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The Impact of Demographic and Obstetric Characteristics on Parental Self-Efficacy Among Postpartum Mothers

Abstract

This study aimed to elucidate the influence of demographic and obstetric characteristics on parental self-efficacy among mothers in the postpartum period. This descriptive, cross-sectional study employed snowball sampling to recruit mothers during the postpartum period (1–40 days) (n=113). This study was conducted between October 2023 and September 2024. Data were collected using a "Demographic and Obstetric Data Form" and "The Perceived Maternal Parenting Self-Efficacy Scale". Descriptive and inferential statistical analyses were conducted. The median maternal age was 30 years (Interquartile Range=6). Of the participants, 89.4% (n=101) reported planned pregnancies, and 40.7% (n=46) had normal/vaginal births. Of the mothers, 61.1% were primiparous, and 23% had experienced miscarriage or curettage. The perceived parental self-efficacy level was moderate (median=63, Interquartile Range=13). Although many factors did not significantly affect the mothers' perceived parental self-efficacy levels, age, parity, history of miscarriage/curettage, and access to postpartum social support exerted varying degrees of influence. These findings highlight the importance of specific obstetric history factors and postpartum social support in shaping perceived parental self-efficacy. Multidisciplinary teams of nurses, midwives, psychologists, and social workers should be actively involved in holistic care, including education, counseling, and ongoing care support to improve parental self-efficacy.

Keywords: Nursing, obstetric characteristics, parenting self-efficacy, postpartum period.

Postpartum Dönemdeki Annelerde Demografik ve Obstetrik Özelliklerinin Ebeveyn Özyeterliği Üzerindeki Etkisi

Öz

Bu çalışmanın amacı postpartum dönemdeki annelerin demografik ve obstetrik özelliklerinin ebeveynlik özyeterliklerine etkisini belirlemektir. Tanımlayıcı kesitsel tipte tasarlanan araştırmada postpartum dönemdeki (1-40 gün) annelere kartopu örnekleme yöntemi ile ulaşılmıştır (n=113). Bu çalışma Ekim 2023-Eylül 2024 tarihleri arasında yürütülmüştür. Araştırma verileri "Demografik ve Obstetrik Veri Formu" ve "Annenin Algıladığı Ebeveynlik Öz-Yeterlik Ölçeği" kullanılarak toplanmıştır. Tanımlayıcı ve çıkarımsal istatistiksel analizler yapılmıştır. Ortanca anne yaşı 30'dur (Çeyrekler Arası Aralık=6). Katılımcıların %89.4'ü (n=101) isteyerek gebe kalmış, %40.7'si (n=46) normal/vajinal doğum yapmıştır. Annelerin %61.1'i ilk kez doğum yapmış olup, %23'ü düşük ya da kürtaj yaşamıştır. Algılanan ebeveynlik özyeterlik düzeyinin orta düzeyde olduğu belirlenmiştir (Ortanca=63, Çeyrekler Arası Aralık=13). Annelerin algıladıkları ebeveynlik özyeterlik düzeyi birçok özellikten etkilenmezken yaş, parite, abortus/küretaj deneyimi ve doğum sonu dönemde sosyal desteğe sahip olma durumundan farklı düzeylerde etkilendiği saptanmıştır. Bu bulgular, algılanan ebeveyn özyeterliğini

şekillendirmede belirli obstetrik geçmiş faktörlerin ve doğum sonrası sosyal desteğin önemini vurgulamaktadır. Hemşireler, ebeler, psikologlar ve sosyal hizmet uzmanlarından oluşan multidisipliner ekipler, ebeveynin özyeterliliğini artırmak için eğitim, danışmanlık ve sürekli bakım desteği de dahil olmak üzere bütünsel bakıma aktif olarak dahil olmalıdır.

Anahtar kelimeler: Hemşirelik, obstetrik özellikler, ebeveyn özyeterlik, postpartum dönem.

