

# Traditional beliefs as forgotten influencing factors on breast-feeding performance in Turkey

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## ABSTRACT

**Objectives:** The aim of this cross-sectional study was to identify the infant feeding practices and to evaluate the attitudes and beliefs of mothers on breast-feeding in Turkey.

**Methods:** This study was established in 10 provinces of Turkey between December 2000 and March 2001 and the study group was comprised of 1,767 women between the ages of 15-49 years (mean  $27.6 \pm 6.4$  years). Questionnaires were self-filled by mothers in the waiting rooms of the health centers.

**Results:** One hundred seventy-three women (9.9%) were illiterate, 829 (47.7%) had  $\leq 5$  years of schooling, and 83.4% were housewives. A significant number of women have traditional beliefs related to breast-feeding practices. According to 23.4% of the women at least 3 calls to prayer (average 12 hours) should be waited before the first breast-feeding postpartum and more than 30% of the mothers believe that colostrum should not be given to the newborn,

some mothers' breast milk could harm their babies, and an evil eye could harm their breast milk. The traditional belief status and educational status of the women differed significantly between provinces, lower educational status and higher rates of women with traditional beliefs were observed in less developed eastern provinces. Overall, 60.6% of the women were knowledgeable on breast-feeding practices, whereas only 13.5% were scored as good in attitudes. Among all women with breast-feed babies, 35.8% started supplementary feeding in the first 3 months of life. Mother's age, education, occupation and traditional beliefs did not have a significant effect on supplementation time.

**Conclusions:** As a result, these findings suggest the importance of taking into account the customs, local beliefs and family influences in planning community health programs.

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Most cultures are associated with particular attitudes and behaviors that stem from inherited folklore but are also influenced by modern ways of life. Health care maintenance is usually a result of the overlapping of popular, folk and professional sectors.<sup>1</sup> The focus of the popular sector is self-treatment, and its domain is within the household. The folk sector includes healers with an intermediate position between the popular and professional sectors.

There are countless traditional practices related to sexual behavior, pregnancy, childbirth, child-rearing and feeding. This paper focuses on the traditional beliefs, attitudes and behaviors related to infant breast-feeding. Breast-feeding is one of the oldest and most natural ways of feeding newborns. It is well known that infants breast-feed exclusively for 4-6 months receive optimal nutrition and immunological protection. In ancient cultures, a high regard for

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lactating mothers are implied in the wealth of images of mother goddesses, usually shown holding or suckling an infant.<sup>2</sup> The Islamic communities also paid great attention to breast-feeding, and wet-nurses (woman who breast-feed children of others) were very commonly used until recently. In old Turkish societies, mothers' milk was considered a holy subject, and the term was used widely, which means cleanness, pureness, beauty, goodness, and wealth. In Anatolia, women who did not breast-feed their babies were considered as bad mothers.<sup>3</sup> Particularly in rural areas, babies were breast-feed until the age of 18 months, and boys received one or 2 months more breast milk than girls with the understanding that they would benefit when they became soldiers. Due to the effects of western civilization, patterns of social and cultural attitudes have changed in all Muslim countries including Turkey. For well-known reasons such as the promotion of the bottle-feeding by baby food companies and changes in the structure of Islamic societies, breast-feeding rates are rapidly declining in both rural and urban areas.<sup>3</sup> The specific objectives of this study were a) to describe infant feeding practices, b) to assess the breast-feeding knowledge and behavior status of mothers of childbearing age, c) to compare different provinces of Turkey on the basis of breast-feeding knowledge, attitudes and beliefs, d) and to evaluate the influences of various factors on supplementation time.

**Methods.** The study group of this cross-sectional research was comprised 1,767 mothers, with a mean age of 15-49 years. This study was conducted in 10 provinces of Turkey, between December 2000 and March 2001. The health indicators according to provinces and regions were shown in **Table 1**. Turkey was divided in 5 major regions: West, Middle, East, North and South.<sup>4</sup> In this study, we collected samples from west, middle and east regions to have an opinion via a road from West to East of Turkey. In addition, all data were divided into 2: West (Ankara, Istanbul, Tekirdag, Aydın, Kütahya were accepted as Western province) and East regions of Turkey (Sivas, Kayseri, Van, Kars and Diyarbakır were considered as Eastern provinces). No specific sampling method was used. After informing the mothers about the study and obtaining the consent, a self-filled questionnaire was distributed to all mothers in the health care centers or out-patient clinics of district hospitals. In cases of an illiterate woman, nurses or midwives helped them to fill out the forms by reading the questions. The only exclusion criterion other than age was being a visitor

