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An ecological approach to infant feeding experiences among adolescent parents in Southeast Asia: a scoping review

Muladefi Choiriyah · Hannah Fairbrother · Jill Thompson

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Abstract

Background The global prevalence of exclusive breastfeeding (EBF) under six months is still below the target of 60%. Adolescent mothers undergo the simultaneous transition to adulthood and parenthood, which can complicate breastfeeding. Although numerous studies have examined breastfeeding among adolescent mothers in Southeast Asia, most are quantitative and provide limited insight into the underlying reasons and lived experiences. Therefore, exploration of qualitative research is needed to gain a better understanding. This study aims to explore experiences of infant feeding practices among adolescent parents in Southeast Asia.

Methods This scoping review followed Arksey and O'Malley's framework and the PRISMA extension for scoping review protocols (PRISMA-ScR). Six databases, including CINAHL, MEDLINE via OVID, PubMed, PsycINFO, Scopus, and Web of Science, were searched for qualitative and mixed-methods studies published between 2015 and 2025. Methodological quality was assessed using the Critical Appraisal Skills Program checklist for qualitative research and the Mixed Methods Appraisal Tool for mixed methods. In this scoping review, all eligible studies were included regardless of quality. The key findings were synthesised using thematic analysis and mapped onto the five levels of the Socioecological Framework.

Results Seventeen original research studies met the inclusion criteria. The studies were conducted in Indonesia, Thailand, and Laos. Themes included variation of breastfeeding knowledge influenced infant feeding practice, mothers' physical and psychological condition influenced their feeding choices, perceived mixed support from family members and partners, perceived mixed support from healthcare providers, technology utilisation for engaging with breastfeeding information, cultural influence in navigating infant feeding practice, and limitations related to employment or study, and unsupportive healthcare facilities. However, fathers' experiences with infant feeding were insufficiently captured. These findings represent only those from three countries in Southeast Asia.

Conclusion Significant factors that facilitate and hinder breastfeeding practices were found across individual, interpersonal, community, and organisational levels of the socioecological framework; the policy level was not investigated among the included studies. The review also highlights key take-home messages for future research and recommendations, including the need for longitudinal research from pregnancy through the breastfeeding period among adolescent parents, as well as the involvement of partners (husbands) and grandparents, since most

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existing studies focus primarily on the mother's perspective. Technology utilisation might be possible for infant feeding education, though current evidence was limited.

Keywords Adolescent parents · Breastfeeding · Scoping review · Socioecological framework

Background

Exclusive breastfeeding (EBF) during the first six months of a child's life provides benefits for the infants and mothers. Breastfeeding strengthens infants' immune systems, protects them against childhood morbidity, and lowers the risk of infections, respiratory and digestive diseases, allergy reactions [1, 2], and metabolic syndrome in adulthood [3]. Additionally, breastfeeding for up to 12 months can serve as a protective factor against tooth decay in children [4] and positively impacts mothers' health, as breastfeeding reduces their risk of type 2 diabetes, breast cancer, and ovarian cancer [5]. It also offers economic benefits for families by reducing healthcare costs for newborns during the first six months [6].

Although the advantages of breastfeeding are widely known, evidence indicates that only 48% of infants under 6 months of age are exclusively breastfed globally, which is below the global target of 60% by 2030 set by the World Health Assembly in 2025 [7]. To reach the global target of 60%, the World Health Organization (WHO) and United Nations Children's Fund (UNICEF) have set recommendations for infant feeding, including breastfeeding initiation within the first hour after birth, introducing complementary foods at the age of 6 months, and continuing to breastfeed for up to two years of age or beyond [8, 9]. However, a study of the Demographic and Health Surveys (DHS) globally from 2010 to 2018 showed that the prevalence of introducing complementary foods under 6 months was 12.1% in Southeast Asia (SEA)/Western Pacific, the lowest, and 17.3% in the Eastern Mediterranean, the highest [10]. These findings contribute to the lower prevalence of EBF.

SEA has unique socio-cultural characteristics, in which traditional norms are highly influential in daily life. For instance, the prevalence of child marriage tradition remains high, 16%, slightly different from globally, which is 19% [11]. Although child marriage is closely associated with early childbearing, it is not a direct measure of adolescent parenthood, as not all married adolescents become parents, and some adolescent pregnancies are conceived before marriage. The adolescent birth rate in Southeast Asia is 43 births per 1,000 girls aged 15–19 years, with no reduction since 2000 [12]. In addition, SEA countries exhibit significant variation, and available data indicate rates of exclusive breastfeeding ranging from 14 to 65%, with most countries below the global target [8, 13]. Moreover, infant feeding decisions are heavily influenced by an extended-family ecosystem, where the authority of grandmothers and local traditional beliefs often override formal clinical guidelines.

Adolescent parents differ significantly from adult parents due to their unique stage of physiological and psychosocial development [14, 15]. Unlike adult parents who usually have more financial independence and healthcare autonomy, adolescent parents are still developing their identities [15], experience low breastfeeding self-efficacy, particularly after birth, face intense social stigma, financial dependency, and are more likely to have their schooling interrupted, which severely restricts their independent health-seeking behaviours [14, 16]. Adolescent mothers represent a group that may experience additional barriers to EBF as they experience the transition to parenthood and adulthood simultaneously. Research on breastfeeding among adolescent mothers in several countries found that adolescent mothers experience challenges related to breastfeeding technique, lack of support from family members, peers, and healthcare providers, inappropriate feeding advice from family, negative judgment, lack of autonomy, low breastfeeding self-efficacy after birth, and financial problems [16–22]. Although there are similarities in experiences across regions, these may not be transferable to SEA populations due to significant socio-cultural differences.

Family, social, and cultural factors play a crucial role in EBF. Previous studies among adolescent mothers in Indonesia and Thailand identified family support as one of several factors associated with EBF at six months [23] and as a predictor of EBF [24, 25]. In addition, a study in Indonesia found that EBF was 2.33 times higher when

husbands had good breastfeeding knowledge [26]. Previous studies also showed that social factors, including partner or husband support, and cultural beliefs, contribute to the initiation and continuation of breastfeeding during the first four weeks [27]. Another study reported that mothers who had strong motivation were more likely to provide exclusive breastfeeding, even though culture and social norms were highly influential [28].

An extensive evidence base addresses breastfeeding among adolescent mothers in SEA [23–25, 27–31]. These studies commonly identified factors influencing breastfeeding initiation and EBF, described the reasons for lower EBF rates among adolescent mothers, and emphasised the effectiveness of the program for grandmothers in supporting breastfeeding. However, these studies predominantly used a quantitative approach, which provides limited insight into the underlying reasons and lived experiences regarding breastfeeding practices. Therefore, to fulfil this gap, qualitative literature mapping evidence is needed. Qualitative research focuses on specific phenomena, the meaning of interpretation [32], and the answers to why and how questions [33]. Given the need for in-depth exploration of the topic, a scoping review was identified as an appropriate approach to provide a comprehensive overview of infant feeding practices among adolescent parents in SEA.

A scoping review was selected instead of a qualitative evidence synthesis or meta-synthesis because the primary objective of this study is to map the breadth, volume, and nature of the existing literature on this topic, and adolescent parenting in Southeast Asia is highly heterogeneous. A scoping review provides the necessary methodological flexibility to identify key concepts, explore the boundaries of the evidence, and highlight critical research gaps across diverse contexts [34], rather than deeply synthesising purely qualitative data. The primary focus of this review is infant feeding experiences broadly, encompassing exclusive breastfeeding, formula feeding, and early complementary feeding practices. However, evidence on the infant-feeding experiences of adolescent parents in SEA and on the multilevel factors that shape these experiences remains limited. Therefore, this scoping review aimed to explore the experiences of infant feeding practices among adolescent parents in SEA, including factors that facilitated or hindered breastfeeding.

