



## An evaluation of the Syrian pregnant women's prenatal care satisfaction: a cross-sectional study\*

Avaliação da satisfação de gestantes sírias com os cuidados pré-natais: um estudo transversal

Evaluación de la satisfacción de las embarazadas sirias con la atención prenatal: estudio transversal

### How to cite this article:

İçke S, Çifçi S. An evaluation of the Syrian pregnant women's prenatal care satisfaction: a cross-sectional study. Rev Esc Enferm USP. 2025;59:e20250002. <https://doi.org/10.1590/1980-220X-REEUSP-2025-0002en>

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\*Presented as an oral presentation at the 7th International 25th National Public Health Congress, 14-17 December 2023, Antalya, Türkiye.

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### ABSTRACT

**Objective:** This study aims to examine the satisfaction levels of Syrian migrant pregnant women living in Mardin with prenatal care services and the factors influencing their satisfaction. **Method:** This is a cross-sectional study. The population of the study consisted of Syrian pregnant women who applied to Mardin Training and Research Hospital between August 15 and September 16, 2023. A total of 146 Syrian pregnant women who met the inclusion criteria participated in the study. The sociodemographic information form and the Prenatal Care Satisfaction Scale were used as data collection tools. **Results:** The rate of those who received prenatal care from a midwife/nurse is 80.1% and those who received less than 4 prenatal care was 89.7%. The most common reason for not receiving adequate prenatal care was lack of information with a rate of 39.7%. The mean score of the PCSS was  $73.39 \pm 14.78$ . **Conclusion:** The study findings indicate that lack of information is one of the major barriers to healthcare access for migrant pregnant women. In addition, receiving prenatal care services from midwives/nurses affected satisfaction with prenatal care.

### DESCRIPTORS

Transients and Migrants; Pregnant People; Prenatal Care; Personal Satisfaction.

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Received: 01/28/2025  
Approved: 04/01/2025

## INTRODUCTION

Prenatal care (PC) refers to the healthcare services provided by health professionals to pregnant women throughout their pregnancy to monitor and maintain the optimal health of both the mother and the infant<sup>(1,2)</sup>. High-quality PC is crucial as it incorporates health-promoting interventions for the mother and fetus, identifies potential adverse conditions at an early stage, and facilitates timely interventions<sup>(2)</sup>. Although global maternal mortality rates decreased by approximately 34% between 2000 and 2020, these rates remain significantly high in low- and middle-income countries, accounting for 95% of all maternal deaths<sup>(3)</sup>.

The civil war that began in Syria in 2011 led to an economic downturn<sup>(4,5)</sup> and triggered widespread migration. Turkey, undoubtedly, has been the country most affected by the migration of Syrians<sup>(5,6)</sup>. As of the year 2024, the number of Syrians under temporary protection in Turkey is approximately 3.1 million, with nearly 1.5 million of them being women. Among these women, approximately 725,000 are aged between 15 and 49 years<sup>(7)</sup>.

One of the biggest problems Syrian migrants encounter various challenges while relocating to other countries is health-related issues<sup>(8)</sup>. The lack of access to PC is one of these challenges.

Being a migrant is one of the factors influencing access to PC. Migrant women benefit PC services less frequently due to barriers such as language, education, and transportation<sup>(9,10)</sup>. According to the 2018 Turkey Demographic and Health Survey (TDHS) data, 11% of Syrian migrants do not receive any PC, and 33.8% receive insufficient care, being significantly lower compared to native pregnant women<sup>(11)</sup>. In a study conducted with Syrian refugee women, the rate of those who did not receive PC was 41.3%, whereas it was 7.7% among Turkish citizens<sup>(12)</sup>. The World Health Organization (WHO) recommends receiving prenatal care (PC) at least eight times during pregnancy. However, global prenatal care coverage is still not at a sufficient level. According to the data from the World Health Organization and World Health Statistics in 2016, only 64% of women worldwide received PC four or more times during their pregnancies<sup>(13)</sup>.

Satisfaction is crucial in all areas of healthcare, including PC<sup>(9)</sup>. Studies reveal that migrant women report lower satisfaction with healthcare services due to delayed PC, insufficient information, and communication challenges<sup>(14–16)</sup>. Dissatisfaction with PC services may lead to difficulties in adapting to healthcare systems in the country migrated. The present study aims to examine the satisfaction levels of Syrian migrant pregnant women living in Mardin with PC services and the factors influencing their satisfaction.

### Research Questions:

1. What are the satisfaction levels of Syrian pregnant women with PC services?
2. What factors influence the satisfaction levels of Syrian pregnant women with PC services?

## METHOD

### RESEARCH TYPE

This is a cross-sectional study.

### POPULATION AND RESEARCH SAMPLE

The study population consisted of Syrian pregnant women who visited Mardin Training and Research Hospital between August 15, 2023 and September 16, 2023. Because the study was conducted exclusively with Syrian migrant pregnant women admitted to the hospital, the participants were selected using the purposeful sampling method. A total of 146 Syrian pregnant women who met the inclusion criteria participated in the study. In order to evaluate the statistical power of the study, posthoc power analysis for one-sample t-test was performed using G\*Power 3.1 software. In the analysis, a moderate effect size ( $d = 0.5$ ), statistical significance level ( $\alpha = 0.05$ ) and total sample size ( $n = 146$ ) were used. The power obtained was calculated as  $(1-\beta) = 0.9999$ . This result shows that the study has a fairly high statistical power to detect a moderate effect size.