to a district. The questionnaire comprised 5 sections (\***Appendix 1**): a) General demographic characteristics of the participants, b) Assessment of traditional beliefs related to breast-feeding practices, c) Questions assessing knowledge of breast milk and breast-feeding practices, d) Questions assessing attitudes and behaviors about breast-feeding. e) Standard questions about breast-feeding duration, time and reason for starting supplementary feeding for those with babies <1 year of age at the time of the study. Questionnaires were prepared by the researchers and distributed to doctors working in the provinces where the study was established during breast-feeding counseling training courses organized by the Ministry of Health, Turkey. These doctors were all informed on the methodology of the study and were asked to give the self-filled questionnaires to the mothers in the waiting room of their health centers. The questionnaires included 6 questions related to attitude or behavior, 9 related to knowledge and 4 related to beliefs. Attitude/behavior and knowledge status were calculated as shown below: a) Seven or more appropriate answers were considered good, 5 or 6 as moderate and <4 as poor knowledge status, b) Five or more appropriate answers were considered good, 3 or 4 as moderate and <2 as poor attitude/behavior status. One point was given for each appropriate answer. The

**Table 1** - Distribution of study provinces according to health indicators (2003 Turkey Demographic and Health Survey).

Province	n	TFR	PIM (%)	IMR (%)	GNPP (US\$)
<b>West</b>		1.88	14.6	22	2146
Tekirdağ	190				
Istanbul	134				
Aydın	64				
<b>Middle</b>		1.86	13.2	21	2313
Ankara	642				
Kütahya	76				
Kayseri	99				
Sivas	269				
<b>East</b>		3.65	51.8	41	1071
Diyarbakır	99				
Kars	120				
Van	74				
<b>Total</b>	1767	2.23	21.8	29	2146
TFR - total fertility rate (per woman), PIM - percentage of illiterate mothers, IMR - infant mortality rate, GNPP - gross domestic product by SRE, 2001 <sup>22</sup>					

\*The full text including Appendix 1 is available in PDF format on SMJ website ([www.smj.org.sa](http://www.smj.org.sa))

scores were shown as means and standard deviations. After the questionnaires had been completed, they were checked, coded and the data were analyzed using SPSS software. Relative risks were determined using a logistic regression analysis, and Chi-square was used to search the statistical significance. A p value less than 0.05 denoted statistical significance.

**Results.** The mean age of the study group was 27.6 ± 6.4 years (minimum 16 years, maximum 49 years) and 83.2% were between 20 and 35 years of age. **Table 2** shows the demographic characteristics of the study groups in East and West regions. The results of the study indicated that traditional beliefs

related to breast-feeding were still accepted by a large percentage of mothers of reproductive age in Turkey. For example, 23.4% of mothers stated that at least 3 calls to prayer should be awaited before the first nursing, and 30.8% believed that colostrum should not be given to the baby. According to 30.9% of the mothers, the breast-milk of some mothers could poison their own babies, while 33% believed that an evil eye could harm a mother's milk if she nursed near other mothers. As shown in **Table 2**, the educational status of mothers, belief status and parity were significantly different between Eastern and Western Turkey. Women's educational status was lower and

**Table 2** - Differences between eastern and western Turkey.

Variables	Eastern region		Western region		P-value
	n	(%)	n	(%)	
<b>Maternal education</b>					<0.001
Illiterate	117	(17.8)	56	(5.2)	
<5 years	296	(45.1)	533	(49.3)	
≥6 years	243	(37.1)	493	(45.6)	
<b>Waiting for 3 calls to prayer</b>					<0.001
Yes	187	(28.8)	218	(20.8)	
No	462	(71.2)	832	(79.2)	
<b>Colostrum should not be given to the baby</b>					<0.001
Yes	229	(34.9)	300	(28.3)	
No	428	(65.1)	761	(71.7)	
<b>Some mothers' breastmilk can harm the baby</b>					<0.001
Yes	235	(36.2)	289	(27.6)	
No	416	(63.8)	758	(72.4)	
<b>Evil eye can affect breast-milk</b>					<0.05
Yes	239	(36.3)	332	(31.1)	
No	419	(63.7)	736	(68.9)	
<b>First feeding after delivery</b>					<0.001
Breast-milk	549	(83.2)	982	(90.3)	
Sugar-water	102	(15.4)	95	(8.8)	
Formula	9	(1.4)	11	(1.1)	
<b>Breast-feeding babies need water</b>					<0.001
Yes	485	(74.4)	716	(66.5)	
No	167	(25.6)	360	(33.5)	
<b>Supplementation time</b>					<0.001
0-4 months	91	(35.6)	263	(54.2)	
5+ months	165	(64.4)	222	(45.8)	
Parity (mean ± SD)	2.39±1.47		1.74±1.00		<0.001
Knowledge score (mean ± SD)	7.43±1.59		7.42±1.72		>0.05
Attitude score (mean ± SD)	3.14±1.14		3.20±1.15		>0.05

