

Investigating crucial elements of formula milk and the inadequacy of exclusive breastfeeding in Indonesia: A literature review

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ABSTRACT

Breast milk provides optimal nutrition for newborns, supporting their growth and development while meeting essential nutritional needs. Exclusive breastfeeding is crucial; however, many mothers face challenges that hinder their ability to breastfeed exclusively. Additionally, some parents believe that breast milk alone is insufficient, leading them to supplement with formula milk. Methods: This literature review analyzed studies from Google Scholar, Semantic Scholar, and Garuda, published between 2014 and 2024 in English or Indonesian. Only full-text quantitative or qualitative studies were included, assessed using the CASP tool, and data extraction followed a structured approach. The synthesis identified six predominant factors contributing to the failure of exclusive breastfeeding and the use of formula milk, which were further analyzed for interconnections. Results: The investigation produced 20 studies that highlighted the factors influencing formula milk use and the failure of exclusive breastfeeding in Indonesia. Key elements identified include understanding, spousal/family support, promotion of formula milk, maternal disposition, profession, and education. These factors were found to interact and exacerbate the challenges of exclusive breastfeeding. Conclusion: The review found that inadequate breastfeeding practices in Indonesia are primarily due to factors such as lack of knowledge, insufficient family support, the aggressive promotion of formula milk, maternal attitudes, work demands, and educational background. Addressing these issues through targeted interventions can improve breastfeeding rates and reduce the reliance on formula milk.

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INTRODUCTION

Breast milk is the most optimal and economical source of nutrition for infants (Siregar et al., 2022). It provides all essential nutrients required during the first six months of life and offers crucial immunological protection (Victora et al., 2016). Beyond its nutritional benefits, breast milk enhances cognitive development and reduces the risk of infections in infants (Bhattacharjee et al., 2019). Despite these well-documented benefits, exclusive breastfeeding rates remain suboptimal in many regions, including Indonesia. The 2023 survey identified infants who received exclusive breastfeeding for six months through a composite set of inquiries for children aged 6-23 months. These infants were exclusively breastfed until the age of six months, receiving no other liquids or foods before their first breastfeeding session (Kementrian Kesehatan, 2024). Globally, between 2015 and 2020, approximately 44% of infants aged 0-6 months were exclusively breastfed (WHO, 2023). In Indonesia, the national exclusive breastfeeding rate for infants aged 0-5 months was recorded at 68.6% (Kementrian Kesehatan, 2024). The Indonesian government has made efforts to promote breastfeeding through policies requiring families, local governments, and communities to support breastfeeding mothers. Regulations recommend exclusive breastfeeding for six months, followed by complementary feeding while continuing breastfeeding until at least two years. Healthcare professionals play a crucial role in educating mothers on the benefits of exclusive breastfeeding, following the ten steps to effective breastfeeding (Kemenkes, 2018). Several countries, such as the UK and Australia, have also implemented strict regulations on formula milk promotion to prevent misleading claims and encourage breastfeeding as the best nutritional option (Paramashanti et al., 2023). However, despite these efforts, many mothers still face significant barriers to exclusive breastfeeding. Some parents perceive that breast milk alone is insufficient to meet their infant's nutritional needs, leading them to introduce supplemental foods, including formula milk. Factors such as concerns about inadequate milk supply, demanding maternal schedules, lack of awareness regarding breastfeeding benefits, time efficiency considerations, and the perceived nutritional value of formula milk contribute to this decision (Yulendasari & Firdaus, 2019). Additionally, aggressive formula milk marketing further influences parental choices, reinforcing the misconception that formula milk is an equivalent alternative to breast milk (Pani, 2023).

Early formula feeding has been associated with several adverse health outcomes for infants, including increased risks of infections, obesity, allergies, sudden infant death syndrome (SIDS), and cognitive development impairments (Alemu et al., 2023). Furthermore, infants who are not breastfed immediately after birth miss out on colostrum, which provides essential antibodies that protect against infections such as diarrhea and sepsis. A study in Ethiopia found that formula feeding is more prevalent among infants born via cesarean section and those with delayed breastfeeding initiation (Taye et al., 2021).

