

Husbands' Support for Breastfeeding and Breastfeeding Self-Efficacy of Nepalese Mothers from Bungmati

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Abstract

Background: Continuing breastfeeding after three months of the postpartum period has been a challenge to mothers rather than their choice. The engagement of husbands in breastfeeding serves both as physical and mental support to their wives. This study aimed to assess the breastfeeding self-efficacy of mothers, identify their husbands' support for breastfeeding and examine the association between breastfeeding self-efficacy of mothers and the husbands' support for breastfeeding.

Methods: This descriptive, cross sectional study recruited 110 mothers of infants, visiting Bungmati Health Post for immunization from July 2015 to November 2015. Mothers were interviewed face to face with semi structured questionnaire. Data entry and analysis was carried out using SPSS version 23. Descriptive analysis was performed on the socio-demographic characteristics, delivery characteristics, breastfeeding self-efficacy and husbands' support scale. Bivariate analysis was used to examine the association between breastfeeding self-efficacy and husbands' support scale and other outcomes.

Results: Majority (94%) of the mothers reported to be confident on the breastfeeding self-efficacy, while 95 percent of their husbands were supportive towards breastfeeding. A significant association was seen between the breastfeeding self-efficacy and the husbands' support scale ($p < 0.04$). Mothers who received support from husbands were 10 times more likely to report confidence on breastfeeding than those who did not.

Conclusions: The results suggested that husbands' support increases the breastfeeding self-efficacy of mothers. Based on this finding, it is recommended that involvement of husband is crucial for encouraging mother to breastfeed child.

Keywords: association, breastfeeding, breastfeeding self-efficacy, husband, support

Tweetable Abstract: Mothers who received support from their husbands were 10 times significantly more likely to breastfeed.

Introduction

Breast milk is the ideal food for newborns and infants [1]. It offers protection against pneumonia, diarrhea, gastroenteritis, respiratory infections, obesity, type 1 and 2 diabetes, asthma and so on [2]. Exclusive breastfeeding prevents death of infants from pneumonia by 15 times and diarrhea by 11 times [3]. Babies who are breastfed are at significantly higher levels of cognitive function than formula fed babies [4]. Breastfeeding creates a sense of bonding between mother and baby, a sense of well-being, and an improved sense of self-esteem for women [5]. Most importantly, it serves as a method of contraception and also as a method of protection against breast cancer [5]. World Health Organization (WHO) highly recommends exclusive breastfeeding for six months and recognizes appropriate complementary feeding practices as the best way to prevent infant malnutrition [6]. Moreover, it has been estimated that 1.3 million deaths can be prevented in 42 countries with high-mortality among older infants and children of two years of age by increased levels of breastfeeding among infants [7].

In Nepalese society, socio-religious norms and values encourage the continuity of breastfeeding [8]. In one hand, people believe that

the baby may die, become weak or disabled if the baby doesn't receive the mother's love and milk [8], while in another hand, they also have faith in discarding colostrum because they believe that newborns will not be able to swallow and digest it due to its appearance and viscosity [9]. According to Nepal Demographic Health Survey (NDHS) 2017, the proportion of infants receiving breast milk only was 79.6 percent among infants age 0 to 1 months, 72.2 percent among infants of age 2 to 3 months and 40.8 percent among infants age 4 to 5 months [10]. Similarly, 54.9 percent of children were breastfed within an hour of birth and exclusive breastfeeding rate was 66.1 percent [10]. Mothers find breastfeeding challenging to continue beyond the first three postpartum months [11]. This could be because of mother's employment: mother's return to work place after three months plays a huge role in discontinuing breastfeeding [12]. Similarly, there are a wide range of difficulties encountered by the mothers such as tiredness and exhaustion from waking up multiple times during the night to feed their children [13]. The addition of recovering from the pain after birth or caesarean section makes it much more difficult [13]. Mothers have also noted down the problem of mastitis; especially the first time mothers

have reported the need of extra support from husband compared with second and third time mothers [13]. However, when they are provided with adequate and appropriate information and support from their families and healthcare providers, they all can continue breastfeeding [1]. Verbal support and vibrant involvement of husbands in breastfeeding activities makes mothers feel more able and confident about breastfeeding [11]. Husbands have found to be truly influential for mothers to make decisions on breastfeeding her child and on the continuation of breastfeeding [14]. A study from Nepal has noted higher practice of exclusive breastfeeding when mothers lived in extended families, probably due to better family support [16].