**Table 3** - Attitude and knowledge status of reproductive-age women according to province.

Province	Attitude No. of women (%)			Knowledge No. of women (%)		
	Good	Moderate	Poor	Good	Moderate	Poor
Tekirdağ	6 (3.2)	127 (67.2)	22 (11.6)	56 (29.6)	116 (61.4)	51 (27)
Istanbul	20 (14.9)	86 (64.2)	10 (7.5)	28 (20.9)	87 (64.9)	37 (27.6)
Ankara	87 (13.6)	392 (61.3)	73 (11.4)	161 (25.2)	385 (60.2)	182 (28.4)
Aydın	9 (14.1)	39 (60.9)	16 (25)	38 (59.4)	21 (32.8)	5 (7.8)
Kayseri	16 (16.2)	67 (67.7)	16 (16.2)	73 (73.7)	18 (18.2)	8 (8.1)
Kütahya	4 (5.3)	48 (63.2)	24 (31.6)	39 (51.3)	30 (39.5)	7 (9.2)
Diyarbakır	6 (6.1)	46 (46.5)	47 (47.5)	32 (32.3)	50 (50.5)	17 (17.2)
Kars	27 (22.5)	64 (53.3)	29 (24.2)	81 (67.5)	33 (27.5)	6 (5)
Van	9 (12.2)	41 (55.4)	7 (9.5)	24 (32.4)	33 (44.6)	34 (45.9)
Sivas	18 (6.7)	168 (62.5)	83 (30.9)	155 (57.6)	93 (34.6)	21 (7.8)
<b>Total</b>	<b>252 (13.5)</b>	<b>1128 (60.5)</b>	<b>484 (26)</b>	<b>1130 (60.6)</b>	<b>558 (29.9)</b>	<b>176 (9.4)</b>
$\chi^2 = 202,306; p < 0.001$			$\chi^2 = 106,093; p < 0.001$			

**Table 4** - Effects of demographic and traditional variables on supplementation time.

Variables	No. of supplementation time (%)		Relative risk 95% confidence intervals
	0-4 months	≥5 months	
<b>Maternal age</b>			
15-20 years	51 (51.5)	48 (48.5)	1.03 (0.67 - 1.58)
21-35 years	316 (52.3)	288 (47.7)	1.03 (0.51 - 2.08)
≥36 years	17 (51.5)	16 (48.5)	$\chi^2 = 0.003; p > 0.05$
<b>Maternal schooling</b>			
<5 years	228 (52.5)	206 (47.5)	1.036 (0.77- 1.39)
>6 years	163 (63)	144 (47)	$\chi^2 = 0.06 p > 0.05$
<b>Maternal occupation</b>			
Working	328 (52.4)	297 (47.6)	1.01 (0.07- 1.52)
Not working	58 (52.7)	52 (47.3)	$\chi^2 = 0.02 p > 0.05$
<b>Waiting for 3 calls to prayer</b>			
Yes	85 (50.2)	84 (49.8)	1.18 (0.84- 1.67)
No	254 (46.1)	297 (53.9)	$\chi^2 = 0.91 p > 0.05$
<b>Colostrum should not be given to the baby</b>			
Yes	115 (52.1)	106 (47.9)	1.06 (0.77- 1.46)
No	271 (53.5)	235 (46.4)	$\chi^2 = 0.14 p > 0.05$
<b>Some mothers' milk is harmful to the baby</b>			
Yes	99 (48.1)	107 (51.9)	1.27 (0.92- 1.76)
No	276 (54.1)	234 (45.9)	$\chi^2 = 2.16 p > 0.05$
<b>Evil eye can give harm to breast milk</b>			
Yes	118 (53.3)	103 (46.7)	0.955 (0.57- 1.59)
No	267 (52.3)	244 (47.6)	$\chi^2 = 0.08 p > 0.05$
<b>Feeding with formula is easier</b>			
Yes	48 (46.1)	56 (53.9)	1.34 (0.84- 2.04)
No	340 (53.5)	295 (46.5)	$\chi^2 = 1.96 p > 0.05$
<b>Water should be given to a breast-feed baby</b>			
Yes	262 (56.1)	205 (43.9)	0.68 (-0.51- -0.92)
No	124 (46.6)	142 (53.4)	$\chi^2 = 6.12 p < 0.05$
<b>Expressed breast-milk can be used later on</b>			
Yes	200 (48.3)	209 (51.7)	1.38 (1.03- 1.86)
No	183 (57)	138 (42.9)	$\chi^2 = 4.74 p < 0.05$