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Introduction

Parenthood, a critical period, can significantly challenge both mothers and fathers because new roles and conditions arise.[1] Achieving an adequate level of parental self-efficacy is necessary to provide healthy infant care.[2] Self-efficacy is defined as an individual's belief in their capacity to perform a specific behavior, facilitating its successful execution.[3] This concept applies to many domains, including parenting. Perceived parental self-efficacy involves parents' judgments about their competence in fulfilling tasks related to childcare and upbringing.[4] Parental self-efficacy often increases progressively after birth, and parents with higher self-efficacy help raise physically and mentally healthier, happier children.[2]

Previous research has shown that maternal self-efficacy positively influences children's cognitive and language development.[5,6] From a maternal perspective, inadequate self-efficacy is associated with higher stress levels and depression.[7,8,9] Moreover, low self-efficacy can trigger adverse infant responses, whereas mothers with elevated self-efficacy excel in raising healthier infants.[10] Since self-efficacy is a subjective concept, it remains open to modification, and exploring the factors that influence it is vital.[11]

Aksoy and Diken indicate that maternal self-efficacy is shaped by socioeconomic status, social support, marital status, and maternal age.[12] Shorey et al. evaluated factors affecting parental self-efficacy in primiparous mothers during the early postpartum period and examined how these factors impacted social support and postpartum depression. They also reported a correlation between maternal self-efficacy, social support, and postpartum depression. Furthermore, mothers often show low self-efficacy in various newborn care tasks (e.g., breastfeeding, bathing, dressing, and soothing), and maternal self-efficacy aligns with social support, ethnicity, maternal age, and family income.[13] Similarly, Leahy-Warren et al. concluded that mothers who received informal social support six weeks postpartum exhibited enhanced self-efficacy.[14] Abuhammad also identified a positive correlation between maternal sensitivity and parental self-efficacy.[15]

In Türkiye, midwives and nurses primarily facilitate early mother-infant interactions and provide postpartum care-related information.[16,17] Evaluating maternal self-efficacy during the foundational stage of parenthood is crucial. Assessing factors that can improve or decrease self-efficacy during specific stages, organizing counseling and education, and providing full support can provide an original perspective to multidisciplinary team members, including nurses, midwives, psychologists, and social workers. There fore, this study aims to determine how demographic and obstetric characteristics affect parental self-efficacy among mothers in the postpartum period.

Materials and Methods

This study was performed in accordance with the principles of the Declaration of Helsinki (2013 revision). Approval was obtained from the Non-Interventional Research Ethics Committee (September 8, 2023; number 2023/137–193). Following the principle of "informed consent," the purpose of the study was explained to mothers who consented to participate. Adhering to the "Respect for Autonomy" principle, participants were informed that their involvement was voluntary. In compliance with the principle of "Confidentiality and Protection of Privacy," the confidentiality of obtained data was ensured. Verbal and written consent was obtained from all participants.

This study employed a descriptive cross-sectional design. The study population was comprised of mothers accessible between October 2023 and September 2024. Participants who met the inclusion criteria were selected using a snowball sampling method chosen for its convenience, targeted approach, and purposeful orientation, yielding a final sample size of 113. The study utilized questionnaires for data collection.

A post-hoc power analysis was conducted using G*Power 3.1.9.4 to determine whether the sample size was adequate. In this analysis (two independent groups, Wilcoxon non-parametric test), the mean scores on the Perceived Maternal Parenting Self-Efficacy Scale were used according to parity, a critical variable in this study. The primiparous group (n=69) had a mean score of 61.32±11.48, while the multiparous group (n=44) had a mean score of 67.02±8.75. With an assumed effect size of 0.50 (based on

each standard deviation), the resultant statistical power values were 80% (effect size: 0.49) and 94% (effect size: 0.65), indicating that the sample size provided sufficient statistical power.

The inclusion criteria were as follows: (1) age ≥18 years, (2) vaginal or cesarean birth, (3) postpartum period (1–40 days), (4) primiparity or multiparity, (5) single or multiple newborns/infants, (6) at least primary school education, (7) proficiency in reading and understanding Turkish, and (8) voluntary participation.