### INCLUSION CRITERIA

1. Being Syrian,
2. Having a gestational period between 36 and 40 weeks,
3. Having no language barriers.

### EXCLUSION CRITERIA

1. Not being Syrian,
2. Having a gestational period outside the 36–40-week range,
3. Having language barrier.

### DATA COLLECTION TOOLS

The study used a questionnaire comprising two sections. The first section collected socio-demographic information, while the second section included the Prenatal Care Satisfaction Scale (PCSS), whose Turkish validity and reliability were assessed by Aslantekin Özçoban et al.<sup>(17)</sup> and published in 2020.

- **Individual Identification Form (IIF):** This form, developed by the researchers based on the literature, included socio-demographic and obstetric information and consisted of 36 questions.

- **Prenatal Care Satisfaction Scale (PCSS):** The scale was originally developed by Raube et al.<sup>(18)</sup> in 1998 to measure pregnant women's satisfaction with PC<sup>(17,18)</sup>. It was adapted into Turkish and validated for reliability by Aslantekin Özçoban et al.<sup>(17)</sup> in 2020. It is a self-reported Likert-type scale comprising 22 items. Based on the literature, it assesses five subscales: the art of care, technical quality, physical environment, accessibility, and suitability.

**Art of Care Subscale:** This subscale includes the perceived value of the services received in relation to the cost/premium paid, the ability of staff to provide comfort and a sense of security, the attentiveness of doctors, midwives, and nurses, the respectful behavior of healthcare professionals, and the empathy

and understanding shown by reception staff during emotional states such as anxiety, excitement, or anger. It also evaluates the respectfulness of reception staff and the interest and approach exhibited by the welcoming/registration personnel.

**Technical Quality Subscale:** This includes the adequacy of explanations provided by midwives, nurses, or doctors regarding procedures, the competence of doctors, midwives, and nurses in delivering care and managing childbirth, the attentiveness of medical examinations, and the adequacy of medical equipment and supplies.

**Accessibility Subscale:** This subscale assesses transportation conditions, waiting period for examination in an appointment, the duration between the initial appointment date and the scheduled date for the next follow-up, and the suitability of opening hours (early or late).

**Physical Environment Subscale:** It evaluates the cleanliness, comfort, and convenience of the facilities, the condition of examination areas, and the adequacy of waiting rooms.

**Suitability Subscale:** It includes the time allocated by staff providing nutritional advice during pregnancy, the professional competence of doctors, midwives, and nurses, and the feasibility of the advice provided by healthcare professionals throughout the pregnancy to protect the health of both the mother and the infant.

The Cronbach's alpha values for the subscales range between 0.7 and 0.9, while it is 0.95 for the overall scale. There is no cut-off point in the scale. The lowest score was 22, while the highest was 110. Responses on the scale are rated as follows: poor (1), fair (2), good (3), very good (4), and excellent (5). As the score on the scale increases, satisfaction is considered high, and as the score decreases, satisfaction is considered low (18).

## ETHICAL CONSIDERATION

Prior to the study, approval was obtained from the Mardin Artuklu University Non-Interventional Clinical Research Ethics Committee with decision number 2022-9, dated 01/08/2022. Financial support for the study was provided through the project MAÜ.BAP.22.SBF.026, aimed to carry out the research, by the Mardin Artuklu University Scientific Research Projects Coordination.

## DATA COLLECTION

The study data were collected using a face-to-face survey method at the obstetrics and gynecology outpatient clinics, NST (non-stress test) clinic, and prenatal classes. The questionnaires were conducted in Turkish face-to-face with pregnant women who agreed to participate in the study. Before starting the study, its purpose and methodology were explained, and participants were informed that participation was voluntary and that they could withdraw from the study at any time. Written and verbal consent was obtained from the participants. To eliminate the language barrier, communication with participants was established in Turkish and those who faced a language barrier were excluded from the study. Completion of the questionnaires took approximately 10 minutes.

## DATA ANALYSIS

The data were analyzed using SPSS (Statistical Package for Social Sciences) version 20. Descriptive statistics, including frequencies, percentages, and means, were calculated for the participants. For all analyses, the statistical significance threshold was set at  $p < 0.05$ . The mean total score of the scales was calculated, using the Shapiro-Wilk normality test to determine the normal distribution of the scale scores. Because the scale scores had a normal distribution, a One-Way ANOVA test was conducted to assess the significance of differences between the means of three or more groups and the Bonferroni test was used as a post-hoc test to identify which groups contributed to the significant differences. Independent t-test was used to compare the mean scores of two independent groups.

## RESULTS

Table 1 shows sociodemographic characteristics of the pregnant women.

According to the table, their mean age is  $27.2 \pm 5.89$ , with 30.1% in the 21–25 age group. Of them, 80.8% have not yet obtained citizenship, 45.9% live in the district, and 68.5% have a nuclear family. Regarding educational levels, 42.5% of the pregnant women and 45.9% of their husbands are primary school graduates. Of the pregnant women, 91.8% are not employed, whereas this rate is 12.3% for their husbands, 58.2% have lower income than their expenses, 65.1% live in a detached house, and 78.8% do not have social security. Among them, 65.1% have lived in Turkey for 6–10 years. Of them, 58.9% report that the number of people in their household ranges from 2 to 5, 43.5% have two children under the age of 5 years, and 87.7% report no chronic illness. Among those with chronic illnesses (12.3%), 38.9% have goiter and the same percentage (38.9%) suffer from hypertension.

Table 2 presents the fertility and marital status of the pregnant women.

Accordingly, 30.1% of the pregnant women were at 38 weeks of gestation, 82.9% had experienced two or more pregnancies, 54.1% married between the ages of 19–25, 31.5% had their first pregnancy between the ages of 13–18, and 30.2% had a 2-year duration between their previous pregnancy and the current one. Of them, 26.1% had three children, 16.4% reported experiencing health problems during this pregnancy, and among those with health problems, 25.0% stated that the health problem was diabetes.

