

ANALYSING THE VIEWS OF TURKS AND ARABS ON HUMAN MILK BANKING

Abstract

Human milk is an important source of food for a new born baby to grow up in a healthy manner. World Health Organisation points to the importance of feeding on human milk and ranks it as the first source of nutrition.

This paper aims to analyse the views of Turkish and Saudi Arabian citizens' views on human milk banking comparatively. The research sample was composed of 184 individuals who lived in Turkey and 385 individuals who lived in Riyadh- the capital of Saudi Arabia. The participants were given the survey form on human milk banking. Mann Whitney U test was used in comparing the differences of independent groups for two-class data whereas Kruskal Wallis H test was used for multi-class data and Hochberg GT2 test was used in finding which groups had the source of difference. It was concluded that there were no differences between Turks' and Arabs' views on human milk banking and that they both had negative attitudes towards milk brotherhood.

Key Words: Human milk, human milk banking, milk sibling, human milk bank, ethics, Turkey, Saudi Arabia.

INTRODUCTION

One of the fundamental conditions for lifelong health- beginning with babyhood period- is healthy nutrition. Normally, new born babies are first fed with their mother's milk. Human milk is considered sacred in many beliefs and it is known that every mammal's milk is for its youngers and that it meets all the needs of new-borns with its content [1]. Human milk, which can meet all the physiological and psychosocial needs of babies, is considered to be the most ideal food for babies [2]. The mortality rate of babies who are fed with human milk was found to drop compared to babies who are not fed with human milk and to be protected from illnesses better [3].

World Health Organisation insists that babies should be fed only with human milk during the first 6 months and they should be fed with human milk in combination with additional food until the end of month 24 [4]. while some babies are fed with human milk following birth, the situation may be different for some other babies. Some mothers' milk production may diminish or stop due to stress. Such situations as failure to breastfeed or refusal to suck on the part of babies can also arise due to the mother's death, undeveloped sucking reflex or not having habit of feeding bottle [5]. Mothers resort to different ways when they cannot feed their baby with their milk, and they choose milk sharing through the internet or social media. Human milk banks serve as important sources in providing food for babies [6]).

Human milk bank is defined in several ways. Accordingly, the institutions which collect human milk in medical techniques, preserve it in certain circumstances and deliver it to babies in need through donation or by selling are called human milk banks [7]. Considering the risks of unofficially shared milk or of the formulised baby food, the fact that the benefits of human milk outweigh and that it is a unique source of nutrition for babies causes some parents to obtain unpasteurised milk in unofficial ways [8].

American Academy of Pediatrics (AAP) maintains that all the preterm babies should be fed with human milk and that they should be given unpasteurised donation milk in case they cannot be given human milk for some reasons. Although the importance of human milk

is argued in medical studies, formulised baby food produced especially for premature babies in the 1980s is still used today-even though it is not used today as much as in the period it was produced [9].

Different societies have different perspectives of human milk banks due to the fact that they have different cultures and religions. Individuals belonging in the same culture and the same religion also differ in their views on human milk banking for social, economic and religious reasons.

CONCEPTUAL FRAMEWORK

The fact that there were sanctions about wet nursing in Mede and Persian law in 2250 B.C, that milk mothers fed babies whose mother died according to certain criteria in Gokturks indicated that the concept of wet nursing dated back to old times in history. Theodor Escherich founded the first human milk bank in 1909 in Vienna arguing that the mortality rate was high among babies who are fed with food apart from human milk [10]. Human milk banking association of north America (HMBANA) was founded in 1985 and European milk bank association (EMBA) was found in 2010 in Milano, and thus the number of human milk banks increased throughout the world. There were 238 active human milk banks in Europe and there were plans to open 15 more [11].

It is known to us that EMBA mentions certain rules that donators need to obey so that the banks to be opened can come into operation. Some of the conditions that are not found appropriate by EMBA for donators are listed as using unapproved or pleasure-giving drugs, smoking or vaping, having blood transfusion recently, having tattoos or piercing, having vegan diet without B12 support, having a spouse/partner with risk of a venereal disease [12].

