



Traumatic birth perception of women who experienced homebirth versus hospital birth: A case-control study from Türkiye

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ABSTRACT

Background: There is little known about the maternal and fetal outcomes of planned homebirths versus hospital births in Türkiye. The place where women give birth has an impact on their postpartum experiences and maternal and fetal outcomes.

Aim: This study aimed to compare women who experienced homebirth and hospital birth in terms of traumatic birth perception levels.

Methods: An unmatched case-control study was conducted with 215 mothers, including 97 cases and 118 controls, in Istanbul province. Participants were asked to complete an online survey which includes a personal information form about childbirth and postpartum experiences, and the Traumatic Birth Perception Scale. The responses received from 215 participants in the case and control groups were subjected to statistical evaluation. The comparison between the categorical characteristics of the homebirth and hospital birth groups was made using a chi-square analysis, and the comparison between continuous variables was made with an independent groups analysis.

Results: The homebirth group perceived childbirth as less traumatic. The feeling of safety during birth was significantly higher in the homebirth group than in the hospital birth group.

Conclusion: Our results are consistent with high-quality evidence regarding the biomedical safety of home birth. Home could be an important place to decrease traumatic childbirth perception.

Statement of Significance

Problem or Issue: Homebirth and hospital birth may affect maternal mental health in various ways.

What is Already Known: In many studies, homebirth is related to positive childbirth experience and associated with high levels of mental health.

What this Paper Add: How traumatic childbirth perception levels of women changes according to homebirth and hospital birth.

Introduction

The place of childbirth is one of the most important maternal preferences [1]. Historically, the home was the natural setting for childbirth [2]. With the development of health technology and male physicians' biomedical perspective, particularly during the 18th and 19th centuries, the setting for childbirth gradually shifted from home to the hospital [3–5]. Childbirth place's transition is considered a cornerstone in decreasing maternal death rates. It is thought that even in low-risk pregnancies, risks may arise for every mother and the fetus at any time. With this point of view, the hospital can still be assumed to be the safest place for childbirth [6]. However, the physiology of childbirth in hospital conditions has been negatively affected and predominantly

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medicalised [7,8]. The natural birth approach became popular in the 1970s, and planned homebirth has started to be accepted as an option worldwide [9,10]. Parameters have affected women's desire to homebirth. During the COVID-19 pandemic, women generally found going to the hospital to be a high-risk situation [11]. Many women have started to seek alternatives like homebirth [12,13].

Homebirth rates worldwide exhibit variation, ranging from 0.1% to 53% [14,15]. Health policies do not include homebirth in Türkiye. According to the Türkiye Demographic and Health Survey (TDHS) reports between 2013 and 2018, 99% of births were carried out in a health institution, and less than 1% were at home [16]. There are few homebirth studies from the Türkiye which retired or freelance midwives attended to the homebirth [17,18]. According to the International Confederation of Midwives-ICM, the pregnancies of most healthy women proceed normally, and there is no need for medical intervention during childbirth [19]. Also, the confederation supports the idea that women can choose homebirth within a national health system and with access to appropriate referral services in case the need arises, as well as appropriate insurance and compensation [20].

There are various benefits of homebirth in low-risk pregnancies, such as lower duration of childbirth, enhanced comfort level, and minimal obstetric intervention like episiotomy and induction [18,21]. In addition, women can choose any position during childbirth at home, and most of them do not experience any childbirth complications [18,21,22]. In a homebirth study, it was determined that 49.8% of the mothers gave birth in the position they wanted and chose to give birth in bed. For low-risk women who meet homebirth criteria, it is a safe choice [22]. Women planning to give birth at home are subject to fewer interventions (such as amniotomy and augmentation of labor) compared to those who give birth in a maternity unit [23]. Disadvantages are eliminated in a planned homebirth, where medical support is provided in cooperation with an experienced midwife in cases where transfer is necessary, the risk of infection is minimised, and the privacy of the woman is protected [23]. Women's prior traumatic experience of hospital birth motivates their assertive decision to have a planned homebirth despite criticisms and stigmatisation. Traumatic birth perception is an important indicator to evaluate the birth experience [24].

