

Level of Exclusive Breastfeeding for the First 6 Months in 0-24 Month Infants and Children in a Family Health Center in Şanlıurfa and the Factors Affecting it

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Abstract

Purpose: The research is conducted to determine the level of exclusive breastfeeding for the first 6 months in infants of mothers who have 0-24 month infants/children in Şanlıurfa and the factors affecting it. **Method:** The study is a cross-sectional type. It was conducted between February and March 2018. Mothers with 0-24 month infants/children registered in a family health center are the study population. 358 people participated in the study. **Results:** The median age of the women in the research is 27 years. Education level of 75.5% of women was primary school and below, 14.2% of them were agricultural worker, 62.3% of them had no health insurance. Level of exclusive breastfeeding for the first 6 months in 6-24 month infants and children is 15.0%. 63.7% of newborns received breast milk as the first food after birth. In the logistic regression model; while being agricultural worker negatively affects the condition of exclusive breastfeeding for the first 6 months by 5.2 times, using the pacifier-baby bottle by 2.7 times, not receiving breastfeeding counselling from primary health institutions by 4.1 times, 1 unit increase in the number of daily breastfeeding affects 1.6 times positively. **Conclusion:** Level of exclusive breastfeeding for the first 6 months is very low. In secondary and tertiary health care institutions, studies should be done to increase the quality and quantity of breastfeeding and breast milk counselling; the counselling services should be reached to women who are seasonal agricultural workers. The positive contribution of the primary healthcare institutions on breastfeeding should be improved and maintained.

Keywords: Breast Milk, Breastfeeding, Exclusively

1. Introduction

Nourishment is very important for healthy completion of growth-development, preventing infections and maintaining lifelong health¹. Poor diet or malnutrition causes growth-developmental retardation and provides a basis for death in infants and children². According to Convention on the Rights of the Child, each child should be fed with foods which are hygienic, can meet nutritional requirements and do not lead to metabolic loading and biochemical disturbance. It is

evident that breast milk that completely meets these conditions is the most healthy and ideal food for all newborns³.

Breast milk can meet all nutritional needs of an infant in the first 6 months of life, and at least one-third of his/her needs until 24 months after the 6th month¹. Therefore, the World Health Organization (WHO) and the American Academy of Pediatrics (AAP) recommend that only breast milk be used for the first 6 months of life and continuing feeding with breast milk with complementary food for up to 2 years^{2,4}.

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Breast milk reduces the risk of many acute and chronic diseases in addition to providing healthy growth-development. It has been reported that diarrhea, respiratory tract infections, otitis media, bacteremia, bacterial meningitis, botulism, urinary tract infections and necrotizing enterocolitis are less common in breastfed infants, and breast milk is reported to be protective against sudden infant death syndrome, insulin-dependent diabetes mellitus, Crohn's disease, ulcerative colitis, lymphoma, allergic diseases and chronic digestive system diseases⁴. In addition, the risk of uterine bleeding, depression, cardiovascular disease, breast cancer, ovarian cancer and osteoporosis decreases in nursing mothers⁵. Besides, breastfeeding decreases health expenditures both in terms of preventing formula cost and protecting against infectious diseases^{2,5}.

Despite the many benefits, maintaining exclusive breastfeeding for the first 6 months is still not at the desired levels in the World and Turkey. Exclusive breastfeeding for 0-5 months is around 40.0%, continuing breastfeeding for 2 years is around 45.0% in the World⁶. According to 2013 data of Turkey Demographic and Health Survey (TDHS), level of exclusive breastfeeding for the first 6 months is 30.0% in our country. 12.0% of infants took complementary food before the 6th month. The median duration of exclusive breastfeeding is 1.2 months⁷.

WHO and UNICEF (United Nations International Children's Emergency Fund) offers a series of recommendations for successful breastfeeding because breastfeeding process is affected by many factors. These recommendations are as follows:

In the first half-hour after birth, the mother should start breastfeeding and the mother and her baby should share the same room.

Mothers should be informed not to use pacifier-baby bottle.

Mothers should be given qualified breastfeeding and breast milk counselling in order to solve the problems they face during breastfeeding.

