ORIGINAL RESEARCH ARTICLE

Evaluation of feto-maternal and fertility characteristics of Syrian women giving birth in a Turkey hospital

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Abstract

This study examined the health and fertility patterns of 100 Syrian women who gave birth at a hospital in Diyarbakir, Turkey, between February and April 2022. Findings revealed a mean age of 26.5 years, with participants having lived in Turkey for approximately 5.5 years. The data indicated early marriages (average age 18.3 years) and first births (19.6 years), alongside high fertility rates (mean number of pregnancies: 3.4; births: 2.9). While 64% received antenatal care and 70% had normal deliveries with healthy newborns (normal Apgar scores), the study highlighted significant challenges, including low educational attainment, insufficient prenatal care, and limited use of modern family planning methods. Despite these risk factors, favourable birth outcomes were frequently observed. The findings underscore the need to enhance access to prenatal care, expand family planning education, and improve educational opportunities to promote better reproductive health among Syrian women in Turkey. *(Afr J Reprod Health 2026; 30 [5]: 18-25).*

Keywords: Antenatal care, feto-maternal health, syrian women, birth outcomes, Turkey

Résumé

Cette étude a évalué les caractéristiques de santé et de fécondité de 100 femmes syriennes ayant accouché dans un hôpital de Diyarbakir, en Turquie, entre février et avril 2022. Les résultats ont montré un âge moyen de 26,5 ans, les participantes résidant en Turquie depuis environ 5,5 ans. Les données ont mis en évidence des mariages précoces (âge moyen : 18,3 ans) et des premières naissances à un jeune âge (19,6 ans), ainsi que des niveaux élevés de fécondité (nombre moyen de grossesses : 3,4 ; naissances : 2,9).Bien que 64 % des femmes aient bénéficié de soins prénatals et que 70 % aient accouché par voie basse avec des nouveau-nés en bonne santé (scores d'Apgar normaux), l'étude a mis en lumière d'importantes difficultés, notamment un faible niveau d'instruction, un suivi prénatal insuffisant et un recours limité aux méthodes modernes de planification familiale. Malgré la présence de ces facteurs de risque, des issues de naissance favorables ont fréquemment été observées.Ces résultats soulignent la nécessité de renforcer l'accès aux soins prénatals, de développer l'éducation à la planification familiale et d'améliorer les opportunités éducatives afin de promouvoir une meilleure santé reproductive chez les femmes syriennes vivant en Turquie.. *(Afr J Reprod Health 2026; 30 [5]: 18-25).*

Mots-clés: Soins prénatals, santé fœto-maternelle, femmes syriennes, issues de naissance, Turquie

Introduction

Historically, Turkey has served as a major transit and destination country for diverse migration movements due to its strategic geographic location[1]. The Syrian civil war, which began in 2011, resulted in a large influx of Syrian refugees into Turkey.[2] Among these refugees, women represent a particularly vulnerable group and face substantial challenges in accessing adequate healthcare services. Individuals forced to flee their homes because of conflict or persecution are more likely to experience adverse health outcomes compared with settled populations. This vulnerability is especially pronounced among women, who often encounter poverty, language barriers, limited access to healthcare, and overcrowded living conditions in refugee settings. Such factors can substantially hinder access to adequate prenatal care and may lead to unfavourable maternal and neonatal outcomes.[3,4]In Turkey, the Ministry of Health has established

