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The Impact of Immigrants on the Number and Type of Births

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Abstract

Background: Although cesarean section is a life-saving procedure in certain situations, it may result in complications for maternal and infant health when conducted, especially for nonmedical purposes. The civil war in Syria has significantly modified the demographic and ethnic structure of Turkey, which has affected the number and type of births occurring here. In this study, we aimed to determine the effect of the increasing Syrian refugee patient population on primary cesarean section rates in Kilis/Turkey.

Methods: In this retrospective cohort study, pregnant women who gave birth at the State Hospital in the Kilis province in Turkiye between 2010 and 2021 were assigned to two groups: Syrian refugees and Turkish women, based on their ethnicity. The numbers, types, and rates of deliveries were separately studied for each group.

Results: A total of 39,537 deliveries took place at our hospital. The 12-year total cesarean section rate was determined to be 25.5%, with the total primary cesarean section rate of 8.8%. While the most common cesarean indication was previous cesarean section, the most common primary cesarean indication was fetal distress.

Conclusions: The tendency of Syrian patients to vaginal delivery, probably owing to cultural factors, has reduced the rate of primary cesarean section in Turkey.

Keywords: cesarean section, immigration, refugees, vaginal delivery

INTRODUCTION

From the early ages until now, human beings have had to migrate for several reasons, such as famine, disaster, epidemic, and war. Unfortunately, this is an undesirable situation that continues to this day. Turkiye has been facing the effects of the Syrian civil war since 2011 and has hosted more than 3.7 million asylum-seekers in the past 12 years.[1] Moreover, since asylum-seekers are concentrated in big cities and provinces around the border region, the population distribution pattern of these provinces has changed considerably.[2] Although migration affects everyone irrespective of their age and gender, children, women, and pregnant women have always been the most vulnerable. Noticeably, refugee women benefit less from prenatal care and undergo childbirth in hospitals, postpartum care, and reproductive health services than others. According to the Syrian Women in Turkey report prepared by the Disaster and Emergency Situation Organization (AFAD), 96% of births took place in hospitals or clinics.[3]

Cesarean section (CS) surgery is defined as the delivery of the fetus through incisions made in the abdominal and uterine wall when vaginal delivery is not possible or when vaginal delivery carries risks for the fetus or the mother.[4] Currently, the most common surgical procedure performed by obstetricians is the CS delivery.[5] Births by CS have increased rapidly in our country and worldwide, with the rate even exceeding 50% in some countries. The World Health Organization recommends that the CS rate (CSR) should not exceed 15%.[6] The CSR of 10–15% reduces the rate of infant, newborn, and maternal mortality, but that >15% is not associated with a decrease in perinatal mortality.[7]

Nonindicated CS has no proven benefit for the fetus or mother rather it increases chances of morbidity and mortality due to placental invasion anomalies, uterine rupture, bladder and bowel injuries, intra-abdominal adhesions, transient tachypnea of the newborn, and anesthesia risks.[8,9] The following are the reasons for the increase in the CS rate: increase in the age of first pregnancy due to career concerns and economic reasons, fear of childbirth, decrease in parity, widespread diagnosis of fetal distress (FD) due to the use of antenatal fetal monitoring and ultrasonography, increase in multiple and preterm pregnancies due to the increase in assisted reproductive techniques, a personal request of the expectant mother, inadequate use of painless delivery facilities other than CS, and encountering of medical concerns by the physician or possibilities of complications arising from vaginal delivery.[10,11] CS has been performed under life-threatening conditions for both the fetus and the mother such as unreliable nonstress test (NST), malpresentation, macrosomia, previous CS, abnormal

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placentation, head-pelvis incompatibility, and abruptio placenta.[12,13]

CS deliveries can be categorized into two main types: primary and repeat. The term primary CS refers to the case of CS delivery for the first time, while the term repeat CS refers to the case of previous CS deliveries. The most common cause of primary CS is labor arrest, and the most important factor that causes an increase in the overall CS rate is the recurrence of CS following a previous CS case.[14] Continued increases in CSR have become a global concern due to serious feto-maternal health risks. By 2030, it is estimated that one in three children will be born via CS.[15] Therefore, several researchers have developed plans to reduce the morbidity and mortality resulting from CS.

