

Research Article

TURKISH WOMEN'S WHO ARE SOCIAL MEDIA USERS VIEWS AND PRACTICES ON POSTPARTUM PLACENTA AND UMBILICAL CORD

Sena Dilek AKSOY¹, Suzi ÖZDEMİR²

Abstract

Aim: This study was conducted to determine the views and practices of Turkish women about traditional practices regarding postpartum placenta and umbilical cord.

Method: This descriptive study was conducted with a total of 1,569 women from five regions in Türkiye, who were selected by stratified random sampling method, between October 2021 and June 2022. In line with the literature, a 27-question questionnaire form was prepared by the researchers in which the sociodemographic characteristics of the participants and their opinions and practices regarding traditional practices regarding the placenta and umbilical cord were questioned. The data were collected using a Google survey.

Findings: Although the most common practice of the participants was to bury the placenta and umbilical cord (%97,2; n:493), the number of people who wanted to do lotus birth (%14,4; n:110) and art with placenta and umbilical cord (%10,3; n:79) in the future was also quite high. There were also regional differences between practices ($p<0.001$).

Conclusion: Participants were practicing traditional practices related to the placenta and umbilical cord in the postpartum period, had knowledge about the practices, and planned to do some practices in the future. It is recommended that health professionals conduct research and inform about issues such as lotus birth, placenta, and umbilical cord art, and placentophagy.

Keywords: Placenta, Traditional practices, Umbilical cord, Postpartum.

¹Assoc. Prof. Dr., Kocaeli University, Umuttepe Campus, Faculty of Health Sciences, Midwifery Department, Kocaeli, Türkiye sena.dilek@kocaeli.edu.tr ORCID: 0000-0003-4366-5056

²Corresponding Author: Res. Assist. Dr., Kocaeli University, Umuttepe Campus, Faculty of Health Sciences, Midwifery Department, Kocaeli, Türkiye suzi.ozdemir@gmail.com ORCID: 0000-0003-2437-9169

Manuscript Received: 03.04.2024

Manuscript Accepted: 16.06.2024

Manuscript information: Aksoy, S. D., Özdemir, S. (2024). Turkish Women's Who Are Social Media Users Views and Practices on Postpartum Placenta and Umbilical Cord. *Selçuk Sağlık Dergisi*, 5(3), 347 – 364.
<https://doi.org/10.70813/ssd.1464554>

Sosyal Medya Kullanıcısı Türk Kadınlarının Doğum Sonrası Plasenta ve Göbek Kordonu Hakkındaki Görüş ve Uygulamaları

Öz

Amaç: Bu çalışma, Türk kadınlarının doğum sonrası plasenta ve göbek kordonu ile ilgili geleneksel uygulamalar hakkındaki bilgi ve uygulamalarını belirlemek amacıyla yapılmıştır.

Yöntem: Bu tanımlayıcı çalışma, Türkiye'nin beş bölgesinden tabakalı rastgele örnekleme yöntemiyle seçilen toplam 1.569 kadın ile Ekim 2021 ve Haziran 2022 tarihleri arasında yürütülmüştür. Araştırmacılar tarafından literatür doğrultusunda katılımcıların sosyodemografik özellikleri ile plasenta ve umbilikal kordona yönelik geleneksel uygulamalara ilişkin görüş ve uygulamalarının sorgulandığı 27 soruluk anket formu hazırlanmıştır. Veriler bir Google anketi kullanılarak toplanmıştır.

Bulgular: Katılımcıların en yaygın uygulaması doğum sonu dönemde plasenta ve göbek kordonunu gömmek olsa da ileride lotus doğum ve plasenta ve göbek kordonu ile sanat yapmak isteyenlerin sayısı da oldukça fazlaydı. Uygulamalar arasında bölgesel farklılıklar da vardı ($p<0.001$).

Sonuç: Katılımcılar, doğum sonrası dönemde plasenta ve göbek kordonu ile ilgili geleneksel uygulamaları yapmakta, uygulamalar hakkında bilgi sahibi olup gelecekte bazı uygulamaları yapmayı planlamaktadır. Sağlık profesyonellerinin lotus doğum, plasenta ve göbek kordonu sanatı, plasentafaji gibi uygulamaların yarar ve zararları hakkında bilgilenmeleri önerilmektedir.

Anahtar Kelimeler: Plasenta, Geleneksel Uygulamalar, Göbek kordonu, Postpartum.

1. INTRODUCTION

An increasing number of women prefer burying, burning, making art objects, or eating instead of discarding the placenta and umbilical cord (Oe et al., 2021). The placenta and umbilical cord are handled differently in different cultures. In Turkish culture, after the umbilical cord is separated from the baby, it is generally buried in mosques, universities, and hospital gardens, depending on the profession desired for the baby to have in the future (Ozdemir & Simsek, 2022). In Africa, it is believed that burying the placenta in the ground connects the baby to the spiritual world, protecting their destiny (Adatara et al., 2019). The Tongan people of Zambia have burial sites for the placenta, including the Mupundu tree, also known as the fertility tree, and the porch or courtyard of the family cottage (Siwila, 2015). In the United States and several high-income countries, some women are known to consume their placentas in the first days or weeks after delivery for a range of supposed health benefits (Benyshek et al., 2018). As a result, the placenta and umbilical cord are highly respected in most societies for their biological and spiritual connection to the newborn's life cycle (Ohaja & Anyim, 2021). Recently, women or their family members avoid giving birth in health centers because they consider that health professionals do not allow them to take the postpartum placenta with them (Withers et al., 2018).

