

Breastfeeding Self-Efficacy in Hangzhou Community-Dwelling Mothers During the First 6 Months Postpartum: A Life Course Exploration of Influences

Yang Shen^{1,*}, Yuzhu Li^{1,*}, Ruolin Qiu^{1,2}, Yangyi Chen¹, Xuancheng Chen¹

¹School of Public Health and Nursing, Hangzhou Normal University, Hangzhou, Zhejiang, People's Republic of China; ²Zhejiang Philosophy and Social Science Laboratory for Research in Early Development and Childcare, Hangzhou Normal University, Hangzhou, Zhejiang, People's Republic of China

*These authors contributed equally to this work

Correspondence: Ruolin Qiu, Email 20220149@hznu.edu.cn

Background: Breastfeeding is viewed as a process that spans the female life cycle, and self-efficacy is an important intervening variable that influences the extent of breastfeeding. This self-efficacy is built up over time through multiple sources of support and nurturing and can be influenced by a variety of factors. However, current research has not yet reached conclusive results, and few studies have applied Life Course Theory to breastfeeding self-efficacy.

Objective: To investigate the status of breastfeeding self-efficacy and its influencing factors among mothers 0–6 months postpartum in Hangzhou from the perspective of Life Course Theory, and propose targeted recommendations.

Methods: A cross-sectional study was conducted among 338 mothers within 0–6 months postpartum from six communities in Hangzhou between May and August 2023. Participants were selected using convenience sampling and surveyed with a general information questionnaire, a breastfeeding knowledge questionnaire, and the Chinese version of the Breastfeeding Self-Efficacy Scale.

Results: The study revealed that the overall breastfeeding self-efficacy score within six months postpartum was moderate, with a mean of 111.32 ± 21.68 . Self-efficacy was correlated with the main feeding methods used during 0–6 months ($\beta = -0.127, p = 0.010$) and breastfeeding knowledge ($\beta = -0.430, p < 0.001$). In addition, this study innovatively identified a counterintuitive knowledge-efficacy relationship, and explored its potential link to impostor syndrome among postpartum mothers.

Conclusion: This study identified feeding method and breastfeeding knowledge as key factors affecting self-efficacy among mothers 0–6 months postpartum in Hangzhou. A counterintuitive knowledge-efficacy relationship was observed—a novel finding that warrants further investigation through the lens of Life Course Theory. The study also underscores the need for tailored interventions to enhance self-efficacy.

Keywords: postpartum, breastfeeding, self-efficacy, life course theory

Background

Breastfeeding is the earliest source of nutrition for infants and is considered the best form of feeding to promote healthy growth in children. Previous research¹ has found that breast milk provides essential nutrients and immune-boosting compounds that promote healthy growth and protect infants from infections. Additionally, breastfeeding lowers mothers' risks of breast and ovarian cancers and strengthens maternal-infant bonding.² Based on the well-established health benefits of breastfeeding, the World Health Organization (WHO) advocates that breastfeeding should be lasting at least 2 years for infants, and proposes that by 2025, the rate of exclusive breastfeeding within the first six months should exceed 50%.³ However, the majority of countries are unable to meet the WHO recommendations,⁴ and the situation in China is particularly concerning—with an exclusive breastfeeding rate of only 29.2%, which remains substantially below the



international recommended level.⁵ Moreover, with the implementation of the three-child policy, breastfeeding mothers in China are facing new challenges: delayed childbearing (policy-driven fertility postponement) heightens physiological barriers to lactation, insufficient statutory maternity leave constrains practical conditions for sustained breastfeeding, and multi-child caregiving demands weaken intergenerational support systems.