national guidelines for antenatal care (ANC),recommending that pregnant women receive at least four prenatal follow-up visits before delivery, in addition to postpartum care provided both in hospital settings and at home.[4] Despite the availability of these services, Syrian refugee women continue to experience considerable barriers to accessing adequate ANC. Previous studies have reported a high burden of reproductive health problems among Syrian refugee women living in Turkey, including stillbirths, low birth weight, preterm births, cesarean deliveries, gestational diabetes, menstrual irregularities, and vaginal infections. These outcomes have been attributed to multiple intersecting factors, such as high fertility rates, cultural practices, socioeconomic disadvantage, and disruptions in continuity of care.[5,6,7] The rapid increase in the refugee population has also placed significant strain on healthcare systems in border provinces, where public hospitals report markedly increased demand for maternal health services.[8] This strain has contributed to overcrowding and reduced accessibility of services, including ANC, for Syrian women.[9,10]Additionally, refugee women frequently face transportation difficulties, financial constraints, safety concerns, and limitations in healthcare infrastructure, all of which further restrict timely and adequate access to prenatal care.[11,12]National-level evidence further underscores the reproductive health vulnerabilities of Syrian women living in Turkey. Data from the 2018 Turkey Demographic and Health Survey (TDHS) Syrian migrant sample indicate that early marriage and early childbearing are highly prevalent among Syrian women, with a median age at first marriage of 19.3 years and a substantial proportion marrying before the age of 18. The same report highlights high fertility levels, with a total fertility rate exceeding five births per woman, particularly among women with low educational attainment. These national patterns closely align with the findings of the present study, reinforcing the persistence of early marriage and elevated fertility among Syrian refugee women and emphasizing the need for targeted maternal and reproductive health interventions.[13]This study provides novel evidence on the feto-maternal and fertility characteristics of Syrian refugee women delivering in a tertiary public hospital in southeastern Turkey, a region hosting a high concentration of refugees. Unlike previous studies focusing primarily on obstetric outcomes, this research integrates antenatal care utilization, fertility patterns, and socio-demographic determinants within the context of Turkey's public healthcare system, where refugee women are entitled to free maternal health services. By examining both care access and outcomes simultaneously, the study contributes new insights relevant for health policy, service planning, and equity in maternal healthcare for refugee populations.

Methods

Study design and population

This descriptive cross-sectional study was conducted among 100 Syrian women who gave birth between 28 February 2022 and 11 April 2022 at the Health Sciences University Diyarbakir Gazi Yaşargil Training and Research Hospital, one of the tertiary hospitals with the highest number of deliveries in the Southeastern Anatolia Region of Turkey. Because the size of the source population was unknown, the sample size was calculated using G*Power version 3.1.9.4. Based on Cohen's criteria, an effect size of 0.45, a 95% confidence level, and a 5% margin of error were applied, yielding a minimum required sample size of 98 participants. The primary hypothesis of the study was that Syrian pregnant women who do not receive regular antenatal care (ANC) may be at increased risk of adverse health outcomes and complications during pregnancy and childbirth.

Data collection

Data were collected using a structured, three-part questionnaire administered through face-to-face interviews after written informed consent was obtained. The first section included sociodemographic and personal characteristics; the second section assessed fertility-related characteristics; and the third section comprised feto-maternal clinical information obtained from hospital medical records.The primary outcome variable of the study was antenatal care (ANC) utilization.

Table1: Fertility characteristics and prenatal hemoglobin and hematocrit levels of Syrian women who gave birth in the hospital

	Mean ± SD	Range
Age at first marriage	18.3 ± 2.1	14–24
Age at first birth	19.7 ± 2.1	16–25
Number of pregnancies	3.4 ± 1.7	1–10
Number of births	2.9 ± 1.2	1–8
Time since previous birth (if any)	2.9 ± 1.1	0–7
Desired number of children	3.7 ± 1.0	2–7
Hemoglobin (Hgb) value	11.5 ± 2.2	7.4–19.1
Hematocrit (Hct) value	33.1 ± 3.5	24.3–41.1

Table 2: Characteristics of babies born to Syrian women who gave birth in the hospital

	Mean ± SD	Range
Apgar score	9.4 ± 0.6	8–10
Head circumference	33.9 ± 1.3	31–36
Birth weight	3143.0 ± 434.8	1670–4420
Gestational age	38.3 ± 0.7	36–40

In this study, ANC was defined as having received at least one documented prenatal follow-up visit provided by a healthcare professional at a hospital or primary healthcare facility during pregnancy. ANC utilization was assessed using self-reported information, which was subsequently verified through hospital medical records, including the number and location of ANC visits.The independent variables included age, educational status, perceived economic status, employment status, use of contraceptive methods, pregnancy-related health problems, Apgar scores, mode of delivery, receipt of breastfeeding education, and receipt of infant care education. The inclusion criteria were being of Syrian nationality, having delivered at the study hospital during the study period, and having no communication difficulties that would interfere with data collection.

Statistical analysis

Statistical analyses were performed using IBM SPSS Statistics version 21. Descriptive statistics were expressed as frequencies and percentages for categorical variables, and as means and standard deviations for continuous variables.

The normality of continuous variables was evaluated using the Kolmogorov–Smirnov test.For categorical variables, the chi-square test or Fisher's exact test was used, as appropriate. Independent samples t-tests and one-way analysis of variance (ANOVA) were applied for comparisons involving continuous variables. A p-value of less than 0.05 was considered statistically significant.