The descriptive statistical distribution and Cronbach's Alpha values of the PCSS and its subscales are presented in Table 3.

The mean score of the PCSS is  $73.39 \pm 14.78$ . In the present study, the Cronbach's alpha coefficient was 0.93.

The comparison of the total and subscale scores of the PCSS with some characteristics of the pregnant women is presented in Table 4.

According to the table, there is no significant difference in their scores of age, education, spouse's education, number of people in the household, gestational week, marriage age, age at first pregnancy, marriage year, duration since the previous pregnancy, number of children, citizenship status, employment status of the women and their spouses, type of residence, family

**Table 1** – The sociodemographic characteristics of the pregnant women – Mardin, Türkiye, 2023.

Characteristics		n	%
Age	16–20 Age	20	13.7
	<b>21–25 Age</b>	<b>44</b>	<b>30.1</b>
	26–30 Age	43	29.5
	31–35 Age	25	17.1
	36 and ↑ Age	14	9.6
Obtaining citizenship	Yes	28	19.2
	<b>Not yet</b>	<b>118</b>	<b>80.8</b>
Place of living	Province	44	30.1
	<b>District</b>	<b>67</b>	<b>45.9</b>
	Village/town	35	24.0
Family type	Extended family	46	31.5
	<b>Nuclear family</b>	<b>100</b>	<b>68.5</b>
Education	Illiterate	42	28.8
	<b>Primary school graduate</b>	<b>62</b>	<b>42.5</b>
	Secondary education graduate	31	21.2
	Undergraduate and above	11	7.5
Husband's education	Illiterate	32	21.9
	<b>Primary school graduate</b>	<b>67</b>	<b>45.9</b>
	Secondary education graduate	34	23.3
	Undergraduate and above	13	8.9
Employment status	Employed	12	8.2
	<b>Not employed</b>	<b>134</b>	<b>91.8</b>
Husband's employment status	Employed	128	87.7
	<b>Not employed</b>	<b>18</b>	<b>12.3</b>
Income status	<b>Income less than expenditure</b>	<b>85</b>	<b>58.2</b>
	Income equal to expenditure	58	39.7
	Income more than expenditure	3	2.1
Housing type	Apartment	51	34.9
	<b>Detached House</b>	<b>95</b>	<b>65.1</b>
Social security	Have	31	21.2
	<b>Do not have</b>	<b>115</b>	<b>78.8</b>
Time lived in Türkiye	Less than 5 years	12	8.2
	<b>6–10 years</b>	<b>95</b>	<b>65.1</b>
	More than 10 years	39	26.7
Number of people in the household	<b>2–5 people</b>	<b>86</b>	<b>58.9</b>
	6–10 people	55	37.7
	11 and above	5	3.4
*Number of children under five years of age (N = 108)	1 child	46	42.6
	<b>2 children</b>	<b>47</b>	<b>43.5</b>
	3 children and above	15	13.9
Presence of chronic disease	Yes	18	12.3
	<b>No</b>	<b>128</b>	<b>87.7</b>
*Chronic Disease	Asthma	1	5.5
	Diabetes	2	11.2
	<b>Goiter</b>	<b>7</b>	<b>38.9</b>
	Kidney disease	1	5.5
	Hypertension	7	38.9
Total		<b>146</b>	<b>100</b>

\*Percentages were calculated based on the answers given.

type, chronic diseases, pregnancy-related problems, and expected and preferred birth method ( $p > 0.05$ ). However, there is a significant correlation between the place of residence and the physical environment and accessibility ( $p < 0.05$ ). The correlation is significant between fetal gender and the total score of the PCSS, as well as the subscales of care quality and technical quality ( $p < 0.05$ ). There is a significant difference between duration of residence in Turkey and the accessibility subscale ( $p < 0.05$ ). There is a significant difference between the number of children under the age of five and the total score of the PCSS, as well as the technical quality and accessibility subscales ( $p < 0.05$ ). There is a significant difference between income status and the technical quality subscales ( $p < 0.05$ ).

## DISCUSSION

Pregnant refugees and disadvantaged women are considered a vulnerable group. This group is at a higher risk of serious neonatal and maternal health issues due to factors such as increased cesarean risk, inadequate primary health conditions, and more complex pregnancy processes<sup>(19)</sup>.

In the study, the most common reasons for Syrian pregnant women not receiving sufficient PC are “ignorance” (39.7%), “financial difficulty” (26.7%), and “transportation issues” (17.5%). The finding related to ignorance aligns with literature suggesting that a lack of knowledge about PC services prevents regular attendance at check-ups<sup>(20)</sup>. In particular, the lack of awareness about the importance of healthcare is significant for migrant groups. This may hinder migrant women from managing their pregnancy more consciously and using healthcare services regularly. Additionally, previous studies indicate that migrant women generally report lower satisfaction with prenatal care services due to factors such as delayed access, insufficient information, and communication challenges with healthcare professionals<sup>(10)</sup>. Similar to our findings, these barriers often result in inconsistent or inadequate prenatal care.