As a result of the studies, it is seen that women often use information and communication technologies to search for health information in the postpartum period (Dol et al., 2022; Patrick & Ferdinand, 2016; Vanessa et al., 2016). Nowadays, social media can be used to learn about traditional practices. Mothers have access to a variety of resources to learn and experience traditions and practices from different cultures (Mbwambo & Gibore, 2024). However, although the number and variety of traditional practices related to the placenta and umbilical cord has increased, the potential benefits and harms of these practices have not been fully established. Health professionals have important responsibilities in protecting and promoting the health of women and their babies and cooperating with parents in preserving the culture of their communities (Oe et al., 2021). Health professionals providing intercultural care should know and evaluate the cultural factors of the society they serve, their own cultures, the cultures of the pregnant women they care for and their families (Canbay et al., 2019). A review of the literature revealed that studies on women's traditional postpartum practices were generally conducted with women who had given birth. A review of the literature revealed that studies on women's traditional postpartum practices were generally conducted with women who had given birth (Çakırer Çalbayram et al., 2019; Öztürk et al., 2022; Yeşilçınar et al., 2021). There were no studies evaluating the opinions and attitudes of single women, women who had not given birth, and women who were active social media users about traditional postpartum practices. This study aimed to determine whether traditional practices related to the placenta and umbilical cord are known among women using social

media in Türkiye and whether they apply such practices, to receive their views on the subject, and to raise awareness of health professionals about the subject.

2. METHODS

2.1 Study Design

This descriptive study was conducted between October 2021 and June 2022, using a total of 1,569 Turkish women who are social media users selected by snowball and quota sampling method.

2.2. Setting

In Türkiye, internet usage rates are announced by the Turkish Statistical Institute (TUIK). Accordingly, 82.6% of the population (aged 16-74) in Türkiye uses the internet; this rate is 87.7% for men and 77.5% for women. Considering the data of the last ten years, a significant increase is observed in the internet usage rates, especially with the effect of the pandemic (TUIK, 2022). According to the Digital 2021 report, there are 60 million social media users in Türkiye, corresponding to 71% of the total population. In terms of the duration of use of social channels such as Instagram, Facebook and Twitter in the 16-64 age group, Türkiye ranks 14th among 46 countries. In addition, Turkish ranks fourth considering the amount of website content produced in the world by language (Digital 2021, 2021).

2.3. Participants and Sample

The population of the study consisted of social media users women aged between 18-64 years in Türkiye. Since it was not possible to reach all women, sampling was deemed appropriate. Snowball and quota sampling method was used through volunteer opt-in panels as the sampling method in the study. However, considering that the sample should represent the population, the researchers tried to reach women with different socio-cultural and socio-economic characteristics. Since there is no comprehensive study on the subject in Türkiye, the sample size was calculated using the sampling formula for known population as follows:

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

N= Number of individuals in the population

n= Number of individuals to be sampled

p= Frequency (probability) of the event to be examined, which was taken as 0.5 in the study

q= Frequency of absence of the event to be examined (1-p)

t= Theoretical value in the t table at a certain degree of freedom and detected error level, which was taken as 1.96 in the study.

d= desired \pm deviation (margin of error) according to the incidence of the event.

$$n = \frac{26375254 * 1.96^2 * 0.5 * 0.5}{0.03^2(20638394 - 1) + * 1.96^2 * 0.5 * 0.5} \cong 1365$$

Since it was not possible to reach every city, using quota sampling distribution by population (total female population aged 18-64 years, n: 26,375,254), the study aimed to collect data from five regions considered by the Hacettepe University Institute of Population Studies (TNSA, 2018). First, the population of women living in each city was calculated. Then the proportional number was determined according to the number of samples (Table 1) (TUIK, 2020).

Table 1. Türkiye Sample Numbers by Five Regions

Region	18-64 age female population ²	Population Ratio	Number of Samples
Region 1 (West)	10906168	41.35	563
Region 2 (South)	3373394	12.79	175
Region 3 (Middle)	5501878	20.86	285
Region 4 (North)	1804067	6.84	94
Region 5 (East)	4789747	18.16	248
Total	26375254	100	1365

²Turkish Statistical Institute, Address Based Population Registration System Results, 2020

2.4. Study Inclusion and Exclusion Criteria

Women between the ages of 18-64 years who were able to fill out the online survey from social media and agreed to participate in the study were included in the study. Women who did not have social media account, could not read, and understand Turkish, and did not complete the online survey were excluded from the study.

2.5. Data Collection Tools

The survey was created based on the researchers' clinical experiences and the issues highlighted in previous study results (Aziato & Omenyo, 2018; Bosco & Díaz, 2018; Hayes, 2019; Kroløkke et al., 2018; Oe et al., 2021; Whittington et al., 2020). It consisted of a total of 27 questions, including six closed-ended questions about women's sociodemographic and obstetric characteristics such as age, education level, place of residence, status of giving birth, seven closed-ended questions about their views and practices on traditional practices regarding placenta and umbilical cord, and 10 three-option (true, false or undecided) questions regarding traditional practices related to the placenta and umbilical cord. To test the intelligibility of these questions, a pilot study was conducted with 20 women, and then the

questions were finalized. These data from pilot study were not included in the study. It lasted about 5-10 minutes to fill out the survey.

2.6. Data Collection

In our study, an online survey was preferred due to its low cost, applicability in a short time (Nayak & Narayan, 2019), and easiness of its results to make ready for analysis and minimizing the probability of infection contamination with individuals due to the pandemic. Another effective reason for using an online survey was the absence of an interviewer to administer the survey, thus reducing social desirability bias (the tendency of respondents to give answers they think the interviewer would expect to hear) (Ball, 2019).

The online survey link was shared through the researchers' social media accounts (WhatsApp, Instagram, Facebook). An online information text was shared with the participants about the purpose of the study, explaining that their personal information would be kept confidential. After they clicked the online survey link, approved the informed consent, and declared their gender as female, women who agreed to participate in the study could access the survey questions. The data were stored on an encrypted computer. The data collection process ended after reaching the targeted sample size for five regions in the study.

2.7. Ethics

The study protocol was designed in accordance with the principles of the Declaration of Helsinki. For conducting the study, an approval was obtained from the Kocaeli University Non-Interventional Clinical Research Ethics Committee (Date: 09.09.2021, GOKAEK-2021/16.03, project number: 2021/255).

2.8. Data Analysis

The data were analyzed using the Statistical Package for the Social Sciences Version 29.0 (SPSS Inc., IL, USA) and evaluated using descriptive statistical methods (number, percentage, mean, standard deviation) for socio-demographic data, parametric tests (chi-square, t test, etc.) to compare numeric and categorical variables with normal distribution, non-parametric tests (Mann-Whitney U test, Kruskal Wallis test etc.) to compare other variables without normal distribution.