The greatest system of human milk banking is in Brazil. The ministry of Health considers those banks as a part of health policy in the country- as in France, Germany and Scandinavian countries [13]. The practice- which has become widespread in several countries- is a controversial issue in Turkey due to such factors as traditional and religious beliefs, ethical problems, families' concerns about the reliability of the donor milk and inadequate knowledge [14].

Kinship ties are formed between woman who breast feeds a baby and the baby who sucks the woman's breast. Thus, the woman is called "milk-mother" and the baby as "milk child/foster child". In addition to that, the babies with different fathers but are fed by the same woman's breast milk are considered as milk-brothers/milk-sisters. This type of kinship- which is set up by being fed with the same human milk- is not limited to the woman who breast feeds the baby and the baby who is fed in this way, and thus, marriage between the relatives of both sides is unacceptable. That is to say, there is obstacle for marriage between sides between which there are no blood or marriage ties due to being fed with the same woman's milk [15].

One of the most important reasons why human milk banking is discussed is the issue of milk brotherhood and milk kinship. High Council for Religious Affairs analysed the issue in 2012 and shared the emerging views and interpretations with the public. Thus, it was argued that it would be more appropriate to develop centres for milk mothers because human milk banking was controversial issue in Islamic law [7, 16].

Ekşioğlu et al [17] report in the study entitled "Mothers' Views on Human Milk Banks: A Case in Izmir" that the majority of the mothers are positive about opening human milk banks and donating human milk. Dorum and Okumuş [18], in a study conducted with the inclusion of 154 mothers of risky babies, found that 50% of the mothers said that could donate their milk. It was also found by Erenel et al [19] in a study conducted in Ankara and Malatya

with the participation of 344 nurses, midwives and doctors that doctors' levels of knowledge about human milk banks was significantly higher than the others. Geçer [20] analysed the thoughts of midwives, nurses, doctors working in a public hospital and of mothers on human milk banks and milk mothers. The researchers stated that all of the participants knew about the benefits of human milk, that the most commonly known benefit was helping to strengthen babies' immunity system and protecting them against illnesses.

Aygör and Düdükçü [2], in their study entitled "Analysing Nursing Students' Views on Human Milk Banking", found that the students were indecisive in several respects despite supporting the establishment of human milk banks. Ünülü and Can [21], on the other hand, found that the mothers who were included in the study did not have adequate knowledge about human milk banking and that they had concerns about milk motherhood. They suggest that mothers should be offered training, social consciousness should be raised, awareness of the importance of human milk should be raised, concerns (safety, religious concerns, etc.) should be considered in detail and ways to solve the problems should be put forward. In the study entitled "Human Milk Sharing and Human Milk Banking", Keskindemirci [22] point to the fact that there are no actively operating human milk banks in our country even though there are attempts at opening such banks.

Human milk banking can be said to be a controversial issue on considering the views held by experts in Islamic law. There are experts who argue that the action of breast feeding should occur so that milk motherhood can occur that the ties can be set up between the baby and the mother only in this way in addition to experts who say that there is no definitive judgement in the Holy Qur'an to show how milk motherhood can occur and experts who claim that care should be taken in this respect due to the fact that there are no definitive judgement in the Holy Qur'an because marriage between milk brothers and sisters is forbidden in Islam [23, 7]. Literature review demonstrated that there were differences in views concerning the practice of human milk banking.

RESEARCH METHODOLOGY

Purpose

This study aims to analyse the views of Turkish and Saudi Arabian citizens' views on human milk banking comparatively. Adhering to this purpose, the study makes an attempt to demonstrate the attitudes of participants in Muslim countries where there are no human milk banks towards human milk banking and to analyse and find whether or not there are any differences between their knowledge and views according to demographic features. The research problem was formulated as "are there any differences between Turkish and Saudi Arabian citizens' views on human milk banking?"

