



Is being a refugee affect prenatal bonding scores of Syrian women in Turkey?

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Abstract

Is being a refugee affect prenatal bonding scores of Syrian women in Turkey?

Objective: The development of the bond between mother and infant already starts during prenatal life, which is called prenatal bonding is the emotional tie or the bond that generally develops between the pregnant woman and her unborn child. We aimed at investigating the effect of being a refugee on prenatal bonding.

Method: A total of 152 pregnant women in the third trimester, 76 Syrian refugees and 76 Turkish, were included in the study, which was planned as a descriptive cross-sectional study. Prenatal Attachment Inventory (PAI), consisting of 21 items, was applied to collect data before delivery.

Results: The total PAI score of Syrian pregnant was significantly lower than Turkish pregnant (60.17 ± 8.9 vs. 63.53 ± 8.3 , $p=0.019$). For those whose education time period was longer, PAI scores were higher ($r=0.279$ and $p < 0.001$). There was an inverse association between parity and PAI scores ($r=-0.208$ and $p=0.014$). There was not any correlation between PAI scores between age, gravida, gestational weeks, respectively ($r=0.021$ and $p=0.87$; $r=-0.123$ and $p=0.14$; $r=0.155$ and $p=0.06$).

Conclusion: Being a refugee has a negative impact on prenatal attachment. The findings of our study could guide the planning and development of health policies in Turkey and other countries that would help to address the situation regarding refugee populations.

Keywords: Refugee, Bonding (Psychology), Mother-Infant Interaction, Infant Well-Being

Öz

Mülteci olmak Türkiye'deki Suriyeli kadınların prenatal bağlanma skorlarını etkiliyor mu?

Amaç: Prenatal bağlanma; doğum öncesi dönemden başlayan doğumun gerçekleştiği ana kadar olan anne ile bebek arasındaki duygusal bağdır. Bu çalışma ile sığınmacı olmanın prenatal bağlanma üzerindeki etkisini belirlemeyi amaçladık.

Yöntem: Tanımlayıcı kesitsel olarak planlanan çalışmaya üçüncü trimesterdeki 76 Suriye'li göçmen ve 76 Türk olmak üzere toplam 152 gebe dahil edildi. Verilerin toplanmasında 21 sorudan oluşan Prenatal Bağlanma Envanteri (PAE) kullanıldı.

Bulgular: Suriye'li göçmen gebelerin toplam PAE skoru, Türk gebelerden istatistiksel olarak anlamlı derecede düşüktü (60.17 ± 8.9 vs. 63.53 ± 8.3 ; $p=0.019$). Eğitim süresi uzun olan gebelerin PAE puanları istatistiksel anlamlı olarak daha yüksekti ($r=0.279$ ve $p=0.001$). Parite ile PAE puanları arasında negatif yönde korelasyon saptandı ($r=-0.208$ ve $p=0.014$). PAE skorları ile sırasıyla yaş, gravida ve gebelik haftası arasında ilişki bulunmadı ($r=0.021$ ve $p=0.87$; $r=-0.123$ ve $p=0.14$; $r=0.155$ ve $p=0.06$).

Sonuç: Göçmen olmanın prenatal bağlanma üzerinde olumsuz bir etkisi vardır. Çalışmamız Türkiye'de ve diğer ülkelerde mülteci nüfusuyla ilgili prenatal bağlanmayı arttıracak sağlık politikalarının planlanması ve geliştirilmesine rehberlik edebilir.

Anahtar Kelimeler: Göçmen, Bağlanma (Psikoloji), Anne-Bebek Etkileşimi, Bebek Sağlığı

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INTRODUCTION

Maternal-infant bonding, maternal feelings, and emotions toward the infant are major topics in the field of psychology. The development of the bond between mother and infant starts during pregnancy, called prenatal bonding (1). Prenatal bonding was first described by Condon and Corkindale, which is defined as the emotional tie or the bond which generally develops between the pregnant woman and her unborn baby (2). The Prenatal Attachment Inventory (PAI) is the most used instrument to analyze the bonding scores in pregnancy (3).

In the literature, trials are investigating the predictors of prenatal bonding. Social support and marriage relationships are positively related to prenatal bonding, while maternal depression is an important predictor of poor prenatal bonding (2, 4, 5).

As the world follows, there is a civil war in Syria, and civilians are emigrating from their country, especially neighboring countries. Turkey is one of the leading destinations for refugees in this sense. According to AFAD data, a total of 3 million 551 thousand Syrian refugees have emigrated and are living in Turkey (6). The continuation of fertility and prenatal follow-ups of refugees become a problem due to the difficulty in reaching opportunities. Our hospital is one of the largest tertiary referral hospitals in our city, and a total of 988 Syrian women gave birth in our hospital between January 2017 and October 2017.

