.

Breastfeeding Self-Efficacy

The breastfeeding self-efficacy of both groups measured before the intervention in the antenatal period shows that majority of them had low self-efficacy (Figure 1) and none of them had high self-efficacy. The mean self-efficacy score was 24.8 ± 4.8 (n=60).



Graph 1:

Effect of BSEP on Breastfeeding Self-Efficacy

The mean post-test breastfeeding self-efficacy score of the experimental group was significantly higher than the control group, which was not significant in the pre-test (Table 1).

Table 1: Comparison of Breastfeeding Self-Efficacy between control group and experimental group

	Mean \pm SD		t- value	DF	p-value
	Control Group (N =30)	Experimental Group (N =30)			
Pre test	25.06 \pm 4.7	24.53 \pm 4.6	.419		.677
Post test	43.90 \pm 5.0	63.96 \pm 2.5	-20.9		<0.001
Mean pre-test and post-test difference	18.86 \pm 6.4	39.43 \pm 7.1	-11.7	58	< 0.001

Table 2: Comparison of breastfeeding practice between control group and experimental group

	Mean \pm SD		t-value	DF	p-value
	Control Group N=30	Experimental Group N=30			
Positioning	.70 \pm .46	1.5 \pm .50	-6.915		<0.001
Attachment	.53 \pm .50	1.7 \pm .46	-9.275		<0.001
Sucking	.40 \pm .49	1.7 \pm .44	-10.880	58	<0.001
Swallowing	.60 \pm .49	1.66 \pm .47	-8.449		<0.001
Total score	2.23 \pm .97	6.66 \pm .80	-19.273		<0.001

Effect of BSEP on Breastfeeding Practice

The breastfeeding practice score of the experimental group was significantly higher than the control group (Table 2). Significant difference was observed in all the domains of breastfeeding; positioning, attachment, sucking and swallowing.

Correlation between Breastfeeding Self-Efficacy and Breast Feeding Practice

A positive correlation was observed between breastfeeding self-efficacy and breastfeeding practice in the post test ($r=0.8$, $p<0.001$).

Conclusion

The results of the study showed that the breastfeeding self-efficacy is inadequate in majority of the primi gravid mothers, which highlights the need for breast-feeding preparation among antenatal mothers.

The Breastfeeding self-efficacy programme is found to be effective in improving the breastfeeding self-efficacy and breastfeeding practice. Research studies conducted on effectiveness of interventions focusing on breast feeding self-efficacy has shown to improve breastfeeding self-efficacy and breastfeeding practice. A study was conducted on the effect of antenatal education on breastfeeding self-efficacy among 90 primiparous women in Turkey. Findings of the study showed that there were no significant differences between the groups in the mean antenatal BSES-SF scores ($p =0.506$); however, the participants in the intervention group had significantly higher mean BSES-SF scores at one ($p<0.001$), four ($p<0.001$) and eight ($p<0.001$) weeks postpartum and interventional group had a significantly higher rate of breastfeeding success than the control group ($p<0.001$) [9]. Another study conducted on the effectiveness of intervention based on breastfeeding self-efficacy theory on 74

primi mothers in china also showed to improve breastfeeding self-efficacy, exclusivity and duration of breastfeeding [10]. The score of breastfeeding self-efficacy is found to be a statistically significant predictor of breastfeeding length [11]. The findings of the present study highlights that antenatal interventions centring on maternal self-efficacy improve confidence with breastfeeding and breastfeeding practice.

A positive correlation is observed between breastfeeding self-efficacy and breastfeeding practice. So the concept of breastfeeding self-efficacy can be made as a focus of breastfeeding education programmes to improve breast-feeding practice and thereby improving breastfeeding outcomes.

Conflict of Interest

The investigator has no conflict of interest.

Source of funding

The study is funded by self.

Ethical Clearance

Ethical clearance was obtained from the Institutional Ethics Committee of Akal College of Nursing. Participation was based on willingness and written informed consent was obtained from all participants.

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