Method

This study employs survey method- one of the quantitative designs. The literature was reviewed in accordance with the general purpose of the study and relevant variables were determined. The scale to be used was created on the basis of the variables which were determined. The validity and reliability of the scale was tested. Factor analysis, Spearman's correlation analysis and Cronbach's Alpha coefficient were used in reliability analyses. It was concluded following the analyses that the scale was valid and reliable. The evaluation intervals for Cronbach's Alpha coefficient were classified as: $0.00 \leq \alpha < 0.40$ as unreliable, $.40 \leq \alpha < 0.60$ as low reliability, $0.60 \leq \alpha < 0.80$ as quite reliable and as $0.80 \leq \alpha < 1.00$ high reliability by [24]. A pilot scheme was conducted with 35 participants at the first stage of the study. Cronbach's Alpha was found as 0.851 for data collected in Turkey, as 0.849 for data

collected in Saudi Arabia and as 0.848 in general. The scale was found to have high reliability according to the results and the research data were collected.

The scale used in the study was composed of two parts and 35 items. Part one included questions on participants' demographic information while part two contained questions intended to obtaining participants' views on human milk banking. The statements about views on human milk banking were in 5-pointed Likert type (1: I absolutely agree, 2: I agree, 3: I have no ideas, 4: I disagree, 5: I absolutely disagree). The survey was prepared in Turkish and in English and the survey forms were shared digitally for completion by participants.

The research population was composed of individuals who lived in Turkey and in Riyadh- Saudi Arabia. Sampling was made in the research due to factors of time and cost. The research data were collected in convenience sampling and snowball methods. 385 participants who lived in Turkey were reached in convenience sampling and snowball sampling methods on the digital platform through the survey. Initially, Turkish citizens who lived in Riyadh- the capital of Saudi Arabia- were reached so as to be able to collect the data in Saudi Arabia. The scale which was prepared in English and whose reliability was tested was sent to the Turkish citizens in Riyadh digitally. The survey was given to 184 Saudi participants by means of Turkish citizens who lived and worked in Riyadh by using convenience sampling and snowball methods. The working data were collected in January 2019. For the research in Turkey, 385 participants were considered adequate to represent the population of up to 100 million participants with 95% reliability taking the sample sizes accepted for certain populations into consideration [25]. For the research conducted in Riyadh, on the other hand, a sample of 184 participants was considered adequate for a scale of 35 items by taking the limited time into account and by considering the recommendation made in the scale development literature that five or ten times more participants than the number of items in a scale should be given the scale.

Shapiro Wilk and Kolmogorov Smirnov tests were used to test whether or not the research data had normal distribution. It was found as a result that the data did not have normal distribution ($p < 0.000$). Mann Whitney U test was used for two-class data in comparing the differences between independent groups whereas Kruskal Wallis H test was used for multi-class data and Hochberg GT2 test was used to find the groups with the sources of differences.

Research Hypotheses

Totally 6 hypotheses, 1 of which was the main hypothesis and 5 of which were the sub-hypotheses- were made in order to demonstrate the views of 569 participants- 385 of whom were Turks and 184 of whom were Arabs- concerning human milk banks.

H1: There are significant differences between Turkish and Arab participants' views on human milk banking.

H1₁: There are significant differences between participants' views on human milk banking according to gender.

H1₂: There are significant differences between participants' views on human milk banking according to age.

H1₃: There are significant differences between participants' views on human milk banking according to their level of education.

H1₄: There are significant differences between participants' views on human milk banking according to their marital status.

H1₅: There are significant differences between participants' views on human milk banking according to whether or not they have any children.

FINDINGS

The descriptive statistics for the demographic features, the averages and standard deviations for the variables were analysed comparatively and the hypotheses were tested in the section of research findings.