Given these challenges, understanding the factors influencing exclusive breastfeeding and formula milk use is essential for improving infant health outcomes. This study aims to identify the determinants affecting exclusive breastfeeding failure and the increasing reliance on formula milk. By analyzing these factors, healthcare professionals, particularly midwives, can develop more effective interventions to support breastfeeding mothers, increase exclusive breastfeeding rates, and reduce formula milk dependency. Strengthening breastfeeding practices is crucial for ensuring optimal infant nutrition, reducing health risks, and supporting long-term child development.

RESEARCH METHOD

Design

This study employed a narrative literature review methodology. The narrative review process involves several steps: defining the research topic and scope, conducting a literature search with specific inclusion and exclusion criteria, critically assessing and synthesizing the selected studies, organizing the results into thematic sections for discussion, and concluding with key

insights and recommendations. The literature search involves formulating a search strategy using relevant databases and keywords, applying inclusion/exclusion criteria such as study types, languages, and time frames, verifying the availability of selected studies, and properly citing and listing all references (Ferrari, 2015).

Searching strategy

The search strategy involves using multiple keywords linked to the research questions. These keywords are based on the PICO (Population, Intervention, Comparison, Outcome) framework to identify relevant studies (Hosseini et al., 2024). Academic databases such as Google Scholar, Semantic Scholar, and Garuda were utilized in the search. Keywords derived from the PICO framework were applied to find articles on the “Factors of exclusive breastfeeding failure” and “Factors of formula milk use”.

Table 1 . Pico

PICO Keywords	Google Scholar (articles)	Semantic Scholar (articles)	Garuda (articles)
Population (Infants 0-6 months)	33.800	9.990	1813
Intervention (Exclusive Breastfeeding)	35.900	508.000	3137
Comparison (Formula Milk)	38.300	991.000	367
Outcome Factors of exclusive breastfeeding failure	13.100	2.690	35
Factors of formula milk use	32.400	1160	2

Study Criteria

In this review, the inclusion and exclusion criteria were clearly defined. Studies that did not meet the established criteria were excluded. Full-text versions of the studies that met the inclusion criteria were downloaded and rigorously evaluated. The results of this search and selection process were illustrated in a flowchart, showing the original number of studies identified, the studies excluded after review, and the final studies included in the analysis. The inclusion and exclusion criteria are outlined in Table 2.

Article Selection

The process of selecting articles involves four steps (Figure 1). A total of 25.156 articles were found from searches conducted between 2014-2024. Subsequently, 51 articles were assessed for eligibility. In the end, only 20 articles were synthesized and had their data extracted.

Table 2. Inclusion and exclusion criteria

Inclusion criteria	exclusion criteria
Publication of journal articles must be within the last 10 years (2014-2024)	Published more than the last ten years
Written in Indonesian or English	written in languages other than Indonesian or English
quantitative and/or qualitative research	Books, theses, letters, review
Full Text	Not fully accessible

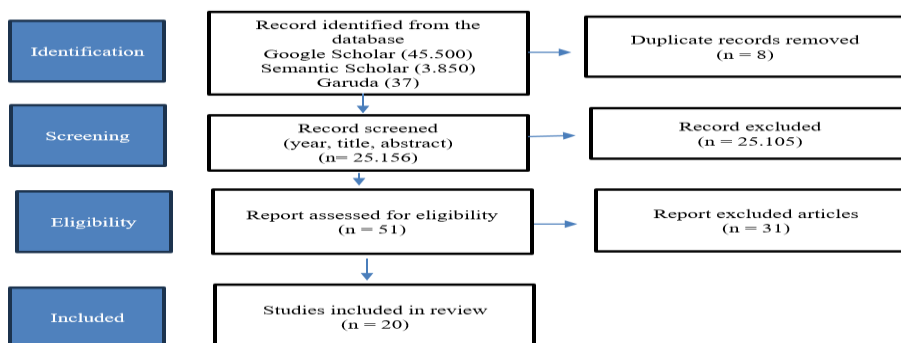


Figure 1. Flowchart for the selection of article

Quality assessment of articles

The studies were assessed for quality using the Critical Appraisal Skills Programme (CASP) tools. The CASP Cross-Sectional Study Checklist was used for studies with a cross-sectional design, the CASP Case-Control Study Checklist for case-control studies, and the CASP Mixed-Methods Study Checklist for studies using mixed methods.