There is an urgent need to support women in their choice of birth-place and to strengthen birth service providers in homebirth service infrastructure and colleague support [25,26]. Also, there is a need for more clinical studies about homebirth. Therefore, this study aimed to compare homebirth with hospital birth in terms of traumatic birth perception primarily and secondarily maternal and fetal outcomes (duration of childbirth, mother-newborn first contact, suckling status, first breastfeeding time, newborn intensive care unit admission -NICU-, etc.).

Methods

Study design

The research was conducted as an unmatched case-control study retrospectively. The case group included women who had a homebirth, and the hospital birth group consisted of women who gave birth at the hospital. The case group was called the homebirth group, and the hospital birth group was called the hospital birth group throughout the article.

Study setting

The study was conducted in Türkiye via an online survey between October 8, 2021 and December 15, 2023. It was conducted with women who lived in Istanbul. In our country, the overall homebirth rate is only 1%. In the eastern part of the country, this rate increases to 3% [16]. The independent exposure variable of our study was birthplace, having a homebirth experience, defined as any birth where the woman's answer

was "homebirth" to the question "Where did you have your last childbirth?" This variable defined the two study groups by birth location: homebirth (case group) and hospital birth (control group).

Inclusion criteria for homebirth and hospital birth groups were being aged ≥ 18 years, speaking and writing Turkish, having at least one live childbirth, and experiencing a planned homebirth/hospital birth in the last year. The exclusion criteria for homebirth and hospital birth groups were being pregnant, having a psychiatric disease, and experiencing a high-risk pregnancy and childbirth. In studies mostly 1–4 years were chosen, we prefer 2 years. All mothers who gave birth in the last approximately 2 years were included to avoid the risk of memory bias [27,28].

Sample size and sampling

The sample size of the study was estimated using the sampling of the unknown population formula, based on a Cohen standard coefficient of 0.60, an alpha error probability of 0.05, and a study power of 0.80. Accordingly, the sample size was found to be 90 subjects, including 45 in each group. The snowball sampling method was employed for recruiting subjects. Within this framework, individuals who met the inclusion criteria and were initially enrolled in the system were encouraged to identify additional suitable women in their personal networks who had given birth at home or in a hospital. The process was systematically monitored to maintain data integrity, minimise selection bias, and ensure that the required sample size was met in a timely manner.

Data collection tools

Personal Information Form: This tool was developed based on a review of the literature [18,29]. It has 34 questions about socio-demographic characteristics (place of residence, monthly household income, ethnicity, religion, marital status, occupation, time needed to reach the nearest health facility, etc.), past obstetrics history, current pregnancy history, substance use (alcohol use, smoking, or drugs), and adverse maternal and neonatal outcomes during the current pregnancy.

The Traumatic Birth Perception Scale (TBPS): This scale was developed by Yalniz et al. [30] to measure the perception of traumatic birth in women between the ages of 18 and 40 (Appendix 1). It consists of 13 questions and a single sub-dimension. Cronbach's alpha value of the scale was 0.89. Each item is scored between 0 and 10, from none to most severe. As the score obtained from the scale increases, the level of perceiving birth as traumatic also increases. In our study, Cronbach's alpha value of the scores was 0.91 for the homebirth group and 0.88 for the hospital birth group.

Data collection

The online survey was shared via both homebirth and childbirth-related social media platforms and freelance midwives. The survey was announced 2–3 times a week. Also, researchers shared this online form on their networks. The individuals who had already been included in the study were requested to share this survey with other women who gave birth at home or in the hospital.

Data analysis

Data analysis was performed on the SPSS for Windows (version 20.0, Statistical Package for Social Sciences) software. The internal consistency of the scales used in the study was evaluated with Cronbach's alpha reliability coefficient. It was observed that the data showed a normal distribution since the skewness and kurtosis values of the data remained within the $+2.0/-2.0$ range [31]. The comparison between the categorical characteristics of the homebirth and hospital birth groups was made using a chi-square analysis, and the comparison between continuous variables was made with an independent groups analysis.

The sample was analysed using a *t*-test. Analyses were examined at a 95% confidence interval and a significance level of $p < 0.05$.

Ethical considerations

The data collection process was initiated after the approval of the Ethical Review Committee of a State University Human Studies had been obtained (Reference number: 29.03.2021 / 27256). Informed written consent was obtained from participants via the online survey. Confidentiality was maintained throughout and after the data collection process. To maintain privacy, a code number was given to each participant, and the questionnaire was administered anonymously.