In order to carry out all these practices, breastfeeding policy should be established in the institutions and health staff should be trained in this regard⁸.

It is necessary to know the usage levels for popularizing breastfeeding and to identify the factors causing the problem in the insufficient regions. The aim of this study is to determine the level of exclusive breastfeeding for the first 6 months in infants of mothers who have 0-24 month infants/children, and the factors affecting it in a family health center in Şanlıurfa.

2. Materials and Methods

The study was carried out between February and March 2018 in Şanlıurfa Zeliha Öncel Family Health Center.

Family Health Center is located in a semi-urban region where the socio-economic level is low and seasonal agricultural workers live intensively.

The research is cross-sectional.

1686 women who have 0-24-month-old infants/children and registered to Family Health Center constituted the universe of the research.

The sample size was calculated as 385 people by taking the estimated level of exclusive breastfeeding for the first 6 months as 50.0% with 95% confidence, 5% error margin. Participants were selected from the lists obtained from family physicians by systematic sampling method. However, since some of the participants could not be reached, the study was conducted with 358 mothers. Participation level is 93.0%.

Ethics approval for the research was obtained from Harran University Faculty of Medicine Non-Interventional Research Ethics Committee' in the session no. 02, dated 01.02.2018; written permission was obtained from Şanlıurfa Provincial Health Directorate. Verbal consent was obtained from the participants by explaining the purpose of the study.

A 35-item structured questionnaire was used to collect data. The questionnaire was filled with face-to-face interviews with the participants. With the survey, mothers' socio-demographic characteristics (age, education level, occupation, income level, social security, family type), obstetric properties (number of children, gestational week of last child/infant, delivery method, place of birth, birth weight, gender, age, planned pregnancy status, the place where the pregnancy follow-ups are performed) and characteristics of breastfeeding (mother's level of knowledge, the experience of breastfeeding, prenatal and postnatal breastfeeding counselling status, counselling received at place/from person, sources of information except healthcare personnel about breastfeeding and benefiting status of mothers, first food given after birth, the first time to start to breastfeed, the first person who helped breastfeeding, breastfeeding at night status, the number of daily breastfeeding, exclusive breastfeeding duration, how long breastfed/to breastfeed, when and which complementary food given, status of using pacifier-baby bottle, spouse support, status of information on storing breast milk) were questioned.

The dependent variable of the study is the status of exclusive breastfeeding for the first 6 months.

Independent variables are maternal age, education level, employment status of mother and father, income level, social security status, family type, number of children, gestational week of last infant/child, method of delivery, birth weight, gender, place of birth, status of pregnancy follow-up/the place where follow-up is performed, planned pregnancy status, mother's level of knowledge, experience of breastfeeding, prenatal and postnatal breastfeeding counselling status, counselling received at place/from person, sources of information except healthcare personnel about breastfeeding and benefiting status of mothers, first food given after birth, the first time to start to breastfeed, the first person who helped breastfeeding, breastfeeding at night status, the number of daily breastfeeding, status of using pacifier-baby bottle, spouse support.

Exclusive breastfeeding for the first 6 months defines the situation of feeding with breast milk only without any complementary food including water in the first 6 months of life.

In data analysis, the Mann-Whitney U test and Chi-square test were used for descriptive statistics, univariate analyzes.

Regression model was established with the variables, which create differences in univariate analyzes, of

being agricultural worker (categorical), social security status (categorical), receiving breastfeeding counselling from primary health institutions in the prenatal period (categorical), receiving breastfeeding counselling in the postpartum period (categorical), benefiting from brochure-booklet for breastfeeding information (categorical), starting breastfeeding within the first half-hour (categorical), breastfeeding at night status (categorical), using pacifier-baby bottle status (categorical) and daily number of breastfeeding (continuous). Backward Stepwise (conditional) method was used in logistic regression analysis. The analyzes were performed using SPSS 20.0 statistical package program.

In calculating the level of exclusive breastfeeding for the first 6 months, infants younger than 6 months were not included in case the possibility of giving up feeding with breast milk only before 6 months period is not completed. This may have created a limitation in the study.

