

## *Association of Domestic Violence and Early Suppression of lactation in Mothers Referring to Health Centers in Lahijan- Iran*

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### Abstract

**Background:** Domestic violence as a social factor has a significant role in the duration and quality of breastfeeding.

**Objectives:** This study aims to determine association of domestic violence and early suppression of lactation in Mothers Referring to Health Centers in Lahijan- Iran.

**Methods:** The present study is a retrospective case-control study. Participants included 235 mothers, 150 breastfeeding mothers and 85 mothers discontinued breastfeeding. Sampling was carried out by convenience and quota method in five urban health centers of Lahijan. The study tools were demographic information, domestic violence, and a researcher-made questionnaire to assess status of breastfeeding. Data were analyzed using Chi-square, t-test, Mann-Whitney test, and logistic regression by SPSS 16 software (P-value <0.05).

**Results:** The average age of mothers was calculated to be about 27.97 years. According to the results of this study, mothers in the lactation group (group1) (93.33%) started breastfeeding more than esl group (group 2) (67.06%) (P<0.001). There was no statistically significant difference between the two groups in terms of unwanted pregnancy rate, cesarean section, and mothers' academic education (P-value> 0.05). The rate of psychological and physical violence in the group 1 was significantly higher than the group 1 and the chance of physical violence in group 2 was significantly (about 10 times) higher than the group1 (10, OR 001/0= P).

**Conclusion:** It seems that physical and psychological domestic violence is directly associated with early suppression of lactation, so screening of domestic violence and appropriate interventions are recommended be considered in maternal care programs.

**Keywords:** *domestic violence, early suppression of lactation*

### Introduction

Domestic violence in pregnancy is a serious and worldwide problem taking place in all cultures that breaks boundaries. Different types of violence include physical, sexual, and psychological harms inflicted from one person to another [1]. Statistics from the World Health

Organization indicate that 18 to 68 percent of women in developing countries and 28 percent in developed countries have been mistreated by their husbands at least once [2]. The results of a study in 28 provinces of the country reported a 66% prevalence of domestic violence [3]. The World Health Organization recommends starting

breastfeeding in the first hour after birth, exclusive breastfeeding for up to 6 months, and then continuing breastfeeding until the child is 2 years old [4]. One way to achieve this goal is to concentrate on the factors that affect breastfeeding. Studies have been conducted to identify the factors affecting breastfeeding self-efficacy. Permanence of breastfeeding is influenced by many factors such as education, employment, motherhood, social support, and breastfeeding in the first hours of birth, type of delivery, the way the mother intends to feed the baby, and maternal anxiety [5-7]. However, findings have not been acknowledged in all studies [8,9].

Some studies have reported that women who experience domestic violence are significantly less likely to breastfeed their infants [10,11]. A study by Cooke et al. in 2007 found that women who experienced less anxiety breastfed their infants for longer periods of time [12]. Due to the nature of domestic violence and lack of consideration to this issue as well as cultural differences in different parts of the country, this study was conducted to examine association of domestic violence and early suppression of lactation in mothers referring to health centers in Lahijan.

### **Methods**

In this retrospective case-control analytical study, 235 mothers with children aged 6-9 months referred to health centers in Lahijan-Iran were studied. Sampling was carried out by method in the form of quotas according to the population of patients referred to each center. The minimum sample size was calculated 150 in the lactation group (group 1) and 85 in the early lactation suppression group (group 2) using the results of the study by Dennis et al, counting 10% of the loss in the sample.

Inclusion criteria of the study were being Iranian, being married, living with a spouse in the past 6 months, single pregnancy, healthy baby, the first child of the family, no record of recognized medical and mental illness, no death of loved ones during the past six months, no history of alcohol, smoking, drugs and psychedelics, no hospitalization of the mother or baby after delivery and during the first six months of life, and no contraindications to breastfeeding drugs.