3. RESULTS

A total of 1,569 women participated in the study. Figure 1 shows the regions where the participants live in Türkiye.

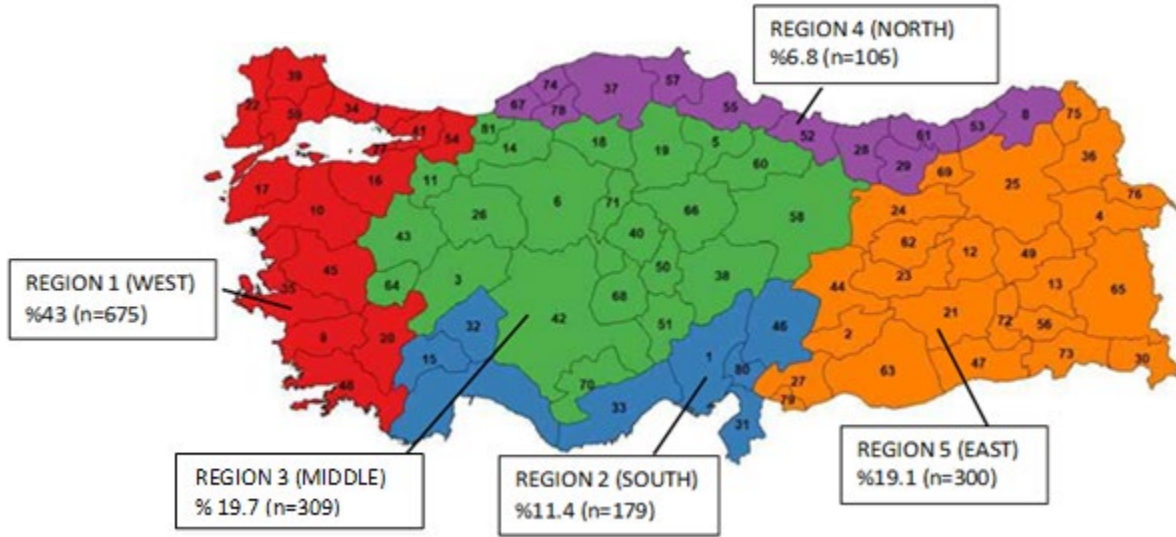


Figure 1. Regions where the participants live in Türkiye

The participants' age ranged between 18 and 64 years, and their mean age was 31.42 ± 10.85 years. Of them, 64.2% (n: 1007) were associate's degree and higher graduates, 60.9% (n: 956) were unemployed, 82.5% (n:1295) lived in urban areas, 72% (n:956) 1129 had moderate income level (income equals to expenditures) and 55.1% (n:864) gave birth before (Table 2).

Table 2. Descriptive characteristics of the women participating in the study (N=1569)

Characteristics	n	%
Education level		
Primary school	216	13.8
High school	346	22.1
Associate's degree and higher	1007	64.2
Employment status		
Employee	613	39.1
Unemployed	956	60.9
Living area		
Rural area (village)	274	17.5
Urban area (city)	1295	82.5
Income status		
Good (Income more than expenditure)	231	14.7
Moderate (Income equal to expenditure)	1129	72.0
Poor (Income less than expenditure)	209	13.3
Giving birth		
Gave birth before	864	55.1
Not given birth before	705	44.9

The majority of the participants reported that they heard of traditional practices related to the postpartum placenta and umbilical cord, approximately one-third reported that they applied at least one of these practices, and nearly half wanted to apply any traditional practice in the future (Figure 2). Figure 3 shows

the distribution of participants' information sources on traditional practices regarding the placenta and umbilical cord.

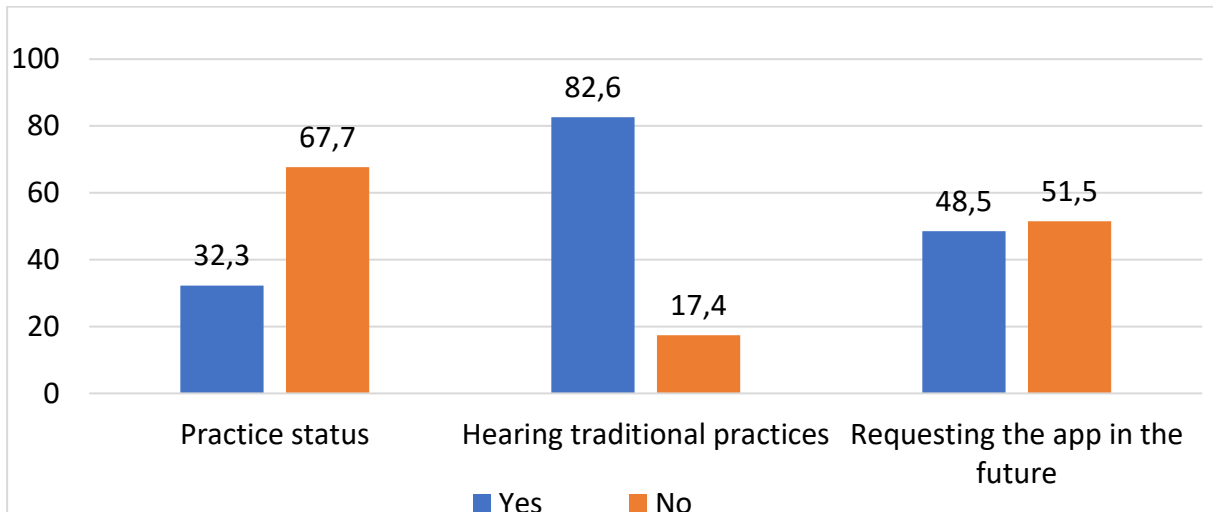


Figure 2. The participants' status of knowing and applying traditional practices regarding the postpartum placenta and umbilical cord (N=1569)