The second most common reason is “financial difficulty” that can be related to the majority of the participants (58.2%) having lower income than their expenses. The findings of our study highlight the challenges faced in accessing healthcare services, particularly due to economic difficulties. The group with income lower than expenses has a higher mean score for the “technical quality” subscale, which reflects satisfaction primarily due to healthcare personnel, compared to the group with higher income. In a study involving disadvantaged women, barriers to accessing healthcare services included issues such as the change of healthcare personnel each time, their disrespectful behaviors, not considering patients' needs, not dedicating enough time for PC, and being inconsiderate<sup>(21)</sup>. In another study, conversely, the satisfactory aspects of healthcare services included well-equipped hospitals (56.1%), the positive attitude of doctors and healthcare personnel (55.1%), and the competence of doctors and healthcare personnel (46.2%)<sup>(22)</sup>. Compared to the literature, the results of the present study suggest that the provision of regular and free standard healthcare services in public hospitals for migrants who have acquired citizenship or temporary protection identification cards in Turkey<sup>(23,24)</sup> is satisfactory for those with low income but insufficient to meet the needs of



**Table 2** – The fertility and marital status of the pregnant women – Mardin, Türkiye, 2023.

Characteristics	n	%
Weeks of gestation		
36.00 week	27	18.5
37.00 week	34	23.3
<b>38.00 week</b>	<b>44</b>	<b>30.1</b>
39.00 week	30	20.5
40.00 week	11	7.5
From whom the PC received	<b>Midwife/nurse</b>	<b>117 80.1</b>
	Doctor	29 19.9
Number of PC received	<b>&lt; 4</b>	<b>131 89.7</b>
	≥ 4	15 10.3
*Reason for receiving less than 4 PC (N = 131)	Family causes	4 3.1
	<b>Ignorance</b>	<b>52 39.7</b>
	Financial inadequacy	35 26.7
	Health-related	3 2.3
	Transportation	23 17.5
	Lack of time	14 10.7
Number of pregnancies	First	25 17.1
	<b>2 and more</b>	<b>121 82.9</b>
Age of marriage	13–18 years old	58 39.7
	<b>19–25 years old</b>	<b>79 54.1</b>
	26 and above	9 6.2
How many years she has been married	<b>1–10 years</b>	<b>108 74.0</b>
	11–25 years	38 26.0
Age at first pregnancy	<b>13–18 years</b>	<b>46 31.5</b>
	19–25 years	81 55.5
	26 and above	19 13.0
Duration between the previous pregnancy (N = 119)	1 year	32 26.9
	<b>2 years</b>	<b>36 30.2</b>
	3 years	19 16.0
	4 years and above	32 26.9
*Number of Children (N = 119)	1 child	28 23.5
	2 children	30 25.2
	<b>3 children</b>	<b>31 26.1</b>
	4 children and above	30 25.2
Having health problems during this pregnancy (N = 146)	<b>Yes</b>	<b>24 16.4</b>
	No	122 83.6
*Problems experienced (N = 24)	Bleeding	4 16.6
	Edema	4 16.6
	<b>Diabetes</b>	<b>6 25.0</b>
	Vomiting	1 4.2
	Hypertension	4 16.6
	Hypotension	1 4.2
	Infection	1 4.2
	Developmental delay	1 4.2
	Risk of premature birth	2 8.4
Planned pregnancy	<b>Yes</b>	<b>103 70.5</b>
	No	43 29.5
Expected mode of delivery	<b>Vaginal delivery</b>	<b>93 63.7</b>
	Caesarean section	53 36.3

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Characteristics	n	%
Preferred Mode of Delivery		
<b>Vaginal delivery</b>	<b>101</b>	<b>69.2</b>
Caesarean section	45	30.8
Fetal Gender	<b>Girl</b>	<b>74 50.7</b>
	Boy	55 37.7
	Unknown	17 11.6
Total	165	100.0

\*Percentages were calculated based on the answers given.

those with higher income (e.g., queues, waiting periods, physical environment, etc.).

Transportation issues are another significant factor restricting access to PC services for Syrian pregnant women. The rate of those receiving fewer than four PC visits is 89.7% and the accessibility subscale score is lower among these individuals, which clearly indicates transportation barriers. In the study by Penman et al.<sup>(21)</sup>, the distance between home and the hospital, as well as the availability or solidity of public transportation, were identified as barriers to accessing healthcare services. In our study, 45.9% of the participants lived in rural areas, which may have prevented them from continuing full care at the hospital located in the city. Another finding from the study is that 78.8% of the participants did not have social security, which may have also contributed to this outcome. The literature also suggests that having social security not only facilitates access to healthcare services but also increases satisfaction with these services<sup>(10,25)</sup>. In the present study, because 80.8% of Syrian pregnant women have not yet obtained citizenship, they may not be well informed about free access to healthcare services with a temporary identity card.

The presence of children under the age of 5 (73.97%) can also indirectly affect the number of follow-up visits. In our study, those with one child under 5 years old had higher PC satisfaction, technical quality, and suitability scores. In the study by Penman et al.<sup>(21)</sup>, all women mentioned social issues (lack of social support from family or friends, family responsibilities, etc.) as barriers to accessing PC or receiving care. Regarding family responsibilities and household chores, women stated that taking care of other children sometimes prevents them from attending appointments, and when they bring their children to PC appointments, they are not well received by healthcare personnel. In a study where women mentioned that the number of children is part of their culture, they stated receiving negative reactions for this and found it disturbing<sup>(26)</sup>. The study results are consistent with the literature. Having more children, as part of their culture, and the lack of sufficient social support may have affected the satisfaction with hospital care for Syrian pregnant women, especially when they are exposed to reactions from healthcare personnel when presenting at the hospital with their children.

They stated that they received 80.1% of their PC from midwives/nurses. There is a significant difference in the mean scores for the subscales of technical quality, physical environment, and suitability between those who received PC from midwives/nurses and those who received it from doctors. Those who received care from midwives/nurses obtained higher scores. In a study conducted in Italy, pregnant women indicated trusted midwives

**Table 3** – The descriptive statistical distribution and Cronbach's Alpha values of the PCSS and its subscales – Mardin, Türkiye, 2023.