Demographic Information

In line with the purpose of this study, the demographic data are presented comparatively here. According to the data collected in Turkey, 70.9% of the participants were female while 29.1% were male; 64.2% of them were married and 35.8% were single; 53.5% had children and 46.5% did not have any children. Of the participants with children, 23.6% had 1 child, 22.1% had 2 children, 7.3% had 3 children, 0.5% had 4 children. 24.9% were in 30-34 age group whereas 22.3% were in 25-29 age group, 20.3% were in 35-39 age group, 20.3% were aged 40 or above and 12.2% were aged 25 or below. 63.9% of the Turkish participants were university graduates while 21.0% had post-graduate education, 11.4% were high school graduates, 2.6% were secondary school graduates and 1.0% were illiterate. According to the data collected in Saudi Arabia, 47.3% of the participants were female while 52.7% were male; 60.3% were married, 39.7% were single; 56.5% had children, of them 20.7% had 1 child, 19.0% had 2 children, 11.4% had 3 children, 3.3% had 4 children and 2.2% had 5 children. As to their age, 42.9% of the Saudi participants were aged 25-29, 23.4% were aged 30-34, 11.4% were aged 40 or above and 10.9% were aged 25 or below. Of the participants, 76.6% were university graduates, 16.3% had post-graduate education, 6.0% were high school graduates and 1.1% were secondary school graduates. Considering the number of data collected in Turkey and in Saudi Arabia proportionally, they can be said to be similar in terms of demographic features.

Table 1: The Averages and Standard Deviations for the Scale Variables

| Variables | Turkish participants | | | Arab participants | | |
|--|----------------------|-------|-----|-------------------|-------|-----|
| | \bar{x} | S.S | n | \bar{x} | S.S | n |
| Human milk strengthens immunity system and it protects babies against infections. | 4.91 | .363 | 385 | 4.78 | .529 | 184 |
| Babies who are fed with human milk become ill less frequently than the ones who are fed with baby food. | 4.58 | .732 | 385 | 4.35 | .941 | 184 |
| Today mothers who do not have milk in their breasts try to obtain human milk via the internet from people they know. | 3.08 | .808 | 385 | 3.05 | .957 | 184 |
| There is risk for some diseases to be transmitted through human milk. | 3.43 | 1.090 | 385 | 3.59 | 1.103 | 184 |
| Donation milk can be an alternative in the absence of a mother's own milk. | 3.36 | 1.132 | 385 | 3.57 | 1.027 | 184 |
| Human milk obtained from human milk banks can be preferred to baby food when babies cannot get milk from their mother. | 3.26 | 1.162 | 385 | 3.34 | 1.054 | 184 |