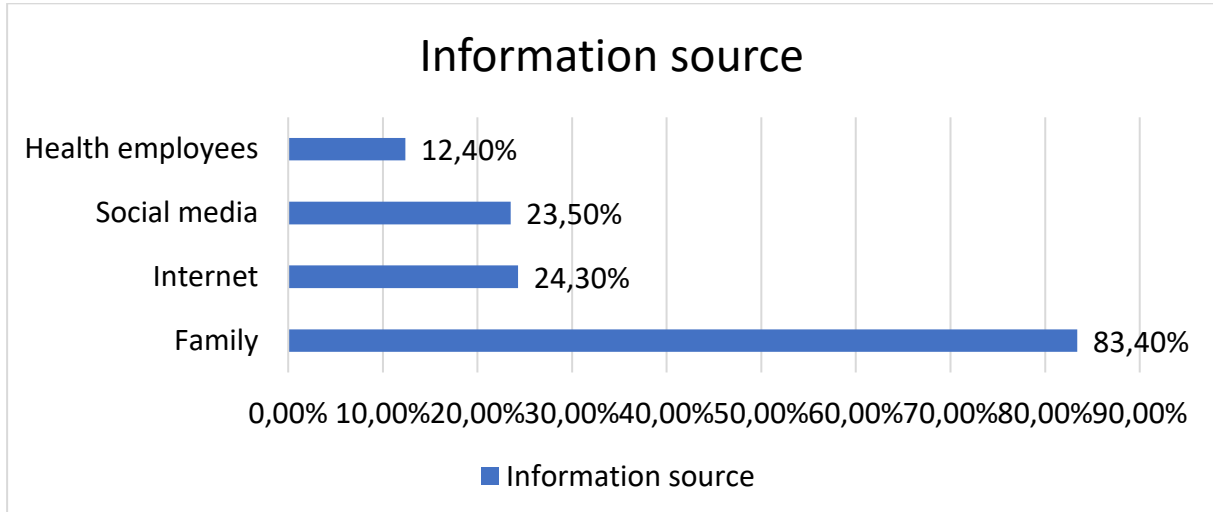


Figure 3. The participants' information sources on traditional practices regarding the placenta and umbilical cord (n=1296)

Table 3 shows the traditional practices that the participants knew, applied and wanted to apply in the future regarding the postpartum placenta and umbilical cord. The vast majority of them (95.4%; n: 1237) reported to know that the placenta or umbilical cord is buried in the ground, 21.9% (284) to know the lotus birth, and 13.2% (n:172) to know that the placenta and umbilical cord is thrown into the water. Regarding the traditional practices, 97.2% (n:493) reported that they buried the placenta or umbilical

cord in the ground, 5.1% (n:26) hid the placenta and/or umbilical cord, and 2.9% (n:15) threw the placenta and umbilical cord into the water. In addition, 83.7% (n:637) of them wanted to bury the placenta (baby's spouse) and/or umbilical cord in the ground, 14.4% (110) to give lotus birth, and 10.3% (n:79) to make art with placenta and/or umbilical cord in the future (Table 3).

Table 3. The participants' views and practices related to the postpartum placenta and umbilical cord (N=1569)

Views and practices	n	%
Traditional practice heard before * (n=1296)		
Burial of placenta and/or umbilical cord	1237	95.4
Lotus birth (the baby is born with the placenta without cutting the cord)	284	21.9
Throwing the placenta and/or umbilical cord into the water	172	13.2
Consumption of the placenta in various forms (in pill form, raw/cooked, etc.)	166	12.8
Burning of the placenta and/or umbilical cord	118	9.1
Making art with placenta and/or umbilical cord (shaping and drying, printing on paper, etc.)	118	9.1
Traditional practices applied* (n=507)		
Burial of placenta and/or umbilical cord	493	97.2
Storing the placenta and/or umbilical cord	26	5.1
Throwing the placenta and/or umbilical cord into the water	15	2.9
Lotus birth (the baby is born with the placenta without cutting the cord)	12	2.3
Making art with placenta and/or umbilical cord (shaping and drying, printing on paper, etc.)	11	2.1
Burning of the placenta and/or umbilical cord	7	1.3
Consumption of the placenta in various forms (in pill form, raw/cooked, etc.)	6	1.1
Traditional practice to be implemented in the future* (n=761)		
Burial of placenta and/or umbilical cord	637	83.7
Lotus birth (the baby is born with the placenta without cutting the cord)	110	14.4
Making art with placenta and/or umbilical cord (shaping and drying, printing on paper, etc.)	79	10.3
Throwing the placenta and/or umbilical cord into the water	22	2.8
Burning of the placenta and/or umbilical cord	14	1.8
Consumption of the placenta in various forms (in pill form, raw/cooked, etc.)	12	1.5
Storing the placenta and/or umbilical cord	9	1.1

Table 4 compares the participants' sociodemographic characteristics and status of applying traditional practices related to the placenta and umbilical cord. There was a significant difference between their previous application of traditional practices, views of traditional practices, and willingness to apply traditional practices in the future according to educational status ($p < 0.001$; respectively; $p: 0.025$; $p < 0.001$). The difference between their views of traditional practices was statistically significant according to employment status ($p: 0.019$). In addition, there was a significant difference between their statuses of previously applying traditional practices related to the placenta and umbilical cord and wanting to apply such traditional practices in the future according to place of living area ($p < 0.001$; $p: 0.007$, respectively). A significant difference was also found between their statuses of previously applying, knowing and wanting to apply such traditional practices in the future according to place of living region ($p < 0.001$; $p: 0.020$; $p: 0.025$, respectively). Moreover, there was a significant difference between their statuses of previously applying and wanting to apply such traditional practices in the future

according to income level ($p < 0.001$; $p: 0.005$, respectively). A significant difference was found between their statuses of previously applying and wanting to apply such traditional practices in the future according to the status of giving birth before ($p < 0.001$).