Methods

Design

A scoping review was chosen for this topic because of its broad focus on understanding positive and negative experiences related to breastfeeding among adolescent parents, including challenges, barriers, difficulties, and facilitators or supports. The review follows Arksey and O'Malley's (2005) five-stage framework: identifying the research question, identifying relevant studies, selecting the studies, charting the data, collating, summarising, and reporting the results [35]. The review is reported in accordance with the PRISMA extension for scoping review (PRISMA-ScR) [36]. A protocol for this review was not registered or published.

Search methods

Six databases were used for this review: CINAHL, MEDLINE via OVID, PubMed, PsycINFO, Scopus, and Web of Science (WoS). An Information specialist provided support in checking databases, keywords, and filters to ensure relevance and accuracy during searches. Grey literature was excluded from this review as its peer-review status was unclear. Studies from the reference list, cited-by articles, and similar articles were included as additional related articles. The last search was conducted in January 2026.

The keywords used are based on the Sample, Phenomenon of Interest, Design, Evaluation, and Research Type (SPIDER) framework combined with the Boolean operators (OR-AND), synonymity, truncation (*), and quotation marks (" ") for comprehensive results. The search included the terms: (adolescen* OR young OR youth OR teen* AND parent* OR mother* OR father*) AND ("infant feeding" OR breastfeed* OR "bottle feeding") AND (experience* OR perception* OR practice* OR attitude* OR knowledge OR feeling OR understanding

Table 1 Included studies

No	Title	Author, year	Country of origin	Aim	Design	Participants	Feeding type	Key findings related to infant feeding
1.	A qualitative study on the breastfeeding experiences of young mothers	Astuti, Kurniawati, et al., 2021	Indonesia (Yogyakarta province)	To explore the experiences of breastfeeding practices among Indonesian young mothers.	Qualitative (Exploratory)	18 young mothers (16–19 years old)	EB/AFT	• Barriers included lack of support from family, social-cultural, and healthcare system. • Breastfeeding information for mothers was often insufficient, misunderstood, and poorly delivered.
2.	EBF behaviour of adolescent mothers: A qualitative study	Yulyani et al., 2021	Indonesia (Yogyakarta province)	To explore the EBF behaviour of early marriage mothers.	Qualitative (phenomenology)	7 breastfeeding mothers (under 20 years old)	EBF	• Mothers were not prepared for the EBF practice, experienced mixed feelings and physical difficulties for initiation breastfeeding. • Mothers showed high motivation, trying to continue breastfeeding even when in pain as they believed that pain is normal. • Some mothers believed that breastfeeding alone could not meet the baby's nutritional needs
3.	Early marriage and unsuccessful EBF among Semarang district of Indonesian teenage mothers	Sholichah et al., 2017	Indonesia (Central Java province)	To analyse breastfeeding practice among teenage mothers	Qualitative (exploratory observational)	16 teenage mothers (15–19 years old)	EB/AFT	• Mothers faced lack of support and confidence in breastmilk sufficiency • Mothers also faced personal fears and social discomfort (embarrassed).
4.	Breastfeeding challenges among Thai adolescent mothers: hidden breastfeeding discontinuation experiences	Nuampa et al., 2020	Thailand	To explore adolescent mothers' experiences when they stopped breastfeeding before the first six months	Qualitative	11 adolescent mothers (15–19 years)	EB/AFT	The barriers were the mother's lack of authority, interrupted mother's confidence and role identity that causes distress
5.	Breastfeeding Experiences among Thai Adolescent Mothers: A Descriptive Qualitative Study	Nuampa et al., 2018	Thailand	To understand breastfeeding experiences among Thai adolescent mothers for the first six months	Qualitative (phenomenology)	20 Adolescent mothers (15–19 years old)	EB/AFT	• Mothers recognise the significant positive outcomes of breastfeeding. • Breastfeeding is considered as physically and personally demanding. • Mothers face pressure and obstacles from family, work, and the public. • The healthcare system does not provide practical support mothers require.

Table 1 (continued)

No	Title	Author, year	Country of origin	Aim	Design	Participants	Feeding type	Key findings related to infant feeding
6.	Exploring children's condition of adolescent mothers in East Kalimantan Indonesia: an ethnography study.	Wahyuni & Rungreang-kulkij, 2023	Indonesia (East Kalimantan Province)	To explore and describe children's condition of adolescent mothers during their motherhood in the community.	Qualitative (ethnography)	20 adolescent mothers (13–19 years old)	EB/AFT	• Successful to EBF factors included strong support from family, participants commitment and understanding of BF benefit, and religious influence • Failure to EBF factors included physical and mental health issues, Cultural conflict, and Covid-19 outbreak. (Infant-feeding findings only were extracted)
7.	Becoming an adolescent mother: The experiences of young Indonesian new mothers living with their extended families	Erfina et al., 2022	Indonesia (South Sulawesi)	To understand the new motherhood experiences of Indonesian adolescent females living with their extended families.	Qualitative (Phenomenology)	11 primiparous mothers (under 20 years old)	EB/AFT	Grandmother reminded new mother to consume a lot of vegetable to increase the breast milk production and taught how to care for their babies and breastfeed. (Infant-feeding findings only were extracted)
8.	Adolescent fathers' experiences in Indonesia: a qualitative study	Astuti, Hirst, et al., 2021	Indonesia (Java)	To gain an in-depth understanding of the world as seen through the eyes of Indonesian adolescent fathers who experienced an unplanned pre- marital pregnancy	Qualitative (exploratory)	8 Adolescent fathers (18–19 years old)	EB/AFT	Living with extended family arrangements to BF caused conflict as participants were not brave to tackle conflict. (Infant-feeding findings only were extracted)
9.	Exploring Indonesian adolescent women's healthcare needs as they transition to motherhood: A qualitative study.	Erfina et al., 2019	Indonesia (South Sulawesi Province)	To explore adolescent mothers' postnatal inpatient experiences and care needs regarding their maternal roles, specifically as adolescent mothers	Qualitative (phenomenology)	11 adolescent mothers (16–19 years old)	EB/AFT	• Adolescent mothers faced significant challenges with breastfeeding, felt sorrow, guilty, stressed, insufficient breastmilk, and dissatisfaction of healthcare providers' support. • The need for more education on breastfeeding (Infant-feeding findings only were extracted)
10.	Experience and social support needs of becoming a mother in adolescence in Yogyakarta City	Oktaviyana et al., 2018	Indonesia (Yogyakarta province)	To know the experience and social support need of becoming a mother on adolescent	Qualitative (phenomenology)	7 adolescent mothers (18-19 (18–19 years old)	EB/AFT	• Lack of sleep and must breastfeed at night. • Mothers received social support from midwives. (Infant-feeding findings only were extracted)
11.	Experiences and needs of social support among Thai adolescent fathers: a qualitative study	Uengwongsapat, 2022	Thailand	To find out the problems and needs of social support	Qualitative (exploratory)	20 adolescent fathers (16–19 years old)	EB/AFT	A sense of helplessness, no parenting skills, and need more information on how to take care of their child and breastfeeding. (Infant-feeding findings only were extracted)

Table 1 (continued)

