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Association of postpartum social support and psychological resilience with mother–infant bonding among migrant mothers

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Abstract

This study aimed to examine the relationship between perceived social support, psychological resilience, and mother–infant bonding among migrant mothers in the postpartum period. This cross-sectional study was conducted with 233 migrant mothers, and data were collected between December 2023 and 2025 using structured questionnaires administered via social media platforms. Descriptive statistics, correlation analysis, and hierarchical multiple regression analysis were performed. The mean age of participants was 25.4±5.3 years, and the mean duration of residence in Türkiye was 76.0±35.7 months. Perceived social support was positively associated with mother–infant bonding, whereas psychological resilience showed a weak negative relationship. Bonding scores differed significantly according to educational level, economic status, and mode of delivery. Regression analysis indicated that perceived social support was the strongest predictor, explaining 51% of the variance. These findings suggest that strengthening social support may improve maternal well-being and promote healthy mother–infant bonding among migrant mothers. *(Afr J Reprod Health 2026; 30 [21]: 75-87).*

Keywords: Postpartum social support; mother–infant bonding; maternal attachment; psychological resilience; migrant mothers; postnatal period

Résumé

Cette étude a visé à examiner la relation entre le soutien social perçu, la résilience psychologique et le lien mère-nourrisson chez les mères migrantes pendant la période du post-partum. Cette étude transversale a été menée auprès de 233 mères migrantes, et les données ont été collectées entre décembre 2023 et 2025 à l'aide de questionnaires structurés administrés via des plateformes de réseaux sociaux. Des statistiques descriptives, une analyse de corrélation et une analyse de régression multiple hiérarchique ont été réalisées. L'âge moyen des participantes était de $25{,}4 \pm 5{,}3$ ans, et la durée moyenne de résidence en Türkiye était de $76{,}0 \pm 35{,}7$ mois. Le soutien social perçu était positivement associé au lien mère-nourrisson, tandis que la résilience psychologique a montré une faible relation négative. Les scores de lien ont différé de manière significative selon le niveau d'éducation, le statut économique et le mode d'accouchement. L'analyse de régression a indiqué que le soutien social perçu était le prédicteur le plus puissant, expliquant 51 % de la variance. Ces résultats suggèrent que le renforcement du soutien social peut améliorer le bien-être maternel et favoriser un lien mère-nourrisson sain chez les mères migrantes. *(Afr J Reprod Health 2026; 30 [21]: 75-87).*

Mots-clés: Soutien social post-partum ; lien mère-nourrisson ; attachement maternel ; résilience psychologique ; mères migrantes ; période postnatale

Introduction

Migration is defined as the temporary or permanent movement of individuals from one place to another due to economic, social, political, or environmental reasons.[1,2] According to the most recent data from the International Organization for Migration, approximately 304 million people worldwide were living outside their countries of birth as of 2025.[3] This substantial figure indicates that migration has become an increasingly prominent global phenomenon. The migration process brings significant changes to individuals' lives and creates various challenges in fundamental areas such as housing, nutrition, and access to health care services.[4] Although migration is considered a stressful experience requiring intensive adaptation for all individuals, vulnerable groups such as

women and children are reported to be disproportionately affected by this process.[5,6]

For women, motherhood represents a major developmental transition during which physiological, psychological, and social roles are simultaneously restructured.[7] During this period, women develop a maternal identity, while the mother–infant bond also begins to form. Mother–infant bonding refers to the emotional and behavioral relationship that begins during pregnancy and intensifies in the postpartum period, playing a critical role in both maternal psychological wellbeing and infant neurodevelopment.[8,9] Failure to establish secure bonding may negatively affect the child's cognitive, emotional, and social development.[10]

The literature emphasizes that maternal bonding is influenced by numerous factors, including maternal mental health, perceived social support, cultural context, and living circumstances.[11,12] In particular, perceived social support during the postpartum period stands out as a key protective factor that promotes mothers' psychological wellbeing. Findings from previous studies suggest that higher levels of social support during the postpartum period are associated with fewer psychological difficulties, including stress, depression, and trauma symptoms, and are also related to stronger mother–infant bonding.[13-15]