3. Results

The median age of the women in the research is 27 years. 75.4% of the participants have primary education level and below, 14.2% are agricultural workers, 62.3% have no social security; 13.4% of fathers are unemployed, the income of 60.6% of families is lower than the expenditure and 33.2% have extended family type (Table 1).

Table 1. Distribution of socio-demographic characteristics according to the exclusive breastfeeding status for the first 6 months

| Characteristics | Exclusive breastfeeding status | | | | | X ² | P |
|------------------------------------|--------------------------------|------|--------|------|------|----------------|-------|
| | Yes | | No | | %** | | |
| | Number | %* | Number | %* | %** | | |
| Mother's educational status | | | | | | | |
| Does not speak Turkish | 1 | 9.1 | 10 | 90.9 | 3.1 | | |
| Not literate | 17 | 15.0 | 96 | 85.0 | 31.6 | | |
| Literate | 13 | 22.4 | 45 | 77.6 | 16.2 | 3.02 | 0.69 |
| Primary school | 19 | 21.6 | 69 | 78.4 | 24.6 | | |
| Secondary school | 10 | 18.5 | 44 | 81.5 | 15.1 | | |
| High School and Above | 5 | 14.7 | 29 | 85.3 | 9.4 | | |
| Employment status of mother | | | | | | | |
| Agricultural worker*** | 2 | 3.9 | 49 | 96.1 | 14.2 | | |
| Other workers | 2 | 20.0 | 8 | 80.0 | 2.8 | 8.11 | 0.017 |
| Housewife | 61 | 20.5 | 236 | 79.5 | 83.0 | | |
| Employment status of father | | | | | | | |
| Employed | 57 | 18.4 | 253 | 81.6 | 86.6 | 0.08 | 0.93 |

| | | | | | | | |
|-------------------------------------|----|------|-----|------|------|------|-------|
| Unemployed | 8 | 16.7 | 40 | 83.3 | 13.4 | | |
| Income level | | | | | | | |
| Income is less than expenditure | 37 | 17.1 | 180 | 82.9 | 60.6 | | |
| Income is equivalent to expenditure | 23 | 18.1 | 104 | 81.9 | 35.5 | 3.08 | 0.21 |
| Income is more than expenditure | 5 | 35.7 | 9 | 64.3 | 3.9 | | |
| Social security status | | | | | | | |
| Yes | 48 | 21.5 | 175 | 78.5 | 62.3 | 3.93 | 0.047 |
| No | 17 | 12.6 | 118 | 87.4 | 37.7 | | |
| Family type | | | | | | | |
| Extended | 23 | 19.3 | 96 | 80.7 | 33.2 | 0.06 | 0.79 |
| Nuclear | 42 | 17.6 | 197 | 82.4 | 66.8 | | |

*Row percentage, **Column percentage, ***Differential group,

Table 2. Distribution of obstetric features by exclusive breastfeeding status for the first 6 months

| Characteristics | Exclusive breastfeeding status | | | | %** | X ² | P |
|----------------------------------|--------------------------------|------|--------|-------|------|----------------|------|
| | Yes | | No | | | | |
| | Number | %* | Number | %* | | | |
| Type of delivery | | | | | | | |
| Normal | 42 | 21.2 | 156 | 78.8 | 55.3 | 2.34 | 0.12 |
| caesarean | 23 | 14.4 | 137 | 85.6 | 44.7 | | |
| Sex of the infant | | | | | | | |
| Female | 29 | 16.1 | 151 | 83.9 | 50.3 | 0.76 | 0.38 |
| Male | 36 | 20.2 | 142 | 79.8 | 49.7 | | |
| Place of birth | | | | | | | |
| Other | 65 | 18.3 | 291 | 81.7 | 99.4 | **** | 1.00 |
| Home birth | 0 | 0.0 | 2 | 100.0 | 0.6 | | |
| Follow-up at FHC | | | | | | | |
| Yes | 61 | 18.8 | 264 | 81.2 | 90.8 | 0.50 | 0.48 |
| No | 4 | 12.1 | 29 | 87.9 | 9.2 | | |
| Follow-up at public hospital | | | | | | | |
| Yes | 34 | 17.2 | 164 | 82.8 | 55.3 | 0.16 | 0.68 |
| No | 31 | 19.4 | 129 | 80.6 | 44.7 | | |
| Follow-up at university hospital | | | | | | | |
| Yes | 3 | 15.8 | 16 | 84.2 | 5.3 | **** | 1.00 |
| No | 62 | 18.3 | 277 | 81.7 | 94.7 | | |
| Follow-up at private hospital | | | | | | | |
| Yes | 42 | 17.1 | 203 | 82.9 | 68.4 | 0.34 | 0.55 |
| No | 23 | 20.4 | 90 | 79.6 | 31.6 | | |
| Planned pregnancy status | | | | | | | |
| Yes | 51 | 16.9 | 251 | 83.1 | 84.4 | 1.58 | 0.20 |
| No | 14 | 25.0 | 42 | 75.0 | 15.6 | | |