Thus, support from the family, especially the husband is essential for successful practice of breastfeeding and for exclusive breastfeeding upto six months [17]. However, there is dearth of studies on husbands' support for breastfeeding in Nepal. This study hypothesized that when husbands are supportive and encouraging toward breastfeeding, mothers are more confident on breastfeeding. Therefore, this study assessed breastfeeding self-efficacy of the mothers, identified husbands' support for breastfeeding and examined the association between breastfeeding self-efficacy of mothers and husbands' support for breastfeeding. This study has provided scientific evidence on significant association between breastfeeding self-efficacy and husbands' support, and therefore has come to the conclusion that husbands' support can uplift the breastfeeding self-efficacy of mothers. Husbands' involvement in breastfeeding can be a strong approach for encouraging women to breastfeed and continue breastfeeding for longer time duration. Nevertheless, it can also help increase breastfeeding rates.

Methods

The study design was descriptive, cross sectional with sample of 110 mothers, whose babies were born within one year, who had breastfed for at least two weeks continuously and who were living with their husband. The sample size was estimated based on key indicator of the study i.e. prevalence of breastfeeding for a year, which was 98 percentage as per NDHS 2011 [18] and was inflated by 10 percent to consider non-response or refusal rate. Mothers visiting Bungmati Health Post of Bungmati Village Development Committee of Lalitpur district for immunization of their infants were interviewed face to face by researcher herself using convenient sampling. The data collection was carried out from 17 July 2015 to 8 November 2015, prior to which pretesting was done in ten percent of sample in another area of the same district and feedbacks were incorporated. Cronbach's alpha was used to check the reliability of the breastfeeding self-efficacy scale and husbands' support scale, which were 0.936 and 0.750 respectively.

Variables

The independent variables were based on the literature review. They are age, educational status, occupation, ethnicity, type of family, sex of child, place of delivery, type of delivery, previous breastfeeding experience and husbands' support. Ethnicity was classified following the classification of NDHS; Hill Brahmin/Chhetri, Newar, Hill/Mountain Janjati and Hill Dalit [19]. In this study, husbands' support for breastfeeding was defined as the physical, emotional and psychosocial support the mother receives from her husband

during breastfeeding. Physical support refers to helping during positioning mother for breastfeeding, helping in breastfeeding at night, helping in child care activities and in household works, seeking service from healthcare provider for breastfeeding problems. Emotional and psychosocial support refers to encouraging verbally to breastfeed, encouraging to breastfeed in public area, involving in decision making to breastfeed. A scale was developed based on above definition of 11 items (9 positive and 2 negative) and had a summative score ranging from 11 to 44.

The outcome variable was breastfeeding efficacy, simply referring to a mother's confidence in her ability to breastfeed her infant. It included whether a mother chooses to breastfeed or not, how much effort she will expend, whether she will have self-enhancing or self-defeating thought patterns and how she will emotionally respond to breastfeeding difficulties [20]. It was measured by breastfeeding self-efficacy scale-short form of 14 positive items developed by Dr. Cindy Lee Dennis, with a 5-point Likert-type scale where 1 indicates not at all confident and 5 indicates always confident with a summative score ranging from 14 to 70, higher scores indicating higher levels of confidence in breastfeeding (20).