For migrant women, this process becomes even more complex, as language barriers, cultural incongruence, social isolation, and difficulties in accessing health care services increase psychosocial vulnerability.[6] Qualitative studies report that migrant women frequently experience intense anxiety, loneliness, hopelessness, and uncertainty about the future, while the lack of family and social support exacerbates mental health problems.[16] Recent evidence indicates that postpartum depression among migrant mothers is associated with insufficient social support, limited health literacy, and language barriers.[17]

Within this framework, psychological resilience refers to the ability of individuals to cope with stressful life experiences while maintaining their functional wellbeing and is recognized as a key protective factor during the postpartum period.[18] However, studies simultaneously examining psychological resilience, social support, and mother–infant bonding among migrant mothers are still limited.

Based on the existing literature, postpartum social support and psychological resilience are considered two key protective factors that may facilitate positive mother–infant bonding among migrant mothers. In addition, sociodemographic and obstetric characteristics may also influence mother–infant bonding and were therefore included as control variables in the conceptual framework. Migration-related challenges, including social isolation, language barriers, and limited access to health care, may reduce perceived social support and undermine psychological resilience, thereby adversely affecting the development of mother–infant bonding. Accordingly, this study was guided by a conceptual framework proposing that sociodemographic characteristics, perceived postpartum social support, and psychological resilience are associated with mother–infant bonding among migrant mothers. The hypothesized conceptual framework is illustrated in Figure 1.

Therefore, the present study aims to determine postpartum social support and psychological resilience levels among migrant mothers and to examine the relationships between these variables and mother–infant bonding. Accordingly, the following hypotheses were tested:

H1: Higher levels of perceived postpartum social support among migrant mothers are associated with significantly stronger mother–infant bonding.

H2: Higher levels of psychological resilience among migrant mothers are associated with significantly stronger mother–infant bonding.

H3: Postpartum social support and psychological resilience significantly predict mother–infant bonding after controlling for sociodemographic and obstetric variables.

Method

Participants and procedure

The study included 233 migrant mothers who voluntarily participated by completing an online questionnaire distributed through social media platforms, including WhatsApp, Instagram, and Facebook, between December 2023 and December 2025. A convenience sampling strategy based on

non-probability principles was adopted. For the purposes of this study, migrant mothers were defined as women who were born outside Türkiye and had been residing in Türkiye for at least one year. Eligibility was determined based on participants' self-reported responses in the online questionnaire. An a priori power analysis was performed using G*Power 3.1 to determine the adequacy of the sample size. For multiple linear regression, a minimum of 109 participants was required under the assumptions of a medium effect size ($f^2 = 0.15$), 95% confidence level, and 80% statistical power. The final sample size exceeded this threshold, with 233 participants included in the analysis. Because all questionnaires and validated measurement instruments were administered in Turkish, participants were required to be able to communicate in Turkish to ensure accurate comprehension of the survey items and to minimize potential measurement bias.

Inclusion criteria were as follows: (i) being born outside Türkiye, (ii) being able to communicate in Turkish, (iii) having resided in Türkiye for at least one year, (iv) having an infant without any diagnosed health problems, (v) having no history of psychiatric disorders and not using any psychiatric medication, and (vi) voluntarily agreeing to participate in the study.

Measures

Data were collected using the *Migrant Mother Information Form* (12 items), the *Postpartum Support Questionnaire* (34 items), the *Brief Resilience Scale* (6 items), and the *Mother–Infant Bonding Scale* (8 items)

Migrant mother ınformation form

The form was designed by the researchers in accordance with the relevant literature and includes 12 items aimed at evaluating the participants' sociodemographic and obstetric characteristics.[5,1317]

Postpartum support questionnaire (PSQ)

The PSQ was developed by Logsdon[19], and its Turkish validity and reliability were established by Ertürk.[20] The scale consists of two sections *Importance of Need* and *Support Received* each comprising 34 items rated on an 8-point Likert scale ranging from 0 to 7. All items are answered separately for both sections, and total scores are calculated for each section independently. Higher scores indicate greater perceived importance of postpartum support needs and higher levels of received support. Both sections include four subdimensions: *Emotional Support***,** *Instrumental Support***,** *Informational Support*, and *Comparison*. Scores for each section range from 0 to 238. Reported Cronbach's alpha coefficients are .88 for the *Importance of Need* section and .9 for the *Support Received* section.[20] In the current study, Cronbach's alpha coefficients were calculated as .8 for the *Importance of Need* subscale and .96 for the *Support Received* subscale.