Among the numerous factors affecting breastfeeding, self-efficacy is a vital intervening variable that influences the extent of breastfeeding.⁶ Higher breastfeeding self-efficacy is associated with prolonged breastfeeding duration and increased rates of exclusive breastfeeding.^{7,8} A study by Peres KG et al further confirmed that mothers with higher levels of breastfeeding self-efficacy exhibit stronger intentions to breastfeed, while also noting that first-time mothers tend to have lower self-efficacy compared to multiparous mothers.⁹ Breastfeeding self-efficacy refers to a mother's confidence in her ability to breastfeed successfully.¹⁰ It is developed through support and reinforcement from multiple sources, influenced by various factors, and ultimately shapes maternal behavior in breastfeeding practices.¹¹

Life Course Theory, pioneered by Glen H. Elder Jr., emphasizes that human development is shaped by personal experiences, social structures, and historical contexts.^{12,13} The transition to motherhood is regarded as one of the major life events in a woman's life trajectory, and breastfeeding can be viewed as a continuation of this process, especially in the first 0–6 months after birth, involving multiple life stages, social role changes, and individual differences. The theory is structured around core principles,¹³ including lives in time and place, linked lives, the timing of lives, human agency and other concepts. For instance, a mother's age and the timing of breastfeeding influence her experience.¹⁴ Her life trajectory reflects long-term psychosocial development, which breastfeeding may affect positively or negatively.¹⁵ Mothers may develop new beliefs and commitments to breastfeeding, while stress and difficulties may negatively affect breastfeeding self-efficacy.¹⁶ In contrast, as a short-term concept, transition involves adapting to new roles and identities—a process central to breastfeeding as women navigate physiological, emotional, and social changes.¹⁵ Continuation represents a neighboring transformation over a time span, while accumulation refers to the advantages and disadvantages individuals gather throughout their life trajectory due to various factors.¹⁷ Life Course Theory emphasizes the cumulative effect of experiences. Life events experienced in a specific spatiotemporal context—such as the mother's age, living environment, and health status—can affect breastfeeding outcomes. Moreover, the accumulation of past experiences, whether positive or negative, may have unexpected effects on breastfeeding.

Recently, there has been a growing trend in applying Life Course Theory to maternal and child care, such as pregnancy health care and mother-child attachment research.^{18–20} Meanwhile, breastfeeding self-efficacy, as a concept rooted in psychology, is influenced by a variety of sociocultural factors. Within the Chinese cultural context, elements such as educational level, living environment, and extent of social support have been shown to be closely associated with breastfeeding self-efficacy. However, there is still a lack of research examining the factors influencing breastfeeding self-efficacy from the perspective of Life Course Theory, particularly within the context of China's three-child policy. Against this background, this study will explore the level of breastfeeding self-efficacy among mothers within six months postpartum and the related influencing factors based on the Life Course Theory. The findings will inform the development of interventions and health education programs aimed at enhancing breastfeeding self-efficacy and increasing the rate of exclusive breastfeeding.

Methods

Design and Participants

Using the convenience sampling method, a cross-sectional survey was conducted at six community medical institutions located in three districts with the highest proportion of permanent residents of the city between May and August 2023. The study was carried out in accordance with the guidelines of the Declaration of Helsinki, approved by the ethics committee, and informed consent was obtained from all participants. The inclusion criteria were as follows: (i) mothers who had resided in the community for at least six months; (ii) mothers with breastfeeding experience within six months postpartum; and (iii) mothers capable of reading and writing Chinese fluently. Exclusion criteria included: (i) mothers with congenital diseases; (ii) newborns with a birth weight below 2500g; and (iii) and women with mental illness and communication disorders.

Sampling

The study employed a convenience sampling method and collected 360 questionnaires. The sample size was estimated to be 5 to 10 times the total number of items,²¹ accounting for a 10% margin for missing responses. Considering the practical feasibility of the field investigation, the adjusted sample size ranged from 275 to 500. To ensure the credibility of the survey results, as large a sample as possible was collected during the survey.

Data Collection

With permission from community healthcare administrators, three researchers (Li Y, Chen X and Chen Y) who received unified training conducted the data collection using printed questionnaires at the target sites between May and August 2023. They explained the purpose and significance of the survey to the research participants and provided instructions on how to complete the scales and questionnaire after obtaining consent. The respondents filled out the questionnaires according to the guidelines and with assistance from the researchers when necessary. A total of 360 questionnaires were distributed. After excluding invalid questionnaires (eg, randomly filled, containing contradictory information, or incomplete), 338 valid questionnaires were remained, resulting in an effective response rate of 93.9%.

Measurements

Demographic data included age, educational level, maternal occupation status, parity, mode of delivery, duration of maternity leave, household assets, and the primary methods of covering medical expenses, among others. [Table 1](#) details the relationship between the independent variable and the four core theoretical principles.