In our literature review, we realized the lack of data about the effect of being a refugee on prenatal bonding scores and hypothesized that bonding scores correlated negatively with being a pregnant refugee. We aimed to investigate the actual impact of being a refugee on prenatal bonding.

METHOD

This descriptive, cross-sectional study includes third-trimester pregnant Syrian refugees, and third-trimester Turkish pregnant women admitted to the Umraniye Education and Research Hospital for delivery between July 2017 and October 2018. Ethical approval was obtained from the University of Health Sciences, Umraniye Education and Research Hospital's Education Planning and Coordinating Committee (ethical consent number 13602-2017), and Helsinki Declaration rules were followed to conduct this study. A total of 185 women have recruited for the study; 13 of them did not accept to participate in the study, and 20 did not meet the inclusion criteria of the study. One hundred fifty-two pregnant women who agreed to participate in the study were included. Seventy-six consecutive Syrian refugee patients were determined as the study group. Another 76 straight Turkish women comprised the control group. Inclusion criteria were women

over 18 years old and under 40 years of age, third trimester pregnant, no previous abortions, and pregnancy without assisted reproductive techniques. We excluded pregnant women younger than 18 years of age, women diagnosed with depression and other psychiatric illnesses, high-risk pregnancies such as; multiple pregnancies, diagnosis with preeclampsia, gestational diabetes mellitus, and history of recurrent miscarriage.

Demographic characteristics and obstetric outcomes were recorded. Age, gravida, parity, and education level on admission were recorded. Gestational age was calculated by the last menstrual period, while the first-trimester ultrasound measurements were used to estimate gestational age for patients who did not know the last menstrual period.

Mary Muller described the PAI in 1993 to determine the level of attachment between mother and baby that realize the feelings and thoughts of the mother in the prenatal period. The scale consists of 21 items for this purpose. Each item is leveled between 1 and 4, as 1: Never, 2: Sometimes, 3: Frequently, and 4: Always. The increase in the score shows an increase in the level of bonding (7). The total score that can be obtained from the inventory varies between 21 and 84. High scores indicate a high prenatal attachment level; low scores mean that the level of prenatal attachment is low. In the internal consistency analysis of the scale in our country, the validity and reliability of which were studied by Yılmaz and Beji, and the Cronbach alpha reliability coefficient was found to be 0.84 (8). In addition, Duyan et al. studied the validity and reliability of the scale, a Turkish version of the PAI administered to 295 pregnant women that conducted it is a valid and reliable scale (9). In this study, Cronbach's alpha coefficient of the scale was found to be 0.803.

Informed consent forms were obtained from the patients before we applied PAI, which is also validated by all subjects before giving birth. Arabic-speaking staff translator of our hospital applied the PAI to pregnant Syrian women.

Statistical Analysis

The data were analyzed using the SPSS software version 20.0. The normality assumption was tested by the Shapiro-Wilk test. For continuous variables, the results of the study are summarized as mean \pm SD and median \pm IQR (minimum-maximum). Mann-Whitney U and Independent sample t-tests were used for comparing numerical variables. $P < 0.05$ was considered statistically significant. Spearman's correlation analysis was performed to evaluate correlations between nonparametric variables. A minimum of 64 subjects per group were calculated by power analysis to achieve 80% statistical power with an alpha level 0.05.

RESULTS

One hundred fifty-two women were eligible for the study. 76 Syrian refugee pregnant patients were compared to 76 Turkish pregnant patients. Table 1 showed demographic data and maternal characteristics. Participants had a mean age of 25.88 ± 5.4 (18-39). Syrian refugee patients' average age was significantly lower than Turkish patients (24.21 ± 5.7 vs. 27.5 ± 4.5 , $p < 0.001$). Gestational age and gravida were similar between groups, respectively ($p=0.72$, $p=0.09$). The parity was significantly higher in the Syrian patients ($p=0.02$). The education time period was significantly shorter in Syrian refugee pregnant than Turkish pregnant women ($p=0.001$).