No	Title	Author, year	Country of origin	Aim	Design	Participants	Feeding type	Key findings related to infant feeding
12.	Isolation: The experience of adolescent motherhood in Laos	Thongmixay et al., 2023	Laos (Lao PDR)	To gain insights into how adolescent mothers in Laos experience their motherhood, how they perceive their situation and try to cope with it	Qualitative	20 adolescent mothers (15–18 years old)	EB/AFT	• Cultural beliefs affected during postpartum and breastfeeding. • Mothers lacked social support. • Mother and babies' health issue such as felt Insufficient breast milk and premature. (Infant-feeding findings only were extracted)
13.	'The way to obtain freedom and equality': Experiences and needs of Thai adolescent mothers in terms of the use smartphone applications for breastfeeding support	Nuampa et al., 2024	Thailand	To explore the experiences, perspectives and needs of adolescent mothers and professional nurses using smartphone applications for breastfeeding support and the influence of this technology on healthcare	Qualitative	48 adolescent mothers (15–19 years old) and 12 nurses	EB/AFT	Adolescent's perspective: Social anxiety and fear of judgment in face-to-face interactions turned mothers to digital solutions and smartphone applications for learning and support (Breastfeeding-related findings from adolescent mothers only; data from nurses not extracted)
14.	Factors related to EBF in Thai adolescent mothers: Concept mapping approach	Nuampa et al., 2019	Thailand	To obtain adolescent mother-generated factors related to EBF at 6 months	Mixed method (Concept mapping-integrated qualitative and quantitative methods)	30 adolescent mothers (15–19 years)	EBF	• A commitment to successful breastfeeding (BF) is built when mothers perceive the benefits • BF barriers were identified such as negative attitudes, embarrassed BF in public, mother and infants' health problems, unintended pregnancy, a need for freedom, stress during infant crying, lack of breastfeeding experience, self-seeking of maternal foods, and concerns about body weight. • Family is essential for support but often a source of stress that requires professional intervention • The need for accessible, connected solutions (Qualitative findings related to infant feeding were extracted (study focused on exclusive breastfeeding)
15.	Struggling with motherhood and coping with fatherhood–A grounded theory study among Thai teenagers	Sriyasak et al., 2016	Thailand	To gain a deeper understanding of Thai teenage parents' perspectives, experiences and reasoning about becoming and being a teenage parent from a gender perspective.	Qualitative (grounded theory)	25 mothers and 15 fathers (14–19 years old)	EB/AFT	Mothers struggled with physical and social changes, such as breastfeeding and felt exhausted, especially during the first month BF because had to breastfed at night. (Infant-feeding findings only were extracted)

Table 1 (continued)

No	Title	Author, year	Country of origin	Aim	Design	Participants	Feeding type	Key findings related to infant feeding
16.	Indonesian adolescents' experiences during pregnancy and early parenthood: a qualitative study	Astuti et al., 2020	Indonesia	To explore Indonesian adolescents' experiences of (premarital-conceived) pregnancy and early parenthood.	Qualitative (exploratory)	16 young parents and 4 pregnant women (16–19 years old)	EB/AFT	Conflict and tension subsequently emerged about infant feeding and parenting practices. (Infant-feeding findings only were extracted)
17.	Indonesian mothers' beliefs on caring practices at home for preterm babies after hospital discharge: A qualitative study	Hariati et al., 2021	Indonesia	To explore preterm mothers' experiences of caring practices at home 1 month after their infant's discharge from a neonatal unit	Qualitative (descriptive)	8 mothers (7 adults and 1 adolescent aged 18 years)	EB/AFT	The adolescent mother was not confident that breastfeeding alone provided enough milk, so she expressed breast milk and gave it by bottle after each breastfeed to know how much her infant consumed. (Data from the adolescent participant only (Mother 2, 18 years): one quotation on infant feeding (subtheme "Feeding complexity"); findings for the whole sample not extracted.)

Abbreviation: BF: Breastfeeding; EBF: Exclusive Breastfeeding; EB: Ever Breastfed; AFT: Any Feeding Type

OR perceive* OR perspective*) AND (Brunei OR Burma, OR Myanmar, OR Cambodia OR Timor-Leste OR Indonesia, OR Laos OR "Lao People's Democratic Republic" OR "Lao PDR" OR Malaysia OR Philippines, OR Singapore, OR Thai* OR Vietnam) (see supplementary file for search strategy).

Study selection

The included studies focus on adolescent participants as defined by the WHO as individuals aged 10–19. Studies with participants of mixed ages were included only if data from adolescent participants (e.g., attributed quotations) could be identified; studies in which adolescent data could not be distinguished were excluded. From these studies, only data from adolescent participants were extracted, and data from adult participants were not used. Studies that included infant feeding experiences (breastfeeding, formula feeding, or early complementary feeding) and used a qualitative or mixed-methods design were chosen. Original article published in a peer-reviewed journal. All chosen studies had to be written in English. The publication date was limited to 2015–2025 to maintain relevance to the current situation. The studies were conducted in at least one SEA country. Rayyan AI was used to record search results and eliminate duplicate entries. Following this, the title and abstract were manually screened for eligibility, and the results were compiled in a simple Excel table. Full texts of the relevant studies were retrieved and skimmed, particularly regarding the methods utilised. Furthermore, a secondary screening was conducted through online full-texts, including reference lists, cited-by, and similar articles suggestions, to identify additional relevant studies.

Quality appraisal

A quality appraisal was conducted to evaluate the quality of the included studies. Although this is not mandatory in a scoping review, all studies were included regardless of their quality. Methodological quality was appraised using the Critical Appraisal Skills Programme (CASP) Qualitative Studies Checklist for qualitative studies [37] and the Mixed Methods Appraisal Tool (MMAT), version 2018, for the mixed methods study [38]. However,

comments related to methodological limitations were also included. Quality appraisal was completed by one reviewer (the first author) and discussed with the second and third authors.

Data charting and synthesis

The Joanna Briggs Institute (JBI) data charting form for scoping reviews was used in this review [39]. Information was charted into a table (see Table 1), including the title, author, year, country of origin, aim, design, participants, key findings, and limitations. In this last stage, the data were collated and summarised. For studies that included participants other than adolescent parents, only data attributed to adolescent parents were charted; findings reported for the whole sample were not used. For studies that addressed the broader experience of adolescent parenthood, only findings relating to infant feeding were charted.

This review applied Bronfenbrenner's Socio-Ecological Framework (SEF) [40], and examines how the environment influences individuals' development and behaviour across five levels: individual, interpersonal, community, organisation, and policy [41]. The framework has been successfully applied in the breastfeeding context to examine mothers' perceptions, experiences, abilities, and obstacles, and provides a helpful means of understanding the different factors affecting breastfeeding practice in high-income countries, Mexico, and South Africa [42–45]. However, few studies in SEA have applied this framework to breastfeeding. The key findings from the included studies were presented through a thematic analysis guided by the SEF. Thematic synthesis was conducted after identifying findings from the included studies, then grouping them into themes. These grouped themes were then mapped across every level of the socio-ecological framework, including individual, interpersonal, community, organisational, and policy levels.

As this review forms part of the first author's doctoral research, screening, data charting, and quality appraisal were conducted by the first author in consultation with the co-authors, primarily the second author. Where uncertainty arose about whether a study met the inclusion criteria, the second author made the final decision based on those criteria. Quality appraisal judgments were discussed with the second and third authors.

Results

A total of 617 studies were retrieved. After removing duplicates ($n=337$), 280 studies remained for title and abstract screening. Then, the records were excluded ($n=253$) because they were quantitative research ($n=144$), not infant feeding topic ($n=43$), not included adolescent parents ($n=21$), review article ($n=10$), not the SEA region ($n=7$), and dataset/conference paper/book/thesis or dissertation/commentary/research protocol ($n=28$). There were 27 records for full-text eligibility assessment. Then, 18 studies were excluded at this stage because they did not include adolescent participants ($n=6$) and did not separate results between adolescent and adult participants ($n=12$). Therefore, only 9 studies were included for the literature review from 6 databases. An additional 8 records were added from reference searching ($n=3$) and cited or similar articles ($n=5$). All these records were included after they were assessed for eligibility. Finally, 17 studies were included in the scoping review (see Fig. 1).