Table 1 Four Principles of the Life Course Theory and Related Independent Variables

Variables	Lives in Time and Place	Linked Lives	The Timing of Lives	Human Agency
Age (years)			Advanced age: slower recovery lowers confidence	Physical constraints (eg, lactation capacity)
Employment		Role dynamics (eg, spousal assistance)	Work-breastfeeding time conflicts	Autonomy in career-breastfeeding balance
Monthly family income	Economic access to breastfeeding resources		Economic pressure: early return to work	Resource-enabled choices (eg, lactation consultants)
Method of payment of major medical expenses	Different regions, different policies		Payment mode impacts postpartum follow-up and problem-solving speed.	
Education	Education-driven access to lactation knowledge		Delayed childbearing: physiological challenges	Education-enhanced coping strategies
Main feeding methods used during 0–6 months			Time management conflicts	Control over feeding adjustments (eg, pumping)
Length of maternity leave	Leave duration impacts breastfeeding time	Family involvement reduces isolation		
Parity		Conflicts between multiple births and the care of other children	Multipara experience boosts confidence	

(Continued)

Table 1 (Continued).

Variables	Lives in Time and Place	Linked Lives	The Timing of Lives	Human Agency
Mode of delivery			C-section recovery disrupts routines	Autonomy in delivery mode choices
Breastfeeding knowledge	Accessibility of community-based lactation education	Support groups share experiences and boost confidence	Breastfeeding knowledge enables anticipating challenges	Knowledge-driven strategy adjustments and goal persistence

Breastfeeding Knowledge Scale: The modified Breastfeeding Knowledge Scale²² was used to assess women's level of breastfeeding knowledge. It consists of 7 items and employs a 3-point Likert scale, with total scores ranging from 7 to 21. This scale demonstrates good internal consistency with a reported Cronbach's α coefficient of 0.82. Participants who scored above 17 points were categorized as having good breastfeeding knowledge, while those scoring 17 or below were classified as having poor knowledge. Higher scores indicate better understanding of breastfeeding. The researchers obtained authorization to use the scale and reassessed its reliability, finding a Cronbach's α coefficient of 0.728 in this study.

Breastfeeding Self-Efficacy Scale: The original Breastfeeding Self-Efficacy Scale (BSES), developed by Canadian scholar Dennis²³ in 1999, includes dimensions related to Skill and Mental Activity and comprises 33 items assessing mothers' confidence in breastfeeding. Each item is rated on a 5-point Likert scale, from "1 = not at all confident" to "5 = very confident", yielding a total score between 33 and 165. Higher scores indicate greater breastfeeding self-efficacy. The original scale had a Cronbach's α coefficient of 0.96. In 2002, Dai Xiaona et al²⁴ conducted a cross-cultural adaptation of the scale, resulting in a Chinese version with 30 items and a total score range of 30 to 150. This version has been widely used in China in recent years.^{25,26} Authorization was obtained prior to its use in this study, and the measured Cronbach's α coefficient was 0.971, indicating excellent reliability.

Statistical Analysis

After on-site collection, questionnaire were verified and entered into Microsoft Excel 2013 by two researchers (Chen X and Chen Y). Following data entry, statistical analysis was performed using SPSS version 26.0. Categorical data were described using frequencies and proportions, while normal distributed continuous data were expressed as mean and standard deviation (SD). Comparison between two independent groups were analyzed using independent sample *t*-test, and comparisons among more than two groups were conducted using one-way analysis of variance (ANOVA). Multiple linear regression was applied to analyze factors influencing breastfeeding within the community. All tests were two tailed and were deemed significant at $p < 0.05$.

Results

A total of 338 valid questionnaires were collected. The average age of the mothers was 32.75 ± 4.82 years, and over 67% held a bachelor's degree or higher. A small proportion of participants was unemployed, while more than half reported having good financial support. The majority (82%) had medical insurance. The main feeding methods used during 0–6 months was exclusive breastfeeding, accounting for 56.2% of respondents (Table 2).

Only 14 (4.1%) community-dwelling mothers within six months postpartum were classified as having good breastfeeding knowledge, while the remaining 324 (95.9%) were rated as having poor knowledge of maternal breastfeeding (Table 2).