Nowadays, people with security, health, and food concerns as a result of war have to migrate to different countries. The migration of women affects the number and type of births in their destination countries in different ways. In addition, considering the feto–maternal risks associated with increased CSRs due to various reasons, the hypothesis that normal vaginal delivery is a better option for delivery in appropriate indications remains valid. For this reason, we observed that the number and types of births in our clinic showed differences owing to demographic structural changes, and very few studies have been conducted on the mode of delivery of migrant mothers in Turkey. For this reason, we investigated the effect of the increasing Syrian refugee patient population in our study region and their willingness and compliance with VD on primary CSR.

METHODS

Ethical approval for this study was obtained from Gaziosmanpasa University (Project no: 22-KAEK-095) on April 21, 2022. In this retrospective cohort study, all deliveries in the Kilis State Hospital Obstetrics and Gynecology service in Turkiye between January 2010 and December 2021 with an infant weight >500 g and a gestational period of ≥20 weeks or more were included in the study. Births with a birth weight <500 g and births before 20 weeks of gestation were excluded from the study as they were considered miscarriages. Patient information was obtained from the birth registry and the hospital's electronic automation system. Information from the time before 2010 was not available from the electronic hospital system. Therefore, data from 2010 and onward were added to the study.

All pregnant women included in the study were assigned to two groups—Syrian refugees or Turks—based on their race. The number and rates of total VD, total CS, primary CS, and repeated CS were calculated for each group. The delivery rates were calculated using the following formulas:

Vaginal delivery rate: number of total vaginal deliveries/total number of deliveries * 100; Primary CSR: primary CS number/ total number of deliveries * 100; Repeated CSR: repeated CS number/total number of deliveries * 100; Total CSR: Total CS number/Total number of births * 100. Considering that four out of six physicians remained unchanged at our clinic since 2016, CS indications were evaluated for the last six years. The indications for CS during 2016–2021 were determined as follows: previous CS, nonprogressive labor, cephalopelvic disproportion (CPD), FD, presentation anomaly, hypertensive diseases of pregnancy, multiple pregnancies, macrosomia, placental anomaly, maternal desire, and others (e.g., placenta previa, placental abruption, and cord entanglement).

Primary CSR was compared between two different racial categories. As primary CS is not a rare outcome, no statistical analysis giving odds ratio was preferred, considering that the odds ratio may give a more exaggerated result than the risk ratio. The risk ratio was obtained with Poisson's regression for the comparison of primary CSR between the groups. In Poisson's regression, because the data were not in the Poisson distribution, robust SE was calculated instead of naive SE. The data for 2010 and 2011 have been presented in a table for information purposes only and were not included in the regression analysis to avoid any bias that may occur due to the sparse (less than 5) data of the Syrian group. Confidence intervals instead of *p*-value were taken into account for the calculation of the statistical significance to avoid misleadingly underestimating the *p*-value due to the large sample size. It was also considered significant if the confidence interval did not cut the value 1. The statistical software program RStudio 2022.07.2 Build 576 was used for statistical analyses.

RESULTS

A total of 39,537 pregnant women were assigned to two groups as Syrian refugees (Group I, N = 21,566) or Turkish (Group II, N = 17,971) based on their race. Socio-demographic information of Group I (SR) and Group II (TR) participants, including their mean age, educational status, body mass index, and consanguineous marriage, are summarized in Table 1. The mean gestational age was lesser in Group I. The literacy rate and consanguineous marriage rate were similar in both groups.