Results

Our study included 215 women, 97 in the homebirth group and 118 in the hospital birth group. The age difference between these two groups was statistically significant ($t = 5.64$, $p = 0.00$). This showed that the hospital birth group was significantly older than the homebirth group. The average number of births was $1.61 (\pm 0.93)$ in the homebirth group and $1.77 (\pm 0.84)$ in the hospital birth group. The difference in the number of births between the two groups was not statistically significant ($t = 1.32$, $p = 0.19$). This showed no significant difference between the homebirth and hospital birth groups regarding the number of births. While the average birth week in the homebirth group was $39.43 (\pm 1.18)$, this average was $39.03 (\pm 1.62)$ in the hospital birth group. The difference between these two groups was statistically significant ($t = -2.03$, $p = 0.04$), which showed that the birth occurred later in the homebirth group than in the hospital birth group. While the average birth time of the homebirth group was $7.68 \text{ h} (\pm 5.63)$, it was determined as $6.89 \text{ h} (\pm 6.42)$ in the hospital birth group. The difference in birth time between the two groups was not statistically significant ($t = -0.95$, $p = 0.34$). This showed no significant difference between the homebirth and hospital birth groups in terms of the duration of birth. As a result, while there were statistically significant differences between the homebirth and hospital birth groups in terms of age and week of birth, there was no significant difference in terms of the number of births and the duration of birth. These findings revealed that both groups had different profiles in terms of age and birth week but were similar in the

number of births and the duration of birth (Table 1).

The study also revealed that there were significant differences between the homebirth and hospital birth groups in terms of the participants' perception of the birth process. While the homebirth group generally perceived the birth process more positively, it was perceived more negatively in the hospital birth group. These differences were statistically significant and yielded a significant difference between the two groups in terms of the perception of the birth process ($\chi^2 = 68.62$; $p = 0.00$) (Table 1).

In the study, the feeling of safety during birth was significantly higher in the homebirth group than in the hospital birth group. While all participants in the homebirth group stated that they generally felt safe during birth, this rate was 69.5% in the hospital birth group. Additionally, some participants in the hospital birth group stated that they never or only occasionally felt safe during birth, which was not observed at all in the homebirth group. These findings showed that the homebirth group felt safer during birth than the hospital birth group and that this difference was statistically significant ($\chi^2 = 35.54$; $p = 0.00$) (Table 1).

Our findings indicated significant differences between the homebirth and hospital birth groups in terms of feeling lonely during birth, too. Participants in the homebirth group felt much less alone during birth than those in the hospital birth group. While almost none of the participants in the homebirth group (96.9%) felt lonely during birth, half of the participants in the hospital birth group (50.8%) did not experience this feeling, either. In addition, the proportion of those who usually (16.1%) and sometimes felt lonely (33.1%) in the hospital birth group was much higher than in the homebirth group. These differences were statistically significant and showed a substantial difference between the two groups in terms of loneliness during birth ($\chi^2 = 55.57$; $p = 0.00$) (Table 1).

It was observed that there were significant differences between the homebirth and hospital birth groups in terms of the opportunity to choose the movements and positions they wanted during the birth process. All participants in the homebirth group (100.0%) could freely determine their movements and positions throughout the birth process. In contrast, 72.0% of participants in the hospital birth group had these opportunities. These findings showed that the homebirth group had more freedom of movement during the birth process than the hospital birth group and that this difference was statistically significant ($\chi^2 = 35.05$; $p = 0.00$) (Table 2).

There were significant differences between the homebirth and hospital birth groups in terms of various rights and opportunities during the birth process. The homebirth group had more positive experiences than the hospital birth group in matters such as privacy during birth, drinking water, taking a shower, and the right to permit interventions. These statistically significant differences revealed that the homebirth group had better conditions during the birth process (Table 2).

Several differences were detected between the homebirth group and the hospital birth group in terms of postpartum experiences. Mothers and infants in the homebirth group had more positive experiences in the postpartum period compared to those in the hospital birth group. In particular, the homebirth group was in a more advantageous position in matters such as early mother-infant bonding, time for the first breastfeeding, breastfeeding problems, exposure to psychological abuse, and postpartum pain. These statistically significant differences revealed that the homebirth group had better conditions during the birth process than the hospital birth group (Table 3).