**Table 5** - Supplementation time on the basis of knowledge, attitude and belief status towards breast-feeding.

Supplementation time	No. of patients (%)				Relative risk (RR) %95 (confidence intervals)
	0-4 months		> 5 months		
<b>Knowledge</b>					RR=0.98 (0.89-1.07) $p>0.05$
Good	223	(56.9)	220	(62)	
Moderate	124	(34.2)	105	(29.6)	
Poor	35	(8.9)	30	(8.1)	
<b>Attitude</b>					RR=0.96 (0.85-1.09) $p>0.05$
Good	59	(15.1)	54	(15.2)	
Moderate	233	(59.4)	208	(58.6)	
Poor	100	(25.5)	93	(26.2)	
<b>Belief status</b>					RR=0.95 (0.81-1.11) $p>0.05$
Believe none	12	(46.2)	13	(46.4)	
Believe all	14	(53.8)	15	(53.6)	

a higher percentage of mothers shared the traditional beliefs in Eastern Turkey. In addition, fewer mothers stated that breast-milk was the best choice for the first feeding (83.2% in the East and 90.3% in the West) and a higher percentage stated that water should be given to a breast-feed infant (74.4% in the East and 66.5% in the West). In contrast with these results, attitude and knowledge scores in the East were not different from those in the West (Table 2,  $p>0.05$ ).

Table 3 shows the behavior and knowledge status of the study groups according to provinces. In general, 60.6% of the mothers were rated good in knowledge, whereas only 13.5% rated good in behavior; these rates were significantly different between provinces ( $\chi^2 = 202,306$ ,  $p<0.001$  and  $\chi^2 = 106,093$ ,  $p<0.001$ ). Diyarbakır, a city in Eastern Turkey, scored very low in terms of knowledge and attitude status. In answer to the 4 questions posed by the researchers, the attitude and knowledge scores of those mothers who shared all the traditional beliefs ( $n=47$ , attitude score  $3.55 \pm 0.85$ ; knowledge score  $7.72 \pm 1.34$ ;  $p<0.001$ ) were significantly higher than that of those who shared none ( $n=80$ , attitude score  $2.02 \pm 0.91$ ; knowledge score  $6.10 \pm 2.16$ ;  $p<0.001$ ). Overall, 935 (54.5%) had babies that were still breast-feeding, and the mean age of the infants was  $5.0 \pm 3$  months (minimum zero months, maximum 19 months). Most of the mothers (84.5%) had breast-fed all their children, whereas only 2.5% had breast-feed none. Among 935 mothers, 8.3% had started supplementary feedings in the first month, 27.5% in the second to third months, 54.1% in the fourth to sixth months and only 9.9% after the sixth months of life. The reasons for starting the supplementary food were as follows: the baby is still hungry 51.6%,

the baby should get used to other foods 13.8%, milk insufficiency 12.4%, baby refused 10.6%, mother was receiving drugs 6.7%, nipple problem 2.4%, easier to give supplementary food 1.8% and new pregnancy 0.7%. Advice related to starting supplementary food was given by grandmothers in 41.2%, by physicians in 22.9%, by friends or neighbours in 17.3% and self-decision in 18.6% of cases.

As shown in Table 4, factors such as mother's age, education, occupation and traditional beliefs did not have a significant effect on supplementation time. In addition, there was no increased risk for early start of supplementation based on belief status, attitude or knowledge status (Table 5). However, we found that those mothers who believed "expressed milk should not be given to the baby and "water should be given to a breast-feed baby" had started supplementation earlier than the others, and the difference was statistically significant (57% versus 48.3%,  $p<0.05$  and 56.1% versus 46.6%,  $p<0.05$ ).