Data Extraction

A data extraction tool was created to guide the systematic collection of information from each article, in line with the research objectives. The extracted data included the author(s), publication year, city, study title, study design, sample size, and study findings. Each article was assigned a code to facilitate easier extraction and synthesis of data.

Data Synthesis

Data synthesis involved identifying the key factors reported in each study. The researchers analyzed and discussed the most common and interrelated factors contributing to the failure of exclusive breastfeeding and the increased use of formula milk.

RESULTS AND DISCUSSIONS

Twenty articles were chosen that satisfied the inclusion criteria based on keywords about the factors affecting the utilization of formula milk in infants aged 0-6 months and the inability to deliver exclusive breastfeeding. The research strategy in the 20 publications predominantly consisted of cross-sectional studies utilizing chi-square analysis, with an average participant count exceeding 85 individuals. Each study examined the determinants affecting the utilization of formula milk and the inadequacy of exclusive breastfeeding. This article presents the literature findings in a table summarising key points from each selected article, along with a paragraph elucidating the meanings and trends observed beneath the table (Hariyono, 2020).

Table 3. Articles included in the review

Author/Year	City	Title	Design and sample,	factors found in the study	code
(Pani, 2023)	Palu	Behavioral Factors That Influence Formula Milk Giving for Babies 0-6 Months	D: quantitative, cross-sectional design. S: 35 people, total sampling	Knowledge, attitude	A1
(Yulendasari & Firdaus, 2019)	Lampung	Factors Associated with Formula Milk Giving for Babies Aged 0-6 Months	D: quantitative, cross-sectional design. S: 142 people, proportional random sampling.	Occupation, education, knowledge	A2
(Putri et al., 2020)	Minahasa southeast	Determinant Behavior: Giving Formula Milk to Babies Aged 0-6 Month in the Health Center Area Molompar East Tombatu, Minahasa Southeast	D: Analytical survey with a cross-sectional study design. S: 80 people, random sampling.	Mother's attitude, family support	A3
(Siregar et al., 2020)	Padang sidempuan	Progress Technology in Society, Formula Milk Promotion, Lifestyle, and Support Health Workers Influence Giving Formula Milk to Babies Aged 0-6 Months	D: Quantitative, using an analytic cross-sectional design. S: 67 people, accidental sampling.	Formula milk promotion, lifestyle, and healthcare support	A4
(Fitriani et al.,	Bengkulu	Factors Related to Giving	D: Quantitative,	Knowledge, attitude,	A5

Author/Year	City	Title	Design and sample,	factors found in the study	code
2023)		Formula Milk for Babies 0-6 Months in Work Areas East Ring Road Health Center, Bengkulu City	cross-sectional design. S: 37 people, accidental sampling.	husband's support	
(Rahmah et al., 2020)	Pontianak	Factor Affecting Giving Formula Milk to Babies Aged 06 Months In Health Center Work City Pontianak	D: The study was quantitative, with an analytic approach and cross-sectional design. S: 37 people, total sampling.	Husband's support, formula milk promotion, information access, healthcare support	A6
(Nur et al., 2023)	Bone	Related Factors Giving Formula Milk to Babies Aged 0-6 Months	D: The study was quantitative, with an analytic approach and cross-sectional design. S: 42 people, purposive sampling.	Knowledge, education, economic status	A7
(Ipsan et al., 2021)	Jakarta	Factors Affecting Milk Provision Formula for 6-Month-Old Babies at Posyandu Bougainvillea West Jakarta 2020	D: The study was descriptive-correlative with a cross-sectional approach. S: 146 people, non-random consecutive sampling.	Formula milk promotion, mother's health, infant's health, working mother	A8
(Marhamah & Kumala, 2022)	Jakarta	Analysis Use of Formula Milk in Babies Aged 0-6 Months in the Region Ciracas District, East Jakarta	D: The study was quantitative with an analytic cross-sectional design. S: 52 people, accidental sampling.	Knowledge, attitude, husband's support, formula milk promotion	A9
(Azzahra & Kusumaningsih, 2020)	Purworejo	Factors That Influence Mothers in Giving Milk Formula for Babies Aged 0-6 Months in Work Areas Health Center Cangkreng Subdistrict Purworejo	D: The study was quantitative with an analytic cross-sectional design. S: 42 people, total sampling.	Education, knowledge	A10
(Nisa & Merben, 2023)	Jakarta	Related Factors with Failure in Exclusive Breastfeeding for Mothers with Babies Aged 0-6 Months at the Clinic Pratama SPN Polda Metro Jaya	D: Descriptive, design analytic approach cross-sectional S: 55 people (total sampling)	Occupation, type of delivery, baby's weight, nutrition, pregnancy spacing, and husband's support	A11
(Nurlinda, 2020)	Makassar	Failure Exclusive Breastfeeding in Work Areas Health Center Antang Makassar City Housing Complex	D: Descriptive, design analytic approach cross-sectional S: 71 people (total sampling)	Knowledge, lack of husband's support, formula advertisement, early initiation of breastfeeding	A12
(Aulia et al., 2023.)	Pare-pare	Connection Formula Milk Promotion with Failure	D: Quantitative approach cross-	Formula milk promotion	A13