As shown in Table 3, the mean total score on the BSES among mothers within 0–6 months postpartum was 111.32 ± 21.68 , with mean subscale scores of 54.33 ± 11.27 for skill dimension and 57.0 ± 10.97 for the mental activity dimension.

Tests for normality of distribution and homogeneity of variances were conducted, confirming that the assumption for linear regression analysis were met. Independent samples *t*-tests and a one-way analysis of variance (ANOVA) were used to assess correlations. Significant differences in self-efficacy scores were observed across different levels of breastfeeding

Table 2 Participants' Characteristics and Their Associations with BSES (n = 338)

Variables	N	(%)	BSES Mean (SD)	p	
Age (years)	≤ 25	16	4.7	115.19 ± 24.13	0.469
	26-35	226	66.9	111.91 ± 20.91	
	< 35	96	26.6	109.29 ± 23.08	
Employment	Employed	260	76.9	111.76 ± 20.43	0.547
	Unemployed	78	23.1	109.86 ± 25.50	
Monthly family income ²⁷	< 5000	7	2.1	106.71 ± 31.54	0.563
	5000-10,000	84	24.9	109.15 ± 21.18	
	10,001-15,000	113	33.4	110.99 ± 19.95	
	> 15,000	134	39.6	113.20 ± 22.87	
Method of payment of major medical expenses	Free medical treatment ^a	27	7.9	112.15 ± 15.54	0.027
	Deductibles	34	10.1	101.88 ± 24.71	
	Medical insurance ^b	277	82.0	112.40 ± 21.58	
Education	Junior high school and below	10	3.0	116.20 ± 24.41	0.737
	High school/Secondary school	33	9.8	107.39 ± 25.28	
	Junior college	68	20.1	110.90 ± 22.45	
	Undergraduate	181	53.6	112.19 ± 20.48	
Main feeding methods used during 0–6 months	Master and above	46	13.6	110.30 ± 22.28	< 0.001
	Exclusive breastfeeding	190	56.2	120.75 ± 16.78	
	Non-breastfeeding	19	5.6	86.84 ± 26.88	
Length of maternity leave	Mixed feeding	129	38.2	101.04 ± 19.80	0.118
	< 3 months	25	7.4	115.08 ± 23.98	
	3-6 months	219	64.8	111.70 ± 20.09	
Parity	> 6 months	49	14.5	116.16 ± 4.224	0.110
	None	45	13.3	107.67 ± 24.159	
	First pregnancy	223	66.0	109.97 ± 21.343	
Mode of delivery	Second child and above	115	34.0	113.95 ± 22.170	0.115
	Vaginal birth	227	67.2	109.97 ± 21.343	
Breastfeeding knowledge	Cesarean	111	32.8	113.95 ± 22.170	0.028
	Poor	324	95.9	112.11 ± 21.033	
	Good	14	4.1	93.14 ± 28.598	

Notes: ^a A social security system that provides free medical care and prevention for civil servants only. ^b Medical insurance for employees and resident.

Table 3 The Score of Breastfeeding Self-Efficacy

Dimensions	N	Max	Min	X ± S
Skill	338	75	23	54.33 ± 11.27
Mental activity	338	75	21	57.00 ± 10.97
Total	338	150	49	111.32 ± 21.68

knowledge ($p = 0.028$), main feeding methods used during 0–6 months ($p < 0.001$), and methods of payment of major medical expenses ($p = 0.027$) (Table 2).

Multiple linear regression analysis was performed with the total breastfeeding self-efficacy score as the dependent variable and the statistically significant variables identified from the univariate analysis as the independent variables. The coding scheme for variables was detailed in Table 4.