Table 4. Comparison of the participants' sociodemographic characteristics and status of applying traditional practices related to the placenta and umbilical cord (N=1569)

Characteristic (n)	Traditional practices applied		Traditional practice heard before		Traditional practice to be implemented in the future	
	Applying n (%)	Not applying n (%)	Hear n (%)	Not hearing n (%)	Wanting n (%)	Not wanting n (%)
Educational status						
Primary school (n:216)	145 (9.2)	71 (4.5)	180 (11.5)	36 (2.3)	144 (9.2)	72 (4.6)
High school (n:346)	150 (9.6)	196 (12.5)	269 (17.1)	77 (4.9)	174 (11.1)	172 (11)
University (n:1007)	212 (13.5)	795 (50.7)	847 (54)	160 (10.2)	443 (28.2)	564 (35.9)
X ²	197.370		7.354		37.176	
p	<0.001**		0.025*		<0.001**	
Working status						
Working (n:613)	192 (12.2)	421 (26.8)	522 (33.3)	91 (5.8)	308 (19.6)	305 (19.4)
Not working (n:956)	315 (20.1)	641 (40.9)	774 (49.3)	182 (11.6)	453 (28.9)	503 (32.1)
X ²	0.453 ^a		4.568 ^a		1.223 ^a	
p	0.269		0.019		0.146	
Living area						
Rural area (village) (n:274)	114 (7.3)	160 (10.2)	226 (14.4)	48 (3.1)	152 (9.7)	122 (7.8)
Urban area (city) (n:1295)	393 (25)	902 (57.5)	1070 (68.2)	225 (14.3)	609 (38.8)	686 (43.7)
X ²	13.106 ^a		0.003 ^a		6.461 ^a	
p	<0.001**		0.507		0.007*	
Living region						
Region1 (West) (n:675)	193 (12.3)	482 (30.7)	560 (35.7)	115 (7.3)	313 (19.9)	362 (23.1)
Region2 (South) (n:179)	102 (6.5)	77 (4.9)	154 (9.8)	25 (1.6)	106 (6.8)	73 (4.7)
Region3 (Middle) (n:309)	105 (6.7)	204 (13)	266 (17)	43 (2.7)	156 (9.9)	153 (9.8)
Region4 (North) (n:106)	31 (2)	75 (4.8)	86 (5.5)	20 (1.3)	49 (3.1)	57 (3.6)
Region5 (East) (n:300)	76 (4.8)	224 (14.3)	230 (14.7)	70 (4.5)	137 (8.7)	163 (10.4)
X ²	61.612 ^b		11.647 ^b		11.129 ^b	
p	<0.001**		0.020*		0.025*	

Table 4. Comparison of the participants' sociodemographic characteristics and status of applying traditional practices related to the placenta and umbilical cord (N=1569) (Continuing)

Characteristic (n)	Traditional practices applied	Traditional practice heard before	Traditional practice to be implemented in the future	Characteristic (n)	Traditional practices applied	Traditional practice heard before
	Applying n (%)	Not applying n (%)	Hear n (%)		Applying n (%)	Not applying n (%)
Income status						
Good (Income more than expenditure) (n:231)	91 (5.8)	140 (8.9)	201 (12.8)	30 (1.9)	129 (8.2)	102 (6.5)
Moderate (Income equal to expenditure) (n:1129)	370 (23.6)	759 (48.4)	931 (59.3)	198 (12.6)	548 (34.9)	581 (37)
Poor (Income less than expenditure) (n:209)	46 (2.9)	163 (10.4)	164 (10.5)	45 (2.9)	84 (5.4)	125 (8)
X ²	15.549			5.627	10.765	
p	<0.001**			0.060	0.005*	
Giving birth						
Gave birth before (n:864)	507 (32.3)	357 (22.8)	726 (46.3)	138 (8.8)	516 (32.9)	348 (22.2)
Not given birth before (n:705)	0 (0)	705 (44.9)	570 (36.3)	135 (8.6)	245 (15.6)	460 (29.3)
X ²	608.518 ^a			2.509 ^a	95.916 ^a	
p	<0.001**			0.57	<0.001**	

Note. *p <0.05 The relationship is significant at the level of significance; ** p<0.001 The relationship is significant at the level of significance; ^aFisher's Exact Test; ^bPearson Chi-Square Test

Table 5 presents the participants' responses to the statements about traditional practices related to the postpartum placenta and umbilical cord. Of the participants, 70.7% (n:110) agreed with the statement of "eating the placenta can be harmful for the women", 64.1% (n:1005) with the statement of "the placenta is a part of the baby, not a medical by-product", and 50.7% (n:796) with the statement of "when the placenta and umbilical cord are ready, they can separate on their own". In addition, 65.3% (n: 1025) did not agree with the statement of "consuming the placenta can prevent postpartum depression" and 67.6% (n:1061) with the statement of "dream catcher can sometimes be made with the umbilical cord to protect the woman from nightmares". Moreover, 60% (n:941), 57.7% (n:906), 49.7% (n:780) and 60.7% (n:952) were undecided about the statements of "lotus birth can make the baby have a stronger immune system", "if the baby is not separated from the placenta artificially, all the "vital force" and a

significant amount of blood in the placenta can pass to the newborn”, “the baby may develop an infection in lotus birth because there is no circulation in the placenta after birth”, and “lotus birth can pose a risk for jaundice and hepatitis in the newborn” (Table 5).

Table 5. The participants’ views on traditional practices related to the postpartum placenta and umbilical cord (N=1569)

Expressions	I agree	I do not agree	I'm undecided
	n (%)	n (%)	n (%)
1. Consuming placenta can prevent postpartum depression.	46 (2.9)	1025 (65.3)	498 (31.7)
2. Eating the placenta can be harmful to the woman.	1110 (70.7)	86 (5.5)	373 (23.8)
3. Eating the placenta can be beneficial for the woman.	80 (5.1)	1076 (68.6)	413 (26.3)
4. Lotus birth can make the baby have a stronger immune system.	353 (22.5)	275 (17.5)	941 (60.0)
5. If the baby is not artificially separated from the placenta, all the "vital force" and a significant amount of blood contained in the placenta can pass to the newborn.	413 (26.3)	250 (15.9)	906 (57.7)
6. In lotus birth, the baby may develop an infection because there is no circulation in the placenta after birth.	633 (40.3)	156 (9.9)	780 (49.7)
7. Lotus birth can cause jaundice in the newborn.	383 (24.4)	234 (14.9)	952 (60.7)
8. The placenta is a part of the baby, not a medical by-product.	1005 (64.1)	190 (12.1)	374 (23.8)
9. When the placenta and the umbilical cord are ready, they can separate on their own.	796 (50.7)	274 (17.5)	499 (31.8)
10. Sometimes a dream catcher can be made with the umbilical cord to protect it from bad dreams.	39 (2.5)	1061 (67.6)	469 (29.9)

4. DISCUSSION

This study aimed to determine the views, and applications of Turkish women about traditional practices related to the placenta and umbilical cord. In the study, most of the participants reported to have heard of traditional practices related to the placenta and umbilical cord, approximately one-third of them applied at least one such traditional practice, and nearly half of them wanted to apply such traditional practices in the future.