Scale and subscales	N	Min.	Max.	Mean	Sd	Cronbach's alpha ( $\alpha$ )
<i>Prenatal Care Satisfaction Scale (PCSS)</i>	<b>146</b>	<b>35.00</b>	<b>104.00</b>	<b>73.39</b>	<b>14.78</b>	<b>0.93</b>
The art of care	146	7.00	25.00	16.69	3.75	0.81
Technical quality	146	7.00	24.00	17.27	3.70	0.75
Accessibility	146	3.00	15.00	9.11	2.66	0.71
Physical environment	146	5.00	20.00	13.06	3.21	0.72
Suitability	146	4.00	15.00	10.27	2.25	0.73

**Table 4** – The comparison of the total and subscale scores of the PCSS with some characteristics of the pregnant women – Mardin, Türkiye, 2023.

Characteristics		PCSS	The art of care	Technical quality	Accessibility	Physical environment	Suitability
Place of living*	Village/town <sup>a</sup>	69.71 ± 15.81	16.34 ± 3.84	16.22 ± 4.04	7.71 ± 2.85	12.42 ± 3.44	10.02 ± 2.18
	District <sup>b</sup>	75.95 ± 14.31	17.19 ± 3.61	17.88 ± 3.55	9.59 ± 2.41	13.77 ± 3.12	10.47 ± 2.23
	Province <sup>c</sup>	72.43 ± 14.20	16.22 ± 3.88	17.18 ± 3.52	9.50 ± 2.51	12.50 ± 2.99	10.15 ± 2.33
	<b>Statistical Analysis</b>	F = 2.221 P = 0.11	F = 1.087 P = 0.34	F = 1.087 P = 0.34	<b>F = 6.931</b> <b>P = 0.00</b>	<b>F = 3.098</b> <b>P = 0.04</b>	F = 0.539 P = 0.58
	<b>Difference</b>				a-b-c. a-b. a-c		
Fetal Gender*	Girl <sup>a</sup>	75.87 ± 13.26	17.24 ± 3.34	17.95 ± 3.25	9.44 ± 2.53	13.50 ± 3.057	10.64 ± 2.14
	Boy <sup>b</sup>	72.32 ± 14.56	16.65 ± 3.79	16.80 ± 3.64	9.07 ± 2.54	12.87 ± 3.055	9.90 ± 2.25
	Unknown <sup>c</sup>	66.05 ± 19.25	14.47 ± 4.66	15.82 ± 5.08	7.82 ± 3.26	11.82 ± 4.08	9.82 ± 2.50
	<b>Statistical Analysis</b>	<b>F = 3.39</b> <b>P = 0.03</b>	<b>F = 3.923</b> <b>P = 0.02</b>	F = 3.113 <b>P = 0.04</b>	F = 2.639 P = 0.07	F = 2.078 P = 0.12	F = 2.131 P = 0.12
	<b>Difference</b>	a-c	a-c	a-c			
Income status*	Income less than expenditure	74.87 ± 14.49	16.84 ± 3.74	17.90 ± 3.58	9.25 ± 2.55	13.30 ± 3.22	10.49 ± 2.18
	Income equal to expenditure	71.79 ± 14.91	16.65 ± 3.69	16.55 ± 3.67	8.94 ± 2.81	12.79 ± 3.23	9.94 ± 2.35
	Income more than expenditure	62.66 ± 18.03	13.33 ± 5.03	13.33 ± 3.78	8.33 ± 3.51	11.66 ± 2.08	10.33 ± 1.15
	<b>Statistical Analysis</b>	F = 1.56 P = 0.21	F = 1.279 P = 0.28	F = 4.222 <b>P = 0.01</b>	F = 0.364 P = 0.69	F = 0.729 P = 0.48	F = 1.020 P = 0.36
	<b>Difference</b>			a-c			
Time lived in Türkiye*	Less than 5 years <sup>a</sup>	76.16 ± 12.91	17.66 ± 3.55	17.75 ± 3.048	8.41 ± 3.28	14.08 ± 2.93	10.75 ± 2.37
	6–10 years <sup>b</sup>	71.78 ± 15.96	16.43 ± 4.00	16.93 ± 3.92	8.80 ± 2.76	12.78 ± 3.50	10.03 ± 2.33
	More than 10 years <sup>c</sup>	76.46 ± 11.66	17.05 ± 3.13	17.94 ± 3.26	10.10 ± 1.87	13.43 ± 2.42	10.71 ± 1.93
	<b>Statistical Analysis</b>	F = 1.625 P = 0.20	F = 30.808 P = 0.44	F = 1.143 P = 0.32	<b>F = 3.915</b> <b>P = 0.02</b>	F = 1.217 P = 0.29	F = 1.599 P = 0.20
	<b>Difference</b>				b-c		
Number of children under five years of age*	1 child <sup>a</sup>	75.54 ± 14.97	17.30 ± 3.98	17.95 ± 3.74	9.26 ± 2.74	13.23 ± 3.42	10.69 ± 2.22
	2 children <sup>b</sup>	73.50 ± 14.91	16.39 ± 3.80	17.10 ± 3.74	9.21 ± 2.39	13.28 ± 3.38	10.32 ± 2.10
	3 children and above <sup>c</sup>	62.93 ± 15.18	14.53 ± 3.83	14.60 ± 4.10	7.66 ± 2.60	11.20 ± 2.95	8.86 ± 2.41
	<b>Statistical Analysis</b>	<b>F = 4.073</b> <b>P = 0.20</b>	F = 2.915 P = 0.06	<b>F = 4.424</b> <b>P = 0.01</b>	F = 2.400 P = 0.09	F = 2.449 P = 0.09	<b>F = 3.909</b> <b>P = 0.02</b>
	<b>Difference</b>	a-c		a-c			a-c
From whom the PC received**	Midwife/nurse	74.52 ± 14.66	16.81 ± 3.80	17.59 ± 3.70	9.20 ± 2.57	13.39 ± 3.13	10.46 ± 2.09
	Doctor	68.86 ± 14.63	16.24 ± 3.62	16.00 ± 3.48	8.76 ± 3.02	11.76 ± 3.26	9.52 ± 2.71
	<b>Statistical Analysis</b>	t = 1.862 p = 0.06	t = 0.731 p = 0.46	<b>t = 2.094</b> <b>p = 0.04</b>	t = 0.808 p = 0.42	<b>t = 2.498</b> <b>p = 0.01</b>	<b>t = 2.050</b> <b>p = 0.04</b>