According to the findings, there were significant differences between the homebirth group and the hospital birth group in terms of the types of intervention and support during birth. Mothers in the homebirth group experienced less induction of labour and episiotomy during childbirth and had positive experiences such as more emotional support, massage, music/prayer, and eating and drinking herbal/natural foods. These differences were statistically significant and showed that the homebirth group had better conditions during the birth process (Table 4).

As shown in Table 5, there were significant differences between the

Table 1
Sociodemographic characteristics of the homebirth and hospital birth groups.

Features	Homebirth Group (n: 97)		Hospital birth Group (n:118)		Test Request	p
	mean	±sd	mean	±sd	t*	
Age	28.31	± 4.65	32.86	± 6.73	5.64	0.00
Number of births	1.61	± 0.93	1.77	± 0.84	1.32	0.19
Week of birth	39.43	± 1.18	39.03	± 1.62	-2.03	0.04
The duration of birth	7.68	± 5.63	6.89	± 6.42	-0.95	0.34
The perception of birth	n	%**	n	%**	χ²***	
It was a scary process.	0	0.0	19	16.1	68.52	0.00
It was a little difficult but nice.	22	22.7	50	42.4		
It was as it should be.	17	17.5	38	32.2		
It was a beautiful, dream-like process.	58	59.8	11	9.3		
Feeling safe during birth						
Yes, usually.	97	100.0	82	69.5	35.54	0.00
No, almost never.	0	0.0	12	10.2		
Sometimes, from time to time	0	0.0	24	20.3		
Feeling lonely during birth						
Yes, usually.	1	1.0	19	16.1	55.57	0.00
No, almost never.	94	96.9	60	50.8		
Sometimes, from time to time	2	2.1	39	33.1		

*Independent Samples T-test; **Column percentage; ***Chi-square analysis.

Table 2
Comparison of birth characteristics.

Characteristics	Homebirth group		Hospital birth group		Test Request	p
	n	%**	n	%**		
Being allowed to do the movements and positions wanted throughout the birth process (from the beginning of the first contractions until birth)						
Yes	97	100.0	85	72.0	32.05	0.00
No	0	0.0	33	28.0		
Care for privacy during birth						
Yes	96	99.0	88	74.6	25.67	0.00
No	1	1.0	30	25.4		
Feeling hungry during birth						
Yes	3	3.1	74	62.7	82.31	0.00
No	94	96.9	44	37.3		
Being allowed to drink water or other liquids during birth						
Yes	96	99.0	59	50.0	63.45	0.00
No	1	1.0	59	50.0		
Being allowed to take a shower during birth						
Yes	95	97.9	48	40.7	78.33	0.00
No	2	2.1	70	59.3		
Being asked for permission for birth interventions (artificial pain, examination, etc.)						
Yes	92	94.8	92	78.0	12.92	0.00
No	5	5.2	26	22.0		

*Column percentage, **Chi-square analysis.

homebirth group and the hospital birth group during and after the birth process. Mothers in the homebirth group had more positive experiences, such as having their spouses or relatives with them during birth, less privacy issues, and having positive memories.

There was statistically significant difference between homebirth and hospital birth groups in terms of the positive moments during birth that women remembered. Participants in the hospital birth group had more negative experiences. These differences were statistically significant and showed that the homebirth group had better conditions during the birth process (Table 5).

As seen in Table 6, participants in the homebirth group rated their birth experiences higher than the hospital birth group. While rating of birth experience according to VAS in the homebirth group was 9.41, this average was 7.36 in the hospital birth group. The difference between the two was statistically significant ($p < 0.05$), indicating that the homebirth group was more satisfied with their birth experience.

Most of the participants in the homebirth group (93.8%) stated they would prefer to give birth at home if they were to give birth again. On the other hand, 50.8% of the participants in the hospital birth group reported that they would prefer to give birth in the hospital. Additionally, 36.4% of the participants in the hospital birth group did not plan to give birth again. These differences were statistically significant ($p < 0.05$). The results showed that the participants in the homebirth group were more satisfied with their birth experiences and that this satisfaction affected their future birth preferences (Table 6).

Table 7 shows the comparison of the traumatic birth perception scores of pregnant women in the homebirth and hospital birth groups. Participants in the homebirth group received lower scores than the hospital birth group in terms of traumatic birth perception. While the average traumatic birth perception score of the homebirth group was 32.88, the average of the hospital birth group was 52.16. This difference was statistically significant ($p < 0.05$), indicating that the homebirth group perceived the birth as less traumatic.