A study of 166 women who recently gave birth in the central region of Türkiye determined that all of them applied at least one traditional practice related to the placenta and umbilical cord, 35% buried the placenta and umbilical cord in the ground, and 30% hid the placenta and umbilical cord (Cakirer Calbayram et al., 2019). Ergun et al. conducted a study in the west of Türkiye and found that 79% of the participants applied traditional practices related to the placenta and umbilical cord after birth, 62.4% buried the placenta in a place where they did not walk around, and 10.1% threw it into the water (Ergün et al., 2019). One of the most important data in this study is that these traditional practices are applied statistically significantly more in the south of Türkiye compared to other regions. This may be because

the nomads living in the south maintain some elements of the Central Asian Tengrism and Shamanism cultures in terms of ethnic identity (Dönmez, 2020). In Niger, the placenta is often described as the "companion" that takes the newborn from one world to another, and the placenta is respected to protect women's fertility. Therefore, "traditional obstetricians", who appreciate the placental burial with a ritual, are still preferred over bio-medical midwives. In Niger, proper burial of the placenta reflects the cyclical intergenerational task that connects birth and death, planting and burial (Cooper, 2019). A qualitative study of traditional midwives in Ghana found that traditional midwives believe that if the cord and placenta are not properly removed, there will be negative consequences for the child in adulthood (Aziato & Omenyo, 2018). Similarly, in Türkiye, there is a widespread belief that the umbilical cord continues to bond the woman with the baby even after birth (Baysal, 2020). In Türkiye, there is still a belief that after the umbilical cord falls, wherever it is thrown, the baby will have a profession related to that place in the future (Avcin & Can, 2021). In Papua New Guinea, on the other hand, the placenta is regarded as "contaminated" and "contaminating", contrary to its "sacredness", and the disposal of the placenta is left to the woman's responsibility (Vallely et al., 2015).

For most cultures, birth products such as the placenta and umbilical cord are associated with religious and cultural rituals. Therefore, people in these cultures may prefer inappropriate environments where they can easily perform their cultural rituals instead of receiving professional health care for birth practices (Aziato & Omenyo, 2018; Oe et al., 2021; Sarantaki et al., 2020; Withers et al., 2018).

The present study suggests that especially lotus birth may attract increasing attention among women. Because there is an evident number of women who reported to plan to "have lotus birth" and "make art with the placenta and umbilical cord" in the future. Lotus birth has recently become widespread in Türkiye. In the present study, 2.3% of the participants reported to have lotus birth and this is the first data for Türkiye. However, the number of women who plan to have lotus birth in the future is approximately 15%, which is an important data. A large percentage of the participants were undecided about the statements of lotus birth. We can deduce that lotus birth is not known enough in Türkiye. Lotus birth is the practice of keeping the placenta attached to the newborn until the umbilical cord breaks naturally (Gönenç et al., 2019). This period lasts about 5 months, during which the family washes the placenta, wraps it in an absorbent material containing salts and lavender and/or rosemary. Salting is done twice a day depending on humidity, at least once a day until the umbilical cord separates naturally (Zinsser, 2018). In a qualitative study of 9 women with lotus birth in Türkiye, the participants reported to prefer lotus birth as a way of respecting the placenta and the birth itself (Gönenç et al., 2019). Most of the Türkiye's population is Muslims. Lotus birth has not yet been discussed in terms of the religion of Islam in Türkiye. However, a study conducted in Malaysia reported that from the perspective of

Islamic law, it is necessary to cut the cord after the birth, and therefore lotus birth is considered a harmful form of birth that is not suitable for Islam (Kamaruddin et al., 2018). Expert opinions formed within the framework of recent studies do not recommend lotus birth due to the high risk of neonatal sepsis and death (Whittington et al., 2020).

Drying and hiding the umbilical cord is defined as the eternal symbol of physical connection between the woman and her baby, and artistic processes such as dream catchers, ornaments and jewelry are made by giving the cord various shapes. Parents are considered to make these practices to honor the birth and leave a memory for their children (Ozdemir & Simsek, 2022). In the study, about 2% of the participants made art with the placenta and umbilical cord, about 10% of them stated that they want to make such artistic applications in the future, and this is the first data from Türkiye. There is not enough scientific data on making art with the placenta and umbilical cord and the existing data are mostly magazine news on social media (Schoenwald, 2020), therefore this subject needs to be researched further.

The use of the placenta for human consumption after birth (placentophagy) has gained popularity in recent years, especially in North America, Europe, and Australia (Whittington et al., 2020). The first scientific study on maternal placentophagy was done in 1917, and human placentophagy consumption was reported in North America in the 1970s (Mota-Rojas et al., 2020). There are no studies and data on the subject in Türkiye. However, in our study, 6 participants reported to consume the placenta, and the number of people who plan to consume the placenta in the future was higher. Experts recommend that this practice be abandoned due to the risk of neonatal infection, heavy metal exposure, and the theoretical risk of exogenous estrogen exposure, and women who choose to consume their placenta should be counseled to be careful about this practice (Whittington et al., 2020).