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Characteristics		PCSS	The art of care	Technical quality	Accessibility	Physical environment	Suitability
Number of PC received**	< 4	72.62 ± 14.92	16.56 ± 3.78	17.11 ± 3.73	8.86 ± 2.60	12.98 ± 3.30	10.19 ± 2.23
	≥ 4	80.20 ± 11.78	17.87 ± 3.40	18.67 ± 3.27	11.40 ± 2.13	13.80 ± 2.27	11.00 ± 2.30
	<b>Statistical Analysis</b>	t = -1.899 p = 0.06	t = -1.274 p = 0.20	t = -1.546 p = 0.12	<b>t = -3.655</b> <b>p = 0.00</b>	t = -1.246 p = 0.23	t = -1.326 p = 1.19
Planned pregnancy**	Yes	74.82 ± 14.45	17.18 ± 3.56	17.38 ± 3.67	9.43 ± 2.55	13.31 ± 3.17	10.38 ± 2.32
	No	69.97 ± 15.14	15.53 ± 3.99	17.00 ± 3.80	8.34 ± 2.78	12.48 ± 3.25	10.00 ± 2.03
	<b>Statistical Analysis</b>	t = 1.821 p = 0.07	<b>t = 0.479</b> <b>p = 0.01</b>	t = -1.695 p = 0.092	<b>t = -2.647</b> <b>p = 0.009</b>	t = 1.415 p = 0.159	t = 0.952 p = 0.343
Social security**	Have	77.48 ± 11.23	17.54 ± 3.09	17.90 ± 2.80	9.80 ± 2.28	13.93 ± 2.64	10.74 ± 1.86
	Do not have	72.29 ± 15.45	16.46 ± 3.89	17.10 ± 3.90	8.93 ± 2.73	12.83 ± 3.31	10.14 ± 2.32
	<b>Statistical Analysis</b>	<b>t = 2.092</b> <b>p = 0.04</b>	t = 1.424 p = 0.15	t = 0.576 p = 0.56	<b>t = 0.468</b> <b>p = 0.02</b>	t = 1.415 p = 0.15	t = 0.952 p = 0.34

\*One Way Anova Test; \*\*Independent Samples T-Test.

the most, with a rate of 81.2%<sup>(27)</sup>. The presence of a similar result suggests that midwives' empathy and spiritual care had a positive effect on women's satisfaction (technical quality and suitability). In a study conducted in Norway, however, there was no significant difference in terms of dissatisfaction between women receiving birth care from practitioners, midwives, or obstetricians<sup>(10)</sup>. The evaluation of Syrian pregnant women in the present study may be explained by the differences in cultural structures.

In our study, 70.5% of participants stated that their pregnancies were planned. Those with planned pregnancies had higher scores in the art of care and accessibility subscales. The literature also emphasizes that planned pregnancies have a positive effect on satisfaction with healthcare services<sup>(28)</sup>. In the current study, the pregnant women's satisfaction score made up more than half of the total score. However, the satisfaction derived from the service is possibly increased due to the significance of planned pregnancies for the family and that healthcare is free for migrants with identification cards.

## STUDY LIMITATIONS

- This study is limited to Syrian pregnant women who applied to Mardin Training and Research Hospital. Therefore, the results cannot be generalized to the overall Syrian refugee population.
- The research was conducted between August 15, 2023, and September 16, 2023. Longer-term studies may yield different results.
- Since participants were selected using a purposive sampling method, random sampling was not performed, limiting the generalizability of the findings.

- Only Syrian pregnant women who could speak Turkish were included in the study. This may have led to the exclusion of women who face greater challenges in accessing healthcare services due to language barriers.
- Participants' satisfaction with healthcare services may have been influenced by cultural norms, which should be taken into consideration.

## CONCLUSION

The study findings indicate that lack of information, economic difficulties, lack of social security, and transportation issues are major barriers to healthcare access for migrant pregnant women.

Factors such as receiving PC from midwives or nurses, having planned pregnancies, and having social security influenced PC satisfaction of pregnant women in the study. These results shed light on the development of recommendations to improve satisfaction with PC. Based on these results:

- Migrant women should receive information about the importance of PC services.
- Healthcare personnel should receive training on empathy and cultural sensitivity towards migrant women.
- Free transportation local support should be provided to reduce transportation-related problems.
- The scope of social security should be expanded to enable more migrant women to benefit from free healthcare services.
- Further studies in different regions with larger sample sizes could further enrich the knowledge base in this subject.