Table 3
Comparison of postpartum period characteristics.

Characteristics	Homebirth group		Hospital birth group		Test Request	p
	n	%*	n	%*		
Mother-infant bonding immediately after birth						
Yes	97	100.0	87	73.7	29.78	0.00
No	0	0.0	31	26.3		
How long were you allowed to hold your baby for the first time after birth?						
1–2 min	1	1.0	57	48.3	78.91	0.00
5–10 min	14	14.4	28	23.7		
Half an hour	21	21.6	6	5.1		
As I wanted	61	62.9	27	22.9		
First breastfeeding time						
Immediately after birth	36	37.1	20	16.9	37.33	0.00
Within the first 15 min	20	20.6	13	11.0		
In the first half hour	25	25.8	28	23.7		
In the first hour	15	15.5	23	19.5		
After 1 h	1	1.0	34	28.8		
Having problems with the baby's desire to suckle after birth						
Yes	4	4.1	18	15.3	7.18	0.01
No	93	95.9	100	84.7		
Exposure to bad, impolite behavior during birth						
Yes	1	1.0	15	12.7	10.55	0.01
No	96	99.0	103	87.3		
Postpartum medical condition that the midwife/doctor had difficulty controlling						
Yes	1	1.0	12	10.2	7.82	0.01
No	96	99.0	106	89.8		
Experiencing severe pain after birth						
Yes	12	12.4	42	35.6	15.26	0.00
No	85	87.6	76	64.4		
Need for medical attention due to a postpartum problem						
Yes	24	24.7	47	39.8	5.48	0.02
No	73	75.3	71	60.2		
Problems experienced***						
Vaginal tear or surgical sutures						
Yes	45	46.4	57	48.3	0.07	0.78
No	52	53.6	61	51.7		
Severe bleeding that needed intervention to stop						
Yes	4	4.1	13	11.0	3.47	0.07
No	93	95.9	105	89.0		
Contracting an infection during birth that needed treatment.						
Yes	0	0.0	2	1.7	1.66	0.50
No	97	100.0	116	98.3		
The baby was born breathless, which required intervention.						
Yes	0	0.0	9	7.6	7.72	0.01
No	97	100.0	109	92.4		
The infant was taken to the intensive care because it swallowed poop.						
Yes	0	0.0	2	1.7	1.66	0.50
No	97	100.0	116	98.3		
Shoulder/arm/leg damage in the infant, as it had difficulty getting out						
Yes	0	0.0	3	2.5	2.51	0.25
No	97	100.0	115	97.5		

*Column Percentage taken, **Chi square analysis, ***Multiple answers given.

Table 4
Methods applied during the birth process.

Features***	Homebirth group		Hospital birth group		Test Request	p
	n	%*	n	%*		
Induction of labour						
Yes	2	2.1	38	32.2	31.94	0.00
No	95	97.9	80	67.8		
Episiotomy						
Yes	4	4.1	45	38.1	35.00	0.00
No	93	95.9	73	61.9		
Bouncing on a Pilates ball						
Yes	32	33.0	28	23.7	2.20	0.17
No	65	67.0	90	76.3		
Having a shower						
Yes	80	82.5	28	23.7	73.49	0.00
No	17	17.5	90	76.3		
Walking						
Yes	57	58.8	45	38.1	9.04	0.01
No	40	41.2	73	61.9		
Massage with various oils						
Yes	70	72.2	24	20.3	58.11	0.00
No	27	27.8	94	79.7		
Music/prayer						
Yes	60	61.9	25	21.2	36.83	0.00
No	37	38.1	93	78.8		
Eating and drinking herbal/natural foods						
Yes	55	56.7	12	10.2	57.73	0.00
No	42	43.3	106	89.8		
Emotional support						
Yes	71	73.2	56	47.5	14.58	0.00
No	26	26.8	62	52.5		

* Column percentage, **Chi-square analysis, ***Multiple answers given.

Discussion

This research was designed as a case-control study to explore the traumatic birth perception of women who experienced planned homebirth versus hospital birth. Homebirth is not a new practice. Historically, it has been the traditional and most common way for women to give birth. But with technical development in healthcare practices, this norm has changed, and hospital births have become the norm. With the COVID-19 pandemic, requests for homebirth increased noticeably [32–34].