There are study results showing that women's use of traditional practices in the postpartum period is affected by education level, place of residence, employment status and income status. Çakırer Çalbayram et al. (2019) conducted a study with 166 women who had at least one live birth to determine the traditional beliefs and practices of women from the preconception to postpartum period and found a significant difference between the rate of considering traditional practices according to the place where women had lived the longest and their educational status. As a result of the same study, it was found that those who had lived in rural areas the longest were more likely to use traditional practices to facilitate pregnancy than those who had lived in urban areas (Çakırer Çalbayram et al., 2019). As a result of the study conducted by Ergün et al. (2018) on 447 women to determine the traditional practices of postpartum women, it was found that primary school graduates, those who did not work, those who spent most of their lives in rural areas, those with low income, those with a large family structure, those with three or more children, those who did not give birth at home, and those who did not receive prenatal

and postnatal care were more likely to perform traditional postpartum practices (Ergün et al., 2019). The results of our study are consistent with the literature.

The International Code of Ethics for Midwives suggests that midwives should "respect cultural diversity", "maintain competence in safe midwifery practices in all environments and cultures" and be individuals of "moral value" (International Confederation of Midwives, 2020). In other words, for a midwife to respect a woman, she should know her beliefs, values and moral point of view. Therefore, providing culturally sensitive midwifery care is vital to maintain the code of midwifery professional conduct. In this century, where human migration has increased exponentially, providing midwifery care to a woman from a different nationality and culture is an issue that needs to be focused on for the future of midwifery profession. In addition, midwives and nurses should play a role in supporting beneficial traditional practices and preventing the negative effects of harmful practices on health. This is possible by recognizing the socio-cultural structure of the society they serve.

This study has some strengths. First, the sample was collected in way from the whole country according to the population density, allowing no accumulation at a certain region. Second, it has reached the first estimated data about the methods for which there has been no data in Türkiye yet. However, this study also has some limitations. First, the data were collected using the Google survey and were limited to women who could use the internet and smart phones. Secondly, the reliability of the data was based on the self-report of the participants.

5. CONCLUSION

In the study, the rates of burying the placenta and umbilical cord in the soil, hiding, and throwing into the water were higher in the traditional applications of postpartum placenta and umbilical cord compared to other traditional applications. But the number of those who planned to have lotus birth, make art with the placenta and umbilical cord and to consume the placenta (placentophagy) in the future were higher than those who applied these practices. As an important result of the study, despite the high number of those who plan to have lotus birth in the future, most of them were undecided about the statements of lotus birth. Therefore, it is recommended that healthcare professionals conduct research and provide information on lotus birth, making art with the placenta and umbilical cord, and placentophagy, which are newly known and becomes popular among women.

Acknowledgments

“The authors gratefully acviews the cooperation of all the participants in this study”.

Declaration of Interest Statement

“The Author(s) declare(s) that there is no conflict of interest”.

Funding

“This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors”.

REFERENCES

- Adatara, P., Strumpher, J., Ricks, E., & Mwini-Nyaledzigbor, P. P. (2019). Cultural beliefs and practices of women influencing home births in rural Northern Ghana. *International Journal of Women's Health*, 11, 353–361. <https://doi.org/10.2147/IJWH.S190402>
- Avcin, E., & Can, Ş. (2021). Conventional beliefs and practices of primiparous and multiparous mothers regarding neonatal care. *Journal of Traditional Medical Complementary Therapies*, 4(3), 358–368. <https://doi.org/10.5336/jtracom.2021-84359>
- Aziato, L., & Omenyo, C. N. (2018). Initiation of traditional birth attendants and their traditional and spiritual practices during pregnancy and childbirth in Ghana. *BMC Pregnancy and Childbirth*, 18(1), 64. <https://doi.org/10.1186/s12884-018-1691-7>
- Ball, H. L. (2019). Conducting online surveys. *Journal of Human Lactation*, 35(3), 413–417. <https://doi.org/10.1177/0890334419848734>
- Baysal, N. (2020). Water in turkish birth tradition with a central overview of the belief system. *International Journal of Turkish Literature, Culture and Education*, 9(3), 1106–1124.
- Benyshek, D. C., Cheyney, M., Brown, J., & Bovbjerg, M. L. (2018). Placentophagy among women planning community births in the United States: Frequency, rationale, and associated neonatal outcomes. *Birth*, 45(4), 459–468. <https://doi.org/10.1111/birt.12354>
- Bosco, C. B., & Díaz, E. G. (2018). Placentophagy : a controversial trend. *International Journal of Research in Medical Sciences*, 6(6), 1841–1846.
- Cakirer Calbayram, N., Gonenc, I. M., & Topuz, N. (2019). Traditional beliefs and practices of women from preconceptional period to postpartum period. *The Journal of Health Sciences and Professions*, 6(2), 237–246. <https://doi.org/10.17681/hsp.431298>
- Canbay, F. Ç., Şeker, S., & Çitil, E. T. (2019). Doğum sonrası anne ve bebebakımına ilişkin kültürel yaklaşımların etkisi. In İ. Çaltekin & M. Çaltekin (Eds.), *Sağlık Bilimleri Alanında Araştırma Makaleleri* (pp. 36–51). Gece Kitaplığı Yayınevi.
- Cooper, B. M. (2019). Traveling companions: The burial of the placenta in Niger. *African Studies Review*, 62(2), 127–148. <https://doi.org/10.1017/asr.2018.17>
- Digital 2021. (2021). We are Social Hootsuite Reports.
- Dol, J., Richardson, B., Aston, M., McMillan, D., Tomblin Murphy, G., & Campbell-Yeo, M. (2022). Health information seeking in the postpartum period: A cross-sectional survey. *Journal of Neonatal Nursing*, 28(2), 118–122. <https://doi.org/10.1016/j.jnn.2021.08.008>