Statistical analysis

Data analysis was carried out using Statistical Package for Social Science (SPSS) version 23. Univariate and bivariate analysis were performed. The negative statements (number 9 and 10) of husbands' support scale were recoded reversely during analysis. Breastfeeding self-efficacy was a binary variable, with scores less than 42 were classified as not confident and scores equal or above 42 classified as confident. Similarly, for categorization of husbands' support scale, scores less than 22 were classified as no support and scores equal or above 22 were classified as support of husband. A p-value less than 0.05 was considered as statistical significance. Odds ratios with 95 percent confidence interval using binary logistic regression were used to examine the association between breastfeeding self-efficacy and husbands' support.

Ethics

This study was approved by Central Department of Home Science, Padma Kanya Multiple Campus, Tribhuvan University. Approval was obtained from District Public Health Office, Lalitpur and Bungmati Health Post for data collection. Verbal informed consent was taken from mothers prior to the interview followed by explaining the purpose and benefit of the study. The interview was conducted in health post or other safe place agreed by mothers. No names and personal identifiers were used for the data collection.

Results

The majority of the mothers (64.5%) were 20-29 years, followed by 20 percent of mothers aged 30 years and above, and 15 percent were below 20 years as indicated in Table (1). One in ten (10%) mothers had never been to school. Newar was the dominant ethnic group with 48 percent of the mothers belonging to this group. A small proportion (5.5%) of the mothers were engaged in agriculture.

Table 1: Frequency and percentage of mothers by socio-demographic characteristics

Characteristics	Number (N=110)	Percent
Age		
Below 20 years	17	15.5
20-29 years	71	64.5
30 years and above	22	20.0
Mean± SD	25.7±4.6	
Median(Range)	26.0 (17-39)	
Educational status		
Illiterate	11	10
Literate	7	6.4
Primary	13	11.8
Secondary	20	18.2
SLC and above	59	53.6
Ethnicity		
Hill Brahmin/Chhetri	21	19.1
Newar	53	48.2
Hill/Mountain janjati	30	27.3
Hill Dalit	6	5.5
Occupation		
Agriculture	6	5.5
Business	4	3.6
Labor	5	4.5
Non-government staff	8	7.3
Student	3	2.7
Homemaker	84	76.4

More than half (52.7%) of the mothers lived in joint or extended family as mentioned in Table (2). The majority of the mothers (60.9%) in this study had already given birth to their first child. Nearly one fifth (19.1%) of the most recent child were four months old at the time of survey. One in ten deliveries was conducted at home. More than one third (37.3%) of the mothers had breastfed their older child, while 63 percent had no older child to obtain breastfeeding experience. A vast majority (93.6%) of mothers reported being confident on breastfeeding as measured by breastfeeding self-efficacy scale. A large majority (94.5%) of the husbands provided support to their wives to breastfeed their most recent child.

Table 2: Frequency and percentage of mother and child characteristics, breastfeeding self-efficacy and husbands' support

Characteristics	Number (N=110)	Percent
Type of family		
Nuclear	52	47.3
Joint	58	52.7
Number of living children		
1	67	60.9
2	37	33.6
3	4	3.7
4	2	1.8
Mean± SD	1.4±0.6	
Median(Range)	1(1-4)	
Number of male children		
0	32	29.1
1	66	60
2	10	9.1
3	2	1.8
Mean± SD	0.8±0.6	
Median(Range)	1 (0-3)	
Number of female children		
0	49	44.5
1	55	50
2	4	3.7
3	2	1.8
Mean± SD	0.6±0.6	
Median(Range)	1 (0-3)	
Sex of most recent child		
Male	68	61.8
Female	42	38.2
Age of most recent child		
Less than 1 month	2	1.8
1 month	6	5.5
2 month	15	13.6
3 month	6	5.5
4 month	21	19.1
5 month	2	1.8
7 month	2	1.8
8 month	10	9.1
9 month	17	15.5
10 month	8	7.3
11 month	15	13.6
12 month	6	5.5
Mean± SD	6.4±3.6	
Median(Range)	8.0(0-12)	