In our study, the duration of childbirth and the number of births were similar between homebirth and hospital birth groups. On the other hand, our hospital birth group was significantly older than the homebirth group. Similarly, it was found that younger multiparous women were more likely to prefer homebirth [35]. On the contrary, older women were more likely to prefer homebirth in some studies [36,37].

The homebirth group gave birth later than the hospital birth group. During homebirth, midwives mostly observe the physiological process. On the contrary, induction of labor use is very high in hospital births [38,39]. So, homebirth can take a little longer. In a study, maternal emotional level after childbirth was found to be higher in those who gave birth vaginally and those whose birth time was less than 12 h [40]. Maternal emotional level is related to mothers' satisfaction levels, and the duration of childbirth indicator varies for each woman [41–43].

The traumatic birth perception level was lower in the homebirth group in our study. This difference indicated that the homebirth group perceived the childbirth process more positively than the hospital birth group [44,45]. Vaginal birth self-efficacy perception is important to improve maternal outcomes [46]. The positive childbirth perception in the homebirth group may be attributed to the supportive and individualised care [45].

Homebirth group women had more positive experiences and felt less lonely in our study. It was stated that hospital may be seen as a ritual enactment of this technocratic model of childbirth [47]. And in another

Table 5
Comparison of the views of the homebirth and hospital birth groups regarding birth.

Characteristics	Homebirth group		Hospital birth group		Test Request	p
	n	%*	n	%*		
Having been allowed to have your spouse or a family member with you during birth?						
Yes	97	100.0	65	55.1	57.82	0.00
No	0	0.0	53	44.9		
What do you think is the most important support that can make birth positive for you?						
To feel safe	20	20.6	27	22.9	12.62	0.03
Not being lonely, having someone reliable and supportive	13	13.4	15	12.7		
Taking care of my privacy and respecting my decisions	34	35.1	21	17.8		
Explaining the medical interventions and the process to me and asking my opinion on the decisions	7	7.2	17	14.4		
Giving birth accompanied by a midwife/doctor I know and trust	23	23.7	34	28.8		
All	0	0.0	4	3.4		
A negative moment you remember about birth (before the baby was born)						
a. Moments when I was scolded by my midwife/doctor	0	0.0	2	1.7	27.66	0.00
b. Moments when the midwife/doctor forbade something I really want to do without explaining why	3	3.1	8	6.8		
c. Being lonely	one	1.0	6	5.1		
d. Very severe pain and inability to cope	14	14.4	25	21.2		
e. Times when my privacy and I were disrespected	one	1.0	8	6.8		
f. Moments when I felt scared	5	5.2	19	16.1		
g. Other	73	75.3	50	42.4		

* Column Percentage taken, **Chi square analysis.

Table 6
Comparison of birth experiences of pregnant women in the homebirth and hospital birth groups.

Characteristics	Homebirth group		Hospital birth group		Test Request	p
	mean	±sd	mean	±sd		
Rate your birth experience from 1 to 10 (VAS)	9.41 ± 0.92		7.36 ± 2.18		-8.67	0.00
If you were to give birth again, which of the place options would you choose?	n	%**	n	%**	x2 ***	p
I would give birth at home.	91	93.8	15	12.7	140.00	0.00
I would give birth in the hospital.	3	3.1	60	50.8		
I am not planning to give birth again.	3	3.1	43	36.4		

* Independent samples t-test, **Column percentage, ***Chi-square analysis.

study, women who experienced home birth and received continuity of

Table 7

Comparison of traumatic birth perception scores of women.

Characteristics	Homebirth group mean $\pm$ sd	Hospital birth group mean $\pm$ sd	Test Request t*	p
Traumatic birth perception total score	32.88 $\pm$ 22.44	52.16 $\pm$ 30.37	5.19	0.00

* Independent samples t-test.

midwifery care had lower deprivation scores [48]. Homebirth can be advantageous due to the participation of spouses, emotional safety, privacy, and comfort [21,49,50].

Overall, our findings revealed that the homebirth group was more advantageous in terms of early skin-to-skin contact, timing of the first breastfeeding, and fewer breastfeeding problems. In the literature, homebirths were associated with higher use of non-pharmacological analgesia, a greater tendency to initiate breastfeeding within the first hour after birth, and a stronger tendency to breastfeed [38].