The results of the multiple linear regression analysis indicated that the main feeding methods used during 0–6 months and level of breastfeeding knowledge were significant factors influencing breastfeeding self-efficacy ($p < 0.05$). Breastfeeding

Table 4 Coding Scheme for Independent Variables

Independent Variables	Case of Assignment
Method of payment of major medical expenses	Free medical treatment = 1; Deductibles = 2; Medical insurance = 3
Main feeding methods used during 0–6 months	Exclusive breastfeeding = 1; Non-breastfeeding = 2; Mixed feeding = 3
Breastfeeding knowledge	Poor = 1; Good = 2

Table 5 Multiple Linear Regression Analysis

Variants	B	Standard Error	Beta	t	P
Constant term	137.819	7.396	–	18.633	< 0.001
Method of payment of major medical expenses	2.029	1.767	0.056	1.148	0.252
Main feeding methods used during 0–6 months	–9.750	1.106	–0.430	–8.818	< 0.001
Breastfeeding knowledge	–13.746	5.299	–0.127	–2.594	0.010

Notes: $R^2 = 0.218$, adjusted $R^2 = 0.211$, $F = 30.970$, $P < 0.001$; “–” means no relevant data.

knowledge was negatively correlated with breastfeeding self-efficacy ($\beta = -0.127$, $p = 0.010$), indicating that higher knowledge was associated with the lower self-efficacy scores. Additionally, exclusively breastfeeding mothers had higher BSES scores, whereas mixed breastfeeding mothers showed lower self-efficacy ($\beta = -0.430$, $p < 0.001$) (Table 5).

Discussion

In this study, six community medical institutions and a sample of 338 mothers in the city were selected to investigate the level of maternal breastfeeding self-efficacy and related influencing factors among mothers 0–6 months postpartum. The results indicated that most mothers had a moderate level of breastfeeding self-efficacy, suggesting that the majority of community-dwelling mothers felt confident about breastfeeding. Additionally, breastfeeding self-efficacy was correlated with two factors: the main feeding methods used during 0–6 months and knowledge acquisition of breastfeeding. The following discussion interprets these findings based on the Life Course Theory and its four principles—lives in time and place, linked lives, the timing of lives, and human agency. Finally, recommendations for future consideration are proposed.¹³

The principle of lives in time and place emphasizes how sociohistorical and geographical contexts shape maternal breastfeeding practices. Chinese mothers' self-efficacy is influenced by their unique life trajectories, including socio-economic status, cultural norms, and regional disparities. Cross-nationally, higher-income countries paradoxically often exhibit lower breastfeeding rates,²⁸ likely due to workplace pressures and lack of supportive policies. Several studies^{29,30} have shown that the main feeding methods used during 0–6 months are correlated with maternal breastfeeding self-efficacy. In this study, the exclusive breastfeeding rate at six months was 56.2%, meeting the WHO target. Compared to another domestic provincial capital, breastfeeding self-efficacy was higher in this sample,³¹ likely attributable to better economic conditions. Women in this urban community also showed greater breastfeeding confidence than those in poorer rural areas.³² Furthermore, social and cultural contexts can influence breastfeeding practices and perceptions, which may affect mothers' self-efficacy and decision-making.³³ To leverage these insights, local governments should legislate public breastfeeding protections and combat social stigma through public campaigns, thereby fostering a culture that supports maternal efforts and aligns with China's diverse socioeconomic realities.

The principle of linked lives highlights the interdependence among individuals. In breastfeeding, the relationship between mother and their infants, family members, friends, and communities are crucial to breastfeeding success.³⁴ Notably, this study found that higher breastfeeding knowledge was associated with lower self-efficacy—a finding that may reflect impostor syndrome. As Clance et al³⁵ noted, up to 70% of people may subjectively feel inadequate despite

possessing ample knowledge. Moreover, Clance and Imes identified family environment as a common cause of impostor syndrome;³⁵ weaker family support often correlates with stronger self-doubt, indirectly illustrating the principle of linked lives. Thus, mothers in this study may have had limited constructive family interactions and insufficient support, leading to self-denial and moderate self-efficacy despite their knowledge. However, this interpretation is limited by the very small subgroup of mothers classified with “good” knowledge and the use of convenience sampling. Future research using qualitative interviews with postpartum mothers or larger, more diverse, and representative cohort is needed to confirm these relationships.

In response, community organizations should offer education, support, and resources to help mothers address breastfeeding challenges, such as correcting positioning. Healthcare professional should also receive training to provide specialized, personalized guidance and high-quality nursing interventions throughout the breastfeeding process, thereby enhancing self-efficacy and meeting parent-infant needs.³⁶ Simultaneously, family members—especially as spouses³⁷—should provide emotional and behavioral support, share household responsibilities, promptly address maternal negative emotions, and help reduce feeding anxiety.