Characteristics	Number (N=110)	Percent
Place of delivery		
Government health facility	28	25.5
Non-government health facility	17	15.5
Semi-government health facility	52	47.2
Academic institution	2	1.8
Home	11	10
Type of delivery		
Caesarean section	23	20.9
Vaginal	87	79.1
Previous experience of breastfeeding		
Yes	41	37.3
No	69	62.7
Breastfeeding self-efficacy		
Confident	103	93.6
Not confident	7	6.4
Mean±S.D	56.2±8.7	
Median (Range)	56 (39-70)	
Husbands' support		
Support	104	94.5
No support	6	5.5
Mean±S.D	32.9±5.9	
Median (Range)	33 (17-44)	

The mean score of each item of the breastfeeding self-efficacy scale and husbands' support scale are shown in Figure (1) and (2) respectively. The maximum score obtained in any breastfeeding self-efficacy scale was 4.3 and the minimum was 3.6. The maximum score obtained in any item of husbands' support scale was 2.8 and the minimum was 1.1.

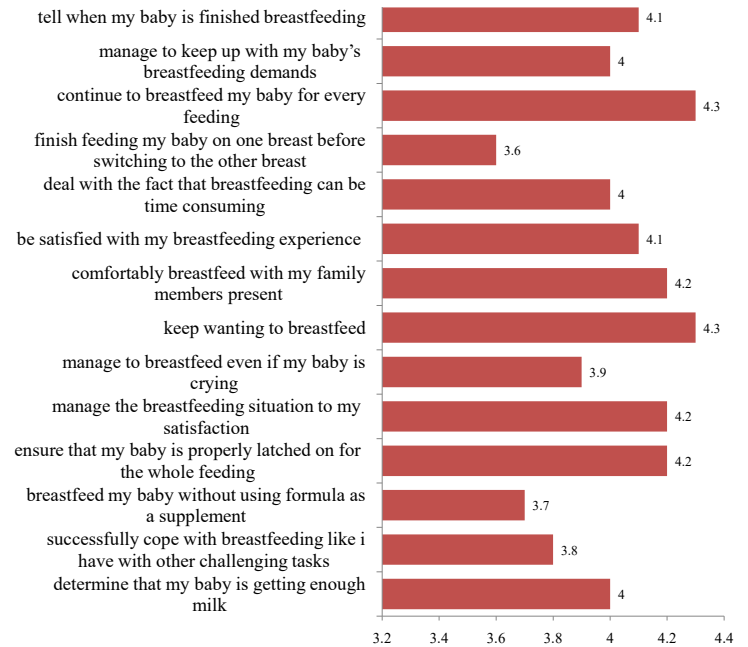


Figure 1: Mean Score of Each Item of Breastfeeding Self-efficacy Scale

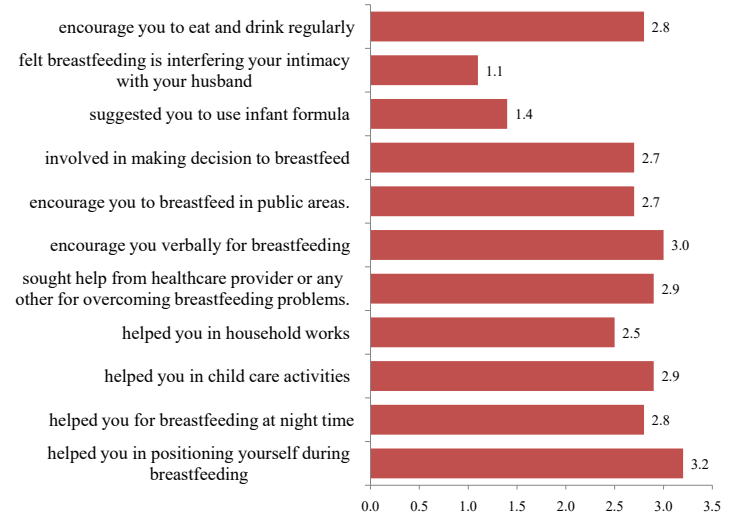


Figure 2: Mean Score of Each Item of Husband's Support Scale

As seen in Table (3), this study found significant association between breastfeeding self-efficacy and husbands' support scale. A total of 95% mothers who received husbands' support reported being confident on breastfeeding, while 67% mothers who did not receive husbands' support reported being confident on breastfeeding ($p=0.04$). However, breastfeeding self-efficacy showed no significant association with age, education, occupation, ethnicity, type of family and previous breastfeeding experience.