There were no resuscitation procedures or medical interventions performed in the home birth group. And there were no NICU admissions. In literature there are relevant results such as Alcaraz-Vidal et al.'s [38] study which newborns from the home birth group had fewer admissions to the NICU. In another study the 10-minute Apgar scores for the newborns of the group of homebirths and births in midwife-led units requiring intrapartum transfer to hospital were found significantly lower [51]. Neonatal hospitalisations were not found to be associated with homebirth [52]. These results may be related to factors such as women giving birth in a comfortable, familiar environment and women receive midwifery care where there were unnecessary obstetric interventions.

In our study, the homebirth group had nearly no exposure to psychological abuse. A study on women's birth experiences in the Netherlands indicated that women who gave birth at home with a community midwife were more satisfied [53]. Women having home births rarely faced obstetric violence [54]. Hospital births were more frequently associated with disrespect [55,56]. So, it can be stated that homebirth is also psychologically safe for women. In a study which was offered midwifery continuity of care models to women with a history of psychological birth trauma, was found beneficial [57].

The homebirth group had more diversity of labor positions and had more positive experiences in terms of drinking water and taking a shower. In a Spanish study, hospital chbirths were related to higher use of lithotomy position and epidural analgesia [38]. It was also determined that the provision of midwifery care in planned homebirths would prioritise respect for birth physiology along with the safety and comfort provided by the home environment [45]. Midwife-led homebirth offers better outcomes for women such as have a normal vaginal birth and an intact perineum, less likely to require suturing and less likely to have blood loss of more than 500 ml. And better outcomes for newborn such as less likely to require resuscitation, more likely to be of normal birthweight and exclusively receive breastmilk on discharge [58]. In an Australian large-scale study, it was found that mostly women who wanted to have a specific birth experience, they preferred the home birth [59]. So, midwife -led homebirth may provide more freedom for the women. It was stated that home births were associated with higher maternal autonomy, respect, and satisfaction compared to hospital settings [60].

It was also found in the present study that the homebirth group had lower postpartum pain. Most homebirth studies in the literature focused on labor pain [38,61]. So, this seems like a gap in the literature about the postpartum pain parameter of homebirth.

Furthermore, the homebirth group felt safer during childbirth. Midwife-led homebirths offer better obstetric and neonatal outcomes than hospital births to low-risk women. These results suggest that homebirth is a safe and viable option that supports natural birth

processes and reduces medical interventions [38]. In another study, was discovered that homebirth involves celebration, togetherness and ontological security [62].

Conclusion

The homebirth group in the study had better conditions during the birth process than the hospital birth group. It was related to positive birth experiences and lower traumatic birth perception. Planned homebirth can be a safe alternative to give birth autonomously.

It can be an important option to decrease traumatic childbirth perception in low-risk pregnancies.

Strengths and limitations

The strength of the study was that this was the first case-control study about traumatic birth perception between hospital births and homebirths in Türkiye. However, the study was limited to women who lived in Istanbul.

Implications and recommendations

Homebirths can be an option for women who desire a birthplace that optimises physiological birth. The criteria for homebirth should be recognised and provide information about the childbirth process. There can be arranged public education about homebirth of the decreased rates of birth trauma. A campaign about homebirth can be conducted. In future studies, qualitative data on this subject would be richer if gathered in depth individual interviews.

Authorship contribution statement

Tuba Kizilkaya (TK): Conceptualisation, Methodology, Study Design, Data Collection, Writing – Original Draft, Writing – Review & Editing. Selma Hancioglu Aytac (SHA): Conceptualisation, Methodology, Data Collection, Writing – Original Draft, Writing – Review & Editing. Reyhan Aydin Dogan (RHA): Study Design, Data Collection, Formal Analysis, Writing – Review & Editing. Neslihan Sebik (NS): Conceptualisation, Data Collection, Writing – Review & Editing. Nukte Taslar (NT): Conceptualisation, Data Collection, Writing – Review & Editing.

Declaration of Competing Interest

The authors declare no potential conflicts of interest with respect to the research, authorship and publication of this article.

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Appendix A. The Traumatic Birth Perception Scale (TBPS)

<https://toad.halileksi.net/wp-content/uploads/2022/07/travmatik-dogum-olgisi-olcegi-toad.pdf>

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