Author/Year	City	Title	Design and factors found in the sample, study	code
(Wasiah, 2019)	Lamongan	Exclusive Breastfeeding at UPTD Health Centers Bojo Baru	sectional S: 93 people (total sampling)	A14
(Wasiah, 2019)	Lamongan	Initiation Factor Analysis Early Breastfeeding, Husband's Support and Formula Milk Promotion Failure Exclusive Breastfeeding (Research Study at Turi Health Center, Turi Regency)	D: Descriptive, design analytic approach cross-sectional S: 132 people (simple random sampling)	A14
(Hapsari et al., 2021)	Bantul	Risk factors for failure exclusive breastfeeding in Bantul Regency	D: case-control S: 168 people (purposive sampling)	A15
(Oktaviyana et al., 2022)	Banda Aceh	Determinant Failure Exclusive Breastfeeding for Breastfeeding Mothers In the Banda Raya Health Center Area, Banda Aceh City	D: Survey analytical, cross-sectional S: 67 people (purposive sampling)	A16
(Yulianah et al., 2022)	Metro	Related factors with the failure of exclusive breastfeeding in mothers breastfeeding at the Health Center Yosomulyo Metro City	D: quantitative, cross-sectional S: 75 people (simple random sampling)	A17
(Yulianah et al., 2022)	Banten	Case Study: Failure Exclusive Breastfeeding for Babies in Health Center Areas Banjarsari, Lebak	D: mix method S: 75 people (purposive sampling)	A18
(Idawati et al., 2021)	Pidie	Analysis Reason Failure Exclusive Breastfeeding for Babies at Tgk. Chik Ditiro Regional Hospital Regency Pidie	D: Survey cross-sectional analysis S: 85 people (Purposive sampling)	A19
(Elferida et al., 2023)	The City Of Simalungun	Factors that cause the failure of exclusive breastfeeding in the sub-district Tomuan Subdistrict East Siantar Regency Simalungun Year 2023	D: quantitative cross-sectional S: 208 people (Total sampling)	A20

The literature evaluation of twenty reviewed papers identified six predominant factors that are frequently associated with both the use of formula milk in infants aged 0-6 months and the failure of exclusive breastfeeding. These factors are interrelated across both topics:

Table 4. Elements associated with the utilization of formula milk in infants aged 0-6 months and the inadequacy of exclusive breastfeeding

Factor	Formula Milk Use (Number of Articles)	Exclusive Breastfeeding Failure (Number of Articles)	Total Articles
Understanding Spousal/Family support	5 (A1, A2, A5, A7, A9)	5 (A12, A16, A17, A19, A20)	10
Promotion of Formula Milk	4 (A3, A6, A5, A9)	5 (A11, A12, A14, A15, A17)	9
	4 (A4, A6, A8, A9)	4 (A12, A13, A14, A18)	8

