

## Research Article

# Drug use Knowledge and Practices of Mothers during Lactation Period

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## Abstract

**Aim:** The purpose of this study is to investigate the knowledge and practice of the mothers about drug use while breastfeeding.

**Methods:** The descriptive study sample consisted of women who had breastfeeding for a period of the first twelve months, applied to pediatric outpatient clinic at a state hospital and agreed to participate (n=171). The data were collected through a Questionnaire that was prepared by the researchers themselves. The data collected were analyzed in the computer environment by calculating percentages and averages.

**Results:** The %37.7 of the participating mothers were in the 20-24 age group, and the average lactation period became 6.74±3.80 (n=171). 63.5% of the participants were nuclear family, 61.5% of middle-income level, 52.9% of primary/secondary school graduates, 86.2% of housewives, and 53.3% of had their first experience of breastfeeding. 67.1% of participants stated that they do not have information about the drugs that definitely should not be used in their breast feeding period. %90.6 (n=154) of mothers who were asked "What do you do first if you have any health problems at the time you breastfeed your baby?" stated that they take the proper drugs with a doctor's advice. 33.3% of respondents (n=56) stated that they do not use any drug, despite a doctor's advice to take drug, due to the fear of harm to the baby, while 74.9% (n=125) think that, if possible, a mother in her breastfeeding period should not use any drugs.

**Conclusion:** Informing mothers about the use of medication during lactation period will reduce concerns about the subject and will prevent improper applications.

**Keywords:** Lactation; Breastfeeding; Medication; Drug therapy

## Introduction

Breast milk is considered the best food in the infant nutrition. The breast milk possesses a number of benefits in infant nutrition, because it contains nutritious content, reduces morbidity and mortality rates, and offers economical nutrition [1]. Long-term beneficial effects of breastfeeding are also described, such as increasing mother infant bonding [2], improving development of the oral motor system and decreasing frequency of diseases such as arterial hypertension, type 2 diabetes, hypercholesterolemia and obesity [3]. The World Health Organization (WHO) and United Nations International Children's Emergency Fund (UNICEF) recommend feeding for six months only through breastfeeding, and continuing frequent, on-demand breastfeeding until two years of age or beyond [4]. Mothers in their breastfeeding period may encounter with the acute or chronic health problems such as colds, infections, bowel problems, mastitis, headache / migraine, hypertension, and depression and may need to be treated with medication [5]. Based on their properties, the drugs may be transferred into breast milk through plasma. Drug concentration in the breast milk is directly related to the amount of the dose, duration of drug consumption, the Daily frequency of breastfeeding and the mother's health condition [6]. Moreover, adverse effects of the drugs in breast milk may be aggravated due to the infant's limited liver

metabolizing rate, kidney glomerular filtration and tubular secretion velocity of the plasma in the infant's first week, and the low rate of bonding of the drugs to protein [6,7].

The uncertainty and fear due to lack information on the medications, the drugs transferred into infant through breast milk may suspend the breastfeeding and cause the irregular and insufficient use of medication for mother. Baby will affect the failure or the mother's drug use during breastfeeding drug use can cause irregular and insufficient. At the time on which it most need the breast milk, baby, is deprived of nutrients and emotional potential of the milk [7]. In deciding to use the drug, beside the drug effects on the breastfed baby's growing, the risks without medication to mother and infant health conditions should be evaluated. Therefore, it is important to properly inform nursing mothers of the risks of drug therapy and the necessity of breastfeeding [8,9]. In this study, we aimed to investigate the knowledge and practice of breastfeeding mothers using drugs.

## Material and Methods

### Sample

The descriptive study was carried out at a State Hospital in Sakarya between February and April 2016. The study sample consisted of all the mothers aged 18 years or above who applied to pediatric

**Table 1:** Demographic features of the participants (n=171).

	n%	
<b>Mother Age</b>		
20-24	59	37.7
25-29	52	30.6
30-39	45	31.7
Over 40	5	2.9
<b>Education</b>		
Primary / Secondary	109	64.1
High School	43	25.3
Undergraduate	18	10.6
<b>Family Type</b>		
Nuclear Family	108	63.5
Extended Family	60	35.3
<b>Employment</b>		
Employed	22	13.8
Unemployed	137	86.2

outpatient clinic at a state hospital Sakarya province, had term born and healthy babies 1 - 12 months and breast-feeding period (n=171), had communication problem and agreed to participate. The data were collected through a Personal Information Form which included 41 questions that were prepared by the researchers themselves. Personal Information Form included items on age, educational status, economical status, mother's working status, drug use etc.

This study was approved by the Ethical Board in Sakarya University and study started after receiving approval from related local authorities. The participating mothers were informed of the purpose of the study and the methods to be used and signed an informed consent statement. The data were collected by face-to-face interviews with the mothers.

### Data management and analysis

The obtained data were evaluated using percentage and average. Analyses were performed using commercial software (IBM, SPSS statistics 22, SPSS Inc. An IBM Corp., Armonk, NY).