Characteristics of included studies

A total of 17 original research studies were included in this review; 16 used a qualitative design, and 1 used a mixed-methods design (see Table 1). The qualitative data collection included in-depth interviews, observation, field notes, and focus group discussions. Evidence for this review was retrieved from these three SEA countries: Indonesia ($n=10$), Thailand ($n=6$), and Laos ($n=1$). Therefore, the results and discussion in the following section reflect infant feeding practices shaped by the socio-cultural, economic, religious, and institutional landscapes of these specific nations. Consequently, studies from other SEA countries such as Brunei, Myanmar, Cambodia,

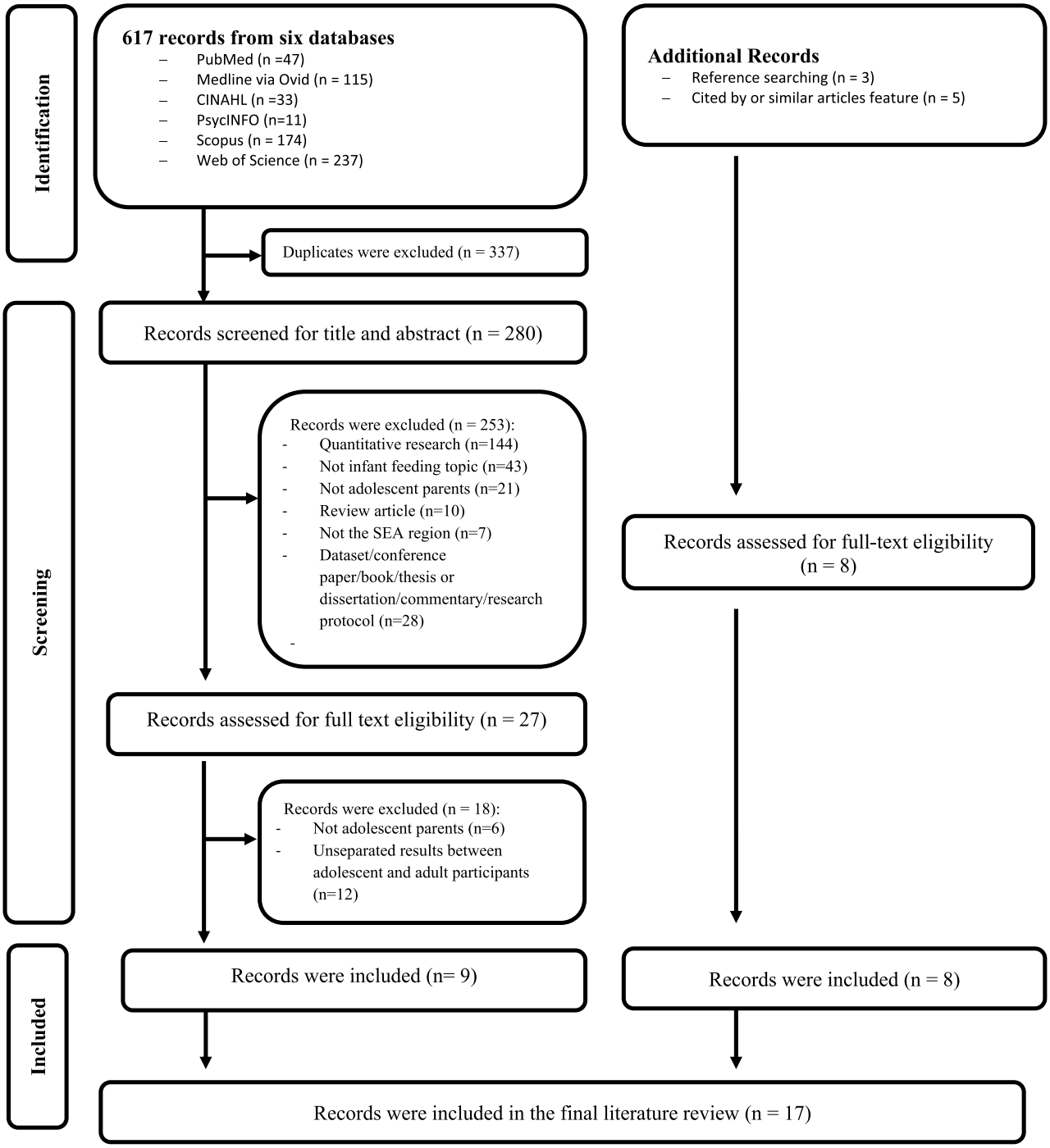


Fig. 1 PRISMA Flowchart

Timor-Leste, Malaysia, the Philippines, Singapore, and Vietnam, cannot fully capture on how infant feeding practice from these countries was influenced by their national policies, healthcare support, cultural beliefs, religious diversity (such as Islam is the majority religion in Malaysia and in Myanmar, where Buddhism predominates), and regulation of breast milk substitutes marketing.

Participants in these studies were aged 13–19 years, mothers only ($n=12$), fathers only ($n=2$), fathers and mothers ($n=1$), adolescent mothers and adult mothers ($n=1$), and mothers and nurses ($n=1$). Only 7 studies

explored mothers' perspectives of breastfeeding. The other studies ($n=10$) focused on adolescent experiences of parenthood and briefly reported their perspectives on breastfeeding in a small section. Additionally, two studies that included nurses and adult mothers separated the results from the adolescent mothers' perspective. According to the gender-based participants, this review mostly captures the mother's experiences rather than those of parents in general. Even though the studies included only fathers and had limited parent samples, their views in this review were valuable.

Quality of studies

Overall, the qualitative studies were of good methodological quality. Two of the 16 studies met all nine CASP criteria, 13 met eight, and one met five (see Table 2). The most common weakness was insufficient consideration of the researcher–participant relationship (Question 6), which could not be determined in any of the 16 studies. The study by Sholichah et al. (2017) lacked methodological detail, including insufficient information on the interview process and duration, the form of data collected, data saturation, ethical issues, and the analysis process [46]. Most studies offered practical implications for family-inclusive, culturally sensitive breastfeeding support, although several did not discuss transferability, and three provided limited adolescent-specific or infant-feeding data. A mixed methods study [47] met all MMAT criteria except in the two items, both rated "Can't tell": the representativeness of the sample could not be determined because participants were recruited from a single hospital, and few demographic data were reported (Question 4.2); consequently, it was unclear whether both components met their respective quality criteria (Question 5.5) (see Table 3). In line with MMAT guidance, no overall score was calculated. Consistent with scoping review methodology, no study was excluded on the basis of quality.

Experiences of Infant Feeding Practices Among Adolescent Parents

Individual level

The review identified both facilitators and barriers to infant feeding from the key findings. All themes were aligned with four levels, except the policy level, which did not emerge as a major finding in the studies because no study explicitly investigated it (see Fig. 2).

Theme 1: Variation of Breastfeeding Knowledge Influenced Infant Feeding Practice Participants had a range of knowledge about breastfeeding. They stated that they understood the benefits of breastfeeding for mothers, infants, and family finances [48, 49]. Participants described their commitment to EBF and recognised breastmilk as the best source of nutrition [47, 49]. Some participants believed that breastfeeding alone would meet the babies' nutritional requirements [50]. In contrast, several participants reported a limited or inaccurate knowledge regarding the recommended duration of EBF [50, 51]. Participants also explained that they understood the benefits and duration of EBF, but they still used breastmilk substitutes when they felt that their milk supply was insufficient or when they faced breastfeeding difficulties [46, 48, 50]. These findings indicate that adolescent parents in SEA require support in acquiring good knowledge of breastfeeding to facilitate exclusive breastfeeding.

Theme 2: Mothers' Physical and Psychological Condition Influenced Their Feeding Choices Adolescent mothers reported breast problems and health conditions that affected their breastfeeding decision. They reported insufficient or oversupplied breast milk, pain, blisters, swelling, and nipple problems [48–50, 52, 53]. However, some mothers continued breastfeeding even though they were in pain, as they thought that discomfort was normal [50]. Other participants stopped breastfeeding due to fear of infecting their babies during the COVID-19 outbreak [49], or their babies were hospitalised for low birth weight [52, 53].

