THE EFFECT OF GRANDMOTHER'S SUPPORT UPON BREASTFEEDING PROCESS, IN TURKEY

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ABSTRACT

AIMS: This study was carried out to define the support of the grandmother during the breastfeeding process.

METHODS: This study with descriptive quality was carried out between January and July 2020 with 305 mothers of six-month and younger babies. The data were collected from four Family Health Centers with high population density in Erzincan city center. The data were collected with a questionnaire form created by the researcher. Percentage, mean, independent groups t-test, analysis of variance and Pearson correlation analysis were used to analyze the data.

RESULTS: It was found that the mean age for the babies of the mothers was 3.57±1.97 and the mean time of exclusive breastfeeding (EBF) was 2.95±2.24. During the breastfeeding process, it was determined that 76.1% of the mothers got support from the grandmothers during the postpartum period, 66.9% got support for breastfeeding, baby care, housework and hosting visitors during the postpartum period, 28.5% were subjected to recommendations such as breastfeeding more often, expressing their milk, resting more, eating lactogenic food to have more breast milk and staying away from stress, 36.1% did not receive any comments on breastfeeding, 56.4% got nutritional advice rather than breast milk, 32.6% was recommended on water, sherbet and 73.8% had recommended complementary food. It was found that the grandmother's support during the puerperium and their advice and comments during the breastfeeding process were efficient variables upon the EBF period up to the present ($p<0.05$). It was also determined that there was a positive correlation between the duration of EBF given by mothers and duration of the grandmother's stay during the puerperium ($p<0.05$).

CONCLUSIONS: It was determined that majority of the mothers had support from grandmothers during the breastfeeding process, took advice, did not comment, and these had a positive effect upon the EBF period up to the present. However, it was found that grandmothers gave nutritional advice rather than breast milk and majority of mothers gave the recommended nutrition.

KEYWORDS: **Grandma, breastfeeding, exclusive breastfeeding, nursing**.

Breastfeeding has been considered as both the gold standard for infant nutrition and the best way to improve the health of mothers and babies [1]. For public health, the World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) recommend infants to be given EBF for the first 6 months and continue breastfeeding with complementary foods after the 6th month until at least two years [2]. Breast milk has various nutritional, antiallergic, immunological, developmental, social and psychological benefits [3]. Besides providing advantages in terms of general health, growth and development, breast milk also reduces the risk of many acute and chronic diseases such as respiratory tract infection, bacterial meningitis and botulism significantly [4].

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Breastfeeding also has many physical and psychological benefits for mothers such as reducing the risk of breast and ovarian cancer, lowering hypertension, reducing stress response and increasing sleep [5].

Although breastfeeding has important advantages in terms of child and women's health, the prevalence of breastfeeding has still not been at desired level in many industrialized countries due to the existence of many psychological, social and economic factors that affect both the decision of starting breastfeeding and duration of breastfeeding [6,3]. Considering the rates of breastfeeding worldwide, 41% of infants have been fed with Exclusive Breast Milk (EBF) for the first six months and 45% have continued to be breastfed until the age of two [7]. In our country, whereas the rate of infants given EBF in the first six months has been 41%, this rate has decreased to 34% until the age of two [8].

One of the important sociocultural factors affecting breastfeeding duration is the knowledge, attitude and experiences of grandmothers (grandmother or paternal grandmother) towards breastfeeding [9]. Infant feeding practices of grandmothers are possible to affect mothers' decisions to start and continue breastfeeding positively or negatively [10,11]. It has been found in previous studies that grandmothers with breastfeeding experience have transferred their practical knowledge about breastfeeding to mothers and assured mothers' confidence on breastfeeding to be the normal way to feed a baby and increased breastfeeding rates [10, 12,13]. In previous studies revealing grandmothers affect the breastfeeding process negatively, grandmothers have been determined to assure mothers feed their babies with formula, even forced mothers not to feed their babies with breast milk only, and recommended foods such as tea and water in addition to breast milk [14,11, 15]. The act of breastfeeding is full of myths, beliefs and values that have been passed down through the generations; grandmothers rely on their own experiences to intervene in face-to-face, emotional, informational and instrumental support positively or negatively [11].

Although grandmothers greatly affect mothers' breastfeeding attitudes and behaviors, there have been few studies on this subject in the literature. Therefore, this study was carried out to define the support of the grandmother during the breastfeeding process.