Ethical Considerations

Ethical approval for the study was obtained from the Dicle University Faculty of Medicine Non-Interventional Clinical Research Ethics Committee (Decision No: 196, Date: 15.02.2022). Written informed consent was obtained from all participants prior to data collection. Participants were informed about the purpose of the study, the voluntary nature of participation, and the confidentiality of their data. No incentives were provided, and participants were free to withdraw from the study at any stage without consequence.

Results

Syrian refugee women had a mean age of 18.3 years (standard deviation [SD]: 2.1, range: 14–24) at their first marriage and 19.7 years (SD: 2.1, range: 16–25) at their first birth. On average, participants experienced 3.4 pregnancies (SD: 1.7, range: 1–10) and had 2.9 births (SD: 1.2, range: 1–8). The mean interpregnancy interval was 2.9 years (SD: 1.1, range: 0–7). Participants reported a desired family size of 3.7 children on average (SD: 1.0, range: 2–7). Mean hemoglobin and hematocrit values were within normal ranges, at 11.5 (SD: 2.2, range: 7.4–19.1) and 33.1 (SD: 3.5, range: 24.3–41.1), respectively [Table 1].

Newborns of Syrian refugee women demonstrated favourable birth outcomes. The mean Apgar score was 9.4 (SD: 0.6, range: 8–10). Mean head circumference was 33.9 cm (SD: 1.3, range: 31–36), mean birth weight was 3143.0 g (SD: 434.8, range: 1670–4420), and mean gestational age at birth was 38.3 weeks (SD: 0.7, range: 36–40) [Table 2].

Table 3: Comparison of Syrian women's antenatal care (ANC) service utilization status with demographic variables

	Receiving ANC (n:36)		Not receiving ANC (n:64)		
	Number	**Percentage**	**Number**	**Percentage**	**P-value**
Education status (n=100)					
Primary school and below	15	41.7	45	70.3	**0.046***
Secondary school	21	58.3	19	29.7	
Working outside the home to generate income (n=100)					
Housewife/not working	35	97.2	64	100.0	0.360
Worker	1	2.8	0	0.0	
Turkish citizenship (n=100)					
Yes	4	11.1	2	3.1	0.121
No	32	88.9	62	96.9	
Income status (n=100)					
Low	16	44.4	32	50.0	0.524
Medium	20	55.6	32	50.0	
Regular financial aid from state banks (n=100)					
Yes	9	25.0	15	23.4	0.522
No	27	75.0	49	76.6	
Smoking (n=100)					
I smoke; I smoked	7	19.4	16	25.0	0.736
I do not smoke	29	80.6	48	75.0	
Covid-19 status (n=100)					
Yes	15	41.7	42	65.6	**0.017***
No	21	58.3	22	34.4	

Table 4: Comparison of Syrian women's antenatal care (ANC) service utilization status with their fertility characteristics

	Receiving ANC (n:36)		Not Receiving ANC (n:64)		P-value
	Number	**Percentage**	**Number**	**Percentage**	
Contraception usage					
Yes	32	88.9	57	89.1	
No	4	11.1	7	10.9	**0.011***
Sources of information about contraception					
Immediate environment	13	36.1	47	73.4	
Healthcare personnel	23	63.9	17	26.6	**0.046***
Pregnancy-related health problems					
Yes (GDM, anemia, etc.)	5	13.9	25	39.1	
No	31	86.1	39	60.9	**0.007***
Delivery method					
Normal birth	31	86.1	39	60.9	
Cesarean section	5	13.9	25	39.1	**0.012***
Breastfeeding education					
Yes	35	97.2	54	84.4	
No	1	2.8	10	15.6	**0.044***
Baby care education					
Yes	26	72.2	37	57.8	
No	10	27.8	27	42.2	**0.048***

Significant differences in antenatal care (ANC) utilization were observed according to educational level, COVID-19 history, and ANC status ($p < 0.05$) [Table 3].

Women with lower educational attainment and those with a history of COVID-19 infection were less likely to have received ANC services.Further analyses revealed significant associations between ANC utilization and several fertility-related characteristics, including use of contraceptive methods, sources of information on contraception, pregnancy-related health problems, mode of delivery, receipt of breastfeeding education, and receipt of infant care education ($p < 0.05$) [Table 4].No statistically significant association was identified between ANC utilization and neonatal birth characteristics, indicating that birth outcomes did not differ significantly between women who received ANC and those who did not.