Factor	Formula Milk Use (Number of Articles)	Exclusive Breastfeeding Failure (Number of Articles)	Total Articles
Disposition	4 (A1, A3, A5, A9)	2 (A18, A19)	6
Profession	2 (A2, A8)	2 (A11, A20)	4
Education	2 (A2, A7)	2 (A18, A20)	4

Six elements are recurrent in twenty articles. Factors include understanding, spousal/family support, promotion of formula milk, disposition, occupation, and education. This is a discourse concerning those factors:

Understanding

Of the 20 publications reviewed, 10 examined the impact of knowledge on using formula milk for infants aged 0-6 months and the practice of exclusive breastfeeding. Maternal knowledge significantly influenced the decision between breastfeeding and formula feeding. Comprehensive information was essential in promoting appropriate actions, as acts informed by knowledge were superior to those lacking (Nurlinda, 2020). Mothers with adequate understanding are more likely to breastfeed than utilize formula milk. Nevertheless, some mothers who recognized the significance of exclusive breastfeeding conflated breast milk with formula and exhibited inconsistency in breastfeeding practices. Nevertheless, women with limited understanding frequently saw breast milk and formula as having the same nutritional value and preferred the convenience of formula feeding (Pratiwi et al., 2022). The absence of awareness of the advantages of breastfeeding and appropriate breastfeeding methods also led to the inadequacy of exclusive breastfeeding. Misconceptions about the infant's requirements and inadequate breastfeeding methods, including faulty latch, were substantial contributors to breastfeeding. Consequently, maternal knowledge must include the significance of breastfeeding, skills, and an awareness of breastfeeding physiology. Moreover, inadequate understanding frequently affected mothers' views of milk sufficiency, leading them to believe they could not produce sufficient breast milk for their infants. This subsequently became a principal factor in the inability to ensure exclusive breastfeeding. Knowledge-driven activities are more effective in promoting suitable breastfeeding practices since mothers with a thorough comprehension are more inclined to choose exclusive breastfeeding rather than formula feeding. Inconsistencies occur when mothers misread information or lack sufficient knowledge, resulting in a combined formula and breast milk feeding method. This underscores the necessity for more focused educational efforts that not only elucidate the advantages of breastfeeding but also rectify misconceptions, especially about the perceived adequacy of breast milk. Numerous research offers a comprehensive perspective on the diverse levels of maternal comprehension and its influence on baby nutrition. Identifying both practical and technical obstacles, such as inadequate milk and misunderstandings regarding milk adequacy, underscores the necessity for extensive breastfeeding education that transcends theoretical advantages. Breastfeeding skills and sufficient breast milk should be prioritized in health education. A weakness of this strategy is the generalization of maternal knowledge, as it remains uncertain if the study accounted for regional or demographic variations that could influence access to breastfeeding education.

Spousal/Family support

The literature study indicated that 9 of 20 papers examined the impact of spousal support on the utilization of formula milk and the failure of exclusive breastfeeding. The family is essential in providing support to breastfeeding mothers. Insufficient familial support frequently resulted in difficulties with breastfeeding. Mothers may have experienced a decline in drive and confidence without familial support. Husbands and family members profoundly influence breastfeeding patterns. Insufficient support from a partner or family members may result in challenges in sustaining exclusive breastfeeding. A study in Pontianak revealed a significant correlation between spousal support and the utilization of formula milk in infants aged 0-6 months, indicating that