MATERIAL AND METHOD

Purpose, Type, Population and Sample Selection of the Study

This descriptive study was carried out to determine the effect of grandmothers upon the breastfeeding process. The population of the study included 1187 mothers six 6-month babies among the families affiliated to the four Family Health Centers of Provincial Health Directorate with high population density in the city center of Erzincan. The number of mothers to be included into the sample was determined using the sample selection formula when the number of members in the population was known. This formula was

$$n = \frac{Nt^2\,pq}{d^2\,(N-1) + t^2\,pq}$$

N: Population
n: Frequency of practice to be included into the sample
p: Incidence of the analyzed event
q: Frequency of nonoccurrence for the analyzed event
t: Theoretical value found from the t table at a certain degree of freedom and specific level of significance error level
d: What is required to be fulfilled according to the incidence of the event ± deviation

$$n = \frac{(1187)(1,96)^2(0,50)(0,50)}{(0,05)^2(1187-1)+(1,96)^2(0,50)(0,50)}$$

n =290, 41

According to this formula, the number of mothers to be included into the sample was calculated to be minimum 290, and the study was completed with totally 305 mothers.

Inclusion criteria in the study included healthy mothers over 18 years old who gave birth over 2500 g at term, had six-month and below babies, could speak Turkish, had no communication barriers, and willing to participate into the study.

Data Collection Tools

The data were collected with a structured questionnaire created by the researchers. The questionnaire included two sections. In the first

section, mothers' socio-demographic characteristics (6 questions), obstetrics and breastfeeding characteristics (6 questions) were questioned. In the second section of the questionnaire, there were questions (10 questions) about the support given by the grandmother during the breastfeeding process.

Data Collection

The study was carried out between January and July 2020. After obtaining the legal permissions for the study, the mothers who brought their babies to the four Family Health Centers affiliated to the Health Directorate with a high population density in the city center of Erzincan were acquainted, the purpose of the study was explained and their written and verbal consents were taken. Then, the questionnaire form prepared by the researcher was performed to the mothers who accepted to participate into the study with face-to-face interview technique. The questionnaire was performed to the mothers in an appropriate room at specified health center after rendering services to the mother and her baby. Performing the questionnaire took approximately 10 minutes.

Ethical Principles of the Study

Before starting to carry out the study, ethical permission (dated 07/08/2019 and numbered 08-12) from the Human Research Ethics Committee and then the institutional permission (dated 03/10/2019 and numbered 771) were obtained. After explaining the purpose and content of the research to the individuals participating into the study, they were informed about being free to participate or not into the study. Written and verbal consents were obtained from the individuals who agreed to participate into the study assuring that their personal information would not be disclosed to others or used anywhere else and they had the right to withdraw from the study at any time. The Declaration of Helsinki was adhered to throughout the study.

Data Analysis and Evaluation

SPSS 25.0 package software was used for the statistical analysis of the data. Percentage, average and Pearson correlation analysis were used for data interpretation. The fitness of the data to the normal distribution was tested using the Shao method. According to the method, the Skewness value was determined to be 0.309, the Kurtosis value to be -0.658, and had a normal distribution between -3 and +3. In terms of the test, the level of statistical significance was regarded to be 0.05.

Limitations of the Study

The study had some limitations. First, the sample group of the study included mothers living in a province in Eastern Turkey. Considering the sociocultural structure of the region, the findings of the study were only possible to be generalized to mothers in this group. Second, the questions used in the study were based on self-report.

RESULTS

The distribution of mothers related to demographic, obstetric and breastfeeding characteristics were presented in Table 1. It was determined that 65.2% of the mothers were between the ages of 25-34, 46.9% were university graduates, 74.4% were unemployed, 56.4% perceived their income level as moderate, the average age was 28.77±5.08 and the average number of children was 1.77±0.97. Considering the distribution of the characteristics of mothers related to obstetric and breastfeeding process, it was revealed that 60% of the mothers had cesarean section delivery, 51.8% of them had a girl baby, 45.6% of them had a baby weighing between 3000-3499 g, 57% had training on breastfeeding, 92.5% did not receive support from the grandmother, 94% had breastfeeding experience, the birth weight of the baby was 3279.54±451.03 g, the average age of the baby was 3.57±1.97 months, the average duration for EBF breastfeeding was 2.95±2.24 months, and planned breastfeeding duration was 20.40±6.51 months.

Table 1. Distribution of Mothers' Demographic, Obstetric and Breastfeeding Characteristics (n=305)

		n	%
Mother's Age	18-24	58	19.0
	25-34	199	65.2
	35-44	48	15.7
Educational Status	Elementary	30	9.8
	Secondary	48	15.7
	High School	84	27.5
	University and Higher	143	46.9
Employment Status	Employed	78	25.6
	Unemployed	227	74.4
Perceived Level of Income	Good	12	3.9
	Moderate	172	56.4
	Bad	121	39.7
Experiencing Financial Difficulty	Yes	69	22.6
	No	236	77.4
Number of Children	1	154	50.5
	2	90	29.5
	3	41	13.4
	4 and over	20	6.6
Mode of Delivery	Vaginal Delivery	122	40.0
	Caesarian Section Delivery	183	60.0
Gender of Infant	Girl	158	51.8
	Boy	147	48.2
Birth Weight of Infant	2500-2999	74	24.3
	3000-3499	139	45.6
	3500 and above	92	30.2
Status of Having Training on Breast Milk	Yes	131	43.0
	No	174	57.0
Grandmother's Status of Having Training on Breast Milk	Yes	23	7.5
	No	282	92.5
*** Status of Breastfeeding for the Other Babies**	Yes	142	94.0
	No	9	6.0
		X±SD	
Age of Mother		28.77±5.08	
Number of Children		1.77±0.97	
Birth Weight of Infant (gr)		3279.54±451.03	
Age of Baby (Month)		3.57±1.97	
EBF Duration (Month)		2.95±2.24	
Planned Breastfeeding Duration (Month)		20.40±6.51	