Table (3) Association of breastfeeding self-efficacy with study variables

Independent Variable	Breastfeeding self-efficacy				Total	P-value*
	Not confident		Confident			
	Num-ber	Per-cent	Num-ber	Per-cent		
Type of family						
Nuclear	2	3.8	50	96.2	52	0.4
Joint	5	8.6	53	91.4	58	
Sex of child						
Male	5	7.4	63	92.6	68	0.7
Female	2	4.8	40	95.2	42	
Place of delivery						
Health facility	5	5.1	94	94.9	99	0.1
Home	2	18.2	9	81.8	11	
Type of delivery						
Caesarean Section	3	13.0	20	87.0	7	0.1
Vaginal	4	4.6	83	95.4	103	
Previous experience of breastfeeding						
Yes	2	4.9	39	95.1	41	1.0
No	5	7.2	64	92.8	69	
Husbands' support scale						
No support	2	33.3	4	66.7	6	0.04
Support	5	4.8	99	95.2	104	

*Fisher's exact test was used due to small sample size.

On conduction of a binary logistic regression, the association between the husbands' support scale and the breastfeeding self-efficacy still remained significant (Table 4). Mothers who received support of husbands were 10 times more likely to report being confident on breastfeeding than those who did not receive husbands' support (OR= 9.90, 95% CI: 1.451 to 67.559).

Table 4: Odds ratio between breastfeeding self-efficacy and husbands' support scale

Independent Variable	Adjusted Odds Ratio (95% CI)
Husbands' support	
Support	9.90 (1.451-67.559)
No Support	ref

Discussion

This study measured breastfeeding self-efficacy of Nepalese mother living in Bungmati through the breastfeeding self-efficacy scale and examined its association with husbands' support. It was noted that 93.6 percent of the mothers reported being confident in breastfeeding and 94.5 percent of them reported having received

support from their husbands, which represents a huge portion of the sample. Alongside, significant association was found between breastfeeding self-efficacy of mother and husbands' support. A total of 95% mothers who received husbands' support reported being confident on breastfeeding (p=0.04). The binary regression pointed out that mothers who received support from husbands were 10 times significantly more likely to report being confident on breastfeeding than those who did not receive husbands' support. Mothers are generally in pain after the delivery of their baby, had problem with holding and positioning the baby and need extra help for breastfeeding [21]. Therefore, husbands' support is very important at this stage and the support can significantly encourages mothers to improve breastfeeding performances, help them overcome breastfeeding challenges and build up their confidence level. This, as the core finding of this study supported the existing literature in recognizing husbands' support as one of the main element in increasing breastfeeding rates. Developing strategy to include husbands in all form of breastfeeding activities is essential in health and nutrition programs.

Mannion and friends in their study conducted in Calgary, Alberta found that 55 percent of women perceived that their partners were encouraging, 23 percent told that their partners thought breastfeeding was best or healthiest for the baby and have noted that paternal support have been understood to have a strong influence on a mother's decision to initiate and continue breastfeeding [11]. This finding is consistent with the findings of this study as 94.5 percent of the mothers mentioned being supported for breastfeeding by their husbands. Majority of the mothers in this study reported that their husbands have shown participation in making decision related to breastfeeding issues, have encouraged mothers in all issues related to breastfeeding, helped and supported mothers for breastfeeding and also have taken care of breastfeeding challenges seeking advice from health care provider and family members as the mean scores of all positive items of husbands' support scale were not less than 2.5 out of 4. Thus, this study acknowledges that husbands' support in terms of coping with breastfeeding challenges, encouraging to breastfeed, assisting in breastfeeding activities are essential to boost up the mother's breastfeeding skills.