Between January 2010 and December 2021, we analyzed a total of 39,537 deliveries, of which 10,066 (25.5%) were cesarean and 29,471 (74.5%) were vaginal. In all, 4,252 (19.7%) of the total cesarean deliveries belonged to Group I (SR) and 5,814 to Group II (TR). Moreover, 17,314 (80.3%) of the total vaginal deliveries belonged to Group I (SR), and 12.157 (67.6%) belonged to Group II (TR). The 12-year total CSR in two different race categories—Syrian and Turkish—were 19.7% and 32.4%, respectively, with

primary CSR of 6.5% and 11.6%, previous CSR of 13.2% and 20.8% and VDR of 80.3% and 67.6%.

Considering the distribution of CS indications between Turkish and Syrian women between 2016 and 2021, the most common primary CS indication was FD and the most common CS indication was previous CS in both groups. Other indications have been reported as malpresentation (breech-transverse presentation), FD, CPD, nonprogressive labor, macrosomia, preeclampsia, multiple pregnancy, and other causes (e.g., cord prolapse and placental abruption) in Table 2.

Primary CSR between 2012 and 2021 was compared in accordance with the race categories using Poisson's regression analysis with robust SE. The primary CSR of Syrian women was 39% lower than that of Turkish women, which was found to be statistically significant (Risk ratio: 0.61, 95% confidence interval: 0.57–0.65; robust standard error: 0.03, estimated beta regression coefficient: −0.50).

TABLE 1. Sociodemographic characteristics of participants

Variable	Group I (SR) (N = 21,566) N (%)	Group II (TR) (N = 17,971) N (%)
Age (years)		
<20	6,865 (32)	4,890 (27)
20–35	11,009 (51)	8,379 (47)
≥35	3,692 (17)	4,702 (26)
Body Mass Index (kg/m²)		
<18.5	592 (3)	248 (1)
18.5–24.9	10,581 (49)	7,916 (44)
25–29.9	8,728 (40)	8,134 (45)
30–34.9	1,062 (5)	1,110 (6)
>35	603 (3)	563 (3)
Literacy		
Literate	20,915 (97)	17,432 (97)
Illiterate	651 (3)	539 (3)
Consanguineous marriage		
Present	3,235 (15)	2,469 (14)
Absent	18,331 (85)	15,502 (86)

TABLE 2. Distribution of cesarean section indications in Turkish and Syrian women between 2016 and 2021

Variable	2016 N (%)	2017 N (%)	2018 N (%)	2019 N (%)	2020 N (%)	2021 N (%)
Previous cesarean section						
Syrian	424 (76.5)	423 (69.6)	373 (75.8)	378 (81.5)	355 (74.7)	359 (72.2)
Turkish	293 (68.0)	400 (67.6)	410 (75.1)	405 (79.1)	367 (73.1)	441 (71.8)
Non-progressive labor						
Syrian	18 (3.2)	21 (3.5)	8 (1.6)	6 (1.3)	5 (1.0)	4 (0.8)
Turkish	14 (3.2)	17 (2.9)	11 (2.0)	8 (1.6)	9 (1.8)	11 (1.8)
Cephalo pelvic disproportion						
Syrian	31 (5.6)	15 (2.5)	8 (1.6)	1 (0.2)	4 (0.8)	4 (0.8)
Turkish	54 (12.5)	30 (5.1)	9 (1.6)	2 (0.4)	4 (0.8)	15 (2.4)
Fetal distress						
Syrian	22 (4.0)	52 (8.6)	36 (7.3)	38 (8.2)	47 (9.9)	66 (13.3)
Turkish	21 (4.9)	68 (11.5)	45 (8.2)	49 (9.6)	59 (11.8)	85 (13.8)
Fetal malpresentation						
Syrian	35 (6.3)	55 (9.0)	44 (8.9)	24 (5.2)	42 (8.8)	26 (5.2)
Turkish	37 (8.6)	49 (8.3)	46 (8.4)	33 (6.4)	38 (7.6)	23 (3.7)
Preeclampsia						
Syrian	4 (0.7)	3 (0.5)	3 (0.6)	3 (0.6)	5 (1.1)	1 (0.2)
Turkish	1 (0.2)	4 (0.7)	7 (1.3)	5 (1.0)	3 (0.6)	4 (0.7)
Multiple pregnancy						
Syrian	16 (2.9)	22 (3.6)	14 (2.8)	7 (1.5)	12 (2.5)	15 (3.0)
Turkish	6 (1.4)	11 (1.9)	9 (1.6)	5 (1.0)	7 (1.4)	12 (2.0)
Macrosomia						
Syrian	2 (0.4)	9 (1.5)	2 (0.4)	2 (0.4)	4 (0.8)	2 (0.4)
Turkish	2 (0.5)	6 (1.0)	5 (0.9)	1 (0.2)	8 (1.6)	5 (0.8)
Placental abnormalities						
Syrian	2 (0.4)	7 (1.2)	4 (0.8)	3 (0.6)	0 (0.0)	7 (1.4)
Turkish	3 (0.7)	6 (1.0)	3 (0.5)	2 (0.4)	4 (0.8)	3 (0.5)
Maternal desire						
Syrian	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Turkish	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.2)	0 (0.0)	0 (0.0)
Others (Previa, Abruption, Cord Entanglement etc.)						
Syrian	0 (0.0)	1 (0.2)	0 (0.0)	2 (0.4)	1 (0.2)	13 (2.6)
Turkish	0 (0.0)	1 (0.2)	1 (0.2)	1 (0.2)	3 (0.6)	15 (2.4)