Exclusion criteria: (1) gestational age<37 weeks; (2) mothers separated from infants (e.g., neonatal intensive care); (3) infant loss; (4) postpartum depression diagnosis; and (5) use of psychiatric medication.

Data Collection

We gathered the study data online via Google Forms and distributed it to eligible mothers through multiple social media platforms (WhatsApp, Twitter, Instagram, Facebook, Pinterest, and Snapchat). We did not collect personal information or email addresses; all survey responses were stored anonymously. An informed consent form appeared on the first page of the online survey, and the survey became accessible only after participants selected "I agree."

Data Collection Instruments

The study utilized two primary instruments for data collection: the "Demographic and Obstetric Data Form" and "The Perceived Maternal Parenting Self-Efficacy Scale."

Demographic and Obstetric Data Form: This form was created by researchers based on the current literature.[13,18,19] It comprises demographic queries (eight items) eliciting information such as age, gender, marital status, and educational attainment, as well as obstetric inquiries (16 items) pertaining to factors such as infant desirability, gender, mode of childbirth, gravidity, and history of miscarriage or curettage.

The Perceived Maternal Parenting Self-Efficacy Scale (PMP S-E): This scale was developed by Barnes and Adamson Macedo and validated in Turkish by Tuncer and Oskay.[20,21] It was designed to evaluate the caregiving and comprehension capabilities of mothers of preterm infants. The PMP S-E consists of 20 items, each rated on a four-point Likert-type scale (1=strongly disagree, 2=disagree, 3=agree, 4=strongly agree). The total scores range from 20 to 80, with higher scores indicating higher perceived self-efficacy. The scale encompasses four conceptualized subscales reflecting diverse aspects of parenting: caretaking procedures (items 18 and 19), evoking behavior (items 8, 9, 10, 11, 12, and 14), reading behavior or signaling (items 1, 5, 6, 7, 13, 16), and situational beliefs (items 2, 3, 4, 15, 17, 20). The Turkish version had a Cronbach's alpha coefficient of 0.89.[21] The Cronbach's alpha coefficients for the sub-dimensions of this research are 0.79, 0.94, 0.91, and 0.87, respectively. The Cronbach's alpha coefficient for the total scale is 0.96.

Data Analysis

Data analysis was conducted using SPSS 25.0 (Statistical Package for Social Science for Windows) (SPSS, IBM version 25, Chicago, IL, USA). Descriptive statistics were computed for sociodemographic and obstetric characteristics, including median (IQR (Interquartile Range) and percentages. The median (IQR) values were calculated for the PMPS-E results. The Kolmogorov-Smirnov test was used, and skewness and kurtosis coefficients were examined to ascertain the normality of the data distribution. Non-normally distributed data were analyzed using non-parametric tests (Kruskal-Wallis and Mann-Whitney U). We employed the Spearman correlation coefficient to determine the correlations among variables, with $p<0.05$ as statistically significant. Cronbach's alpha coefficients were also calculated to assess reliability.

Results

The median (IQR) age of mothers participating in the study was 30 (6) years. Of the mothers, 46.9% (n=53) were postgraduates, 65.5% (n=74) were employed, 62.8% (n=71) reported income equivalent to their expenditure, and 93.8% (n=106) belonged to nuclear family structures. The findings indicated that 89.4% (n=101) of the mothers had planned pregnancies and 40.7% (n=152) underwent vaginal birth. Of the mothers, 61.1% were primiparous, and 23% had previously experienced miscarriage/curettage. It was determined that 72.6% (n=82) of the mothers received postpartum support, and approximately half of the mothers identified infant care as the primary area in which they required assistance (Table 1).