Brief resilience scale (BRS)

The BRS was originally developed by Smith *et al*.[21], and its Turkish version was validated by Doğan.[22] The instrument includes six items rated on a 5-point Likert scale, where higher scores reflect greater levels of psychological resilience. Items 2, 4, and 6 are scored in reverse. In the Turkish adaptation study, the internal consistency coefficient was reported as .8 [22], whereas Cronbach's alpha in the present study was calculated as .9.

Mother–ınfant bonding scale (MIBS)

The MIBS is a brief instrument that can be used from the immediate postpartum period to assess mothers' emotional perceptions of their infants. It captures aspects of early bonding in relation to postpartum mood. The scale was developed by Taylor *et al*.[23], and its Turkish adaptation was validated by Aydemir and Alparslan.[24] It comprises eight items rated on a 4-point Likert scale (0–3), yielding total scores between 0 and 24, where higher scores reflect greater difficulties in bonding. The reported Cronbach's alpha was .6 for the Turkish version [24], whereas it was found to be .8 in the current sample.

Data analysis

All analyses were performed using IBM SPSS Statistics version 22. Continuous variables are

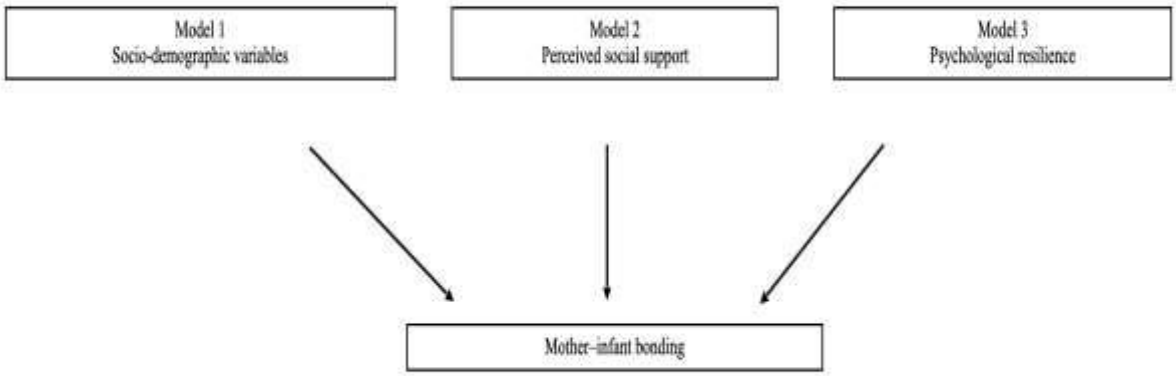


Figure 1: Conceptual framework explaining mother–infant bonding among migrant mothers

presented as mean ± standard deviation, while categorical variables are summarized as frequencies and percentages. Normality was evaluated using skewness and kurtosis, and parametric test assumptions were considered met. Group differences were analyzed using independent samples t-tests and one-way ANOVA, as appropriate. Relationships between variables were examined using Pearson's correlation analysis. Hierarchical multiple linear regression was conducted to identify predictors of mother–infant bonding. Guided by the conceptual framework (Figure 1), variables were entered into the regression model in three steps: sociodemographic and obstetric characteristics (Step 1), perceived postpartum social support (Step 2), and psychological resilience (Step 3). Regression assumptions were checked prior to analysis; no multicollinearity was detected based on VIF and tolerance values. Model fit was evaluated using R^2 and ΔR^2. Statistical significance was set at $p < 0.05$.

Ethical approval

Prior to the initiation of data collection, approval was obtained from the Hamidiye University of Health Sciences Scientific Research Ethics Committee (Approval No: 19.10.2023–22379). The study was conducted in accordance with the ethical principles of the Declaration of Helsinki and applicable research guidelines.

Results

Participant characteristics

A total of 233 migrant mothers participated in the study. The mean maternal age was 25.5 ± 5.4 years, the mean infant age was 17.7 ± 8.5 weeks, and the mean duration of residence in Türkiye was 76.1 ± 35.8 months (Table 1).