** Having more than one child EBF: Exclusive Breastfeeding*

The distribution for the characteristics of the grandmothers' support to the mothers during the breastfeeding process was presented in Table 2. It was found that the grandmothers stayed with the mother for an average of 22.12±16.44 days during the breastfeeding process. It was determined that 45.9% of the mothers met with grandmother daily during the breastfeeding process, 76.1% received support during the postpartum period, 66.9% received support for breastfeeding, baby care, housework and hosting during the postpartum period, 28.5% had advices on breastfeeding more frequently, expressing the breast milk, resting more, eating lactogenic foods and staying away from stress, 36.1% did not receive any comments about breastfeeding, 56.4% received nutritional advice other than breast milk, 32.6% were recommended on formula, water, sherbet, and 73.8% gave the recommended food.

Table 2. The EBF durations they have given so far according to the Characteristics of the Support of the Grandmothers in the Breastfeeding Process (n=305)

		n	% X±SD	Duration of EBF up to the present	
				Test P	
Frequency of Meeting with Grandma	Living together	26	8.5	2.65±2.20	F:0.466 p:0.833
	Daily	140	45.9	2.95±2.25	
	Weekly	85	27.9	3.04±2.25	
	Monthly	23	7.5	2.91±2.08	
	Once every few months	18	5.9	3.05±2.36	
	Yearly or less	12	3.9	2.58±2.46	
	Not meeting any	1	0.3	6.00±0.00	
Support in Postpartum Period	Yes	232	76.1	3.10±2.25	**t:2.144 p:0.033**
	No	73	23.9	2.46±2.16	
Type of Support	Breastfeeding	3	1.0	4.33±1.52	F:1.918 p:0.091
	Baby care	12	3.9	4.00±2.92	
	Housework	8	2.6	4.00±1.92	
	Hosting	6	2.0	3.33±2.06	
	All	204	66.9	3.00±2.22	
	None	72	23.6	2.44±2.17	
Grandmother's Advices on Breastfeeding Process	You should breastfeed more often [a]	45	14.8	3.71±2.38	**F:4.853 p:0.000**
	You should express breast milk [b]	3	1.0	3.00±2.64	
	You should rest more [c]	32	10.5	3.71±2.14	
	You should eat lactogenic foods [d]	76	24.9	2.93±2.24	
	You should stay away from stress [e]	27	8.9	2.00±1.79	
	All [f]	87	28.5	2.70±2.17	
	None [g]	35	11.5	2.68±2.29	
Grandmother's Comments on Breastfeeding	Your breast milk is not enough for the baby [a]	40	13.1	3.71±2.38	**F:2.637 p:0.017 d>e, c>e b>e, f>e**
	Your breast milk is not fat [b]	12	3.9	3.00±2.64	
	Your baby is not gaining weight [c]	15	4.9	3.71±2.14	
	Your baby is crying because s/he is not fed [d]	68	22.3	2.93±2.24	
	All [e]	60	19.7	2.00±1.79	
	None [f]	110	36.1	2.70±2.17	

		n	% X±SD	Duration of EBF up to the present	
				Test P	
Grandmother's recommending food other than breast milk	*Yes	172	56.4	2.88±2.22	t:-1.495 p:0.136
	No	108	35.4	3.29±2.28	
*** Recommended type of food**	Water	25	14.5	3.56±2.02	F:1.556 p:0.175
	Sherbet	35	20.3	2.82±2.31	
	Herbal Tea	15	8.7	3.53±2.44	
	Formula + Water	33	19.2	2.15±2.06	
	Formula + Water + Sherbet	56	32.6	2.80±2.29	
	Other (Cow's Milk, Honey, Molasses, Yoghurt, Fruit Juice)	8	4.7	3.37±1.59	
*** The Status of Giving Recommended Type of Food**	Yes	127	73.8	2.78±2.22	t:-0.954 p:0.341
	No	45	26.2	3.15±2.22	
				X±SD	
Grandmother's Duration of Stay During the Postpartum Period				22.12±16.44	

** Recommending food other than breast milk*

Pearson analysis was performed to test the relationship between the duration of EBF given by the mothers up to the present and the duration of the grandmother's stay during the puerperium (Table 3). It was found that there was a positive but weak ($0.20 \leq r \leq 0.39$) relationship ($r=0.239$; $p<0.05$) between the duration of EBF given by the mothers up to the present and duration of the grandmother's stay during the puerperium.