Discussion

This study examined the demographic characteristics and antenatal care (ANC) experiences of Syrian refugee women in Turkey. The findings indicate that women married and gave birth at relatively young ages, with a mean age of 18.3 years at first marriage and 19.6 years at first birth. Early marriage and early childbearing are associated with adverse consequences for maternal and child health, including an increased risk of pregnancy-related complications and restricted educational and economic opportunities for women. Participants experienced a high number of pregnancies and births, reflecting elevated fertility patterns among Syrian refugee women. High fertility may exacerbate socioeconomic vulnerability, contributing to poverty, food insecurity, and increased pressure on household and community resources, particularly in settings with limited access to healthcare and social support.TDHS data demonstrate that Syrian women aged 25–49 years marry at younger ages than Turkish women, with a median age at first marriage of 19.3 years, compared with 21.4 years among Turkish women. Syrian women also report higher desired family sizes, with an average ideal number of 3.9 children, compared with 2.8 children among Turkish women.[13] These findings are consistent with the demographic patterns observed in the present study and highlight persistent differences in marriage and fertility behaviours. Newborns of Syrian refugee women in this study demonstrated generally favourable birth outcomes, as reflected by high Apgar scores and appropriate anthropometric measurements at birth. These outcomes may be partly explained by delivery in well-equipped healthcare facilities and the relatively young maternal age of participants, both of which are factors associated with improved perinatal outcomes. Among the study population, 36 women received ANC services. Of these, most received care at state hospitals, while a very small proportion accessed services at university hospitals. Limited utilization of ANC services among Syrian refugee women remains a concern, given the well-established role of ANC in preventing maternal and neonatal complications. Consistent with previous research, contraceptive use and sources of information on family planning were significantly associated with ANC utilization. A study by Erenel et al. reported higher rates of adolescent pregnancy and lower ANC utilization among Syrian refugees compared with Turkish citizens.[14] These findings underscore the importance of improving access to reproductive healthcare and family planning services for refugee populations. Mode of delivery was also associated with ANC attendance, with a majority of women delivering vaginally and a smaller proportion undergoing cesarean section. The cesarean section rate observed in this study was lower than rates reported among Syrian refugees in Lebanon, where estimates range from 35% to 57%,[15,16] and markedly higher than pre-war cesarean section rates in Syria (12–15%).[17] These differences may reflect variations in healthcare systems, clinical practices, and access to obstetric services across settings. Previous studies conducted in Turkey and neighbouring countries indicate substantial unmet needs for ANC among Syrian refugee women. UNICEF data suggest a decline in access to reproductive healthcare following displacement,[18] while studies from Sanliurfa and other regions in Turkey report high rates of unmet family planning needs and pregnancy loss among refugees.[19] The present findings align with this literature and reinforce the need for targeted interventions to improve maternal health service utilization. The low uptake of modern contraceptive methods observed in this study further highlights persistent barriers, including limited access to services, lack of information, and cultural or social

constraints. Although awareness of family planning methods is generally high among Syrian women, utilisation of effective modern methods remains suboptimal, consistent with previous reports.[13,20]Several studies have investigated the adequacy of antenatal care (ANC) utilization among Syrian immigrant women and reported variable coverage rates, ranging from 52.6% to 64.5%.[21-24] These findings indicate that although a considerable proportion of Syrian immigrant women access ANC services, a substantial unmet need for prenatal care persists within this population.

A study conducted in Giresun, Turkey, reported relatively higher ANC utilization among Syrian women who gave birth, with most women being registered with a family physician and receiving ANC services.[24] Among those who accessed ANC, more than half (52.6%) attended four or more prenatal visits, suggesting improved continuity of care in this region compared with other settings. Regional differences in healthcare access, service organization, and integration into primary care systems may partly explain these variations. Education level was found to be associated with knowledge of family planning methods. Interestingly, women with lower educational attainment (no formal education or primary school completion) reported higher levels of knowledge about family planning (86.2%) compared with women with higher educational levels (68.4%).[25] This finding suggests that informal information channels, community networks, or healthcare encounters may play a significant role in shaping reproductive health knowledge among refugee women, regardless of formal education level.