Comparison of study variables according to participant characteristics

Significant differences in study variables were observed according to maternal education, economic status, quality of relationship with spouse, pregnancy intention, infant sex, mode of delivery, and perceived competence in infant care (all $p<0.05$). Mothers with higher educational levels had significantly higher total and subscale scores on the PSQ ($p<0.01$). Mothers whose income was lower than their expenses reported significantly lower scores on the Support Received subscale ($p<0.01$). Mothers who described their relationship with their spouse as "very good" had significantly higher PSQ total, BRS, and MIBS scores than the other groups ($p<0.001$). Planned pregnancy was associated with significantly higher BRS scores ($p<0.01$), whereas mothers of male infants had significantly higher PSQ total and subscale scores than mothers of female infants ($p<0.05$).

Table 1: Comparison of scale total and subscale mean scores according to selected characteristics of mothers (N = 233)

		Mean±SD		Min.-Max		
Age		25.4±5.3		18-38		
Gestational age at birth (weeks)		38.9±1.1		37-41		
Postpartum age at the time of the study (weeks)		17.7±8.5		0-108		
Duration of residence in Türkiye (months)		76.0±35.7		12-200		
N(233)		*Importance of Need* **x̄ ± SD**	*Support Received* **x̄ ± SD**	**PSQ x̄ ± SD**	**BRS x̄ ± SD**	**MIBS x̄ ± SD**
Educational Status						
Illiterate[a]	66	127.3±45.7	120.1±38.2	247.5±82.7	19.3±3.0	14.7±.7
Primary school[b]	82	151.3±56.0	143.2±53.0	294.5±93.4	18.1±3.0	16.9±2.6
Middle school[c]	20	152.0±20.1	129.2±34.1	281.2±54.2	18.0±.0	14.4±.5
High school[d]	49	159.7±12.9	148.7±56.3	308.4±62.5	21.3±2.2	15.2±1.5
Bachelor's degree[e]	16	154.0±7.2	139.5±9.8	293.5±17.0	20.0±18.0	15.5±.5
F/p		5.068/**<.001**	3.404/**.010**	5.188/<**.001**	11.814/**<.001**	17.439/**<.001**
		b>a, d>a	b>a, d>a	**b>a, d>a**	**d>a**	**b>a, b>c, b>d, b>e**
		.007, <.001	**.032, .014**	**.004, <.001**	**.002**	**<.001, <.001, <.001, .044**
Economic status						
Income less than expenses[a]	149	144.0±50.8	139.3±45.0	283.4±86.9	18.5±2.7	15.8±2.3
Income equal to expenses[b]	63	151.6±29.7	140.9±51.6	292.6±72.3	20.5±2.9	15.1±1.3
Income greater than expenses[c]	21	148.3±11.1	102.0±42.4	250.4±53.6	20.6±3.1	15.3±15.3
F/p		.689/.503	6.246/**.002**	2.149/.119	12.791/**<.001**	2.708/.069
			a>c, b>c		**b<a, c>a**	
			.003, .004		**<.001, .007**	
Relationship with spouse						
Very good[a]	42	142.8±32.5	113.5±33.03	256.4±51.77	19.6±1.86	14.8±1.38
Good[b]	81	159.2±19.2	136.2±50.58	295.5±64.17	20.4±2.78	15.2±.95
Moderate[c]	91	143.0±58.9	147.1±49.24	290.2±104.43	17.3±1.89	16.4±2.77
Poor[d]	19	117.2±38.0	135.6±39.72	252.9±49.36	22.7±4.17	15.0±1.02
F/p		5.744/**<.001**	4.981/**.002**	3.340/**.020**	38.072/**<.001**	8.740/**<.001**
		b>a, b>d	**c>a**	**b>a**	**a>c, d>a**	**c>a**
		.024, **<.001**	**<.001**	**.003**	**<.001, <.001**	**<.001**
Planned pregnancy						