DISCUSSION

CS, which is called the delivery of a live or dead fetus via uterine incision from the abdomen, is the most common surgical procedure performed by obstetricians on women of reproductive age.[5] Most doctors prefer CS to prevent the medicolegal problems they might encounter after VD; this situation has considerably increased the CSR in our country as well as in the entire world. According to the Turkiye Demographic and Health Survey data, CSR in our country was 37% in 2008, 48% in 2013, and 52% in 2018, and this rate is clearly increasing day by day.[16] The rate of CS in Syria is 26%, and, according to the data of the Syrian American Medical Association (SAMS), this rate decreases due to emigration.[17]

In the past decade, the encouragement of the vaginal delivery option after the CS (VBAC) in selected cases has been supported all across the world, especially in the USA, as an attempt toward reducing the rate of cesarean deliveries by increasing the number of vaginal deliveries. Several studies have demonstrated that VBAC can be successful at rates reaching 60–90%, with appropriate patient selection.[18] In our study, a certain population of patients underwent VBAC, and, interestingly, most of these patients were of Syrian nationality.

Past studies in the literature have highlighted that the increase in the CS delivery rates is due to primary CS cases. Therefore, to reduce the rate of birth with CS, it would be reasonable to examine patients who underwent primary CS and to identify and prevent any potentially avoidable cases.[19] While the primary CSR is 30% in Turkiye for the year 2020,[20] the 12-year primary CSR in our clinic has been 8.8% (11.6% in Turkish patients and 6.5% in Syrian patients), indicating a value below the country average.

Presently, the biggest reason for the increase in primary CSR is the cases performed without any medical purpose/indication. Most of the increased CS cases in Western countries can be attributed to maternal desire. Mazzoni *et al*. reported that 16% of the women in their study desired cesarean delivery,[21] mostly because of their belief that the safety of modern CS is at a level that can neutralize the risks of VD in terms of the health of the baby and the mother; therefore, cesarean delivery should be presented as an option. Another study emphasized that women's desire to undergo CS is due to the high rate of the use of this method.[22] In addition, in a study conducted by Akhter, as the knowledge about the benefits and risks of vaginal birth has subsided, a mother's desire for CS has increased.[23] In our study, we noticed that only one Turkish patient had CS due to maternal wishes. We believe this is the main reason our primary CSR is below the country average.

CPD among CS indications in the literature has a strikingly upward ratio. The most important reason for the increase in this rate may be "the doctor's fear of being sued" in case of a complication that might occur during normal delivery.[24,25] Additional reasons may include a physician's lack of time and the patient's resistance to normal delivery. Mehmet *et al*. found CPD to be the second-most common CS indication in a study.[26] In our study, it was the 4th most common indication for primary CS.