Participants reported mixed feelings during breastfeeding. Participants described that breastfeeding enhances their happiness, bonding and attachment, maturity, maternal role, and sense of responsibility [47, 48]. Participants who believed that breast milk is the best nutrition often reported regret after stopping exclusive breastfeeding [50]. At the same time, participants described confusion, stress, and embarrassment [46, 50, 53], such as being

afraid of changing breast shape [46] and worried about body weight [47]. Other studies reported that participants perceived breastfeeding in public as embarrassing [48], while others considered it normal [49]. Participants also reported regret and guilt ceased EBF at one to four months due to returning to work or difficulties in breastfeeding, and they believed it affected bonding, attachment, and their infant's health [54]. Participants also experienced self-blaming concerning their lack of patience in coping with breastfeeding difficulties [48, 53]. Participants also stated that they felt insecure and decided to bottle-feed immediately after breastfeeding their babies [55]. In addition, they described that depression was a stated reason for not breastfeeding [49].

Moreover, adolescent mothers expressed difficulty and exhaustion in their daily activities. They felt a lack of freedom because they had inadequate sleep and had to breastfeed during the day and night [48, 56, 57]. Participants described EBF as a struggle and felt hopeless or unprepared for the experience [49, 50, 57]. In addition, adolescent fathers described feeling a sense of helplessness, having no parenting skills, and needing more information on caring for their babies and breastfeeding [58]. These reflect adolescent parents' need for more practical help to prepare them and provide mental health support to handle the adaptation to becoming new parents.

Interpersonal level

Theme 1: Perceived Mixed Support from Family Members and Partners Participants described varied experiences of support from their family members and partners, which contributed to breastfeeding practices. Participants perceived strong support, as their families had good knowledge of breastfeeding and shared information about its advantages [47–49, 51]. Transfer of knowledge between generations was described, where mothers or grandmothers influenced breastfeeding practices based on their experiences [48], such as reminding participants to consume more vegetables to increase their breast milk supply [59]. Participants also reported receiving support from their family by taking care of the baby at night [54]. Only one study emphasised the influence of religion as participants described that their families followed Islamic recommendations and encouraged adolescent mothers to continue breastfeeding [49]. Acknowledging and respecting religious beliefs is crucial in building trust between healthcare providers and breastfeeding mothers.

Some participants experienced a lack of breastfeeding support from their husbands and families [52]. Some mothers explained that their husbands believed breast milk alone was insufficient for babies [46], and others described that their husbands relied entirely on advice from their own parents and asked the mothers to seek help from the grandparents [49, 51]. The studies indicate the importance of involving husbands in breastfeeding education to help them develop a good understanding of exclusive breastfeeding. Participants also described feeling a lack of support from families who followed traditional practices and lacked breastfeeding experiences [51, 52]. Families suggested pre-lacteal feeding or early breast milk substitution [46, 48] as they had the power to affect the infant's feeding method [54]. These findings reflect contradictory support from grandparents; although some grandparents shared good knowledge of breastfeeding, others also hinder exclusive breastfeeding when offered early complementary feeding.

Theme 2: Perceived Mixed Support from Healthcare Providers Participants emphasised mixed support from healthcare providers. Participants described that nurses and midwives provided support by breastfeeding information [47, 56] and were frequently assisted by health cadres (health worker volunteers) during antenatal care visits [51]. Mothers described that breastfeeding was more difficult in actual practice, and they received negative judgments from the community and unhelpful behaviour of healthcare workers who viewed them as immature and unprepared to breastfeed [51]. Some participants reported that their babies received water or formula during hospital stays after delivery [46]. Participants also expressed disappointment due to insufficient attention from nurses and midwives, as they were not taught how to breastfeed [48]. Participants emphasised the need for breastfeeding preparation during late pregnancy, coaching new mothers, and family involvement in intensive counselling and supportive healthcare providers [47, 48, 51, 53, 58]. They also stated the need for continuous care

Table 2 Critical appraisal of qualitative studies using the CASP Qualitative Studies Checklist ($n=16$)

Study	CASP item (Q1–Q9)									Yes (n/9)	Q10. Value of the research	Notes
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9			
1. Astuti, Kurniawati, et al. (2021)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Antenatal breastfeeding information is not put into practice because of family, cultural and health-system barriers; recommends family-inclusive, culture-sensitive support and postnatal home visits. Authors note limited transferability beyond one city and call for multi-site studies.	a
2. Yulyani et al. (2021)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Positive attitudes did not lead to exclusive breastfeeding among early-married adolescent mothers, owing to incomplete knowledge, family advice and hospital formula provision; recommends family-involved counselling and stricter regulation of formula marketing. Transferability and further research are not discussed.	a
3. Sholichah et al. (2017)	Y	Y	Y	Y	CT	CT	CT	CT	Y	5	No early-married teenage mother breastfed exclusively and identifies knowledge gaps, weak support and health-worker provision of prelacteal feeds and formula. Implications are stated only in general terms, and transferability and future research are not addressed, so value is limited by reporting gaps.	a, b, c, d
4. Nuampa et al. (2020)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Reveals hidden reasons for early weaning (dependence on female relatives holding traditional beliefs) and the guilt and regret that follow; recommends family-adolescent programmes and pre-discharge assessment with continued support. Value is tempered by secondary analysis from one Bangkok hospital; transferability is not discussed.	a
5. Nuampa et al. (2018)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Maps adolescent breastfeeding experiences onto an ecological model, highlighting grandmothers' influence, breast problems and breastfeeding in public or on return to study/work; gives detailed nursing implications from the antenatal period to home follow-up. Authors limit transferability to first-time urban adolescents in similar circumstances.	a
6. Wahyuni & Rungreangkulkij (2023)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Community-based ethnography showing low exclusive breastfeeding linked to family influence, colostrum and prelacteal beliefs and incomplete information, within a broader focus on child health; recommends family-centred care and engaging religious and community leaders. Notes single-site limits and calls for intervention research.	a
7. Erfina et al. (2022)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Fills a Southeast Asian evidence gap by showing mothers and grandmothers as the main source of intergenerational infant-care and feeding knowledge and cultural practices; supports culturally appropriate, family-centred education. Authors suggest transferability to similar sociocultural settings and call for intervention research.	a
8. Astuti, Hirst, et al. (2021)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Rare account of Indonesian adolescent fathers after premarital pregnancy, showing loss of autonomy under extended-family control, including inability to challenge in-laws' bottle-feeding. Infant-feeding data are limited to one account; authors propose family-based and online peer support and research on longer-term effects.	a
9. Erfina et al. (2019)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Shows that all adolescent mothers had breastfeeding problems during the postnatal inpatient stay and that care was limited to routine physical tasks; informs discharge planning, education and psychological support. Calls for research on assessing breastfeeding ability and evaluating interventions; single-hospital setting noted.	a
10. Oktaviyana et al. (2018)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Describes adolescent mothers' progression from unpreparedness to confident infant care, supported by husbands, mothers, mothers-in-law and midwives (including breastfeeding advice and night-time help). Implications are general, midwife home visits were reported as poorly implemented, and transferability and future research are not discussed.	a
11. Uengwongsapat (2022)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Identifies Thai expectant adolescent fathers' unmet financial, psychological and informational needs, including information on infant care and breastfeeding; recommends antenatal classes and nurse-led caregiving training for fathers. Acknowledges a single, predominantly Muslim southern province and calls for research with non-Thai-speaking fathers.	a
12. Thongmixay et al. (2023)	Y	Y	Y	Y	Y	Y	Y	Y	Y	9	First study of adolescent motherhood in Laos, showing isolation, postpartum food taboos and frequent breastfeeding difficulties (two-thirds unsuccessful); offers participant-generated recommendations (peer support, safe spaces, infant-feeding information). Authors consider findings transferable to peri-urban Laos and similar transitional settings.	