Yes	152	147.2±37.8	130.0±51.7	277.2±81.9	19.6±2.5	15.6±2.3
No	81	145.1±53.2	148.3±36.6	293.5±79.0	18.5±3.6	15.5±1.4
t/p		.353/.750	-2.839/**.002**	-1.458/.142	2.685/**.008**	.344/.731
Infant's sex						
Female	166	142.4±45.3	130.7±46.9	273.1±84.8	18.9±3.1	15.5±2.3
Male	67	156.7±37.7	150.3±47.2	307.1±65.9	20.0±2.5	15.8±.6
t/p		-2.293/**.014**	-2.879/**.004**	-2.938/**.004**	-2.382/**.018**	-.975/.151
Mode of delivery						
Vaginal delivery	205	144.6±46.1	135.8±47.8	280.4±83.7	19.3±3.1	15.7±2.0
Cesarean section	28	160.6±9.1	140.1±48.1	300.7±56.6	19.0±1.4	15.1±1.9
t/p		-1.825/<**.001**	-.446/.656	-1.242/.215	.397/.503	1.453/.148
Breastfeeding						
Yes	190	141.0±40.0	137.4±47.2	278.5±77.2	19.4±3.2	15.6±2.1
No	43	170.6±51.0	131.7±50.0	302.4±95.2	18.3±.7	15.6±1.1
t/p		-4.152/<**.001**	.706/.481	-1.753/.081	2.218/<.001	-.155/.877
Feeling competent in infant care						
Yes	119	145.2±33.2	125.3±48.2	270.6±70.9	20.2±2.6	15.2±1.0
No	114	147.9±52.5	147.8±44.6	295.7±89.1	18.3±3.0	16.0±2.6
		-.459/.642	-3.668/<**.001**	-2.390/**.018**	5.002/<**.001**	-3.081/**.003**

Table 2: Correlations between total and subscale scores of the PSQ, BRS, and MIBS

x̄ ± SD		**Min.-Max**		**1**	**2**	**3**	**4**	**5**
1. PSQ Importance of Needs Total Score	146.5 ± 43.7	68-238	r*	1	,574**	,876**	-,014	,536**
			p		,000	,000	,828	,000
2. PSQ Received Support Total Score	136.3 ±47.7	54-238	r*	,574**	1	,898**	-,097	,613**
			p	,000		,000	,140	,000
3. PSQ Total Score	282.9 ±81.1	149-476	r*	,876**	,898**	1	-,065	,649**
			p	,000	,000		,326	,000
4. BRS Total Score	19.2 ±3.0	12-27	r*	-,014	-,097	-,065	1	-,227**
			p	,828	,140	,326		,000
5. MIBS Total Score	15.6±2.0	12-24	r*	,536**	,613**	,649**	-,227**	1
			p	,000	,000	,000	,000	

Table 3: Hierarchical regression analysis of factors ınfluencing mother–ınfant bonding in migrant mothers

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	17,487	,747		23,409	,000					
	Age	-,048	,029	-,127	-1,681	,094	-,080	-,111	-,109	,738	1,355
	Educational status	,304	,152	,191	1,997	,047	-,019	,132	,130	,462	2,166
	Duration of residence in Türkiye (months)	-,005	,004	-,089	-1,233	,219	-,129	-,082	-,080	,809	1,236
	Economic status	-,684	,327	-,220	-2,089	,038	-,126	-,138	-,136	,382	2,621
	Mode of delivery	,015	,555	,002	,027	,978	-,095	,002	,002	,536	1,866
R = .214 R² = .046 F= 2.160 p = .059											
2	(Constant)	11,693	,702		16,650	,000					
	Age	-,004	,022	-,010	-,167	,868	-,080	-,011	-,008	,721	1,387
	Educational status	-,322	,122	-,203	-2,634	,009	-,019	-,173	-,127	,396	2,528
	Duration of residence in Türkiye (months)	-,002	,003	-,037	-,677	,499	-,129	-,045	-,033	,805	1,242
	Economic status	,395	,257	,127	1,540	,125	-,126	,102	,075	,345	2,902
	Mode of delivery	-,663	,417	-,106	-1,592	,113	-,095	-,106	-,077	,528	1,893
	PSQ Total	,018	,001	,717	13,515	,000	,655	,669	,654	,832	1,202
R = .688 R² = .473 F = 182.648 p<.001											
3	(Constant)	14,379	,943		15,252	,000					
	Age	,005	,021	,012	,214	,831	-,080	,014	,010	,714	1,400
	Educational status	-,279	,119	-,175	-2,345	,020	-,019	-,155	-,110	,392	2,549
	Duration of residence in Türkiye (months)	-,003	,003	-,053	-1,021	,308	-,129	-,068	-,048	,800	1,250
	Economic status	,682	,258	,219	2,648	,009	-,126	,174	,124	,319	3,133
	Mode of delivery	-1,130	,418	-,181	-2,700	,007	-,095	-,178	-,126	,489	2,044
	PSQ Total	,018	,001	,707	13,779	,000	,655	,677	,644	,830	1,204
	BRS Total	-,143	,035	-,210	-4,105	,000	-,227	-,264	-,192	,833	1,201
R = .714 R² = .510 F = 16.849 p < .001											
a. Dependent Variable: MIBS Total											