*Row percentage, **Column percentage, ****Fisher's Final Chi-Square Test

97.7% of the mothers have breastfed their infants for a while. The median number of breastfeeding per day in the first 6 months is 8. In the study, exclusive breastfeeding level was found to be 31.0% in 0-5 month's infants, 14.3% in 6-11 months infants, 16.2% in 12-17 months children, 14.8% in 18-24 months children. Exclusive breastfeeding level in 6-24 month infants and children is 15.0%.

When the effects of socio-demographic characteristics on exclusive breastfeeding status were examined, it was found that the level of exclusive breastfeeding was lower in agricultural workers than that of the housewives and other workers, and that the level of exclusive breastfeeding was lower in those without social security than those with social security ($P < 0.05$). The effect of the mother's educational status, employment status of the father, the level of income and the type of family on the exclusive breastfeeding status was not shown (Table 1).

The median birth weight of infants is 3100 grams. The median number of children of women is 3. 44.7% of deliveries were caesarean delivery and 99.4% of them were performed in a health institution. 50.3% of infants are female. Pregnancy follow-up was performed to all mothers in at least one or more institutions. Pregnancy follow-up was performed 90.8% in family health center, 68.4%

in private hospital, 55.3% in public hospital and 5.3% in university hospital. 84.4% of pregnancies were performed as planned. The effect of obstetric features used in the research was not only shown on exclusive breastfeeding status (Table 2).

77.1% of women did not receive professional counseling/support about breast milk and breastfeeding in the prenatal period, and 74.3% of them did not receive it in the postnatal period. 14.8% of women received prenatal breastfeeding counselling from primary health institutions, 8.1% of them received it from secondary and tertiary health institutions. The infants of mothers receiving breastfeeding counselling from primary care institutions have higher exclusive breastfeeding level ($P < 0.05$). Information sources of women other than health care personnel are 81.8% family elders, 16.2% neighbour-friends, 15.4% Internet, 9.2% television, 5.6% social media, 2.5% newspaper-journal, 3.1% brochure-booklet and 21.2% their own experiences. Exclusive breastfeeding level is higher in infants of women who said that they benefited from brochure-booklet ($P < 0.05$). 74.0% of women has experience in breastfeeding, 67.9% of them sees much/too much information about breast milk and breastfeeding (Table 3).

Table 3. Distribution of some characteristics of breast milk and breastfeeding according to exclusive breastfeeding status for the first 6 months

| Characteristics | Exclusive breastfeeding status | | | | %** | X ² | P |
|---|--------------------------------|------|--------|------|------|----------------|--------|
| | Yes | | No | | | | |
| | Number | %* | Number | %* | | | |
| Mother's knowledge level | | | | | | | |
| Very low | 2 | 18.2 | 9 | 81.8 | 3.1 | | |
| Low | 17 | 16.3 | 87 | 83.7 | 29.1 | | |
| High | 35 | 18.8 | 151 | 81.2 | 52.0 | 0.33 | 0.95 |
| Very high | 11 | 19.3 | 46 | 80.7 | 15.9 | | |
| Breastfeeding experience | | | | | | | |
| Yes | 50 | 18.9 | 215 | 81.1 | 74.0 | 0.18 | 0.66 |
| No | 15 | 16.1 | 78 | 83.9 | 26.0 | | |
| Prenatal breastfeeding counselling receiving status | | | | | | | |
| Primary*** | 19 | 35.8 | 34 | 64.2 | 14.8 | | |
| Secondary-Tertiary | 8 | 27.6 | 21 | 72.4 | 8.1 | 16.47 | <0.001 |
| Not receiving | 38 | 13.8 | 238 | 86.2 | 77.1 | | |
| Learning from a family elder | | | | | | | |
| Yes | 54 | 18.4 | 239 | 81.6 | 81.8 | 0.01 | 0.91 |