Findings from the present study are also consistent with national survey data regarding antenatal care utilization and family planning practices among Syrian women. According to the TDHS Syrian migrant sample, although most Syrian women reported receiving at least one antenatal care visit, only approximately two-thirds completed four or more recommended visits, with lower utilization ffrobserved among women with limited education. Similarly, the TDHS report documents low uptake of modern contraceptive methods and a high reliance on traditional methods, such as withdrawal, alongside a considerable level of unmet need for family planning. The concordance between national survey findings and the result of this study strengthens the external validity of the findings and suggests that barriers to adequate antenatal care and effective contraceptive use among Syrian refugee women remain widespread across different regions of Turkey.[13]

Hypertensive disorders of pregnancy, including preeclampsia and eclampsia, are major contributors to maternal morbidity worldwide.[26] Although no cases of preeclampsia or eclampsia were reported in this study, a small proportion of women experienced pregnancy-related hypertension, underscoring the importance of regular ANC for early detection and management of such conditions.[27,28]

The mean birth weight of infants born to Syrian refugee mothers in the present study was 3143.0 g (SD: 434.8; range: 1670–4420). This value is slightly lower than birth weights reported in previous studies involving Syrian women. For example, one study reported a mean birth weight of 3241.7 g (SD: 559.4) among infants born to Syrian women and observed that birth weights in this group were lower compared with those of infants born to Turkish women.[29] These findings suggest persistent disparities in birth outcomes between refugee and host populations.

Implications for Policy and Practice

The findings of this study highlight the urgent need for targeted maternal health policies addressing the specific needs of refugee populations. Strengthening culturally sensitive antenatal care services, expanding community-based family planning education, and improving language and communication support within healthcare facilities may enhance service utilization among Syrian refugee women. Such measures are essential for reducing inequalities in maternal health outcomes and ensuring equitable access to reproductive healthcare within host-country health systems.

Strengths and Limitations

A major strength of this study is its focus on a vulnerable refugee population receiving care within the Turkish public healthcare system. The

integration of fertility characteristics, antenatal care utilization, and birth outcomes provides a comprehensive assessment of maternal and neonatal health among Syrian refugee women.

However, the study has several limitations. Its cross-sectional design precludes causal inference, and the single-centre setting may limit generalisability of the findings. Despite these limitations, the study offers valuable insights that can inform maternal health policies and service planning for refugee populations

Conclusion

This study identifies multiple factors adversely affecting the reproductive health of Syrian refugee women, including low educational attainment, early marriage, high fertility rates, chronic health conditions, inadequate antenatal care, and limited use of modern contraceptive methods. These challenges are often compounded by restricted access to healthcare services and insufficient knowledge of reproductive health.

To improve reproductive health outcomes among Syrian refugee women, targeted strategies are required. These include expanding access to regular antenatal care, enhancing family planning and reproductive health education, improving healthcare accessibility, and addressing language and communication barriers. Implementing such interventions may contribute to improved maternal and neonatal health outcomes and greater equity in healthcare delivery.

Author's contributions

B.E. conceived and designed the study, collected and analysed the data, and drafted the manuscript. Z.K. contributed to data interpretation and critically revised the manuscript. Both authors approved the final version of the manuscript.

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References

1.Taşçı F. A social policy problem: migration. Public Law Labor Law Econ J 2009;10(4):177–204.

2.Ministry of Health of Turkey, General Directorate of Health Information Systems. Family Medicine Information System [Internet]. Available from: https://dosyamerkez.saglik.gov.tr/Eklenti/37489/0/ahbsvemsurum11pdf.pdf (accessed 28 Sept 2024).

3.Şirin B, Ersoy S, Pala E. Comparison of Syrian refugees and Turkish citizens. Smyrna J Med 2019; 1:25–32.

4.Ministry of Health of Turkey, General Directorate of Public Health. Antenatal Care Management Guide [Internet]. Available from: https://hsgm.saglik.gov.tr/depo/Yayinlarimiz/Rehberler/dogum_oncesi_bakim_08-01-2019_1.pdf (accessed 1 Oct 2024).

5. Çelik IH, Arslan Z, Işık DU, Tapısız ÖL, Mollamahmutoğlu L, Baş AY. Neonatal outcomes in Syrian and other refugees treated in a tertiary hospital in Turkey. Turk J Med Sci 2019;49(3):815–20.

6. Büyüktiryaki M, Canpolat FE, Alyamaç Dizdar E, Okur N, Kadıoğlu Ş, Şimşek G. Neonatal outcomes of Syrian refugees delivered in a tertiary hospital in Ankara, Turkey. Confl Health 2015; 9:38.

7. Alnuaimi K, Kassab M, Ali R, Mohammad K, Shattnawi K. Pregnancy outcomes among Syrian refugee and Jordanian women: a comparative study. Int Nurs Rev 2017;64(4):584–92.