**Discussion.** Patterns of infant feeding, based on cultural beliefs, affect the nutritional status, health and growth of children.<sup>1,3</sup> In order to understand malnutrition and infant health in a particular community, knowledge of both the beliefs and the practices associated with infant feeding in that community is essential. Breast-feeding and feeding attitudes and behaviors vary among different cultures and countries. The study of Giovannini et al<sup>5</sup> from Italy revealed even regional differences within a country. They concluded that the duration of breast-feeding was significantly shorter in the islands than the continental areas, which might be related to cultural and socioeconomic differences. Another

study from Brasil indicated that both mothers with the most and the least traditional gender role attitudes intend to breast-feed their infants for longer than mothers with moderate attitudes towards mothers' gender role. The most traditional mothers intend to breast-feed longer because that is the thing for a woman to do her obligation. The least traditional mothers intend to breast-feed longer because they conceive breast feeding as the modern thing to do.<sup>6</sup> In Turkey, there are still widespread traditional beliefs related to breast-feeding practices. Turkey is a large country with residents from different social and cultural backgrounds; therefore, to evaluate traditional beliefs and the baby feeding practices, 10 provinces from Western and Eastern regions were selected. As shown in **Table 1**, the current economic and health status of these provinces were considerably different from each other, whereas western provinces had better economic and health indicators. It could be postulated that less educated mothers have a tendency to cling to traditional practices, while more educated mothers easily adopt modern western trends encouraging lactation. Our results as shown in **Table 2** might indirectly support this judgement, because in western Turkey both the educational levels of mothers are higher and a higher percentage of mothers have rejected attitudes based on traditional beliefs. In Turkey, starting breast-feeding after at least 3 calls to prayer (nearly 12 hours), and feeding the newborns with sugar water or other specially prepared syrups during this period is not a rarely seen practice. This practice could deprive colostrum and may also impede the full breast-feeding practice.<sup>1</sup> Our results showed that 23.4% of the mothers shared this belief and this ratio was significantly higher in eastern than western provinces of Turkey (**Table 2**). It was also a common practice in rural Bangladesh to withhold breast-feeding up to 3 days after the birth of a child.<sup>7</sup> Similar with the 2 studies mentioned above, Martines et al<sup>8</sup> indicated that the duration of breast-feeding was significantly shorter among mothers who started nursing more than 12 hours after delivery. The Islamic religion requires fasting from sunrise to sunset during the month of Ramadan but according to Islam, those who are ill, pregnant or nursing, and menstruating need not to fast during Ramadan. However, Ertem et al<sup>9</sup> showed that 52% of the mothers attending their study were fasting and they emphasized that among those mothers with infants  $\leq 6$ -month-old, 22% perceived a decrease in their own breast milk during fasting. This study shows us how traditional beliefs are strongly affecting the attitudes of the mothers although it is not indicated in the Holy Qur'an. We believe that this traditional practices could be changed

with the help of community religious leaders to implement the governmental program "Ten steps to successful breast-feeding". If a woman is unable to nurse her infant, it is said that the evil eye has touched her. The fault is not hers but is projected outward onto others. The possessor of the evil eye usually harms unintentionally, is often unaware of his/her powers and is unable to control them. In our study, 33% of the participants stated that an evil eye can harm breast milk if the mother nurses near other mothers. This finding was again significantly higher in the eastern than the western regions (**Table 2**). Turkish people tend to live in small crowded houses, especially in rural areas where this belief can restrict mothers from breast-feeding their infants and impede the duration of breast-feeding. The study results revealed that a considerably high percentage of mothers (30.9%) still believed that a mother's breast-milk can be harmful to their own babies. If a child is sick, cries a great deal, has prolonged diarrhea, or seems reluctant to suck, mothers frequently become alarmed and concluded that their breast-milk is poisonous. As in Turkey, in the Sahel region of Africa 'bad milk' serves as an explanation for many diarrheas and diseases of nutritional origin that affect infants and children.<sup>10</sup> In Pakistan, breast-milk is believed to become contaminated in many ways: by a shadow from the spirit world; by an "evil eye" or black magic; by the effects of a new pregnancy; by a mother's illness or "weakness"; by her exposure to excessive cold or heat and by her dietary indiscretions.<sup>11</sup> These traditional ideas related to breast-milk increase mothers' anxiety and may provoke women to stop breast-feeding in order to prevent illness in the nursing child. Despite the widely practiced and revered tradition of breast-feeding, early introduction of solid foods is very prevalent in Turkey as in most Middle Eastern countries.<sup>12-14</sup> Most mothers believe that mixing formula and breast-milk increases the nutritional quality of the child's diet. According to the results of the Turkish Health and Demographic Survey in 2003, 78% of infants received supplementation in the first 3 months of life.<sup>4</sup> This rate was 53% in 1993 survey, and it has been increased among all Turkey since then.<sup>4,15</sup> However in our study group, this increase is not very relevant wherein only 8.3% started supplementation in the first month of life and 35.8% in the first 3 months. Among all, 77.1% of mothers received no advice from any kind of health personnel. These results are very similar to those of Marandi et al from Tehran, in which 21% of the mothers started supplementation in the first month and 66% in the first 4 months of life, while none of the mothers received advice from a health care