Table 1. Socio-demographic and obstetric characteristics of mothers (n=113)

Characteristics	Median	IQR
Age	30	6
	n	**%**
Educational status		
Primary education	5	4.4

High school	23	20.4
Associate degree	21	18.6
Bachelor's degree	53	46.9
Postgraduate	11	9.7
Spouse's educational status		
Primary education	7	6.2
High school	25	22.1
Associate degree	11	9.7
Bachelor's degree	59	52.2
Postgraduate	11	9.7
Employment status		
Employed	74	65.5
Unemployed	39	34.5
Income status		
Income less than expenses	18	15.9
Income equal to expenses	71	62.8
Income more than expenses	24	21.3
Family type		
Nuclear family	106	93.8
Extended family	7	6.2
Parity		
Primiparity	69	61.1
Multiparity	44	38.9
History of miscarriage/curettage		
Yes	26	23.0
No	87	77.0
Planned pregnancy		
Yes	101	89.4
No	12	10.6
Infant's gender		
Female	52	46.0
Male	61	54.0
Mode of childbirth		
Vaginal birth	46	40.7
Cesarean birth	67	59.3
Postpartum day		
Day 1	9	8.0
Day 2 and above	104	92.0
Pregnancy complications		
Yes	60	53.1
No	53	46.9
Regular antenatal check-ups		
Yes	111	98.2
No	2	1.8
Childbirth preparation education		
Yes	25	22.1
No	88	77.9
Infant hospitalization postpartum		
Yes	35	31.0
No	78	69.0
Postpartum social support		
Yes	82	72.6
No	31	27.4
Postpartum spousal support		
Yes	103	91.2
No	10	8.8
Area of needed postpartum support		
Infant care	51	45.1
Household chores	35	31.0
Care of other children	14	12.4
All of the above	13	11.5

IQR: Interquartile Range.

The median (IQR) and Cronbach's alpha value of the mothers on the Perceived Maternal Parenting Self-Efficacy (PMP S-E) subscales and the total scale are presented in Table 2.

Table 2. The Perceived Maternal Parenting Self-Efficacy Scale median (IQR) and cronbach's alpha values (n=113)

(PMP S-E)	**Median (IQR)**	**Cronbach's alpha**
Care-taking procedures	6 (2)	0.79
Evoking behavior	18 (5)	0.94
Reading behavior or signaling	19 (4)	0.91
Situational beliefs	19 (4)	0.87
Total scale score	63 (13)	0.96

IQR: Interquartile Range, PMP S-E: The Perceived Maternal Parenting Self-Efficacy Scale.

No statistically significant differences were observed between mothers' educational status, employment status, spouses' educational status, income level, family type, pregnancy intentionality, infant gender, mode of childbirth, postpartum day, receipt of childbirth preparation education, infant's hospital stay, and postpartum spousal support in relation to the PMP S-E total mean score and subscale mean scores ($p>0.05$). A statistically significant positive correlation was identified between age and the PMP S-E total mean score ($r=0.198$, $p=0.036$), as well as the 'Reading behavior or signaling' ($r=0.184$, $p=0.049$) and 'Situational beliefs' ($r=0.223$, $p=0.017$) subscale mean scores. When assessing the impact of parity on parental self-efficacy, significant differences were observed in the PMP S-E total mean score and in all subscales ($p<0.05$). Statistically significant differences were found only between mothers' experience of miscarriage/curettage ($U=865.500$, $p=0.048$) and access to social support in the postpartum period ($U=1017.500$, $p=0.049$) in relation to the 'Caretaking procedures' subscale (Table 3).

Table 3. The Perceived Maternal Parenting Self-Efficacy Scale total and subscale scores distributions according to socio-demographic and obstetric characteristics of postpartum women