| | | | | | | |
|---|------|-------|-----|------|-------|-----|
| The babies who are fed with donated human milk get the genetic characteristics of the donator. | 2.26 | .950 | 385 | 2.85 | 1.140 | 184 |
| The babies who are fed with donated human milk get the personality traits of the donator. . | 2.16 | .977 | 385 | 2.78 | 1.139 | 184 |
| I know what it means to be a milk mother. | 4.21 | .854 | 385 | 3.47 | .874 | 184 |
| Another mother's baby should be breastfed if need arises. | 3.88 | .992 | 385 | 3.81 | .888 | 184 |
| I know what it means to be milk brothers or sisters. | 4.33 | .664 | 385 | 4.13 | .850 | 184 |
| There should be milk brotherhood/sisterhood. | 2.14 | 1.255 | 385 | 2.33 | 1.174 | 184 |
| There is no problem in marriage between milk brothers and sisters. | 2.43 | 1.333 | 385 | 1.99 | 1.274 | 184 |
| Milk brotherhood/sisterhood occurs not only with breastfeeding from the same mother but also with feeding with the same human milk in a feeding bottle. | 3.50 | 1.263 | 385 | 3.28 | 1.204 | 184 |
| Milk brotherhood/sisterhood occurs as a result of feeding with human milk obtained from human milk banks. | 3.54 | 1.129 | 385 | 3.61 | .991 | 184 |
| It is forbidden for a Muslim baby to be fed with milk obtained from a human milk bank. | 2.54 | 1.222 | 385 | 2.95 | .996 | 184 |
| I know what a human milk bank is. | 3.75 | .895 | 385 | 3.93 | .875 | 184 |
| I consider human milk banking necessary. | 3.47 | 1.139 | 385 | 3.36 | 1.098 | 184 |
| I would like human milk banks to be available in the country where I live. | 3.51 | 1.212 | 385 | 3.36 | 1.127 | 184 |
| There should be human milk banks near new born care units.. | 3.70 | 1.210 | 385 | 3.61 | 1.096 | 184 |
| Human milk banks have positive effects on individuals, institutions and countries. | 3.41 | 1.014 | 385 | 3.52 | .969 | 184 |
| Human milk banks influence families' cost of baby feeding in positive ways. | 3.43 | 1.049 | 385 | 3.64 | .895 | 184 |
| The widespread of human milk banks should be supported. | 3.56 | 1.226 | 385 | 3.55 | 1.060 | 184 |
| Human milk banks should be within the body of hospitals. | 3.81 | 1.186 | 385 | 3.72 | 1.032 | 184 |
| Human milk banks can be independent enterprises outside hospitals. | 2.25 | 1.137 | 385 | 3.04 | 1.120 | 184 |
| The cost of donation milk obtained from human milk banks should be met by insurance companies. | 3.61 | 1.159 | 385 | 3.65 | 1.029 | 184 |
| It would be appropriate to use intensive care units where donators and receivers are introduced to each other instead of human milk banks. | 3.28 | 1.122 | 385 | 3.49 | .997 | 184 |
| Consultancy, support and training services should be provided in terms of human milk banking. | 4.04 | 1.020 | 385 | 3.93 | .918 | 184 |
| Today medical staff display supportive behaviour in terms of human milk banks and milk motherhood. | 3.31 | 1.026 | 385 | 3.23 | .786 | 184 |
| General information on human milk banks should be provided prior to birth. | 3.99 | 1.010 | 385 | 3.78 | .991 | 184 |
| The donated human milk cannot be sold in return for money in | 4.05 | 1.052 | 385 | 3.69 | 1.139 | 184 |

| | | | | | | |
|---|------|-------|-----|------|-------|-----|
| human milk banks. | | | | | | |
| Donation human milk can be used in hospitals when there is medical necessity even if families do not give written consent.. | 2.74 | 1.368 | 385 | 2.90 | 1.278 | 184 |
| Donators are paid for the donated human milk. | 2.45 | 1.067 | 385 | 3.11 | 1.151 | 184 |
| Mothers should be directed to human milk banks by medical staff. | 3.46 | 1.168 | 385 | 3.78 | 1.001 | 184 |
| The practice of milk motherhood is more appropriate than human milk banking. | 3.45 | 1.098 | 385 | 3.42 | .871 | 184 |

\bar{x} : Average S.S: Standard deviation n: sample

According to Table 1, Turkish and Arab participants' perceptions of human milk banking are similar. They both agreed to the variable "human milk strengthens immunity system and it protects babies against infections with the highest average" (\bar{x} :4.91). Turkish participants agreed to the variable "there should be milk brotherhood/sisterhood" (\bar{x} :2.14) and Arab participants agreed to the variable "there is no problem in marriage between milk brothers and sisters" (\bar{x} :1.99) with the lowest average. Accordingly, Turkish and Arab participants had negative attitudes towards milk brotherhood/sisterhood.

Testing the Hypotheses

Mann-Whitney U test was used in paired comparison of the variables related to the hypotheses while Kruskal Wallis H test was use in comparisons with more than two variables. In addition to that, Hochberg GT2 test was used in in groups with differences in variables to find the source of differences in groups. The significance level was accepted as 0.05 in the evaluation of the analyses.

H1: *There are significant differences between Turkish and Arab participants' views on human milk banking.*

It was found in analyses done to find whether or not there were any differences between Turkish and Arab participants' views on human milk banking- the main hypothesis of the study- that there were no significant differences between them ($p>0.05$; $p=0.27$). thus, both groups of participants were found to have similar views. Therefore, hypothesis H1 was refused.