## RESUMO

**Objetivo:** O objetivo deste estudo é examinar os níveis de satisfação das gestantes migrantes sírias que vivem em Mardin com os serviços de atendimento pré-natal e os fatores que influenciam sua satisfação. **Método:** Estudo transversal em que a população foi composta por gestantes sírias que se inscreveram no Mardin Training and Research Hospital entre 15 de agosto e 16 de setembro de 2023. Participaram do estudo 146 gestantes sírias que atenderam aos critérios de inclusão. O formulário de informações sociodemográficas e a Escala de Satisfação com o Atendimento Pré-Natal (ESAPN) foram usados como ferramentas de coleta de dados. **Resultados:** A taxa de gestantes que receberam atendimento pré-natal de uma parteira ou enfermeira foi de 80,1% e a das que receberam menos de quatro atendimentos pré-natais foi de

89,7%. O motivo mais comum para não receber assistência pré-natal adequada foi a falta de informações, com taxa de 39,7%. A pontuação média da ESAPN foi de  $73,39 \pm 14,78$ . **Conclusões:** Os resultados do estudo indicam que a falta de informação é uma das principais barreiras ao acesso à assistência à saúde para as gestantes migrantes. Além disso, o fato de receber serviços de atendimento pré-natal de parteira ou enfermeiras afetou a satisfação com o atendimento pré-natal.

## DESCRIPTORES

Migrantes; Gestantes; Cuidado Pré-Natal; Satisfação Pessoal.

## RESUMEN

**Objetivo:** Este estudio tiene como objetivo examinar los niveles de satisfacción de las mujeres migrantes sirias embarazadas que viven en Mardin con los servicios de atención prenatal y los factores que influyen en su satisfacción. **Método:** Se trata de un estudio transversal. La población del estudio consistió en mujeres embarazadas sirias que solicitaron atención en el Hospital de Formación e Investigación de Mardin entre el 15 de agosto de 2023 y el 16 de septiembre de 2023. Participaron en el estudio 146 embarazadas sirias que cumplían los criterios de inclusión. Como instrumentos de recogida de datos se utilizaron el formulario de información sociodemográfica y la Escala de satisfacción con la atención prenatal. **Resultados:** La tasa de las que recibieron cuidados prenatales de una matrona/enfermera es del 80,1% y la de las que recibieron menos de 4 cuidados prenatales fue del 89,7%. La razón más común para no recibir una atención prenatal adecuada fue la falta de información, con una tasa del 39,7%. La puntuación media del PCSS fue de  $73,39 \pm 14,78$ . **Conclusiones:** Los resultados del estudio indican que la falta de información es una de las principales barreras para el acceso a la atención sanitaria de las mujeres embarazadas inmigrantes. Además, recibir servicios de atención prenatal por parte de matronas/enfermeras afectaba a la satisfacción con la atención prenatal.

## DESCRIPTORES

Migrantes; Personas Embarazadas; Atención Prenatal; Satisfacción Personal.

## REFERENCES

1. Belachew AK, Debie A, Geberu DM, Dagneu A, Bitew G, Dejene TM, et al. Antenatal care service satisfaction and associated factors among pregnant women at public health facilities of Wogera district, Northwest Ethiopia: a cross-sectional study. *Front Glob Womens Health*. 2024;5:1422047. doi: <http://doi.org/10.3389/fgwh.2024.1422047>. PubMed PMID: 39148664.
2. Vidal ECF, Oliveira LL, Oliveira CAN, Balsells MMD, Barros MAR, Vidal ECF, et al. Assistência pré-natal associada a desfechos neonatais em maternidades: um estudo transversal de base hospitalar. *Rev Esc Enferm USP*. 2023;57:e20230145. doi: <http://doi.org/10.1590/1980-220x-reeusp-2023-0145en>. PubMed PMID: 38362841.
3. World Health Organization. Mortalidade materna: principais fatos [Internet]. Geneva: WHO; 2023 [cited 2023 June 29]. Available from: <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>.
4. Grupo Banco Mundial. Monitor econômico da Síria: conflito, crises e o colapso do bem-estar das famílias. Washington, DC: Banco Internacional para Reconstrução e Desenvolvimento/Banco Mundial; 2024. 7 p.
5. Salmaşur YE, Şahin BE. Reflexo da mobilidade migratória na estrutura demográfica da Turquia após a guerra civil síria. *IJAR*. 2020;(esp.):85–103.
6. Külahlıoğlu S. The concept of migration and socio-cultural and economic reflections of Syrian migration. *J Soc Hum Adm Sci*. 2021;7(46):2276–83. doi: <http://doi.org/10.31589/JOSHAS.806>.
7. Turkey. Geçici koruma [Internet]. 2024 [cited 2024 Nov 30]. Available from: <https://www.goc.gov.tr/gecici-koruma5638>.
8. Gürbüz S, Duğan Ö. Comunicação em saúde em refugiados: um estudo sobre professores sírios. *Akad Bakiş Ulus Hak Sos Bil Derg*. 2017;64:479–90.
9. Büllez A, Okay EK, Sever E, Bolat A, Kürklü A. O efeito da satisfação com o cuidado perinatal na percepção do parto traumático em mulheres migrantes e não imigrantes. *KSÜSB*. 2023;20(2):483–95. doi: <http://doi.org/10.33437/ksusbd.1348441>.
10. Bains S, Sundby J, Lindskog BV, Vangen S, Diep LM, Owe KM, et al. Satisfaction with maternity care among recent migrants: an interview questionnaire-based study. *BMJ Open*. 2021;11(7):e048077. doi: <http://doi.org/10.1136/bmjopen-2020-048077>. PubMed PMID: 34272220.
11. Öztekin D, Keskin HŞ. Avaliação do estado de saúde sexual e reprodutiva de mulheres refugiadas sírias que vivem na Turquia. *Izmir Democ Univ Health Sci J*. 2024;7(1):42–55. doi: <http://doi.org/10.52538/duhes.1054081>.
12. Erenel H, Mathyk BA, Sal V, Ayhan I, Karataş S, Bebek AK. Características clínicas e resultados da gravidez de refugiados sírios: um estudo de caso-controle em um hospital terciário em Istambul, Turquia. *Arch Gynecol Obstet*. 2017;295:45–50. doi: <http://doi.org/10.1007/s00404-016-4188-5>. PubMed PMID: 27589848.
13. World Health Organization. Novas diretrizes sobre cuidados pré-natais para uma experiência positiva de gravidez [Internet]. Geneva: WHO; 2023 [cited 2024 Nov 28]. Available from: <https://www.who.int/news/item/07-11-2016-new-guidelines-on-antenatal-care-for-a-positive-pregnancy-experience>.
14. Fair F, Raben L, Watson H, Vivilaki V, van den Muijsenbergh M, Soltani H, et al. Experiências de mulheres migrantes com gravidez, parto e cuidados de maternidade em países europeus: uma revisão sistemática. *PLoS One*. 2020;15(2):e0228378. doi: <http://doi.org/10.1371/journal.pone.0228378>.
15. Byrskog U, Ahne M, Pequeno R, Andersson E, Essen B, Adan A, et al. Rationale, development and feasibility of group antenatal care for immigrant women in Sweden: a study protocol for the Hooyo Project. *BMJ Open*. 2019;9(7):e030314. doi: <http://doi.org/10.1136/bmjopen-2019-030314>. PubMed PMID: 31371301.
16. Freitas C, Massag J, Amorim M, Fraga S. Involvement in maternal care by migrants and ethnic minorities: a narrative review. *Public Health Rev*. 2020;41(1):5. doi: <http://doi.org/10.1186/s40985-020-00121-w>. PubMed PMID: 32280558.
17. Aslantekin Özçoban F, Gelebek N, Erkal Aksoy Y, Yalnız Dilcen H. Prenatal care satisfaction scale: validity and reliability study. *J Acad Res Nurs*. 2020;6(1):141–7. doi: <http://doi.org/10.5222/jaren.2020.55823>.
18. Raube K, Manipulador A, Rosenberg D. Medindo a satisfação entre mulheres de baixa renda: um questionário de assistência pré-natal. *Rev Saúde Mater Infantil*. 1998;2(1):25–33.