		The Perceived Maternal Parenting Self-Efficacy Scale				
Characteristics		**Care-taking procedures**	**Evoking behavior**	**Reading behavior or signaling**	**Situational beliefs**	**Total Score**
Age		r=0.147, p=0.120	r=0.163, p=0.085	**r=0.184, p=0.049***	**r=0.223, p=0.017***	**r=0.198, p=0.036***
		Median (IQR)	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**	**Median (IQR)**
Educational status	Primary education	6 (3)	18 (8)	18 (5)	18 (4)	60 (19)
	High school	6 (2)	18 (6)	19 (3)	19 (3)	62 (14)
	Associate degree	6 (3)	18 (4)	18 (5)	18 (6)	60 (16)
	Bachelor's degree	7 (2)	18 (5)	19 (4)	19 (4)	63 (13)
	Postgraduate	7 (2)	18 (2)	19 (4)	20 (4)	65 (11)
		KW=4.771, p=0.312	KW=0.651, p=0.957	KW=1.405, p=0.843	KW=4.417, p=0.352	KW=2.169, p=0.705
Spouse's educational status	Primary education	6 (2)	18 (5)	18 (2)	19 (2)	60 (6)
	High school	6 (1)	18 (4)	18 (3)	18 (3)	60 (10)
	Associate degree	7 (2)	19 (8)	19 (6)	19 (5)	63 (19)
	Bachelor's degree	7 (2)	18 (3)	20 (4)	20 (4)	64 (13)
	Postgraduate	6 (3)	18 (6)	18 (4)	18 (4)	57 (20)
		KW=5.673, p=0.225	KW=3.713, p=0.446	KW=7.707, p=0.103	KW=5.778, p=0.216	KW=6.735, p=0.151
Employment status	Employed	6.50 (2)	18 (4)	19 (4)	19 (4)	63 (14)
	Unemployed	6 (2)	18 (5)	18 (4)	18 (3)	61 (12)
		U=1300.000, p=0.365	U=1375.500, p=0.599	U=1215.000, p=0.162	U=1342.000, p=0.537	U=1288.500, p=0.349
Income status	Income exceeds expenses	7 (2)	18.50 (5)	20.5 (4)	20 (4)	64.5 (15)
	Income equals expenses	6 (2)	18 (5)	19 (4)	19 (4)	62 (12)
	Income less than expenses	6 (2)	17.5 (5)	18 (3)	18.5 (4)	60 (11)
		KW=3.945, p=0.139	KW=3.410, p=0.182	KW=1.908, p=0.385	KW=2.107, p=0.349	KW=3.294, p=0.193
Family type	Nuclear family	6 (2)	18 (5)	19 (4)	19 (3)	62 (12)
	Extended family	8 (2)	21 (11)	20 (7)	22 (5)	64 (24)
		U=283.000, p=0.271	U=336.000, p=0.672	U=313.500, p=0.487	U=240.500, p=0.116	U=283.000, p=0.293
Parity	Primiparity	6 (3)	18 (4)	19 (4)	19 (4)	62 (13)
	Multiparity	6.5 (2)	18 (5)	20 (5)	19 (5)	64 (18)
		U=1168.500, p=0.031*	**U=1078.500, p=0.008***	**U=1155.000, p=0.030***	**U=1131.000, p=0.021***	**U=1099.500, p=0.013***
Miscarriage/curettage experience	Yes	6 (3)	18 (4)	18 (3)	18 (4)	60 (13)
	No	7 (2)	18 (4)	20 (4)	19 (4)	64 (12)
		U=865.500, p=0.048*	U=941.000, p=0.187	U=932.000, p=0.168	U=921.500, p=0.148	U=879.000, p=0.085
Planned pregnancy	Yes	6 (2)	18 (4)	19 (4)	19 (4)	62 (12)
	No	8 (2)	19.5 (8)	20 (5)	21 (5)	66 (17)
		U=413.500, p=0.060	U=575.500, p=0.773	U=474.500, p=0.213	U=420.000, p=0.79	U=466.000, p=0.191
Infant's gender	Female	6 (2)	18.5 (6)	20 (4)	19 (5)	63.5 (17)