provider.<sup>16</sup> Giving sugar water to a newborn right after birth used to be very common in Turkey; however, changes in practice in maternity wards as a result of the “Ten Steps to Successful Breast-feeding” project, resulted in a sharp decline at this practice. However, 10% of our study group still believed that sugar-water should be given as the newborn’s first feeding. Similarly, Harrison et al, showed that supplementation with sugar-water in Egypt also began very early, and gradual introduction of other foods generally began soon after 40 days of age.<sup>17</sup> These behavioral similarities in infant feeding practices in Turkey, Iran and Egypt might be attributable to the similarities in social and religious backgrounds of these 3 countries. In 1985, breast-feeding promoting programs were started by Turkey’s Ministry of Health. The study of Köksal et al in 1983 showed that the rate of mothers with satisfactory breast-feeding knowledge was only 29.8%,<sup>18</sup> which is considerably lower than that found in the current study (60.6%). This dramatic increase may be attributable to the success of programs promoting breast-feeding in Turkey. In contrast, the rate of women considered to have “good” breast-feeding attitudes was only 13.5% in our study group; this finding led us to conclude that mothers were knowledgeable about breast-feeding but had not yet put the ideas into practice. Our study also revealed that mothers were greatly influenced by grandparents and neighbors, and could easily lose self-confidence. Mother’s attitude toward breast feeding, help with household tasks, and the attitudes of friends and relatives toward breast feeding were also very significantly related to intended breast feeding duration. Although they know that breast-feeding is best for the baby, they start supplementation earlier. We do not have satisfactory educational programs to deal with traditional beliefs and practices that we believe to be harmful. Health education is unlikely to change breast-feeding practices unless prevailing cultural attitudes also change. Therefore, health workers, especially midwives who are in close contact with mothers in the rural areas of Turkey, should be trained to gain better counseling and clinical skills. Using their awareness of the regional traditional practices, they can help mothers overcome difficulties by building confidence and giving support. However, sometimes practice is influenced by traditional beliefs of midwives, as shown in Thai study, where some traditional beliefs supported by nurses may be detrimental to mothers and babies such as discarding of colostrum, and giving boiled water to neonates.<sup>19</sup> Thus, there is a need for professional development strategies such as periodic courses for nurses and midwives to address inadequate knowledge and

outdated practices, as well as continuity of care models to assess quality care outcomes that are culturally appropriate. Most mothers hold traditional beliefs but at the same time accept many of the practices of modern medicine. Family and neighbourhood pressures may prompt them to curtail or eliminate breast-feeding when indigenous beliefs are invoked, even though these beliefs are contrary to currently accepted medical opinions. We evaluated the effects of knowledge, attitudes and traditional beliefs regarding breast-feeding and found that none had a significant effect on supplementation time (Table 5). In Northern Alberta, traditional and present-day infant feeding practices were compared between elderly multigravida who used traditional ways of childbearing and rearing and mothers who used present-day practices; this research also showed that both the traditional and modern mothers introduced solid foods relatively early.<sup>20</sup> Some traditional beliefs about infant feeding are changing by modern way of life, while others remain resistant to change. Serdula et al evaluated infant feeding in a low-income population and showed a sharp decline in breast-feeding in Southeast Asian infants born in the United States when compared to those who were foreign-born (10% and 93%). Their results indicated a need for public health approach to strengthen traditional breast-feeding practices.<sup>21</sup>

In conclusion, we believe that the results of this study are important as to emphasize the need for programs taking into account customs, local beliefs and family influences. It is a common knowledge that malpractice should be reversed, but it is also important to preserve positive elements of traditional culture. Therefore, the inclusion of information on beliefs and customs, will allow future analyses to be set in a cultural context, and will help to plan better health and nutrition intervention programs.

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