The total PAI score of Syrian patients was significantly lower than Turkish patients (60.17 ± 8.9 vs. 63.53 ± 8.3 , $p=0.019$) (Table 2). A significant positive correlation was found between the mother's education level and the PAI scores ($r=0.279$ and $p=0.001$). In other words, the longer the education period time, the higher the PAI scores. There was an inverse association between parity and PAI scores ($r=-0.208$ and $p=0.014$). The correlation was not detected between PAI scores and age, gravida, gestational weeks, respectively ($r=0.021$ and $p=0.87$; $r=-0.123$ and $p=0.14$; $r=0.155$ and $p=0.06$).

DISCUSSION

It is a fact that pregnant Syrian refugee women are exposed to many factors that can affect their maternal-infant bonding, such as lack of social support, language, and economic factors, which increase their fear of pregnancy (10-13).

The refugee migration experience has its unique aspects, as most Syrian refugees resettled in Western countries have been displaced, either inside Syria or in nearby countries such as Turkey. According to our results, the most dominant factor for Syrian refugee women's pregnancy and motherhood experiences is migration and resettlement because women may fear pregnancy and have a huge amount of stress, anxiety, and uncertainty about their lives.

Ethnographic and qualitative research suggests that the conflict reduces antenatal healthcare utilization by promoting insecurity through frightening healthcare workers and promoting fear in pregnant women seeking care (14,15). But we think that this is not a significant factor in our case. Our hospital has an interpreter and provides the same rights and standard of service to Syrian refugees as Turkish citizens. There is no separate treatment and follow-up procedure for refugees in our hospital.

In the present study, the inverse association between parity and PAI score may be due to the fact that the mother spends much more time taking care of her other children or doing household chores. Unplanned pregnancy may

Table 1. Characteristics of groups

Variables Median \pm IQR	Syrian pregnant women n=76 (min-max)	Turkish pregnant women n=76 (min-max)	p
Age (y)	22 \pm 8(20-28)	28 \pm 7(24-31)	<0.001
Gravida (n)	2 \pm 2(1-3)	2 \pm 2(1-3)	0.09
Parity(n)	1 \pm 2(0-2)	1 \pm 2(0-1)	0.02
Gestational week	37 \pm 2(36-38)	37 \pm 4(35-39)	0.72
Education time period (y)	7 \pm 6(3-9)	8 \pm 7(5-12)	0.001

Distributions were summarized by median \pm IQR and minimum and maximum values.

Table 2. Total PAI scores between two groups

	Syrian pregnant women n=76	Turkish pregnant women n=76	p
PAI (mean \pm SD)	60.17 \pm 8.9	63.53 \pm 8.3	0.019

PAI: Prenatal Attachment Inventory

have also affected the attachment scores negatively. Usage and access to contraceptives decreased due to conflict and forced displacement (16). In addition, conflict and/or refugee situations negatively affect women due to poor financial funding, poor transportation access, domestic burden increment, and increased gender-based violence; as a result, less control over family planning decisions.

There was no significant relationship between the mother's age and PAI scores in the present research. This finding was consistent with that reported by Abasi and Schachman et al.; however, Ustunsoz et al.; reported a negative correlation between these two variables (17-19). Moreover, Kiehl and White stated that the younger the Swedish mother, the greater feelings of well-being and adaptation (20). The negative correlation between the maternal age and the adaptation score is possible because older mothers have more routines and fixed principles in their lives, making the adaptation to pregnancy and having an infant so tricky. In addition, an increase in the number of children with age may cause a decrease in maternal-fetal attachment in older mothers.

In our study, a significant positive association was found between the mother's education level and the attachment scores, wherein the less educated group had lower maternal-fetal attachment scores. These findings were similar to previous studies by Kwon and Bang and Taffazoli et al. (21,22). However, Abasi et al. and Lindgren (5,17) reported no correlation between the attachment scores and the education level of the mothers or their spouses, the mother's income, job, and the number of pregnancies and deliveries.

These inconsistencies might be due to differences in the characteristics of the populations studied in the different studies.

CONCLUSION

In conclusion, this preliminary study demonstrates that being a refugee negatively impacts maternal-fetal bonding. The research findings could guide the planning and development of health systems and health policies in Turkey and other countries that would help address the situation regarding refugee populations.

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Conflict of Interests

The authors declare that they have no conflict of interests regarding content of this article.

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Ethical Declaration

Permission was obtained from the University of Health Sciences, Umraniye Training and Research Hospital Education Planning and Coordinating Committee (13602-20.06.2017), and Helsinki Declaration rules were followed to conduct this study.

Authorship Contributions

Concept: SYK, YC, Design: SYK, NO, Supervising: YC, Financing and equipment: SYK, NO, Data collection and entry: SYK, NO, Analysis and interpretation: SYK, YC, Literature search: SYK, NO, YC

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