	Male	6 (2)	18 (4)	19 (3)	19 (3)	61 (9)
		U=1505.000, p=0.624	U=1387.000, p=0.244	U=1514.000, p=0.674	U=1563.000, p=0.893	U=1517.000, p=0.690
Mode of childbirth	Vaginal birth	6 (2)	18 (4)	19 (4)	18.5 (3)	61 (12)
	Cesarean birth	7 (2)	18 (5)	19 (4)	19 (4)	63 (13)
		U=1433.500, p=0.510	U=1466.500, p=0.658	U=1499.000, p=0.803	U=1480.000, p=0.718	U=1509.000, p=0.851
Postpartum day	Day 1	6 (1)	18 (2)	18 (1)	18 (1)	60 (4)
	Day 2 and above	6 (2)	18 (5)	19 (4)	19 (4)	63 (13)
		U=396.500, p=0.426	U=446.500, p=0.817	U=326.500, p=0.128	U=354.500, p=0.223	U=370.000, p=0.297
Childbirth preparation education	Yes	6 (2)	18 (5)	18 (4)	19 (4)	60 (12)
	No	6 (2)	18 (5)	19 (4)	19 (4)	63 (13)
		U=1050.000, p=0.717	U=949.000, p=0.288	U=915.500, p=0.195	U=962.500, p=0.336	U=948.500, p=0.293
Infant hospitalization postpartum	Yes	6 (2)	18 (4)	18 (3)	18 (2)	61 (7)
	No	7 (2)	18 (5)	19 (4)	19 (4)	63 (14)
		U=1161.500, p=0.185	U=1164.500, p=0.205	U=1179.000, p=0.241	U=1160.500, p=0.199	U=1179.000, p=0.247
Postpartum social support	Yes	6 (2)	18 (3)	18 (4)	18 (3)	61.5 (11)
	No	7 (2)	18 (6)	20 (4)	21 (4)	64 (15)
		U=1017.500, p=0.049*	U=1159.000, p=0.464	U=1165.000, p=0.489	U=1038.500, p=0.130	U=1168.500, p=0.508
Postpartum spousal support	Yes	6 (2)	18 (4)	19 (4)	19 (4)	63 (12)
	No	7 (3)	16 (7)	18 (6)	18 (7)	60 (24)
		U=513.500, p=0.987	U=367.500, p=0.129	U=452.000, p=0.518	U=425.500, p=0.360	U=409.500, p=0.285

IQR: Interquartile Range, r: Spearman correlation coefficient, KW: Kruscal Wallis, U: Mann Whitney U, *p<0.05

Discussion

The concept of parenthood has emerged after birth. Consequently, we emphasize the importance of evaluating maternal self-efficacy levels in the postpartum period, as this step may also lead to a new perspective on holistic care planning.

In our study, mothers demonstrated moderate levels of self-efficacy in infant care provision, comforting behaviors, understanding of infant cues, and situational beliefs. Parents with high self-efficacy generally exhibit enhanced skills in responding to infants' needs.[22,23] A systematic review also identified that positive parent-infant relationships and care giving abilities augment self-efficacy.[24] Postpartum period has multiple complexities. Diverse demographic characteristics and obstetric experiences may influence maternal self-efficacy.

A positive correlation was identified between ages and perceived parental self-efficacy during the postpartum period. Ngai et al. reported similar findings.[25] As maternal age increases, the ability to observe and understand infant cues based on experience, as well as the capacity to make inferences about the infant's condition, may enhance perceived parental self-efficacy. Notably, access to broader social networks and the consequent ease of obtaining self-efficacy enhancing social support may have been influential. Contrary to our findings, some studies have concluded that maternal age does not affect parental self-efficacy.[18,26,27] The ease of information access enabled by technology may alter the impact of age.

Consistent with other research, no association was found between the educational status of the mothers and their spouses and perceived parental self-efficacy.[18,28] However, other studies have identified a positive relationship between education level and parental self-efficacy.[26,29] Seo posited that highly educated parents might actively seek parenting information and receive more social support than those with lower education, thus feeling more confident in their roles.[30] Conversely, Yap et al. found that mothers with higher educational levels exhibited lower parental self-efficacy than those with primary or secondary education.[19] It is postulated that less-educated mothers may perceive less complexity in parenting and thus feel more assured in their roles. Similar perceptions in Türkiye may explain the lack of observed differences.