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Table 2 (continued)

Study	CASP item (Q1–Q9)									Yes (*n*/9)	Q10. Value of the research	Notes
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9			
13. Nuampa et al. (2024)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Formative study that directly informs the design and implementation of a breastfeeding support app for adolescent mothers, drawing on mothers' and nurses' views mapped to the COM-B model. Authors note a single site, online data collection during COVID-19 and limited app experience; further app development recommended.	a
15. Sriyasak et al. (2016)	Y	Y	Y	Y	Y	Y	Y	Y	Y	9	Adds a gendered, couple-based and longitudinal view (pregnancy to six months postpartum) of family support and traditional roles, with breastfeeding among mothers' new demands; supports tailoring care from early pregnancy. Authors limit transferability to rural, extended-family settings with high adolescent birth rates.	
16. Astuti et al. (2020)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Offers unique insight into how culture, religion and spirituality shape adolescents' premarital pregnancy and early parenthood, including compliant yet nurturing family structures and tension over infant feeding. Infant-feeding data are sparse, practice implications are implicit, and authors acknowledge limited transferability.	a
17. Hariati et al. (2021)	Y	Y	Y	Y	Y	CT	Y	Y	Y	8	Shows the complexity of feeding preterm infants at home (low breastfeeding confidence, supplementing with expressed milk or formula) and family myths, informing discharge education. Relevance to this review is limited, as only one participant was an adolescent and the study was set in one referral hospital.	a

• Items: Q1 Clear statement of aims; Q2 Qualitative methodology appropriate; Q3 Research design appropriate; Q4 Recruitment strategy appropriate; Q5 Data collection addressed the research issue; Q6 Researcher–participant relationship adequately considered; Q7 Ethical issues considered; Q8 Data analysis sufficiently rigorous; Q9 Clear statement of findings; Q10 How valuable is the research? (Q10 is an open question, reported descriptively, and not counted)

• Y = Yes; CT = Can't tell; N = No

• Notes: (a) Researcher–participant relationship not adequately considered: the researcher's role, potential bias, and influence on the research questions, data collection, or analysis were not critically examined (some studies mentioned reflective journals, field notes, or reflexivity without further detail). (b) The interview process and duration, the form of data (e.g., recordings or field notes), and data saturation are not described. (c) Ethical standards, handling of ethical issues, and the source of ethical approval were not reported. (d) The analysis process is not described

Table 3 Critical appraisal of the mixed methods study using the Mixed Methods Appraisal Tool (MMAT, version 2018; *n* = 1)

Study	Screening		1. Qualitative					4. Quantitative descriptive					5. Mixed methods					Notes
	S1	S2	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	4.4	4.5	5.1	5.2	5.3	5.4	5.5	
14. Nuampa et al. (2019)	Y	Y	Y	Y	Y	Y	Y	Y	CT	Y	Y	Y	Y	Y	Y	Y	CT	e, f

• Items: S1 Clear research questions; S2 Data allow the research questions to be addressed; 1.1 Qualitative approach appropriate; 1.2 Data collection methods adequate; 1.3 Findings adequately derived from data; 1.4 Interpretation substantiated by data; 1.5 Coherence between data sources, collection, analysis and interpretation; 4.1 Sampling strategy relevant; 4.2 Sample representative of target population; 4.3 Measurements appropriate; 4.4 Risk of nonresponse bias low; 4.5 Statistical analysis appropriate; 5.1 Adequate rationale for mixed methods design; 5.2 Components effectively integrated; 5.3 Integration outputs adequately interpreted; 5.4 Divergences between components addressed; 5.5 Components adhere to quality criteria of each tradition

• The quantitative component (concept mapping: multidimensional scaling and cluster analysis) was appraised using the quantitative descriptive criteria (Sect. 4). In line with MMAT guidance, no overall score was calculated

• Y = Yes; CT = Can't tell; N = No

• Notes: (e) Participants were purposively recruited from a single tertiary hospital in Bangkok, and demographic characteristics other than maternal age and infant feeding were not reported (acknowledged by the authors); representativeness of the target population could therefore not be determined. (f) Rated Can't tell because the quantitative component did not fully meet its quality criteria (item 4.2)

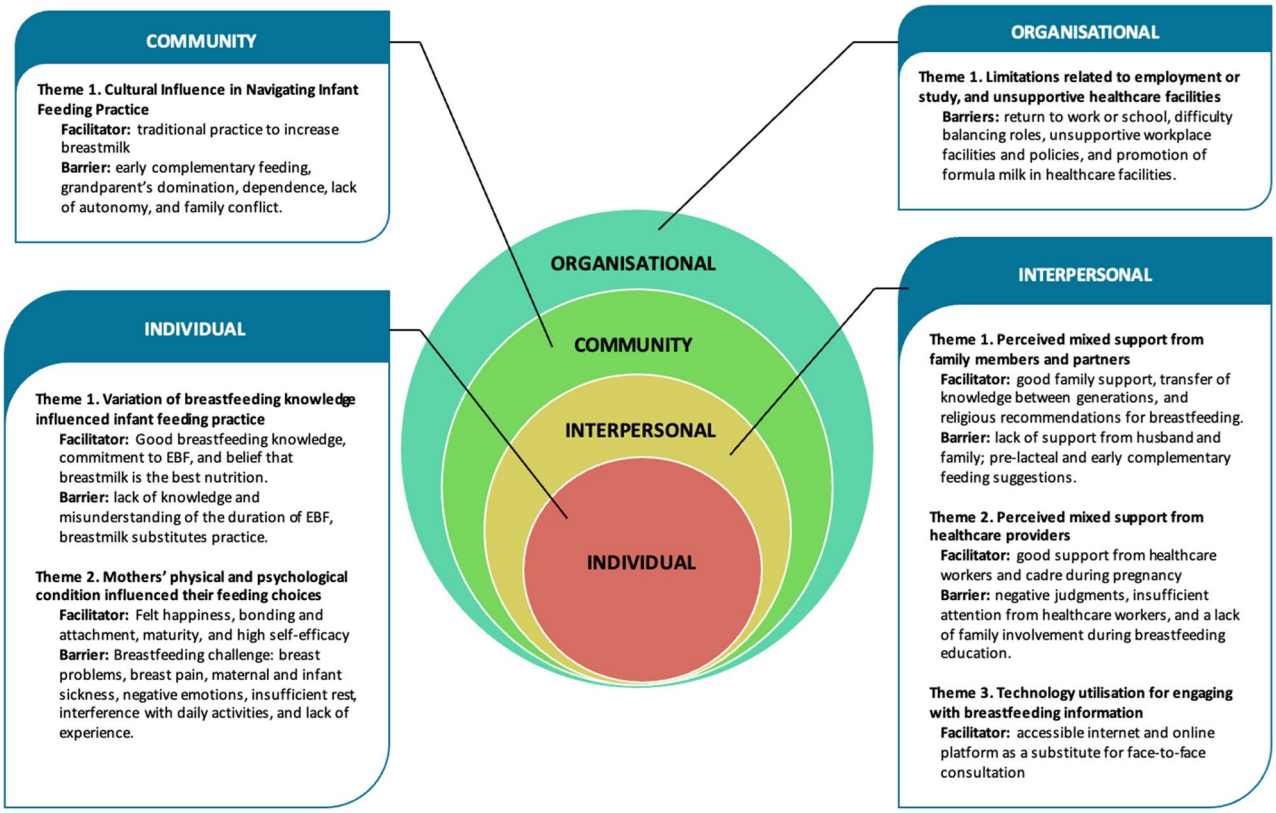


Fig. 2 The socioecological framework in breastfeeding among Southeast Asian adolescent parents

at home and feedback on their breastfeeding skills to enhance their confidence [48]. These findings reflect that healthcare providers' support could be a facilitator or a barrier to exclusive breastfeeding.