insufficient support or promotion of formula milk by husbands may impede exclusive breastfeeding (Yuliawati et al., 2022). The study revealed that numerous husbands supplied information regarding formula milk although less emphasized the advantages of breastfeeding. A considerable segment also advocated for formula milk, indicating a restricted comprehension of the significance of exclusive breastfeeding (Rahmah et al., 2020). Father's support significantly influenced the likelihood of exclusive breastfeeding, perhaps increasing it by up to 25 times compared to those lacking paternal support. In addition to knowledge and favorable attitudes, appropriate facilities and time were essential variables. Family participation in infant care substantially impacted exclusive breastfeeding patterns. Fathers' support was crucial in determining the newborn feeding strategy, as insufficient support could result in the premature introduction of formula milk or a reduced length of breastfeeding (Wasiah, 2019). Furthermore, assistance from other family members, such as parents and in-laws, is crucial for successful breastfeeding. Families that offer emotional support and disseminate proper information about breastfeeding assist mothers in surmounting numerous hurdles during the breastfeeding phase. Research indicates that women with familial support are more inclined to practice exclusive breastfeeding effectively. A nurturing home atmosphere establishes an optimal context for breastfeeding. Conversely, familial pressure to utilize formula or a deficiency in comprehension of the significance of exclusive breastfeeding frequently results in challenges associated with breastfeeding. Studies indicate that mothers encountering familial resistance to breastfeeding are more prone to difficulties in exclusively breastfeeding. The findings underscore the essential role of familial engagement in facilitating successful breastfeeding, mainly through emotional and informational support. Highlighting the beneficial effects of familial support emphasizes the significance of a collaborative strategy for mother and newborn health. Constraints in familial support when a woman is isolated due to her husband's employment at a distant location and the family's residence being out of town. This undoubtedly necessitates assistance from neighbors and friends.

Promotion of Formula Milk

Among the 20 publications examined, some investigated the correlation between the promotion of formula milk and its effects on formula consumption and the reduction of exclusive breastfeeding. The marketing of formula milk, encompassing commercials in print and digital media and endorsements from healthcare professionals and manufacturers, significantly influences mothers' choices regarding formula use for infants aged 0-6 months. Studies indicate that numerous mothers were swayed by media marketing, resulting in their preference for formula feeding instead of exclusive breastfeeding (Siregar et al., 2020). Nur Aulia's study also demonstrated a robust association between the promotion of formula milk and the discontinuation of exclusive breastfeeding in children. Mothers exposed to commercials via television and the internet were more inclined to select formula milk, with many indicating a willingness to formula milk following media campaigns. This highlights the powerful effect of targeted formula marketing on infant feeding choices. Despite many women's original intentions to breastfeed, the influence of formula marketing frequently surpassed the facts regarding the significance of exclusive breastfeeding. The promotion of formula milk in hospitals, including providing complimentary samples or booklets advocating for formula use, can hinder the commencement and effectiveness of exclusive breastfeeding. Moreover, formula manufacturers have persistently refined their products to replicate breast milk by incorporating elements like DHA and AA, prompting some mothers to perceive formula as comparable to breast milk owing to its enhanced nutritional profile (N. Aulia et al., 2023). The assertive promotion of formula milk, particularly within healthcare environments, exploits maternal anxieties and reinforces the fallacy that formula is an adequate substitute for breast milk. The review highlights the influence of media and healthcare endorsements on feeding choices, providing significant insight into how formula marketing leverages emotional and scientific viewpoints. The analysis predominantly emphasizes

the effects of marketing, although it neglects to account for broader societal influences, including employment policies, insufficient breastfeeding assistance, and hospital promotion.

Disposition

In a literature study comprising 20 papers, six articles addressed mother views. The findings suggested that the mother's attitude was an emotional response to inputs, functioning not as a definitive action but as a predisposition towards behaviors that were ultimately exhibited as closed reactions (Putri et al., 2020). Attitudes were influenced by several factors: first, cognitive factors, about thoughts derived from acquired information; second, affective factors, associated with emotions linked to objects perceived as either pleasant or unpleasant; and third, conative factors, encompassing an individual's predisposition to respond in a particular manner to objects. Ivana's investigation at the Molompar Tombatu Health Center in Southeast Minahasa, which included 80 women as participants, identified a correlation between maternal views and their practices in administering formula milk to newborns. Particular mothers contended that administering formula milk to infants could enhance their intelligence and that formula-fed infants exhibited similar weight to breastfed infants. The belief manifested as a response to stimulus (Putri et al., 2020). Additional research indicated that a mother's favorable disposition towards exclusive breastfeeding might be crucial for effective breastfeeding outcomes. Conversely, adverse perceptions, such as the belief that formula milk surpasses breast milk, may affect feeding decisions (Idawati et al., 2021). Mothers who recognize the advantages of exclusive breastfeeding for their infant's health are generally more dedicated to breastfeeding exclusively. Conversely, unfavorable views or skepticism regarding their breastfeeding capabilities may result in the inability to breastfeed exclusively. Maternal attitudes' emotional and cognitive aspects highlight the necessity for informed and emotionally supportive breastfeeding education to dispel myths regarding formula milk and encourage exclusive breastfeeding. The review synthesizes findings from several studies, providing a thorough grasp of how affirmative and detrimental mother beliefs influence infant feeding decisions. The studies predominantly emphasize self-reported attitudes and may inadequately account for extrinsic influences, such as societal pressures or healthcare recommendations, that significantly affect a mother's feeding choices.