| | | | | | | | |
|--|----|------|-----|------|------|-------|-------|
| No | 11 | 16.9 | 54 | 83.1 | 18.2 | | |
| Getting information from a neighbor-friend | | | | | | | |
| Got | 8 | 13.8 | 50 | 86.2 | 16.2 | 0.57 | 0.45 |
| Did not get | 57 | 19.0 | 243 | 81.0 | 83.8 | | |
| Getting information from a newspaper-journal | | | | | | | |
| Got | 1 | 11.1 | 8 | 88.9 | 2.5 | **** | 1.00 |
| Did not get | 64 | 18.3 | 285 | 81.7 | 97.5 | | |
| Getting information from social media | | | | | | | |
| Got | 3 | 15.0 | 17 | 85.0 | 5.6 | **** | 1.00 |
| Did not get | 62 | 18.3 | 276 | 81.7 | 94.4 | | |
| Getting information from the Internet | | | | | | | |
| Got | 11 | 20.0 | 44 | 80.0 | 15.4 | 0.03 | 0.84 |
| Did not get | 54 | 17.8 | 249 | 82.2 | 84.6 | | |
| Getting information from TV | | | | | | | |
| Got | 9 | 27.3 | 24 | 72.7 | 9.2 | 1.41 | 0.23 |
| Did not get | 56 | 17.2 | 269 | 82.8 | 90.8 | | |
| Learning from a brochure-booklet | | | | | | | |
| Learned | 5 | 45.5 | 6 | 54.5 | 3.1 | **** | 0.032 |
| Did not learn | 60 | 17.3 | 287 | 82.7 | 96.9 | | |
| Benefiting from her own experience | | | | | | | |
| Benefited | 11 | 14.5 | 65 | 85.5 | 21.2 | 0.594 | 0.441 |
| Did not benefit | 54 | 19.1 | 228 | 80.9 | 78.8 | | |

As the first food, 63.7% of newborns are given breast milk, 32.4% formula, 2.8% sugared water, 1.1% water. Level of starting breastfeeding within the first half hour is 33.5%. 61.5% of mothers did not start breastfeeding in the first half hour because of the health problems in mother or infant, 23.5% of them did not start it because milk did not come. Healthcare personnel helped 9.4% of the first breastfeeding. 90.8% of women stated they breastfed at night, 22.9% stated they did not use pacifier-baby bottle, 96.1% stated their spouses supported their breastfeeding.

Receiving postnatal breastfeeding counselling, starting breastfeeding within the first half-hour, breastfeeding at night and not using pacifier-baby bottle affect exclusive breastfeeding status positively ($P < 0.05$) (Table 4).

41.0% of mothers who did not continue to breast-feed exclusively with breast milk for the first 6 months stated the milk is not enough, 35.8% stated they thought their infants were thirsty, 7.2% stated the infant left sucking, 4.1% stated they had health problems, 3.8% stated healthcare professional recommended it, 2.7% stated they have never breastfed, 2.0% stated they became pregnant

again, 1.4% stated it is time to start complementary food, 0.7% stated their spouses did not want, 0.7% stated their infants had health problems, 0.3% stated they started to work, 0.3% stated the milk damages the infant.

The first nutrient mothers started as complementary food is 68.7% formula, 11.3% yogurt, 10.4% other milks (cow and goat milk), 3.5% soup, 3.0% vegetable/fruit puree, 1.7% custard, 0.4% cheese, 0.4% egg, 0.4% tea.

The level of the mothers who know how long the milked breast milk can be stored at room temperature, in the refrigerator and in the freezer is 2.8%, 6.4%, 5.0%, respectively.