- Dönmez, F. R. (2020). Orta Toroslarda yaşayan Sarı keçili Yörükleri (gelenek, görenek ve inanışları). *Uluslararası Halkbilimi Araştırmaları Dergisi*, 5, 307–310.
- Ergün, S., Kaynak, S., Karadaş, A., & Çevik, C. (2019). An Examination of the preferences towards traditional practices in the postnatal period among the women residing in the service area of a family health centre. *Journal of Continuing Medical Education*, 28(1), 37–47. <https://doi.org/10.17942/sted.411964>
- Gönenç, İ. M., Aker, M. N., & Ay, E. (2019). Qualitative study on the experience of lotus birth. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, 48(6), 645–653. <https://doi.org/10.1016/j.jogn.2019.08.005>
- Guerra-Reyes, L., Christie, V. M., Prabhakar, A., Harris, A. L., & Siek, K. A. (2016). Postpartum health information seeking using mobile phones: Experiences of low-income mothers. *Maternal and Child Health Journal*, 20(S1), 13–21. <https://doi.org/10.1007/s10995-016-2185-8>
- Hayes, E. H. (2019). Placentophagy, lotus birth, and other placenta practices: what does the evidence tell us? *Journal of Perinatal and Neonatal Nursing*, 33(2), 99–102. <https://doi.org/10.1097/JPN.0000000000000402>
- International Confederation of Midwives. (2020). International Code of Ethics for Midwives. Due for next Review, 1–3.
- Kamaruddin, N. K., Ramli, M. A., & Abdul Wahab, R. (2018). Polemik amalan lotus birth dari perspektif hukum Islam. *Jurnal Fiqh*, 15(1), 1–40. <https://doi.org/10.22452/fiqh.vol15no1.1>
- Kroløkke, C., Dickinson, E., & Foss, K. A. (2018). The placenta economy: From trashed to treasured bio-products. *European Journal of Women's Studies*, 25(2), 138–153. <https://doi.org/10.1177/1350506816679004>
- Mbwambo, E., & Gibore, N. (2024). Assessment of factors associated with reproductive health seeking behaviours among adolescent mothers in Dodoma region. *MedRxiv*, 05, 1–20. <https://doi.org/10.1101/2024.05.10.24307202>
- Mota-Rojas, D., Orihuela, A., Strappini, A., Villanueva-García, D., Napolitano, F., Mora-Medina, P., Barrios-García, H. B., Herrera, Y., Lavalle, E., & Martínez-Burnes, J. (2020). Consumption of maternal placenta in humans and nonhuman mammals: Beneficial and adverse effects. *Animals*, 10(12), 2398. <https://doi.org/10.3390/ani10122398>
- Nayak, M. S. D. P., & Narayan, K. A. (2019). Strengths and weaknesses of online surveys. *IOSR Journal of Humanities and Social Sciences (IOSR-JHSS)*, 24(5), 31–38. <https://doi.org/10.9790/0837-2405053138>
- Oe, F., Oa, A., Ri, F., & Ag, A. (2021). Postpartum placental rituals: Perceptions of midwives and mothers in selected healthcare centers, southwestern Nigeria. *Annals of the Romanian Society for Cell Biology*, 25(4), 4681–4691.
- Ohaja, M., & Anyim, C. (2021). Rituals and embodied cultural practices at the beginning of life: African perspectives. *Religions*, 12(11), 1–12. <https://doi.org/10.3390/rel12111024>

- Özdemir, S., & Simsek, A. (2022). Practices related to placenta and umbilical cord in postpartum period. *KTO Karatay University Journal of Health Sciences*, 3(1), 71–80.
- Öztürk, S., Nacar, G., & Timur, S. (2022). Saėlık okuryazarlıėı düzeyi doėum sonu yapılan geleneksel uygulamaları etkiler mi? *Jinekoloji-Obstetrik ve Neonatoloji Tıp Dergisi*, 19(2), 1277–1282. <https://doi.org/10.38136/jgon.857463>
- Patrick, I. O., & Ferdinand, O. A. (2016). Rural women and their information seeking behavior. *Library Philosophy and Practice*, 2016(1).
- Sarantaki, A., Metallinou, D., Kyritsi, R., Diamanti, A., & Lykeridou, K. (2020). Perinatal cultural aspects of african refugee women resettled in greece: Providing culturally-sensitive midwifery care. *Materia Socio Medica*, 32(4), 294. <https://doi.org/10.5455/msm.2020.32.294-298>
- Schoenwald, C. (2020). Moms are making art from their own ... Umbilical cords. Your Tango. <https://www.yourtango.com/2016295493/moms-making-umbilical-cord-art-for-childbirth-keepsakes>.
- Siwila, L. C. (2015). The role of Indigenous knowledge in African women's theology of understanding motherhood and maternal health. *Alternation Special Edition*, 14, 61–76.
- TNSA. (2018). Hacettepe Üniversitesi Türkiye Nüfus ve Saėlık Araştırması. In Hacettepe University of Population Studies. https://hips.hacettepe.edu.tr/tr/2018_turkiye_nufus_ve_saglik_arastirmasi-55.
- TUIK. (2020). Address Based Population Registration System Results.
- TUIK. (2022). Household Information Technologies (IT) Usage Survey, 2022.
- Vallely, L. M., Homiehombo, P., Kelly-Hanku, A., Vallely, A., Homer, C. S. E., & Whittaker, A. (2015). Childbirth in a rural highlands community in Papua New Guinea: A descriptive study. *Midwifery*, 31(3), 380–387. <https://doi.org/10.1016/j.midw.2014.11.002>
- Whittington, J. R., Rumpel, J. A., Shnaekel, K. L., Peeples, S. E., Magann, E. F., & Burke, B. L. (2020). Alternative birth plans and unintended maternal and neonatal consequences: A review of the literature. *Obstetrical & Gynecological Survey*, 75(12), 766–778. <https://doi.org/10.1097/OGX.0000000000000849>
- Withers, M., Kharazmi, N., & Lim, E. (2018). Traditional beliefs and practices in pregnancy, childbirth and postpartum: A review of the evidence from Asian countries. *Midwifery*, 56, 158–170. <https://doi.org/10.1016/j.midw.2017.10.019>
- Yeşilçınar, İ., Şahin, E., & Mercan, D. (2021). Postpartum dönemdeki kadınların saėlık okuryazarlıėı ile geleneksel uygulamalara başvurmaları arasındaki ilişkinin incelenmesi. *Turkish Journal of Family Medicine and Primary Care*, 15(3), 594–601. <https://doi.org/10.21763/tjfmpe.865926>
- Zinsser, L. A. (2018). Lotus birth, a holistic approach on physiological cord clamping. *Women and Birth*, 31(2), e73–e76. <https://doi.org/10.1016/j.wombi.2017.08.127>