The tools used include demographic information questionnaire, domestic violence questionnaire, and breastfeeding evaluation questionnaire. The demographic questionnaire included questions about age, age of spouse, occupation of mother and spouse, duration of marriage, level of education of mother and spouse, status of ownership of a residential unit. The WHO Domestic Violence Questionnaire includes 34 questions. 26 of which are in the areas of physical, sexual, and psychological violence, in which, physical violence covers 10 items, sexual violence has 5 items and psychological violence has 11 items.

The number of cases of violence is calculated based on the 5-point Likert scale (never, once, twice, three to five times, more than five times). Domestic violence in this study is considered as violence perpetrated by a spouse or family member. This questionnaire is taken from the World Health Organization and the abused woman is considered to have at least one positive answer to any of the questions concerning the physical, sexual, and mental violence questionnaire. The validity of this questionnaire has been reviewed and confirmed by Iranian researchers [13-15]. In this study, Cronbach's alpha coefficient for three different areas of the questionnaire for physical, psychological, and sexual violence was 90%, 87% and 89%, respectively. The researcher-made questionnaire "evaluation of breastfeeding nutrition" with 11 questions included questions about the first type feeding of the baby (breast milk, infant formula, or other types of milk), the time of first breastfeeding, and the time of suppression of lactation. To determine the validity of the questionnaires applied, qualitative content validity method was used so that questionnaires were monitored by 10 experts in this field. Cronbach's alpha coefficient was 0.85. Descriptive statistics and statistical tests of T-test, Mann-Whitney, Chi-square, and Logistic regression were used in SPSS 16 software to analyze the data.

### **Results**

The results of this study indicated that the mean age in mothers with breastfeeding cessation was 28.12% and in breastfeeding mothers 27.82%; the mean age of the spouse in the group of mothers with breastfeeding cessation was 31.18% and in

breastfeeding mothers 30.95%; and, the mean duration of marriage was 5.12% in breastfeeding mothers and 4.65% in mothers who ceased breastfeeding. There was no statistically significant difference between the two groups in terms of the above characteristics.

There was no statistically significant difference between the two groups in terms of unwanted pregnancy, cesarean section, and mothers' academic education (P-value > 0.05). In this study, 197 infants (83.83%) started their first feeding

with breast milk, 23 infants (9.79%) with breast milk and formula, 15 infants (6.38%) with formula. Also, 161 mothers (68.51%) had their first breastfeeding in the first hour after delivery, 29 mothers (12.34%) in the first two hours after delivery, and 45 mothers (19.14%) more than two hours after childbirth. According to the results of this study, mothers in the lactation group (93.33%) started breastfeeding more than cessation group (67.06%) (P<0.001) (Table 1).

**Table 1: Results of logistic regression analysis examining the simultaneous effect of domestic violence on breastfeeding status by adjusting confounding variables on mothers of the two groups referred to health centers in Lahijan in 2014**

Variables	Estimation of coefficients (B)	Standard error	OR	P- value	
<b>domestic violence</b>	There is	2.469	0.460	11.812	*P=0.001
	There is not		Reference group		
<b>Pregnancy</b>	Wanted	0.858	0.482	0.424	0.075
	Unwanted		Reference group		
<b>Education</b>	Academic	0.747	0.400	0.474	0.062
	Not academic		Reference group		
<b>Occupation</b>	Housewife	-0.685	0.484	0.504	0.265
	Employed		Reference group		
<b>Type of delivery</b>	NVD	-0.589	0.456	-0.529	0.246
	C-Section		Reference group		
<b>The first feeding after birth</b>	Breastfeeding	0.166	0.497	0.150	*P<0.001
	Other types of feeding		Reference group		

\* (P-value <0.05)

Regarding violence in this study, 6.81% experienced physical violence, 13.61% psychological violence, and 3.41% sexual violence. Also, the rate of psychological and physical violence in the cessation group was significantly higher than the lactation group (P-value <0.05). In the study of the simultaneous effect of domestic violence on lactation status, adjusting confounding variables and supposing

other variables constant, the chance of physical violence in individuals who ceased breastfeeding was significantly (about 10 times) higher than the group who did not stop breastfeeding (OR ~ 10 , P=0.001). In this study, there was no statistically significant relationship between domestic violence and type of pregnancy (wanted or unwanted) and mothers' education (Table 2).