According to our findings, no correlation was observed between mothers' employment status, perceived income level, and perceived parental self-efficacy. A systematic review yielded similar results regarding mothers' employment status.[27] In contrast, some studies have reported higher parental self-efficacy among unemployed or part-time employed mothers or among those with higher family income.[26,28] Mothers from higher-income families may be more likely to employ domestic help or childcare support, potentially influencing self-efficacy.[31] Professional life is often perceived as hectic and stressful in contemporary societies, and limited maternity leave, early return to work, and family functioning pressures may negatively impact working mothers.[32] The absence of a difference in our results could be due to cultural factors in Türkiye, where motherhood is valued regardless of economic circumstances, and both employed and unemployed mothers experience stress in different ways.

Our findings revealed no association between family type and perceived parental self-efficacy. In contrast, some studies have reported higher parental self-efficacy among extended families.[27] The predominance of nuclear families in our sample may have influenced this finding. Considering all of these factors, the observation that the parenting self-efficacy of the mothers in our study remained unaffected by

some sociodemographic and obstetric parameters is attributed to the perception of parenting as instinctive and uncomplicated within our culture. The majority of mothers in the research who conceived voluntarily, had their first child, and received help post-delivery may have influenced our findings.

We observed higher perceived parental self-efficacy among mothers with prior birth experience. Additionally, mothers without a history of miscarriage or curettage had higher self-efficacy in caregiving than those with such experiences. Bandura posited that experienced mothers derive competence from prior success in parental tasks, and knowledge and experience likely contribute positively to self-efficacy.[11] Similar findings have been reported elsewhere.[18,28,33] Contrary to our results, Hong and Liu found lower self-efficacy among parents with more than one child, possibly because of inadequate care for multiple children, lack of social support, fatigue, or economic challenges.[34] Mothers who have experienced pregnancy loss may fear losing their babies and feel uneasy during care, negatively affecting their self-efficacy.

Our study found no association between mothers' pregnancy intentions, infant gender, and perceived parental self-efficacy. Fang et al. similarly reported that infant gender had no impact on parental self-efficacy.[27] Some pregnancies may be unplanned; however, once a woman learns about her pregnancy and decides to carry it to term, maternal instinct often drives her to provide care, particularly when holding the infant. This engagement in parental roles may enhance self-efficacy regardless of initial intentions.

No correlation was observed between the childbirth method, postpartum day, infant hospitalization, and parental self-efficacy. Botha et al. reported that mode of childbirth was not associated with parenting self-efficacy.[18] However, parental self-efficacy was higher during the first postpartum period. The mother's healthy birth, sense of motherhood, and previous experiences may have positively influenced these early postpartum days. Contemporary emphasis on mother-infant bonding prioritizes early contact regardless of the childbirth method, barring health complications. Mothers, irrespective of childbirth type, typically strive to provide optimal care and prioritize infants' needs. In the case of infant health issues, mothers often demonstrate maximum dedication within hospital constraints, potentially reviewing their self-efficacy as they anticipate discharge and future caregiving. The lack of association between self-efficacy and postpartum days may be attributed to consistent spousal or familial support, gradual engagement in care processes, and responsive interventions from the outset.

Our study found no relationship between participation in childbirth preparation classes and perceived parental self-efficacy. The absence of this relationship may be attributed to mothers acquiring information from diverse sources such as social media, healthcare professionals, or experienced individuals, as well as receiving postpartum family support.

Surprisingly, support from postpartum spouses did not influence perceived parental self-efficacy. Counterintuitively, mothers without postpartum social support demonstrated higher self-efficacy in infant care. Similarly, Zheng et al. found no effect of paternal social support on maternal self-efficacy.[28] However, other studies have reported positive effects of social support on perceived parental self-efficacy.[24,27,33,35-37] Feeling supported by family, social circles, or friends may reduce parental stress.[37] The discrepancy in our findings may be attributed to individual characteristics. Despite lacking social support, belief in one's ability to cope independently may enhance mothers' self-efficacy levels.