The number of daily breastfeeding was found to be higher in the ones who breastfed exclusively with breast milk ($P < 0.05$). The effects of variables such as maternal age, number of children, gestational week, birth weight, etc. on the exclusive breastfeeding were not shown (Table 5).

In the logistic regression model where independent variables affecting exclusive breastfeeding status are evaluated together, while being agricultural worker negatively

Table 4. Distribution of some variables related to the post-partum period according to exclusive breastfeeding status for the first 6 months

| Characteristics | Exclusive breastfeeding status | | | | | X ² | P |
|--|--------------------------------|------|--------|-------|------|----------------|-------|
| | Yes | | No | | %** | | |
| | Number | %* | Number | %* | %** | | |
| Postnatal breastfeeding counselling receiving status | | | | | | | |
| Yes | 24 | 26.1 | 68 | 73.9 | 25.7 | 4.54 | 0.033 |
| No | 41 | 15.4 | 225 | 84.6 | 74.3 | | |
| The first food given postnatal | | | | | | | |
| Breast milk | 46 | 20.2 | 182 | 79.8 | 63.7 | 1.36 | 0.24 |
| Other foods | 19 | 14.6 | 111 | 85.4 | 36.3 | | |
| First time to start breastfeeding | | | | | | | |
| Within the first half hour*** | 32 | 27.1 | 86 | 72.9 | 33.5 | | |
| Within ½ hour-1- hour | 12 | 22.2 | 42 | 77.8 | 15.3 | 13.67 | 0.003 |
| 2 hours and later | 20 | 11.6 | 152 | 88.4 | 48.9 | | |
| The infant has never sucked | 0 | 0.0 | 8 | 100.0 | 2.3 | | |
| First person who helped breastfeeding | | | | | | | |
| Healthcare personnel | 11 | 33.3 | 22 | 66.7 | 9.4 | | |
| Other | 44 | 17.5 | 207 | 82.5 | 71.7 | 5.446 | 0.06 |
| Alone | 10 | 15.2 | 56 | 84.8 | 18.9 | | |
| Breastfeeding at night status | | | | | | | |
| Yes | 65 | 20.0 | 260 | 80.0 | 90.8 | 6.77 | 0.009 |
| No | 0 | 0.0 | 33 | 100.0 | 9.2 | | |
| Pacifier-baby bottle using status | | | | | | | |
| Yes | 39 | 14.1 | 237 | 85.9 | 77.1 | 11.98 | 0.001 |
| No | 26 | 31.7 | 56 | 68.3 | 22.9 | | |
| Spouse support | | | | | | | |
| Yes | 64 | 18.6 | 280 | 81.4 | 96.1 | **** | 0.48 |
| No | 1 | 7.1 | 13 | 92.9 | 3.9 | | |

Table 5. The level of some characteristics according to exclusive breastfeeding status for the first 6 months

| Characteristics | Median (lowest-highest) | MWU | P |
|-----------------------------|-------------------------|--------|-------|
| Maternal age | | | |
| The ones who receive | 28 (18-46) | 9091.0 | 0.567 |
| The ones who do not receive | 27 (17-51) | | |
| Number of children | | | |
| The ones who receive | 3 (1-9) | 9035.0 | 0.510 |
| The ones who do not receive | 3 (1-13) | | |
| Gestational week | | | |
| The ones who receive | 39 (36-40) | 8391.0 | 0.113 |
| The ones who do not receive | 39 (34-41) | | |

| | | | | | |
|-------------------------------|------------------|--|--------|--|--------|
| Birth weight | | | | | |
| The ones who receive | 3200 (1500-4300) | | 8822.0 | | 0.352 |
| The ones who do not receive | 3100 (1350-4800) | | | | |
| Number of daily breastfeeding | | | | | |
| The ones who receive | 10 (7-15) | | 4118.5 | | <0.001 |
| The ones who do not receive | 8 (3-15) | | | | |