Although it has been determined that electronic fetal monitoring is not superior to intermittent heart rate auscultation to prevent neurological sequelae due to uteroplacental insufficiency, CS is frequently performed with the indication of FD.[27] In the Cochrane systemic study conducted by Devane *et al*., the data of approximately 13,000 pregnant women between 37 and 42 weeks of gestation were examined, and it was found that continuous electronic fetal monitoring in low-risk pregnancies did not provide any additional benefit in terms of perinatal morbidity and mortality. The authors also concluded that continuous electronic fetal monitoring increases the rate of CS delivery by approximately 20%.[28] In our study, FD was the second-most common CS indication, consistent with the literature. Although no statistical comparison was made, an examination of the primary CS indications revealed that CPD and FD emerged with a more prominent difference between the groups. This aspect raised the question of whether these indications are more common in Turkish patients or whether they do not reflect the true indication due to medicolegal problems.

Overdiagnosis of indications such as FD or CPD due to medicolegal fears contributes to the increase in primary CSR. A study by Localio *et al*. showed that physicians prefer CS more in countries where malpractice laws are strictly enforced[29]. At present, lawsuits have been filed against physicians not because they performed a CS delivery but because they did not perform a CS delivery. We believe that the motive to sue physicians is secondary to possible birth complications owing to the problems that are generally experienced by asylum-seekers, such as language, work, and accommodation. Studies by Ferreira *et al*.[30] in Brazil and by Cho *et al*.[31] in Korea suggested that the CSR of immigrant women is higher than that of the corresponding native population. However, in a study by Hetherington *et al*.,[32] there was no difference between the CSR of immigrant and Canadian women. In fact, these authors found that CSR for newly arrived immigrants from countries with medium and high CSR was not different from that of Canadian-born women. In contrast, newly arrived immigrants from countries with lower CSR had higher CSR. Lebanon, a country on the southwestern border of Syria, hosts the highest number of refugees per capita, and a study here revealed that the CSR of pregnant Syrian migrant patients is higher.[33] Contrary to these

studies, Kukrer *et al*. found that the prevalence of CS among Syrian immigrants in Turkey was lower.[34] In our study, both the general and primary CSR of Syrian migrant women were lower than those of Turkish women. We believe that immigrant women may have different CSR throughout the world, probably resulting from lifestyle changes, communication barriers, and unfamiliarity with the health system and cultural preferences.

The most important limitation of our study is that more than one gynecologist and obstetrician indicated CS, which prevented an objective distribution. If this situation is provided by a single physician, the indications for CS may differ less. Although the retrospective design of the study is considered another limitation, the high number of patients and the fact that there are not many studies on this subject in our country displays its strengths. Moreover, only a few studies have been conducted on this particular subject in our country, which limits the comparative and contrast studies with other research. In addition, the study did not account for possible variations in clinical practices and decision-making processes among different physicians. This heterogeneity can introduce variability in the data, impacting the overall conclusions drawn. Future studies should address this aspect by stratifying the data based on individual physician practices or by analyzing a subset of data managed by a consistent team.

CONCLUSIONS

In our study, the primary CSR of Syrian women was 39% lower than that of Turkish women. We believe that this difference was attributable to the fact that the obstetricians might be feeling safer in a Syrian patient population in terms of their medicolegal problems. In addition, the willingness of Syrian pregnant women to undergo VD may have increased their compliance with the recommendations of their obstetricians during labor and, finally, decreased their primary CSR. We believe that CSR would reduce in an environment where patients desire normal delivery without any medical fears and physicians want to apply normal delivery without any legal fears.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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REFERENCES