Table 3. The relationship between the duration of EBF given by the mothers up to the present and the duration of the grandmother's duration of stay during the puerperium (n=305)

		Grandmother's duration of stay during the puerperium
Duration of EBF up to the present	**Pearson Correlation**	0,239**
	Sig. (2-tailed)	0,000
	n	305

***. Correlation is significant at the level of 0.01 (2-tailed).*

DISCUSSION

Support is highly remarkable for achieving breastfeeding [16]. Grandmothers provide significant support and encouragement through their knowledge, experience and attitudes influencing decisions of mothers on starting and maintaining the breastfeeding [17]. Therefore, this study was carried out to define grandmother's support during the breastfeeding process, and obtained findings were discussed in reference to the literature.

It was determined that 45.9% of the mothers met with grandmothers during the breastfeeding process, 76.1% received support during the postpartum period, 66.9% received support from the grandmothers on breastfeeding, baby care, housework and hosting, and the mothers who had support had longer EBF duration up to the present. It was revealed in the study carried out by Bölükbaş et al. [18] that the individuals who provided the most support in child care included family elders. In another study carried out in Turkey, majority of grandmothers helped with breastfeeding and the ways for their help included housework, supplying the food mothers need during the breastfeeding, ensuring mothers to breastfeed her baby in a comfortable environment, providing psychological support to the mother in breastfeeding and nursing elder grandchildren.

It was expressed in the literature that the rate for the support of grandmothers during the breastfeeding and baby care processes varied between 30-54.8% [18]. Similarly, in other studies, it was found that the support of grandmothers in housework and baby care increased breastfeeding rates [11,19]. It was considered that the practical support such as housework and child care eliminated the need to fulfill such responsibilities allowing more time and energy to be spent on breastfeeding [20].

It was noticed in this study that 28.5% of grandmothers advised mothers on breastfeeding more often, expressing their breastmilk, resting more, eating more lactogenic foods, and staying away from stress. It was also revealed in this study that the mothers who received advice on breastfeeding more often had longer EBF duration up to the present. In a previous study, 55% of paternal grandmothers and 72.4% of maternal grandmothers recommended mothers on lactogenic foods to increase their breast milk [21]. It was found in the study that grandmothers adviced more than half of the mothers on breast milk not to be enough for the baby, not fatty, the baby is not gaining weight and crying because not to be satiated. In another study, 40% of grandmothers stated that they supplemented because they believed breast milk to be insufficient [11]. Another study carried out in Thailand reported that the main reason for discontinuing breastfeeding was the wrong advice of grandmothers [1]. The positive view of a grandmother on breastfeeding had the potential of influencing the mother up to 12% more on starting to breastfeed, whereas the negative view, on the contrary, had the capacity of reducing the likelihood of breastfeeding up to 70% [12]. In this respect, it was possible to conclude that the recommendations on breastfeeding encouraged mothers to feed their babies with breast milk.

It was found in this study that 32.6% of the mothers were recommended on food + water + sherbet by grandmothers and 73.8% gave the recommended foods. In another study, it was stated that three out of every 10 grandmothers recommended to give formula [21]. In a study carried out in Portugal, it was reported that 69% of grandmothers offered water and tea to mothers [11]. In another study, 53.2% of the maternal and paternal grandmothers recommended supplemental food, and 67.4% recommended formula [15]. In Turkish society, it was considered the false beliefs that babies who received EBF would be dehydrated and breast milk would be insufficient caused grandmothers to recommend supplementary food or formula.

CONCLUSION AND RECOMMENDATIONS

It was found that 76.1% of the mothers had support during the postpartum period, 66.9% had support on breastfeeding, baby care, housework and hosting during the postpartum period, 28.5% were recommended on breastfeeding more often, expressing breast milk, resting more, having lactogenic foods, and staying away from the stress, 36.1% had no recommendations on breastfeeding, 56.4% received nutritional advice other than breast milk, 32.6% were recommended on formula, water and sherbet, and 73.8% gave the recommended food. given was found. It was also determined that the duration of EBF increased as the duration of staying with the grandmothers during the puerperium increased.

In accordance with these results, training and counseling programs should be planned for mothers and grandmothers to initiate and continue breastfeeding in order to strengthen the breastfeeding behavior affected by culture and social factors. In this way, they will be able to reveal their beliefs and attitudes about breastfeeding and acquire new knowledge. So that grandmothers will be better prepared to make a positive influence on ensuring their daughter or daughter-in-law to breastfeed more successfully.

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