The principle of the timing of lives acknowledges that mothers may experience varying levels of self-efficacy at different stages. This study did not find a significant difference in self-efficacy between primiparous and multiparous mothers, which may be because most participants were aged 26–35 and were primiparous. However, as shown by Katja et al³⁸ experienced mothers generally exhibit higher breastfeeding self-efficacy than first-time mothers, underscoring the importance of accumulated breastfeeding experience. Moreover, negative events may have longer-term effects on self-efficacy.³⁹ Therefore, future research could use narrative methods such as storytelling to capture typical events or employ longitudinal designs to track how negative experiences affect self-efficacy and infant development.

According to the principle of human agency, individual motivation and choice significantly influence life trajectories. For breastfeeding, maternal agency and self-efficacy are mutually reinforcing. This study found that mothers who actively chose exclusive breastfeeding had higher self-efficacy, and those with higher self-efficacy were more committed to exclusive breastfeeding and sought support more proactively. This aligns with findings from a cross-sectional study on breastfeeding attitudes and self-efficacy in Turkey.⁴⁰ Accordingly, community health organizations should promote positive breastfeeding attitudes, enhance maternal knowledge and skills, as well as strengthen self-efficacy through prenatal classes, inpatient education, and post-discharge home visits.

Conclusion

In conclusion, guided by Life Course Theory, this study found that breastfeeding self-efficacy among mothers 0–6 months postpartum in the urban setting was at a moderate level and was influenced by the main breastfeeding method for 0–6 months and the mothers’ level of breastfeeding knowledge.

Unlike previous studies, this research revealed a counterintuitive phenomenon: an inverse correlation between breastfeeding knowledge and self-efficacy. This finding suggests that providing knowledge-based education alone may be insufficient to enhance mothers’ breastfeeding confidence. From the perspective of Life Course Theory, we interpreted this novel result and preliminarily explored its potential link to impostor syndrome among postpartum mothers.

However, this study has several limitations. First, the participants were selected using convenience sampling from socioeconomically advantaged regions. Mothers from these areas generally experienced lower financial pressure and had higher educational attainment, which may limit the generalizability of the findings. Future studies should incorporate stratified comparisons based on economic status to improve external validity. Second, potential biases may arise from the relatively small sample size, the participants’ high baseline knowledge level, and the cross-sectional design. Future research should integrate qualitative interviews and longitudinal designs to further validate these results.

Abbreviations

WHO, World Health Organization; BSES, Breastfeeding Self-Efficacy Scale; SD, standard deviation; ANOVA, one-way analysis of variance.

Data Sharing Statement

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

Ethical Statement

This study was approved by the Ethics Committee of School of Nursing, Hangzhou Normal University (No. 2024010). Each woman was voluntary and signed an informed consent prior to participating in the study.

Acknowledgments

Yang Shen and Yuzhu Li are co-first authors for this study. We would like to thank all women who volunteered to participate in this study, and all those who contributed to data collection.

Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

Funding

This study was supported by Scientific Research Startup Foundation of the Hangzhou Normal University. The funder provided financial support (4285C50222204160) during the data collection process.

Disclosure

The authors report no conflicts of interest in this work.