**Table 2: Association of violence (physical, psychological, sexual) with early suppression of lactation in cessation and lactation groups of mothers referred to health centers in Lahijan in 2014**

Violence	Lactation group		Suppression of Lactation group		P-value
	Frequency	Percentage	Frequency	Percentage	
There is physical violence	3	2	13	15.29	P<0.001
There is not physical violence	147	98	72	84.70	
<b>Total</b>	150	100	85	100	
There is psychological violence	8	5.34	24	28.24	P<0.001
There is not psychological violence	142	94.66	61	71.76	
<b>Total</b>	150	100	85	100	
There is sexual violence	3	2	5	5.88	P=0.116
There is not sexual violence	147	98	80	94.12	
<b>Total</b>	150	100	85	100	

### Discussion

The results of the present study indicate that suppression of lactation was more common in working and employed mothers. Other studies have accomplished similar results [15-17]. In contrast, in other studies, no significant association was observed between the mother's employment and lactation duration [18,19]. Maternal employment decreases the intimate and continuous relationship between the infant and the mother mentally and physically and reduces the likelihood of complete and effective breastfeeding. Another factor that reduces the duration and continuity of breastfeeding are maternal fatigue, which is probably more important for working mothers than housewives [17].

The rate of suppression of lactation was higher in mothers who delivered by cesarean section than in mothers who delivered vaginally, which is consistent with the study by Islami et al [20], whereas no significant association was observed in other studies [18,19]. Due to the difference in breastfeeding between the two groups, cesarean delivery can probably have an adverse effect on the emotional relationship between mother and infant, which is probably caused by the pain and discomfort due to surgery, use of anesthesia, hormonal imbalances occurring after vaginal delivery, and inappropriate communication between mother and baby [21]. The results of the study also showed that in women with unwanted pregnancies, suppression of lactation is more common. The beginning and continuation of

breastfeeding is reduced in unwanted pregnancies [22]. Regarding violence in this study, 6.81% experienced physical violence, 13.61% psychological violence, and 3.41% sexual violence. Similar to other studies [11 and 23], the highest percentage of domestic violence is psychological violence. Slight differences in results can be due to the use of different tools and different sampling environments in the studies. The results indicate that there was a significant difference between physical and psychological violence in mothers in lactation and cessation groups. In this regard, Moraes et al. revealed that the cessation of exclusive breastfeeding is more common in individuals with severe physical violence.

Lau Chan also indicated that the prevalence of artificial feeding is higher than breastfeeding and having different types of feeding in women experiencing physical violence [24]. Silverman et al. noted that women who reported domestic violence during pregnancy, who just started breastfeeding, are more likely to stop breastfeeding their infant within four weeks of delivery. [10] The results of some studies have shown that Domestic violence reduces the duration of breastfeeding [25,10, and 24]. However, some other studies state that there is no relationship between domestic violence and breastfeeding [25,26]. Boutet et al, in their research, emphasized the close relationship between stress (mental and physical) and the release of oxytocin, which is an essential hormone for milk reflex and output. In fact, stress is a

factor in shortening breastfeeding and reducing milk flow. Stressful situations usually disrupt the mother's normal state, which can lead to suppression of lactation if the mother is not helped in these situations [27].

### Conclusion

The results of this study indicated that physical and psychological violence is one of the effective factors in lactation among Lahijani women. In this regard, midwives, due to their key role, can play a significant role in increasing breastfeeding through counseling, encouragement, and intervention. One of the limitations of this study is the available sampling method, which is due to the number of case samples regarding the objectives of the study. It is recommended that multicenter and more extensive studies be conducted in this field due to the importance of the issue.

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### Conflict of interest

The author declares no conflicts of interest.

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