19. Khorasani F, Mobasher M, Shafiei S, Alidousti K, Mohammadi S, Kouhestani Z. Afghan immigrant and refugee women's satisfaction with maternity wards services in Iran. *SciBase Epidemiol Public Health*. 2023;1(2):1008.
20. Fernández DLD, Sosa CAC, García JJZ, Gonzales VAV, Maza NGZ, Arredondo-Nontol M. Adherencia a la atención prenatal en el contexto sociocultural de países subdesarrollados: una revisión narrativa. *Horiz Med*. 2023;23(4):e2252. doi: <http://doi.org/10.24265/horizmed.2023.v23n4.12>.
21. Penman SV, Beatson RM, Walker EH, Goldfeld S, Molloy CS. Barriers to accessing and receiving antenatal care: findings from interviews with Australian women experiencing disadvantage. *J Adv Nurs*. 2023;79(12):4672–86. doi: <http://doi.org/10.1111/jan.15724>. PubMed PMID: 37366583.
22. Durmaz N, Ulukol B, Bilirer S, Erguder T. A refugee mother's perspective: healthcare satisfaction and access to health services as an immigrant in Türkiye. *North Clin Istanbul*. 2023;10(2):146–56. doi: <http://doi.org/10.14744/nci.2023.97597>. PubMed PMID: 37181069.
23. Özgürel Bozkurt A, Usal Tarhan N, Özkaya E. Os resultados da gravidez e do recém-nascido de refugiados sírios e mulheres turcas em um centro terciário, em Istambul, Turquia. *Zeynep Kamil Med J*. 2022;53(3):116–21. doi: <http://doi.org/10.14744/zkmj.2022.76376>.
24. Aydın Y. Avaliação dos serviços de saúde prestados aos migrantes sírios na Turquia, problemas e recomendações. *Tıbbi Sosyal Hizmet Dergisi*. 2021;18:227–48. doi: <http://doi.org/10.46218/tshd.989589>.
25. Chiavarini M, Lanari D, Minelli L, Pieroni L, Salmasi L. Mães imigrantes e acesso a cuidados pré-natais: evidências de um estudo populacional regional na Itália. *BMJ Open*. 2016;6(2):e008802. doi: <http://doi.org/10.1136/bmjopen-2015-008802>. PubMed PMID: 26861935.
26. Avcibay Vurğec B, Gökyıldız Surucu S, Onat Köroğlu C, Ezzo H. Perinatal care experiences of immigrant Syrian women: a qualitative phenomenological study. *East Mediterr Health J*. 2021;27(12):1173–81. doi: <http://doi.org/10.26719/emhj.21.065>. PubMed PMID: 35137385.
27. Tocchioni V, Seghieri C, De Santis G, Nuti S. Socio-demographic determinants of women's satisfaction with prenatal and delivery care services in Italy. *Int J Qual Health Care*. 2018;30(8):594–601. doi: <http://doi.org/10.1093/intqhc/mzy078>. PubMed PMID: 29672762.
28. Hsai NM, Matsui M, Ng CFS, Khaing AT, Imoto A, Sayed AM, et al. Satisfaction of pregnant women with antenatal care services at women and children hospital in South Okkalapa, Myanmar: a facility-based cross-sectional study triangulated with qualitative study. *Patient Prefer Adherence*. 2020;14:2489–99. doi: <http://doi.org/10.2147/PPA.S266916>.

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### Financial support

Financial support for the study was provided through the project MAÜ.BAP.22.SBF.026, aimed to carry out the research, by the Mardin Artuklu University Scientific Research Projects Coordination.

This study was financed in part by the Conselho Nacional de Desenvolvimento Científico e Tecnológico - Brasil (CNPq) process: 401923/2024-0 (spanish language version).



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