8. Küçük A. Analysis of migration and health policies in Turkey: the "Health Project" example. Soc Policy Stud J 2020;20(47).

9. European Commission. The EU Facility for Refugees in Turkey [Internet]. Available from: https://neighbourhood-enlargement.ec.europa.eu/document/download/49484102-739e-407f-888d-fa7d2dc33879_en (accessed 10 Sept 2024).

10. United Nations Office for the Coordination of Humanitarian Affairs. Syrian Arab Republic: Key figures [Internet]. Available from: https://www.unocha.org/syria (accessed 19 Jun 2023).

11. Benage M, Greenough PG, Vinck P, Omeira N, Pham P. An assessment of antenatal care among Syrian refugees in Lebanon. Confl Health 2015; 9:8.

12. Kandasamy T, Cherniak R, Shah R, Yudin MH, Spitzer R. Obstetric risks and outcomes of refugee women at a single centre in Toronto. J Obstet Gynaecol Can 2014;36(4):296–302.

13. Hacettepe University Institute of Population Studies. 2018 Turkey Demographic and Health Survey – Syrian Migrant Sample. Ankara: Hacettepe University; 2019.

14. Erenel H, Aydogan Mathyk B, Sal V, Ayhan I, Karataş S, Koç Bebek A. Clinical characteristics and pregnancy outcomes of Syrian refugees: a case-control study in

a tertiary care hospital in Istanbul, Turkey. Arch Gynecol Obstet 2017;295(1):45–50.
15. Huster KM, Patterson N, Schilperoord M, Spiegel P. Cesarean sections among Syrian refugees in Lebanon: probable causes and recommendations. Yale J Biol Med 2014;87(3):269–88.
16. Souza JP, Gülmezoglu A, Lumbiganon P, Laopaiboon M, Carroli G, Fawole B, Ruyan P. Caesarean section without medical indications and adverse maternal outcomes: WHO global survey. BMC Med 2010; 8:71.
17. Khawaja M, Choueiry N, Jurdi R. Hospital-based caesarean section in the Arab region: an overview. East Mediterr Health J 2009;15(2):458–69.
18. UNICEF. Antenatal care [Internet]. Available from: http://data.unicef.org/topic/maternal-health/antenatal-care/ (accessed 12 May 2023).
19. Özgülnar N. Women's problems, war, migration and health. Ankara: Turkish Medical Association Publications; 2016:51–6.
20. Bulut ZK. Perceptions of fertility, hepatitis B and tetanus antibody levels among women aged 15–49 living in a tent city in Diyarbakir [Doctoral dissertation]. Diyarbakir: Dicle University; 2016.
21. Küçük EG. Frequency of prenatal, intrapartum and postpartum care among women giving birth at the No. 1 health center [master's thesis]. Trabzon: Karadeniz Technical University; 2004.
22. Beşer E, Ergin F. Prenatal care and its quality in Aydın center. In: 9th National Public Health Congress; 2004; Ankara. p. 94.
23. Beyzadeoğlu H, Ekuklu G, Gül H, Eskioçak M. Factors affecting utilization of prenatal care in Muradiye Health Center region of Edirne. In: 9th National Public Health Congress; 2004; Ankara. p. 94.
24. Olgun MN. Clinical characteristics and birth outcomes of pregnant Syrian refugees [Specialization thesis]. Istanbul: Haseki Training and Research Hospital; 2017.
25. Golbasi C, Vural T, Bayraktar B, Golbasi H, Sahingoz Yildirim AG. Maternal and neonatal outcomes of Syrian adolescent refugees and local Turkish adolescents. Gynecol Obstet Reprod Med 2022;28(2):135–43.
26. Muti M, Tshimanga M, Notion GT, Bangure D, Chonzi P. Pregnancy-induced hypertension and pregnancy outcomes in Harare, Zimbabwe. BMC Cardiovasc Disord 2015; 15:111.
27. American College of Obstetricians and Gynecologists. Gestational hypertension and preeclampsia. Obstet Gynecol 2019;133(1):1.
28. Nayak S, Poddar R, Jahan M. Psychological problems during advanced stages of pregnancy. Int J Indian Psychol 2015;2(2).
29. Demirci H, Yildirim Topak N, Ocakoglu G, Karakulak Gomleksiz M, Ustunyurt E, Ulku Turker A. Birth characteristics of Syrian refugees and Turkish citizens in Turkey. Int J Gynaecol Obstet 2017;137(1):63–6.