References

- Mathur NB, Dhingra D. Breastfeeding. *Indian J Pediatr.* 2014;81(2):143–149. doi:10.1007/s12098-013-1153-1
- Chowdhury R, Sinha B, Sankar MJ, et al. Breastfeeding and maternal health outcomes: a systematic review and meta-analysis. *Acta Paediatr.* 2015;104(S467):96–113. doi:10.1111/apa.13102
- Organization W H. Implementation guidance: protecting, promoting and supporting breastfeeding in facilities providing maternity and newborn services: the revised Baby-friendly hospital initiative. 2018.
- George EK. Birth center breastfeeding rates: a literature review. *MCN.* 2022;47(6):310–317. doi:10.1097/NMC.0000000000000862
- China Development Research Foundation. Report on national survey into factors influencing breastfeeding [EB/OL].2024-03-21]. <https://cdrf-en.cdrf.org.cn/jjhdt/5273.htm>.
- Kikuchi S, Nishihara K, Horiuchi S, Eto H. The influence of feeding method on a mother's circadian rhythm and on the development of her infant's circadian rest-activity rhythm. *Early Hum Dev.* 2020;145:105046. doi:10.1016/j.earlhumdev.2020.105046
- Fan HSL, Fong DYT, Lok KYW, Tarrant M. A qualitative exploration of the reasons for expressed human milk feeding informed by the breastfeeding self-efficacy theory. *J Hum Lact.* 2023;39(1):146–156. doi:10.1177/08903344221084629
- De Roza JG, Fong MK, Ang BL, Sadon RB, Koh EYL, Teo SSH. Exclusive breastfeeding, breastfeeding self-efficacy and perception of milk supply among mothers in Singapore: a longitudinal study. *Midwifery.* 2019;79:102532. doi:10.1016/j.midw.2019.102532
- Peres KG, Cascaes AM, Nascimento GG, Victora CG. Effect of breastfeeding on malocclusions: a systematic review and meta-analysis. *Acta Paediatr.* 2015;104(S467):54–61. doi:10.1111/apa.13103
- Dennis C-L. The breastfeeding self-efficacy scale: psychometric assessment of the short form. *J Obstet Gynecol Neonatal Nurs.* 2003;32(6):734–744. doi:10.1177/0884217503258459
- Brockway M, Benzies K, Hayden KA. Interventions to improve breastfeeding self-efficacy and resultant breastfeeding rates: a systematic review and meta-analysis. *J Hum Lact.* 2017;33(3):486–499. doi:10.1177/0890334417707957
- Elder GH Jr. The life course as developmental theory. *Child Dev.* 1998;69(1):1–12. doi:10.2307/1132065
- Elder GH, Johnson MK, Crosnoe R. *The Emergence and Development of Life Course Theory.* Springer; 2003.
- Dennis CL. Breastfeeding initiation and duration: a 1990–2000 literature review. *J Obstet Gynecol Neonatal Nurs.* 2002;31(1):12–32. doi:10.1111/j.1552-6909.2002.tb00019.x
- Elder GH, Social SRCU. *Life Course Dynamics: Trajectories and Transitions, 1968-1980[C].* Ithaca: Cornell University Press; 1985.
- Xueyuan J. *Study on the Current Situation and Influencing Factors of Breastfeeding Self-Efficacy of Two-Child Nurses in Urumqi Sanjia General Hospital.* Xinjiang Medical University; 2019.
- Künzi M, Gheorghe DA, Kliegel M, Ballhausen N, Gallacher J, Bauermeister S. Cumulative life course adversity, mental health, and cognition in the UK biobank. *Sci Rep.* 2022;12(1):14700. doi:10.1038/s41598-022-18928-9
- Dragana C, Michael L, Pranee L, et al. Application of caring life-course theory to explore care needs in women with pregnancy-related pelvic girdle pain. *J Adv Nurs.* 2022;78(8):2586–2595.