H1₁: *There are significant differences between participants' views on human milk banking according to gender.*

The results of the analysis done to find whether or not there were any differences between Turkish and Arab participants' views on human milk banking according to gender showed that there were no significant differences between their views (Turkish participants $p>0.05$, $p=0.80$; Arab participants $p>0.05$, $p=0.629$). Thus, hypothesis H1₁ was refused.

H1₂: *There are significant differences between participants' views on human milk banking according to age.*

It was found through analyses done to find whether or not there were any differences between participants' views according to age that there were no differences between the participants' views according to age (Turkish participants $p>0.05$, $p=0.95$; Arab participants $p>0.05$, $p=0.32$). Thus hypothesis H1₂ was refused.

H1₃: There are significant differences between participants' views on human milk banking according to their level of education.

Significant differences were found between participants' views on human milk banking according to their level of education ($p < 0.05$; $p = 0.01$). Hochberg's GT2 test was done to find the groups with differences. As a result, it was found that there were significant differences between the views of secondary school graduates, high school graduates ($p = 0.001$), university graduates ($p = 0.003$) and graduates of post graduate education ($p = 0.044$). Therefore, hypothesis H1₃ was accepted.

H1₄: *There are significant differences between participants' views on human milk banking according to their marital status.*

As a result of the analyses done to find whether there were any differences between Turkish and Arab participants' views on human milk banking according to marital status, no significant differences were found (Turkish participants $p > 0.05$, $p = 0.31$; Arab participants $p > 0.05$; $p = 0.23$). In other words, both groups of participants had similar views. Thus, hypothesis H1₄ was refused.

H1₅: *There are significant differences between participants' views on human milk banking according to whether or not they have any children.*

The results of analysis done to find whether there were any differences between Turkish and Arab participants' views on human milk banking according to having or not having children demonstrated that there were no significant differences between their views according to this variable (Turkish participants $p > 0.05$; $p = 0.41$; Arab participants $p > 0.05$; $p = 0.46$).

CONCLUSION AND RECOMMENDATIONS

Human milk is of vital importance especially for new born babies. Milk should be provided from another mother in cases where a mother does not have milk or has insufficient milk. The concept of milk mother is as old as the history of humanity. Today, milk is provided by storing the milk obtained from certain mothers in hygienic conditions and by giving it to those who need it. Institutions are also observed to have biased attitudes towards financing baby food banks or human milk banks. Milk collected from donators are mixed and pasteurised in human milk banks. Besides, those banks keep the identity of donators confidential and do not share with others as their policy. Due to the fact that which mother the milk in human milk banks belongs to is not known, getting milk from human milk banks is considered as an obstacle for Muslim babies. Maman points out that such banks are not opened in Muslim countries because human milk obtained from those banks causes milk brotherhood/sisterhood [26, 27].

This study found that the two Muslim communities- that is to say, Turks and Arabs- had similar attitudes towards human milk banking. The participants from Turkey and from Saudi Arabia stated that human milk was important for babies, that it strengthened immunity system, that it protected babies against infections and that there was risk of disease transmission through human milk. They said that they were informed of human milk banking and that it might be an alternative in the absence of a mother's milk. Both the Turks and the Arabs had negative attitudes towards the issue of milk brotherhood/sisterhood. That is to say, they knew of the issue and were against it. The Turkish and Arab participants supported the spread of human milk banks. The majority of them held the view that human milk banking should be put into action on the condition that appropriate circumstances are available. Geçer

[20] analysed the views of midwives, nurses and doctors working in a public hospital and of the views of mothers who had just given birth to a baby on human milk banking and milk motherhood and found that the participants were informed of the benefits of human milk, that the most commonly known benefit was to strengthen immunity system and to protect babies against illnesses and that 63.4% of the health professionals and 46.5% of the mothers considered human milk banks as an alternative when mothers' milk is not available. The study also found that 77.1% of midwives, 60.0% of nurses and 59.1% said that the practice of milk motherhood should be available in Turkey rather than human milk banking and that 22.9% of midwives and 40.0% of doctors preferred to have milk banks in Turkey.