Table 6. Logistic regression model of factors affecting exclusive breastfeeding status for the first 6 months

| Variables | B | Standard deviation | P | O.R | 95% Confidence Interval |
|---|-----|--------------------|-------|-----|-------------------------|
| Mother's Work (Agricultural Worker) | 1.6 | 0.7 | 0.031 | 5.2 | 1.1-23.4 |
| Prenatal breastfeeding counselling (not receiving from primary healthcare institutions) | 1.4 | 0.3 | 0.000 | 4.1 | 1.9-8.8 |
| Breastfeeding frequency (continuous) | 0.3 | 0.07 | 0.000 | 0.6 | 0.5-0.7 |
| Pacifier-baby bottle use (Yes) | 1.0 | 0.3 | 0.002 | 2.7 | 1.4-5.2 |

affects the exclusive breastfeeding status for the first 6 months by 5.2 times, using the pacifier-baby bottle by 2.7 times, not receiving prenatal breastfeeding counselling from primary healthcare institutions by 4.1 times; 1 unit increase in the number of daily breastfeeding affects 1.6 times positively (Table 6).

4. Conclusion

The research region is a place where agricultural workers and poor families live intensively. A significant portion of the participants does not have social security and regular work.

Breastfeeding level of mothers for a period is 95.0% in the world, 78.8% in high-income countries, 95.6% in middle-income countries and 97.6% in low-income countries⁸. In all across Turkey, it is 96.0% according to the TDHS-2013 data⁷. The results of this research were found to be high as indicated in the literature.

Breastfeeding is the first and most important step in healthy nutrition. According to TDHS 2013, 74.0% of the infants in Turkey first breastfed with breast milk⁷. Level of postnatal breastfeeding with breast milk firstly is found in the range of 76.3% and 87.9% in other studies conducted in Turkey⁹⁻¹¹. From different countries; it is reported as 77.5% in TRNC, and 75.0% in the USA^{12,13}. In this research, although almost all mothers gave birth in a health institution, only 63.7% of them started feeding their infants with breast milk first. That's probably because of the delay in first breastfeeding. As a matter of

fact, 48.9% of the mothers performed their first breastfeeding after the first 1- hour post-partum in this study.

Mother's giving breast milk to her infant within the first hour after delivery is called early initiation of breastfeeding⁶. Starting breastfeeding early protects the infant against infections, reduces neonatal deaths and increases the chance of successful breastfeeding¹⁴. 45.0% of newborns across the world are given breast milk within 1- hour¹⁵. This level was indicated as 50.0% in all across Turkey according to TDHS 2013; it was found by Gümüştakım et al., as 83.0%, by Yetim et al., as 70.4%, by Ünsal et al., as 71.8%^{7,16-18}. Late initiation of breastfeeding is quite high in this research region. However, the fact that the majority of mothers try to breastfeed their infants may create important opportunities for the actions to be taken to improve this negativity.

In this study, mothers who started breastfeeding late stated the reasons for it as having health problems in the infant, having health problems in herself, not coming of breast milk. This research is similar to the research of Ünsal et al., in regard to reasons of late breastfeeding¹⁸. Çalık et al. showed the reasons for late breastfeeding as the infant did not want to suck the mother with a maximum of 54.6% and the milk did not come with 21.6%⁹. Different reasons for breastfeeding delay can be determined in different researches. However, healthcare personnel's not leaving the mother alone in the first moments of post-partum despite all kinds of problems becomes determinative for both the newborn and the mother to take appropriate care and initiating the first breastfeed-

ing properly. Therefore, the support of healthcare personnel in the first breastfeeding is considered to be one of the important steps of successful breastfeeding^{8,19}. On the other hand, Ünsal et al., reported that caesarean delivery delayed the first breastfeeding period in their study¹⁸. A similar situation can be said to be valid for the study of Yetim et al.,¹⁷. Pain in the surgery site after caesarean is reported as a condition that delays mother-infant contact, decreases breastfeeding success in mothers due to the difficulty of holding the infant in the lap^{20,21}.

In the study, exclusive breastfeeding level for the first 6 months was found to be considerably below the results of TDHS 2013 data (30.1%) and the studies conducted in Manisa (56.4%) and Van (47.9%)^{7,11,22}. It is observed that breastfeeding level is high in the research region for a while, but exclusive breastfeeding for the first 6 months cannot be maintained. The low education level of women participating in the study may have an impact on this situation¹¹.