19. Callahan T, Stampfel C, Cornell A, et al. From theory to measurement: recommended state MCH life course indicators. *Matern Child Health J.* 2015;19(11):2336–2347. doi:10.1007/s10995-015-1767-1
20. Black BP, Holditch-Davis D, Miles MS. Life course theory as a framework to examine becoming a mother of a medically fragile preterm infant. *Res Nurs Health.* 2009;32(1):38–49. doi:10.1002/nur.20298
21. Taylor RS, Dalal HM, McDonagh STJ. The role of cardiac rehabilitation in improving cardiovascular outcomes. *Nat Rev Cardiol.* 2022;19(3):180–194. doi:10.1038/s41569-021-00611-7
22. Lijun Y, Xinyue H, Chaoxia C. Study on the attitude and influencing factors of exclusive breastfeeding behavior of pregnant women in grass-roots hospitals. *J North Sichuan Med College.* 2022;37(08):1097–1100.
23. Dennis CL, Faux S. Development and psychometric testing of the breastfeeding self-efficacy scale. *Res Nurs Health.* 1999;22(5):399–409.
24. Xiaona D, Dennis C-L, Chen X. Application of breastfeeding confidence measure in nursing practice. *Chin J Nurs.* 2004;(6):10–12.
25. Yanli C, Nafei G, Lan Z. The intermediary effect of breastfeeding self-efficacy in maternal social support and postpartum depression. *China Med Guide.* 2022;19(06):163–166.
26. Songlin K, Hongyao L, Tang Yuman, etc. Construction of a follow-up list of breastfeeding discharged newborns. *Chin Nurs J.* 2022;57(16):1962–1969.
27. Zhejiang Provincial Bureau of Statistics. *Zhejiang Provincial Statistical Yearbook 2023.* Beijing: China Statistics Press; 2023.
28. Victora CG, Bahl R, Barros AJ, et al. Breastfeeding in the 21st century: epidemiology, mechanisms, and lifelong effect. *Lancet.* 2016;387(10017):475–490. doi:10.1016/S0140-6736(15)01024-7
29. Creedy DK, Dennis CL, Blyth R, Moyle W, Pratt J, De Vries SM. Psychometric characteristics of the breastfeeding self-efficacy scale: data from an Australian sample. *Res Nurs Health.* 2003;26(2):143–152. doi:10.1002/nur.10073
30. Dai X, Dennis CL. Translation and validation of the breastfeeding self-efficacy scale into Chinese. *J Midwifery Womens Health.* 2003;48(5):350–356. doi:10.1016/s1526-9523(03)00283-6
31. Yingni Z, Xiuming J, Yongfei Y. Analysis of the current situation and influencing factors of pure breastfeeding of 6-month-old infants in Suzhou. *Chin J Family Planning.* 2023;31(10):2275–2280+2286.
32. Liu L, Wu Y, Xian X, et al. In-hospital formula feeding hindered exclusive breastfeeding: breastfeeding self-efficacy as a mediating factor. *Nutrients.* 2023;15(24):5074. doi:10.3390/nu15245074
33. Springall TL, McLachlan HL, Forster DA, Browne J, Chamberlain C. Breastfeeding rates of aboriginal and Torres Strait Islander women in Australia: a systematic review and narrative analysis. *Women Birth.* 2022;35(6):e624–e638. doi:10.1016/j.wombi.2022.02.011
34. Meedy S, Fahy K, Kable A. Factors that positively influence breastfeeding duration to 6 months: a literature review. *Women Birth.* 2010;23(4):135–145. doi:10.1016/j.wombi.2010.02.002
35. Clance PR, Imes SA. The imposter phenomenon in high achieving women: dynamics and therapeutic intervention. *Psychotherapy.* 1978. doi:10.1037/h0086006
36. Öztürk R, Ergün S, Özyazıcıoğlu N. Effect of antenatal educational intervention on maternal breastfeeding self-efficacy and breastfeeding success: a quasi-experimental study. *Rev Esc Enferm USP.* 2022;56:e20210428. doi:10.1590/1980-220X-REEUSP-2021-0428
37. Maleki A, Asghari-Jafarabadi M, Yousefi SA. Systematic review of the correlation between marital relationship and breastfeeding self-efficacy, and duration of breastfeeding. *Breastfeed Med.* 2023;18(2):86–96. doi:10.1089/bfm.2022.0210
38. Koskinen KS, Aho AL, Hannula L, Kaunonen M. Maternity hospital practices and breast feeding self-efficacy in Finnish primiparous and multiparous women during the immediate postpartum period. *Midwifery.* 2014;30(4):464–470. doi:10.1016/j.midw.2013.05.003
39. Ratnayake Mudiyansele S, Davis D, Kurz E, Atchan M. Infant and young child feeding during natural disasters: a systematic integrative literature review. *Women Birth.* 2022;35(6):524–531. doi:10.1016/j.wombi.2021.12.006
40. Mercan Y, Tari Selcuk K. Association between postpartum depression level, social support level and breastfeeding attitude and breastfeeding self-efficacy in early postpartum women. *PLoS One.* 2021;16(4):e0249538. doi:10.1371/journal.pone.0249538

International Journal of Women's Health

Publish your work in this journal

The International Journal of Women's Health is an international, peer-reviewed open-access journal publishing original research, reports, editorials, reviews and commentaries on all aspects of women's healthcare including gynecology, obstetrics, and breast cancer. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/international-journal-of-womens-health-journal>

Dovepress
Taylor & Francis Group