The average score of the original breastfeeding self-efficacy scale obtained by Dennis in her study was 55.8 with standard deviation (SD) of 10.8 [22], which is comparable to the average score obtained by this study (mean=56.2, SD=8.7). The mean breastfeeding self-efficacy scores for Hispanic, Japanese, Turkish and Polish mothers were 55, 53.5, 58.6, and 55.5 respectively [23-26], which were close to the score obtained by this study. The comparable scores obtained by Nepalese and Hispanic, Japanese, Turkish, and Polish mothers confirmed that the self-efficacy scale is suitable for the context of Nepal and thus, calls for larger studies.

Moreover, this study has not found significant association between the breastfeeding self-efficacy and other study variables such as age, occupation, education, ethnicity, type of family, sex of child, place and type of delivery and previous breastfeeding experience. A study done in Nepal noted high practice of exclusive breastfeeding if mothers belonged to extended families, probably because she received support from family in the form of encouragement for breastfeeding and in household activities [16]. However, in this study, out of mothers who were confident in the breastfeeding

self-efficacy, almost equal number of the mothers lived in nuclear (96%) and joint (91%) family. Little difference was seen. The confidence in mothers to breastfeed was regardless of type of family the mothers were living in. Similarly, while this study discussed that the mother's previous breastfeeding experience had no significant link with self-efficacy of breastfeeding, Dodt and team's study conducted in Brazil mentioned that the postpartum breastfeeding self-efficacy was significantly affected by previous experience to breastfeed [27]. It also contradicts with the findings of Tokat's study done in Turkish mothers, which have found that mothers with previous breastfeeding experience have significantly higher breastfeeding self-efficacy score [28]. In this study, 92 percent (n=64) mothers who didn't have previous experience of breastfeeding reported confident on breastfeeding and while percentage of those who had previous experience and were confident was 95 percent (n=39). In a way, this information appears as; those who have not breastfed their older child were likely to be confident in breastfeeding skills. But in fact, this is because 61 percent of the mothers were with their first child and because of mothers belonging to the same locality and their same trend in breastfeeding, previous breastfeeding experience didn't seem to matter much. However, further research with larger samples incorporating the limitation is warranted to investigate this area in depth.

Limitations

Mothers in this study belonged to semi urban area; therefore, mothers living in urban and rural area of Nepal might have different breastfeeding self-efficacy and their husband might have supported them differently. However, this information has not been captured in this study. Since the study design was cross sectional, causal relationship of breastfeeding self-efficacy and husbands' support could not be undertaken. Furthermore, recall bias could be a limitation in this study as mothers would have forgotten the level of support received from their husband.

Conclusion

The study added to the existing literature that husbands' support is important to increase confidence in mothers to breastfeed their child. It has recognized husband's support as a strategy to encourage mother to exclusively breastfeed their child upto six months and continue breastfeeding till the child is two years as recommended by WHO. However, it warrants the need of similar studies with larger sample size and with reduced biases this present study has presented. It also considers the need of interventions to increase involvement of husbands' in promoting breastfeeding.

List of Abbreviations

NDHS	Nepal Demographic Health Survey
SD	Standard Deviation
SPSS	Statistical Package for Social Science
WHO	World Health Organization

Declarations

We declare that this article is the outcome of our own research and contains no material previously published.

- Consent to participate

The participants were informed about the voluntary nature of participation and confidentiality was assured. Moreover, verbal informed consent was obtained prior to the interview as well as details of the survey were explained to all participants.

- Competing interests

The authors declare that they have no competing interests.

- Funding

No funding was available for this study.

- Authors' contributions

SN designed the study and tools, collected the data, performed the statistical analysis, interpreted the findings and wrote the manuscript. MS guided in setting objectives, designing the tools, and gave critical feedback in writing discussion and conclusion. Both authors have agreed on the final version of the manuscript.

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