1. Aksakal İ. Türkiye'deki suriyeli sığınmacılar: Türk toplumsal yapısı ve ulus devlet politikasına etkisi [Syrian refugees in Turkey: Its Impact on Turkish social structure and nation state policy]. *Kafkas Üniversitesi Sosyal Bilimler Enstitüsü Derg*. 2022;30:671–90. Turkish.
2. Fransen S, de Haas H. Trends and patterns of global refugee migration. *Popul Dev Rev*. 2022;48:97–128.
3. Kurtuldu K, Şahin E. Göçün kadın yaşamı ve sağlığı üzerine etkileri [The effects of immigration on women life and health]. *Ordu Üniversitesi Hemşirelik Çalışmaları Derg*. 2018;1:37–46. Turkish.
4. Sung S, Mikes BA, Mahdy H. *Cesarean section*. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024.
5. Dahlke JD, Mendez-Figueroa H, Maggio L, Sperling JD, Chauhan SP, Rouse DJ. The case for standardizing cesarean delivery technique: Seeing the Forest for the Trees. *Obstet Gynecol*. 2020;136:972–80.
6. Mekonnen BD, Asfaw AA. Predictors of successful vaginal birth after a cesarean section in Ethiopia: A systematic review and meta-analysis. *BMC Pregnancy Childbirth*. 2023;23:65.
7. Betran AP, Ye J, Moller AB, Souza JP, Zhang J. Trends and projections of caesarean section rates: Global and regional estimates. *BMJ Glob Health*. 2021;6:e005671.
8. Al-Husban N, Elmuhtaseb MS, Al-Husban H, Nabhan M, Abuhalaweh H, Alkhatib YM, *et al*. Anesthesia for cesarean section: Retrospective comparative study. *Int J Womens Health*. 2021;13:141–52.
9. Antoine C, Young BK. Cesarean section one hundred years 1920-2020: The Good, the Bad and the Ugly. *J Perinat Med*. 2020;49:5–16.
10. Filiz M. Türkiye'de Sezaryen Ameliyatlarına Yönelik Politikaların Analizi [Investigation of study on the cesarean operation carried out in Turkey]. A*rtvin Çoruh Üniversitesi Uluslararası Sosyal Bilimler Derg*. 2020;6:74–83. Turkish.
11. Jenabi E, Khazaei S, Bashirian S, Aghababaei S, Matinnia N. Reasons for elective cesarean section on maternal request: A systematic review. *J Matern Fetal Neonatal Med*. 2020;33:3867–72.
12. Kiremitli S, Kiremitli T, Yılmaz N. Hastanemizde son bir yıl içerisinde yapılan acil ve elektif sezaryen doğum sonuçlarının değerlendirilmesi [Evaluation of the results of emergency and elective cesarean deliveries performed in our hospital in the last year]. *Jinekoloji-Obstetrik ve Neonatoloji Tıp Derg*. 2022;19:1121–6. Turkish.
13. Morton R, Burton AE, Kumar P, Hyett JA, Phipps H, McGeechan K, *et al*. Cesarean delivery: Trend in indications over three decades within a major city hospital network. *Acta Obstet Gynecol Scand*. 2020;99:909–16.
14. Penn Z, Ghaem-Maghami S. Indications for caesarean section. *Best Pract Res Clin Obstet Gynaecol*. 2001;15:1–15.
15. Zaigham M, Varallo J, Thangaratinam S, Nicholson W, H A Visser G. Global disparities in caesarean section rates:

Why indication-based metrics are needed. *PLOS Glob Public Health*. 2024;4:e0002877.
16. Amanak K. Gebelerin Vajinal ve Sezaryen Doğuma Yönelik Görüşleri: Nitel Bir Çalışma [About pregnant women views of cesarean and vaginal delivery: A qualitative study]. *Sakarya Üniversitesi Holistik Sağlık Derg*. 2022;5:122–40. Turkish.
17. Umar BU, Haque M. Growing concern over rising caesarean section rates: Is it a problem for low-and middle-income countries only? *Adv Hum Biol*. 2022;12:93–100.
18. Iglesias-Benavides J, Cedeño-Morales VM, Guerrero-González G, Guzmán-López A. Labor trials in 300 patients with a previous cesarean section. *Med Univ*. 2017;19:166–9.
19. Bülbül M. Primer sezaryen doğum oranını etkileyen faktörler [Factors affecting primary cesarean delivery rate]. *Uludağ Üniversitesi Tıp Fakültesi Derg*. 2021;47:111–5. Turkish.
20. Başara BB, Çağlar İS, Aygün A, Özdemir TA, Kulali B, Yentür GK, et al. T.C. *Sağlık Bakanlığı Sağlık İstatistikleri Yıllığı 2020* [Ministry of Health of the Republic of Turkey Health Statistics Yearbook 2020]. Ankara: Ministry of Health of the Republic of Turkey; 2020. Turkish.
21. Mazzoni A, Althabe F, Liu NH, Bonotti AM, Gibbons L, Sánchez AJ, *et al*. Women's preference for caesarean section: A systematic review and meta-analysis of observational studies. *BJOG*. 2011;118:391–9.
22. Etcheverry C, Betrán AP, de Loenzien M, Kaboré C, Lumbiganon P, Carroli G, *et al*. Women's caesarean section preferences: A multicountry cross-sectional survey in low- and middle-income countries. *Midwifery*. 2024;132:103979.
23. Akhter S, Schech S. Choosing caesareans? The perceptions and experiences of childbirth among mothers from higher socio-economic households in Dhaka. *Health Care Women Int*. 2018;39:1177–92.
24. Elaraby S, Altieri E, Downe S, Erdman J, Mannava S, Moncrieff G, *et al*. Behavioural factors associated with fear of litigation as a driver for the increased use of caesarean sections: A scoping review. *BMJ Open*. 2023;13:e070454.
25. Takegata M, Smith C, Nguyen HAT, Thi HH, Thi Minh TN, Day LT, *et al*. Reasons for increased caesarean section rate in Vietnam: A qualitative study among Vietnamese mothers and health care professionals. *Healthcare (Basel)*. 2020;8:41.
26. Güney M, Uzun E, Oral B, Sarikan İ, Bayhan G, Mungan T. Kliniğimizde 2001-2005 yılları arasında sezaryan oranı ve endikasyonları [Cesarean section rates and indications at our clinic between 2001 and 2005]. *Uzmanlık Sonrası Eğitim ve Güncel Gelişmeler Derg*. 2006;3:249–54. Turkish.
27. Çağlayan EK, Mustafa K, Gürel Y. Kliniğimizde üç yıllık sezaryen oranı ve endikasyonları [Cesarean section rate and indications in our clinic to theree years]. J Exp Clin Med. 2010;27:50–3. Turkish.
28. Gourounti K. Cochrane review finds that use of cardiotocograph on admission to the labour ward, rather than intermittent auscultation of the fetal heart rate, may increase risk of caesarean in low-risk women. *Evid Based Nurs*. 2012;15:106–7.
29. Tekirdağ Aİ, Cebeci R. Eğitim hastanesinde sezaryen oranları. *Jinekoloji Obstetrik Pediatri ve Pediatrik Cerrahi Derg*. 2010;2:21–6. Turkish.
30. Ferreira ÉK, de Almeida MF, Alencar GP, da Silva ZP. Live births of immigrant mothers in Brazil: A population-based study. *J Migr Health*. 2022;5:100108.
31. Cho GJ, Kim HY, Ko HS, Cho HJ, Hong SY, Noh E, *et al*. Pregnancy outcomes of immigrant women living in Korea: A population-based study. *PLoS One*. 2022;17:e0278193.
32. Hetherington E, Adhikari K, Scime NV, Metcalfe A. Cesarean deliveries among immigrant and Canadian-born women in a representative community population in Canada: A retrospective cohort study. *J Obstet Gynaecol Can*. 2022;44:148–56.
33. AlArab N, Nabulsi D, El Arnaout N, Dimassi H, Harb R, Lahoud J, *et al*. Reproductive health of Syrian refugee women in Lebanon: A descriptive analysis of the Sijilli electronic health records database. *BMC Womens Health*. 2023;23:81.
34. Kukrer S. Comparison of delivery characteristics and obstetric outcomes of Syrian refugee pregnancies after a decade. *Ann Med Res*. 2023;30:14–20.