Theme 3: Technology Utilisation for Engaging with Breastfeeding Information Participants who felt uncomfortable bringing up breastfeeding problems directly with family members or healthcare providers preferred to seek help through an online platform to avoid negative judgment and misunderstanding [60]. Participants felt insecure and preferred texting their questions [48]. Whilst internet access reportedly increased participants' confidence, and they found that using the smartphone application for online consultation purposes was beneficial, particularly time and cost saving [48, 60]. This finding illustrates a growing interest in using digital platforms for breastfeeding education, particularly to support mothers who experience discomfort during in-person breastfeeding consultations. However, it is important to note that evidence supporting this subtheme remains highly limited in the included studies.

Community level

Theme 1: Cultural Influence in Navigating Infant Feeding Practice Cultural influences, limited autonomy, and family conflict influenced breastfeeding practices. Teenage mothers described relying on their parents and following traditional practices, such as eating more vegetables to increase breastmilk production, avoiding lifting heavy weights to prevent breast milk from stopping, throwing the colostrum, diluting more water to formula milk to save costs, or giving a small amount of semi-solid food to increase infant weight gain [49–52, 54, 59]. Participants emphasised that they could not refuse parental advice due to their dependence and cultural norms, which reduced their sense of maternal role, interrupted their adaptation, lowered their self-efficacy as mothers, and

shaped their decision to cease breastfeeding early [54]. Participants felt that they were not brave enough to tackle conflict and follow their parental intervention in breastfeeding, which created internal tension [47, 51, 61, 62].

Specifically, limited studies in this review focused on adolescent fathers' perspectives on infant feeding, even though the study primarily focused on new fatherhood adaptation. A study from Indonesia described how adolescent fathers' lived experiences navigating the life-altering challenges of an unplanned pre-marital pregnancy [62]. The study highlights that young fathers have less autonomy over their childcare because they felt obliged to passively obey their in-laws, such as he felt not brave enough to confront his mother-in-law for giving their child formula milk over exclusive breastfeeding. In another study of Thai adolescent fathers, they reported feeling helpless due to a lack of parenting skills and expressed a clear need for advice and information on infant care from nurses, including breastfeeding, bathing, and diaper changing [63].

Organisational level

Theme 1: Limitations Related to Employment or Study, and Unsupportive Healthcare Facilities Mothers described that they had breastfeeding difficulties during school or work time and unsupportive healthcare facilities. Participants who returned to school after giving birth had to balance breastfeeding and studying simultaneously [48]. Unfortunately, participants who resumed work reported limited time, a lack of a private space for pumping, no breast milk storage facilities, and a busy working schedule [48, 51]. Participants also mentioned that healthcare facilities provided limited support for breastfeeding [51] and that hospitals often promoted formula milk, which increased the risk of EBF cessation [50]. These findings reflect that exclusive breastfeeding cessation was influenced not only by mothers and their families but also by an unsupportive environment.

The clear distinction among these levels lies in the scope of influence and the target for intervention in this review (see Fig. 2). At the Individual and Interpersonal levels, barriers and facilitators are deeply focused on personal knowledge, choices, and health conditions, as well as in interactions with family and formal and informal social support. At the Community and Organisational levels, the distinctions shift toward settings and structures. This review is shaped by the cultural norms of a community, which can be both a facilitator and a barrier to infant feeding practices, and by institutional rules that have become barriers to them. Notably, at the policy level, none of the included studies in this review explored participants' experiences with government policy implementation, such as the promotion of exclusive breastfeeding or the implementation of a baby-friendly hospital. However, the authors of one study noted that although the Indonesian government has national regulations to support breastfeeding, many healthcare facilities have not adopted them [51].

Discussion

The Socioecological Framework (SEF) provided a useful structure for mapping the interconnected factors that facilitate and hinder infant feeding among adolescent parents in Indonesia, Thailand, and Laos. The strong concentration of evidence from Indonesia and Thailand presents several critical implications. First, it limits the generalisability of the findings across the wider Southeast Asian region, as the unique socio-cultural norms, religious influences, and healthcare infrastructures of these two countries may not mirror the realities in unrepresented nations. Second, the findings of this review are profoundly shaped by the strong influence of family support (particularly from grandmothers) and midwives in Indonesia and Thailand. Consequently, while the synthesised evidence offers deep insights into these socio-cultural settings, caution is warranted when applying these conclusions to region-wide policy or intervention designs. These findings are consistent with a recent global synthesis of adolescent mothers' infant feeding decision-making [22], which included most high-income countries and only four studies from SEA, indicating that evidence from SEA remains limited.

Previously published reviews of infant feeding across low-, middle-, and high-income countries (LMHIC) have focused on adolescent mothers' and healthcare providers' roles in infant feeding decisions [22] and on adolescent mothers' breastfeeding needs that require multifactorial support [64]. Beyond tangible healthcare support, mothers need emotional support, financial assistance, and culturally sensitive breastfeeding information to enhance their self-efficacy. Involvement of grandparents and peers in breastfeeding education is essential. In addition, institutional support from schools and the community was essential to mitigating social stigma and negative judgment [64]. Building on previous reviews, this review uniquely highlights conflicts adolescents faced, including being both new parents and teenagers, the need for adolescent husbands' or partners' perspectives and involvement in breastfeeding education, and the use of technology and online support for adolescent parents regarding infant feeding, specifically in the SEA region, which has a different cultural background from other LMHIC.

Among the studies, good knowledge of breastfeeding benefits did not translate into readiness to handle breastfeeding difficulties or negative emotions, and this situation was a significant factor that contributed to early breastfeeding cessation. This review showed variations in knowledge. This finding suggests that health information on breastfeeding has been successfully delivered; however, it requires more detail in its practical guidance. Participants, both mothers and fathers, in this review described experiencing various breastfeeding barriers, and these difficulties provoked mothers to introduce early complementary feeding and cease exclusive breastfeeding. These results were observed in a previous study among adult mothers in Indonesia who chose to give breastmilk substitutes for their babies under 6 months of age since they felt insufficient breastmilk, perceived health benefits for the babies, and needed to work [65]. This study presented a perspective from a lower-middle-income context, whilst another study of high-income contexts beyond SEA, such as among young Australian mothers, found that, even though they were aware of the benefits of breastfeeding, they faced significant challenges and felt judged when breastfeeding in public or when bottle-feeding [66]. Interestingly, participants in Australia and Indonesia reported significant similarities in breastfeeding challenges, suggesting a cross-cultural phenomenon. However, the young Australian mothers in this study were aged 20–25 years and did not emphasise the intense negative emotions described by younger mothers. It remains unclear whether these experiences are transferable to other younger populations in SEA.

This review revealed that support from the husband, family, and healthcare providers can either facilitate or hinder exclusive breastfeeding unless they have good knowledge and commitment to support breastfeeding. The lack of help from partners contributes to mothers' exhaustion and stress. This review revealed that husbands' involvement and perspectives remain limited and may act as a barrier, as many fathers felt they lacked parenting skills, were less supportive, and needed more information regarding breastfeeding. This might be due to the scarcity of research or to the dominant influence of women in breastfeeding (mothers and grandmothers) within the family. This is consistent with a previous study among expectant fathers during the third semester of their partner's pregnancy, which emphasised that fathers felt excluded and perceived insufficient information about pregnancy and childbirth, and hoped to be involved in prenatal class along with their partners [67].

Maternal health education often focuses solely on mothers and babies, which is insufficient to educate and engage fathers. A previous study from Australia found that fathers need information on overcoming breastfeeding challenges and supporting breastfeeding partners, and they preferred sources from healthcare professionals, followed by the internet, family, and friends [68]. In addition, a meta-analysis across the United Kingdom, Australia, Canada, and China reported that interventions targeting fathers' involvement in breastfeeding increased breastfeeding rates for up to three months [69]. Both studies showed that the accessibility of infant feeding education for fathers, provided by healthcare providers, facilitated breastfeeding practices. However, those studies mostly involved adult fathers from Western cultures and high-income countries, where the types and sources of information may differ from those in SEA due to cultural and social differences.