## Results

The 37.7% of the participating mothers were in the 20-24 age group, and the average lactation period became  $6.74 \pm 3.80$  (n=171). 63.5% of the participants were nuclear family, 61.5% of middle-income level, 52.9% of primary/secondary school graduates, 86.2% of housewives, and 53.3% of had their first experience of breastfeeding (Table 1).

27.9% of breastfeeding mothers suffered from various health problems such as, constipation, heartburn, piles (hemorrhoids), nausea / vomiting, edema, itching skin, nasal congestion, increased / decreased appetite, insomnia, pain (teeth, head, legs ...), and 20.8% of them (n = 22) were treated by medication. 13.4% of respondents (n = 15) said that they used the herbal products for their health problems. 67.1% of participants stated that they do not have information about the drugs that definitely should not be used in their breast feeding period.

59, 6% of respondents (n = 102) stated that the drugs used during pregnancy can be also used during lactation, while 29.2% (n = 50) reported no comment. When asked whether a mother can use the same drug that her infant can use, 19.3% of mothers (n = 33) answered affirmatively, as 32.2% (n = 55) stated they have no idea. 90.6% (n=154) of mothers who were asked "What do you do first if you have any health problems at the time you breastfeed your baby?" stated that they take the proper drugs with a doctor's advice. 95.2% of the participating mothers (n = 163) stated that the drugs that they used in their lactation period would be transferred to the baby through milk, 61.3% (n = 106) stated that they would not use any medication in lactation period, despite the doctor's advice, and 85% (n = 156) stated that breastfeeding mothers, if possible, should not use any drugs.

88.1% of respondents (n = 148) stated that they breastfeed whether they visit the doctor, but 92.2% (n = 153) stated they would ask whether they can use drugs in lactation period, only if the doctor prescribed medication.

## Discussion

Drug usage during lactation is a complicated and worrisome process for mothers. In this process, reducing the anxiety levels of breastfeeding mothers facilitate to overcome their health problems and help to breastfeed in normal levels. In the literature, the use of medications during breastfeeding rates varies. Olesen et al. found that 34% of the mothers were exposed to medical treatment in their first four months [10], and Schirmer et al. states that 65.9% of the mothers were exposed to medical treatment in their first six months. In our study, the medical treatments to which the mothers were exposed in their first 12 months were reviewed, and this rate was found to be 20.8% [11]. In the same study, 13.4% of the mothers employed alternative treatment of mother/herbal products rather than medical therapy. Our study differs from other studies, because this study investigates the 12 months horizon, excludes chronic disease medication, and consider cultural differences. In the literature, there are the studies that examine the success of breastfeeding with maternal drug use [12]. In a study conducted by Chaves et al, the mothers who used less reliable and ill-classified drugs disrupted their breastfeeding more frequently than other mothers [13]. In our study, 90.6% of respondents stated that they can use drugs after the doctor advices, while 67.1% stated that they do not know the drugs that must not be used in breastfeeding period. When the study outcome compared to research findings, it is revealed that informing mothers of the drugs which should not be used in lactation period can not only prevent breastfeeding interruption, but facilitate continued lactation.

In the literature, a number of studies in the last 5 years emphasized that many psychotropic drugs, including antidepressants, antiepileptic and migraine drugs are safe for mothers to use during breastfeeding [14,15]. Meador et al (2014) showed that out of the infants whose mothers used antiepileptic drugs, those breastfed developed the similar cognitive capacities to those fed by formula did [16]. A number of studies on the use of antidepressants in lactation period indicated that many parents and clinicians were found to avoid breast-feeding while using these drugs. Furthermore, according to many studies, mothers feel insecure when they use the drugs that possess low reliability, and believe that medication could harm the

baby or caregivers process [17]. In our study, 74.9% of participating mothers stated that breastfeeding mothers should not use any drugs in lactation period. With this study, the effects of medication in lactation periods on the health conditions of mothers and infants have to be examined by long-term researches.

Schrum et al (2004) showed that out of 297 mothers, 30% of those have doubts about using drugs in lactation period, only 10% of those continues to breastfeed and use the drugs, and 17% of those did not use any drugs even though they needed to use [11]. Lee et al. (2006) researched the drug use on the mothers who suffered from chronic diseases, and showed that 60% of mothers fed formula to their babies because of their doctors' recommendation or their own concerns, and revealed that the mothers whose doctors supported them in breastfeeding were observed breastfeeding more frequently than the other mothers [18]. Our study found that, despite the advice of doctors, 33.3% of breastfeeding mothers expressed that they would not use the drugs in fear that the drugs would harm their babies, and these findings are consistent with those of the previous studies.

## Conclusion

By keeping themselves up-to-date with their professional knowledge, the doctors should not only consider how seriously the drug transfer from the mother to her infant will affect the infants' health condition, but the economical, immunological, cognitive and ecological benefits of breastfeeding [19]. This study is important to show the breastfeeding mothers' level of knowledge about the use of drugs during their lactation period. Moreover, this study leads and guides the further studies on the effect of drug use at the later stages on the breastfeeding initiation/continuation.

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