Conclusion

An ideal introduction to motherhood during the early postpartum period is crucial for developing and gradually improving parental self-efficacy. Although moderate parental self-efficacy was observed in the first 40 days, continuous assessment of self-efficacy and the identification of at-risk mothers in subsequent periods are crucial. To enhance women's parental self-efficacy, it is essential to routinely evaluate this self-efficacy level not only during the early postpartum phase but also in subsequent postpartum stages. Consequently, temporal variations may be observed, enabling the early identification of at-risk mothers and the provision of requisite support. Tailored care and support strategies must be established specifically for at-risk populations, including young mothers, individuals with poor educational attainment, and those who undergo cesarean birth. Nurses' ought to provide childbirth education, counseling, and ongoing care support to enhance women's parenting abilities and engage actively in this process. Moreover, the mother's connections with her social milieu ought to be reinforced, the involvement of family members, particularly dads, should be promoted, and a family-centered care paradigm should be implemented. Establishing maternal support groups is essential for new mothers to exchange experiences and obtain social support. A holistic strategy must be implemented in maternal services, with multidisciplinary teams comprising nurses, midwives, psychologists, and social workers collaborating well. This approach offers mothers extensive support in both physical and emotional dimensions. Ultimately, further study is required to investigate the factors influencing women' parenting self-efficacy in greater

detail, encompass many socio-cultural groups, and assess the efficiency of intervention programs. Such research will yield significant contributions to enhancing the quality of nursing care and advancing maternal-infant health.

A primary limitation of this study is the absence of cutoff points in the total and subscale mean scores of the utilized scale, which would facilitate the identification of at-risk mothers. Secondly, the cross-sectional design and inclusion of only mothers within 40 days postpartum preclude the generalization of the results. The assessment of self-efficacy only during the early postpartum period and the potential for its variation over time is an important limitation of the study.

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Declarations:
***1. Ethics Committee Approval*:** Ethics committee approval was received for this study from the Human Research Ethics Committee of Sinop University (Date: 08.09.2023, Number: 2023/137-193).
2. Informed Consent: Written and verbal consent was obtained from 113 mothers who participated in the study.
3. Author Contributions*:* Concept-NNAA; Design-NNAA, SE; Supervision-NNAA, SE; Resources-NNAA, SE; Materials-NNAA, SE; Data Collection and Processing-NNAA, SE; Analysis and Interpretation-NNAA, SE; Literature Search-NNAA, SE; Writing Manuscript-NNAA, SE; Critical Review-NNAA, SE.
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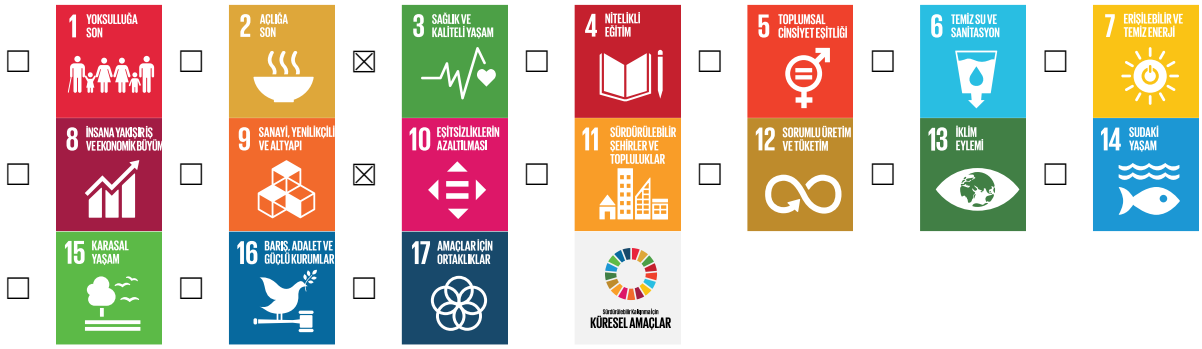
6.Sustainable Development Goals:



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