Examine the role of gender norms and adolescent fathers in infant feeding practices is essential. Traditional gender roles in Asia often frame breastfeeding and infant care as strictly mothers' responsibilities, while fathers'

involvement is minimal [70]. This is in line with a study from Thailand, which reported that caring for the baby and managing the household fell mostly to mothers, while fathers focused on work [71].

Grandmothers' limited knowledge and their adherence to cultural tradition are recognised as barriers to exclusive breastfeeding in this review. In the process of transferring knowledge across generations and maintaining family practices, grandparents often encouraged the use of breastmilk substitutes to help adolescent mothers tackle breastfeeding difficulties. Adolescent parents tended to accept this advice since they relied heavily on grandparents and lacked personal experience. This finding is in line with a previous study, which highlighted that traditional beliefs are sometimes considered either facilitators or barriers to breastfeeding [45]. Surprisingly, findings from this review are contrary to a study of young EBF mothers in New Zealand, who experienced negative judgments and unsupportive recommendations from families and health care providers, yet were confident speaking up, resisted their unhelpful advice, and sought other support for EBF [72]. This shows the different cultural behaviours for handling conflict between SEA countries, as seen in this review and in New Zealand. Additionally, this review highlights that cultural beliefs are a double-edged sword; they can both support and hinder exclusive breastfeeding. For instance, this review reported that adolescent fathers obeyed their grandmother's advice to give breastmilk supplement to their newborn, as part of respecting their elders.

This review also found potential inconsistencies in breastfeeding support across healthcare settings, and evidence on how health systems and government policies support young parents remains limited. This review reported that healthcare providers recommend formula supplementation when mothers report delayed milk production shortly after birth. However, these studies did not report whether supplementation was medically indicated. The offering of formula milk to adolescent mothers in clinical settings without medical indication would be inconsistent with the WHO International Code of Marketing of Breast-milk Substitutes [73] and the Baby-Friendly Hospital Initiative (BFHI) [74]. Due to confusion and low self-efficacy, adolescent mothers become highly vulnerable to commercial marketing. Consequently, sub-optimal exclusive breastfeeding rates should not be blamed solely on individual mothers, but rather viewed as an institutional failure in healthcare facilities.

On the contrary, a previous study of young Australian mothers revealed that they perceived good support from healthcare professionals, partners' involvement in breastfeeding, and extended family support in breastfeeding continuation [66]. The key point from the Australian socio-cultural context was the influence of grandparents and traditional beliefs in SEA, which might present a different set of barriers. In addition, this review, a few studies reported using online platforms to provide breastfeeding information and support, potentially addressing insecurity and avoiding negative judgment. This finding highlights that mothers were aware of potential criticism from others and believed the internet offered a sense of anonymity, which made them feel more secure. This indicates that young mothers need to be informed that online information may contain misinformation. These findings are consistent with a study in New Zealand among adolescent mothers, which found that young mothers use online environments to avoid negative interactions [20]. Although the behaviour of adolescent mothers in New Zealand and SEA is similar, it remains unclear whether the effect of online support would be the same across different populations. A systematic review reported that adolescent participants consider internet access and social media an essential tool for learning about infant feeding [75].

Limitations

This scoping review was limited by the number of studies identified through the databases searched and by the selection criteria. This review primarily presented findings on infant feeding from three SEA countries, including Indonesia, Thailand, and Laos. The lack of studies from other countries in SEA does not mean there are no issues with adolescent pregnancy or infant feeding challenges among adolescent parents; it may reflect less research interest in that topic, or studies might have been published in their national languages rather than English, or, according to the screening records, there were a lot of studies from other SEA countries that were excluded as they were quantitative research. In addition, this review was primarily based on the mother's perspective, as the

included studies had few father participants. Therefore, the findings may not fully capture the pleasant or challenging experiences of adolescent fathers in supporting breastfeeding.

Another limitation of this review is that some included papers focused broadly on adolescent adaptation to parenthood, rather than strictly focusing on lactation or feeding practices. Consequently, the data extracted from these studies on breastfeeding were relatively limited in the depth of analysis of specific feeding barriers and facilitators. Also, there were variations in the quality and the type of participants in the included literature. One study had insufficient methodological detail, and some studies included healthcare providers and adult mothers as participants. These studies were included because their findings are relevant to the topic and because they present the experiences of adolescent participants. In addition, screening, data extraction, and quality appraisal were primarily conducted by a single reviewer, in discussion with co-authors, to make decisions regarding the included studies. This may have increased the risk of selection bias or errors in data extraction and appraisal.

Recommendation for future intervention

Finally, this review highlights potential implications for nursing and midwifery, such as infant feeding education delivered by healthcare providers not only to adolescent mothers but also to their grandparents, partners, or husbands. In addition, adolescent antenatal counselling should include preparation for breastfeeding and culturally tailored support. Healthcare providers might consider balancing offline and online support for adolescent parents, for instance, by using social media platforms to provide educational resources on infant feeding.

Recommendation for future research

The review identified significant research gaps: most studies included only mothers' perspectives, while fathers' perspectives were insufficiently explored. To address this one-sided view, achieve greater balance, and deepen understanding of the interconnected factors that influence exclusive breastfeeding, further qualitative research involving fathers is essential. In addition, understanding how the online platform can support the infant feeding journey is needed, alongside investigating how healthcare facilities or institutions support infant feeding practices, and parents' awareness of the implementation of government policy that supports exclusive breastfeeding among adolescent parents, as only a limited number of studies have examined this. Moreover, most of the included studies in this review primarily discussed the postpartum period. Since breastfeeding requires preparation during late pregnancy, however, the studies covering this period are limited. A longitudinal study is needed to investigate how adolescent parents hold certain beliefs about infant feeding choices, including in-hospital setting feeding practices. This would help identify key moments and factors influencing their decisions over time and provide valuable data for designing more effective long-term support systems.

Conclusions

Significant factors that facilitate and hinder breastfeeding practices were found across the levels of the socio-ecological framework, except at the policy level. The review also highlights key take-home messages for future research and recommendations, including the need for longitudinal research from pregnancy through the breastfeeding period among adolescent parents, as well as the involvement of partners (husbands) and grandparents, since most existing studies focus primarily on the mother's perspective, and technology utilisation in infant feeding education.

Abbreviations

AI	Artificial intelligence
AFT	Any feeding type
BF	Breastfeeding
CASP	Critical appraisal skills program
EBF	Exclusive breastfeeding
JBI	Joanna briggs institute
LMHIC	Low-, middle-, and high-income countries
MMAT	Mixed methods appraisal tool (MMAT)
PRISMA-Scr	Preferred reporting items for systematic reviews and meta-analyses extension for scoping reviews
SEA	Southeast Asia
SEF	Socioecological framework
SPIDER	Sample, phenomenon of interest, design, evaluation, and research type
UNICEF	United nations children's fund
WHO	World health organization

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Data availability No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate Not applicable.

Consent for publication Not applicable.

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Authors and Affiliations

Muladefi Choiriyah[1,2] · Hannah Fairbrother[1] · Jill Thompson[1]

✉ Muladefi Choiriyah
mchoiriyah1@sheffield.ac.uk; defi.fk@ub.ac.id

[1] School of Allied Health Professions, Pharmacy, Nursing and Midwifery, Faculty of Health, The University of Sheffield, 362 Mushroom Lane, Sheffield S10 2TS, UK

[2] Department of Nursing, Faculty of Health Sciences, University of Brawijaya, Malang, Indonesia