Mothers who delivered vaginally had significantly lower PSQ total scores than those who delivered by cesarean section ($p<0.01$). In addition, mothers who perceived themselves as competent in infant care obtained significantly higher scores on the PSQ, BRS, and MIBS than those who did not ($p<0.01$) (Table 1).

Correlation analysis

Correlation analyses were performed to examine the relationships among perceived social support, psychological resilience, and mother–infant bonding (Table 2). The PSQ total score was strongly and positively correlated with its Importance of Needs ($r = 0.876$, $p<0.001$) and Support Received ($r = 0.898$, $p<0.001$) subscales. A strong positive correlation was also observed between the Importance of Needs and Support Received subscales ($r = 0.574$, $p<0.001$). Regarding the relationships among the main study variables, the PSQ total score demonstrated a moderate positive correlation with the MIBS total score ($r = 0.649$, $p<0.001$). In contrast, the BRS total score showed a weak but statistically significant negative correlation with the MIBS total score ($r = −0.227$, $p<0.001$). No statistically significant correlations were found between the BRS total score and either the PSQ total score or its subscale scores ($p>0.05$).

Hierarchical multiple regression analysis

Hierarchical multiple regression analysis was conducted to identify factors associated with mother–infant bonding (MIBS total score). Three sequential models were evaluated (Table 3). Model 1 included maternal age, educational level, duration of residence in Türkiye, economic status, and mode of delivery. This model was not statistically significant ($R = 0.214$, $R^2 = 0.046$, $F = 2.160$, $p = 0.059$). Model 2 additionally included perceived social support (PSQ total score). The model showed a substantial improvement and explained 47.3% of the variance in mother–infant bonding ($R = 0.688$, $R^2 = 0.473$, $F = 182.648$, $p<0.001$). Perceived social support emerged as the strongest positive predictor of mother–infant bonding ($\beta = 0.717$, $p<0.001$). Model 3 further incorporated psychological resilience (BRS total score), increasing the explained variance to 51.0% ($R = 0.714$, $R^2 = 0.510$, $F = 16.849$, $p<0.001$). Perceived social support remained the strongest positive predictor ($\beta = 0.707$, $p<0.001$). Educational level ($\beta = −0.175$, $p = 0.020$), economic status ($\beta = 0.219$, $p = 0.009$), and mode of delivery ($\beta = −0.181$, $p = 0.007$) also made significant contributions to the model. Psychological resilience showed a weak but statistically significant negative association with mother–infant bonding ($\beta = −0.192$, $p<0.05$). In the final model, perceived social support was the strongest predictor of mother–infant bonding, while educational level, economic status, mode of delivery, and psychological resilience also remained significant predictors (Table 3.).

Discussion

This study aimed to assess postpartum social support and psychological resilience among migrant mothers and to explore their association with mother–infant bonding. The findings were interpreted in the context of the existing literatüre, taking into account the results obtained from comparative, correlational, and regression analyses. Given the cross-sectional nature of the study, these findings should be interpreted as associations rather than causal relationships.