One of the main reasons for the mothers' early start of complementary food rather than using exclusively breast milk for the first 6 months is the idea that milk is insufficient for infants^{16,17,23}. In the research, it was determined that the biggest reason for the breakdown of exclusive breastfeeding status for the first 6 months was the idea that the milk of mothers is not enough. Though about 50% of women think that their milk is not enough for their infants, only milk of 5% of them is not enough²⁴. The second major reason for the breakdown of exclusive breastfeeding status for the first 6 months is that mothers begin to give water to their infants. The warm climate of Şanlıurfa leads mothers to the idea of giving water to their infants. However, even in the hottest countries, there is no need for water in exclusively breastfed infants²⁵.

On the other hand, an infant's stomach capacity is 5-7 ml when he was born, 45-60 ml in the first week and 80-150 ml in the first month²⁶. Giving water to the infant before the 6th month causes the water to replace breast milk, which is the most favorable nutrient, and infants to suck their mothers less²⁵.

The most important way to deal with these problems is to increase the frequency of breastfeeding. Increased breastfeeding will ensure adequate milk production and ensure that the baby receives sufficient breast milk and sufficient water²⁷. Therefore, it will be easier to continue breast feeding. As a matter of fact, it is made clear in this research that the increase in the number of daily breast-

feeding is a factor that increases the level of exclusive breastfeeding for the first 6 months.

In the research, women who are agricultural workers constituted 83.6% of all working women. The research region is striking that the women working in the agricultural sector are far above the TDHS 2013 results, which is reported as 24.0%⁷. In the research, it was determined that the mother's being agricultural worker had a negative impact on exclusive breastfeeding for the first 6 months by 5.2 times. In the study of Demirli Yıldız, it was indicated that families who are agricultural workers had problems on the breastfeeding process²⁸. Women in the agricultural sector often suffer from financial impossibility because they are unpaid family workers or work in return for low income²⁹. In addition, they are not able to access health services due to insufficient transportation facilities, geographic and social isolation, frequent displacement and lack of knowledge of Turkish³⁰.

The use of pacifiers and baby bottles in the community has almost become a cultural habit³¹. However, it has been found that the use of pacifier and baby bottle adversely affects the breastfeeding process and decreases the level of exclusive breastfeeding for the first six months^{18,32,33}. Use of pacifiers and baby bottles causes oral motor dysfunction, difficulty in grasping the breast and rejecting the mother's breast in the infant⁹. In this research, the use of pacifier and baby bottle was found to be higher than the level (30.3%) indicated in the study of Turan et al., and this was determined to have an adverse effect on the level of exclusive breastfeeding for the first 6 months²². The results make it important to fight against the use of pacifiers and baby bottles.

At least 4 times qualified follow-up within the scope of Prenatal Care Management Guide should be done to all pregnant women in Turkey. Counselling for breastfeeding and feeding with breast milk should be given particularly during the last trimester^{34,35}. In this study, all of the mothers were followed-up in at least one institution; however, only one out of five have been given breast milk and breastfeeding counselling. It has been determined that receiving counselling from primary healthcare institutions, despite the insufficient level, has positively affected exclusive breastfeeding for the first 6 months^{36,37}. Counselling support prevents early supplementation of food by preventing insufficient milk perception in mothers³⁸. Breastfeeding counselling is a very important primary healthcare service in order for the mother to be

prepared for the situations she will face in the breastfeeding process and to get support for the problems she cannot overcome. Considering the educational status of the women participating in the study, it is understood that counselling service is important and indispensable.

Conclusion and Recommendations

The research region is a region where agricultural workers live intensively and most of the women have not completed their primary education. The majority of the participants used breast milk for a while in their infants' nourishment, but could not maintain feeding with breast milk only for the first 6 months. There is no adequate counselling on breastfeeding and breast milk in health institutions. On the other hand, primary healthcare institutions are found to be more successful in breast milk and breastfeeding counselling.

For enhancing the levels of exclusive breastfeeding for the first 6 months, it would be beneficial to develop and popularize counselling services integrated to prenatal care according to problems and to make these services more accessible by taking into consideration the problems of women who are seasonal agricultural workers.

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