It became apparent on testing the hypotheses formulated in this study that there were no significant differences between Turkish and Arab participants' views on human milk banking. On the other hand, significant differences were found between the participants' views according to their demographic features but no significant differences were found according to gender, age and marital status. Thus, both groups of participants were observed to be similar in terms of demographic features. Aykut et al [28] found in a study conducted with the participation of 614 mothers that 56.2% of the participants said they could donate their milk to human milk banks while the participants who were negative about donation said that they had the concerns that milk brothers/sisters might have marriage in the future- which was not appropriate in religion. Ekşioğlu et al [17], on analysing the correlations between the participant women's levels of education and whether or not they wanted human milk banks to be available, found no statistically significant differences and accordingly the majority of the participants had concerns due to risk of contagious diseases and their religious belief even though they had positive perspectives of human milk banking. On the other hand, in a study conducted with the inclusion of 401 religious officials, Özdemir et al [29] reported that 63.3% of the participants held the view that milk might be obtained from human milk banks when a mother's milk was not available whereas 71.3% said that the milk obtained from such centres might be used if it is received from limited number of donators (3 donators) and if the milk from them is not mixed. Ergin and Uzun [30] conducted a study by reaching 240 mothers and found that 150 of the mothers had heard of human milk banking, that 55 approved of founding human milk banks and that 46 agreed to be donators. 76.8% of the others who refused to donate milk explained their reason for refusal with their concerns that there was probability of marriage between milk brothers and milk sisters. Maman [31], in a study conducted with married women aiming to obtain their knowledge of views on human milk banking, found that 77.1% of the women said that they wanted human milk banks to be available in the city where they lived and that the ones who did not want to use human milk banks thought that the milk obtained from such places belonged to strangers (40.4%), that it was inappropriate according to religion (35.2%) and that there was probability for babies to be infected by the milk obtained from those places (24.4%). Besides, 49.1% of the participants stated that they might obtain milk from a woman they knew in cases they could not breast feed their baby.

Interest in human milk banking has increased recently and various recommendations are made in studies conducted. Miracle et al [9] demonstrated that medical staff was not adequately knowledgeable about human milk banking and recommended that families should be explained nutrition alternatives from every aspect so that they could benefit from human milk banks and that the consent should be taken from the families who would like to use human milk banks. Brownell et al [32] point out that keeping records in those banks was an important ethical issue and that they would be used less because of violating the HMBANA rules unless the information on donators was recorded accurately.

Kadıoğlu and Hotun Şahin [5] argue that the ethical side was very important in human milk banking. They state that the project of human milk banking was on the agenda of the

Ministry of Health, that the project faced several criticisms and that the project could not be implemented due to the fact that infrastructure for it was not prepared adequately.

It was pointed out by the Ministry of Health that the infrastructure for the project would be strengthened and regulated in the way that the questions and concerns would be eliminated. The study argues that the regulation plans to receive milk from one donor for each baby and not to mix the milk received from donors and thus to have one milk mother for one baby. It is also stated that there are plans to activate the project of milk motherhood and milk brotherhood/milk sisterhood by setting up centres for milk motherhood [5].

It may be said that concerns about human milk banking will be diminished if a system into which babies and donator mothers are integrated through barcodes which do not permit mixing milk obtained from different mothers, if the milk received in hygienic circumstances from a mother is given only to baby boys or girls and families are informed of it and if the records of identity of donor mothers and the babies to whom the milk is given are kept with legal regulations. The policies for human milk banking should be integrated into current practices about breast feeding and human milk and programme for it should be developed and put into action. It is important to determine attitudes towards and beliefs about human milk banking. It is apparent that policies about health, economy and religion are needed for human milk banking and milk motherhood practices. communities' awareness should be raised in human milk banking. The explanation made by the Ministry of Health makes it clear that the infrastructure for milk banking project will be strengthened and regulations will be made to eliminate the questions and concerns about the issue.

This study was limited to the views held by Turks and Arabs concerning the issue of human milk banking. Therefore, it is impossible to make generalisations. It is recommended that further studies be conducted with different communities and with larger masses.

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