Differences in postpartum support and mother–infant bonding scores were identified according to the mothers' sociodemographic and obstetric characteristics. These results are in agreement with previous studies reported in the literature. In particular, several studies have demonstrated a positive relationship between educational level and both mother–infant bonding and perceived social support, suggesting that higher educational attainment is linked to increased perceived support and stronger bonding.[25] The role of socioeconomic status in maternal psychosocial outcomes has also been widely emphasized, with evidence indicating that mothers with lower income levels tend to experience poorer psychological adjustment and reduced perceived social support.[26] Furthermore, the quality of the partner relationship and partner support have been recognized as important determinants of postpartum mother–infant relationships; partner support has been shown to strengthen social support networks and positively influence bonding processes.[25] In line

with these observations, the results of the present study support the existing body of literature.

Previous studies have also reported that planned pregnancies positively affect bonding processes, with mothers who experience planned pregnancies demonstrating higher emotional adjustment and bonding scores.[27] Regarding infant gender, although some studies have reported differences within economic and sociocultural contexts, evidence on the direct impact of infant gender on bonding remains limited. Nevertheless, the interaction between socioeconomic factors and emotional processes has been discussed in the literature.[28] Findings related to the effect of mode of delivery on mother–infant bonding are more complex; while some studies suggest that cesarean delivery does not directly affect bonding, the birth experience itself may mediate this relationship.[28] In the present study, the absence of a significant difference in mother–infant bonding according to mode of delivery is consistent with these reports. However, migrant mothers who delivered by cesarean section exhibited significantly higher scores in the "Importance of Need" subdimension of postpartum support, which may be attributed to delayed physical recovery related to the surgical nature of cesarean birth.

Correlation analyses revealed generally positive and significant relationships between perceived postpartum social support (PSQ) and mother–infant bonding (MIBS), supporting Hypothesis 1. The strong positive association between the "Importance of Need" and "Received Support" subdimensions of PSQ indicates internal consistency among the components of perceived social support. Similar findings have been reported in the literature, suggesting that different dimensions of social support tend to be highly interrelated and that stronger support perceptions are directly associated with parent–infant interaction.[27] Furthermore, the moderate positive correlation between PSQ total scores and MIBS total scores supports the contribution of postpartum social support to mother–infant bonding. The adverse relationship between lack of social support and bonding difficulties has also been consistently documented across different cultural contexts.[25]

Conversely, the weak but statistically significant negative correlation between psychological resilience (BRS) and mother–infant bonding suggests that the role of resilience in bonding may be more complex. Nevertheless, this finding provides partial support for Hypothesis 2. The literature indicates that psychological resilience does not always show a direct positive association with bonding; rather, it may interact with mediating factors such as stress-coping capacity, availability of social support, and parental self-efficacy. [29] Accordingly, the influence of resilience on bonding may be indirect and should be considered alongside environmental factors such as social support.[30]

The absence of a significant relationship between BRS scores and PSQ total and subdimension scores suggests that psychological resilience may function independently of perceived social support. This finding aligns with previous studies indicating that social support may exert a more direct and influential effect on bonding than individual characteristics such as resilience.[26]

Hierarchical multiple regression analysis demonstrated that perceived social support was the strongest predictor of mother–infant bonding among migrant mothers. The significant contribution of PSQ total scores to the model, even after controlling for sociodemographic and obstetric variables, indicates that the effect of social support on bonding is both direct and independent of structural living conditions. This result is consistent with recent literature emphasizing the pivotal role of social support in maternal sensitivity, caregiving behaviors, and emotional closeness during the postpartum period.[25,31,32] Although perceived social support remained the strongest predictor in the regression model, unmeasured psychosocial factors may also have contributed to the observed associations.

In the final model, educational level, economic status, and mode of delivery were also identified as significant predictors of mother–infant bonding, suggesting that bonding is shaped not only by psychological processes but also by socioeconomic and obstetric contexts. These findings support Hypothesis 3 and are consistent with studies indicating that low socioeconomic conditions may increase maternal stress levels and complicate bonding processes. In particular, economic hardship and lower educational

attainment have been shown to indirectly affect mothers' adaptation to parenting roles and emotional relationships with their infants.

The finding that psychological resilience was a weak negative predictor of mother–infant bonding. The literature highlights inconsistencies in findings regarding the relationship between resilience and bonding, emphasizing that resilience often exerts its effects in interaction with factors such as social support, stress, and traumatic experiences.[29] In this context, resilience in the present study may influence bonding indirectly through environmental resources such as social support rather than serving as a strong direct predictor. For example, postpartum depressive symptoms or anxiety, which were not assessed in the present study, may influence both psychological resilience and mother–infant bonding. These findings should therefore be interpreted within the context of the study design and participant characteristics.

Overall, the results indicate that perceived social support is the most powerful determinant of mother–infant bonding and that this effect persists even after controlling for sociodemographic and obstetric variables. The effect of psychological resilience on bonding appears to be more complex and indirect. These findings underscore the importance of social support–based care models and psychosocial interventions, particularly for vulnerable groups such as migrant mothers. Structured postpartum social support programs may enhance maternal psychological well-being while simultaneously strengthening mother–infant bonding. Midwives, who play a central role in postpartum care, are well positioned. Structuring midwifery services to encompass not only physiological monitoring but also psychosocial assessment may contribute to creating a care environment that supports mother–infant bonding. Individualized counseling, referral to social support resources, bonding-focused care practices, and culturally sensitive care models implemented by midwives during the postpartum period may strengthen both maternal well-being and mother–infant interaction. In this regard, restructuring midwifery care within a biopsychosocial framework and integrating bonding-oriented and supportive approaches into standard postpartum care protocols are strongly recommended.

Study strengths and limitations

This study has several strengths. It simultaneously examined perceived postpartum social support, psychological resilience, and mother–infant bonding among migrant mothers, providing a broader understanding of the relationships among these variables. The adequate sample size and the use of validated and reliable measurement instruments also strengthen the methodological quality of the study. Furthermore, the study contributes to the limited body of literature examining these psychosocial factors concurrently among migrant mothers living in Türkiye.

These findings may have implications for postpartum care provided to migrant mothers by highlighting the potential importance of psychosocial support alongside routine physical care. From a policy perspective, culturally responsive postpartum care models, strengthened social support systems, and community-based initiatives that facilitate access to maternal healthcare services may be considered. In clinical practice, midwives and other maternal healthcare professionals may consider assessing perceived social support during postpartum follow-up, identifying mothers who may be at risk of social isolation, and facilitating referral to appropriate counseling or social support services when needed. In addition, incorporating family-centred approaches that encourage partner involvement into routine postpartum care may contribute to maternal well-being and early mother–infant relationships.

This study has several limitations. First, the use of an online data collection method may have limited the representativeness of the sample, as migrant mothers without internet access or with limited digital literacy may not have been able to participate. Consequently, socioeconomically disadvantaged women may have been underrepresented. Second, the use of self-reported measures may have introduced information bias, including social desirability and recall bias. Third, because of the cross-sectional study design, causal

relationships between the study variables cannot be established. In addition, postpartum depression, anxiety symptoms, and other potentially relevant psychosocial factors were not assessed. Therefore, residual confounding cannot be excluded, and these unmeasured factors may have influenced both perceived social support and mother–infant bonding. Finally, although validated Turkish versions of the measurement instruments were used, standardized questionnaires may not have fully captured cultural differences in perceptions of motherhood, social support, and mother–infant bonding among women from diverse migrant backgrounds. Accordingly, the findings should be interpreted with consideration of these methodological and cultural limitations.

Conclusion

This study examined the relationships among perceived postpartum social support, psychological resilience, and mother–infant bonding among migrant mothers living in Türkiye. The findings suggest that perceived social support was more strongly associated with mother–infant bonding than psychological resilience within the study sample. Educational level, economic status, and mode of delivery were also associated with mother–infant bonding. These findings may support the consideration of psychosocial support as part of postpartum care for migrant mothers. However, the results should be interpreted in light of the cross-sectional design and the methodological limitations of the study. Future longitudinal studies involving culturally diverse migrant populations and incorporating additional psychosocial variables, such as postpartum depression and anxiety, may provide a more comprehensive understanding of the factors associated with mother–infant bonding.

Conflict of interest

The authors declare no competing interests.

Authors contribution

CI conceived and designed the study, supervised the research process, performed the statistical analyses, interpreted the data, and drafted and critically revised the manuscript. GA and SD participated in data collection, contributed to data management, and reviewed and approved the final version of the manuscript. All authors read and approved the final manuscript.

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Previous presentation

Preliminary findings from this study were presented as an oral presentation at the 2nd International EBEARGE Congress.

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Data avaliability

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

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