Profession

A literature study of 20 publications identified five articles that examined the impact of occupation on providing formula milk for infants aged 0-6 months and exclusive breastfeeding practices. Employment is a fundamental necessity that sustains the livelihoods of individuals and their families. A mother's work encompasses tasks undertaken by a woman, fulfilling the combined roles of housewife and professional. A significant barrier to breastfeeding is the mother's constrained time availability. Working mothers striving to sustain themselves and maintain their families generally have fewer opportunities to supply breast milk than non-working mothers (Elferida et al., 2023). Yulendasari's research reveals that employed respondents were 2.5 times more likely to provide formula milk (Yulendasari & Firdaus, 2019). The primary impediments to exclusive breastfeeding among working mothers include demanding work schedules that afford less time for pumping, frequently resulting in diminished milk supply due to insufficient opportunity to express milk at the workplace. Consequently, numerous mothers perceive formula feeding as a more feasible option that enables them to concentrate on their professional responsibilities. Notwithstanding the hurdles, several organizations are instituting supportive initiatives, including specialized breastfeeding facilities and timed pumping intervals, which have augmented exclusive breastfeeding rates and elevated job satisfaction. The efficacy of these activities is inconsistent, and insufficient workplace assistance may impede mothers from maintaining exclusive breastfeeding, frequently leading to a premature shift to formula feeding. This highlights the essential function of workplace policy in facilitating breastfeeding, while discrepancies in workplace support may influence overall outcomes.

Education

Four studies in a literature review, including 20 articles, examined the influence of education. Education is a process that thoroughly cultivates human abilities and behaviors. The degree of schooling also affects an individual's capacity to embrace new concepts and technology. Consequently, education significantly influences a mother's perspective in decision-making, particularly with health-related choices for herself and her kid. Mothers with advanced education levels generally comprehend the significance of health maintenance and are more inclined to opt for breastfeeding rather than formula milk. In contrast, mothers with lower educational attainment may possess restricted understanding, especially concerning exclusive breastfeeding. At UPT Puskesmas Kajudara, it was noted that most formula milk users were mothers with a junior high school education, whereas those with higher education were markedly less. This pattern indicates that educational attainment significantly influences baby feeding practices, with lower levels of education correlating more with formula feeding. Furthermore, observations from Puskesmas Banjarsari and Lebak revealed that a considerable percentage of women possessed low educational attainment, which is associated with difficulties in sustaining exclusive breastfeeding. The likelihood of not exclusively breastfeeding rises with greater educational levels, underscoring a troubling trend in which virtually all highly educated mothers do not engage in exclusive breastfeeding (N. Aulia et al., 2023). Educated mothers are more likely to obtain higher-paying employment, enhancing their economic status. Conversely, mothers with lower levels of education frequently experience inferior economic circumstances and favor breastfeeding due to its practicality and cost-effectiveness. Nevertheless, mothers with lower education levels who perceive breast milk as inadequate often introduce supplementary meals before the infant reaches six months. In contrast, mothers with better education and greater financial capacity are more inclined to select formula milk when encountering challenges with breast milk, such as inadequate supply (Yulianah et al., 2022). Addressing the fundamental elements contributing to these inequities is crucial, as education significantly impacts health decisions and resource accessibility. The observations explicitly connect schooling and feeding patterns, underscoring the significance of focused educational interventions. Nonetheless, the statistics may fail to encompass all socio-economic aspects affecting breastfeeding behaviors, constraining the comprehension of this intricate subject.

CONCLUSION

Our review highlighted the primary factors influencing formula milk use and the inadequacy of exclusive breastfeeding in Indonesia, including understanding, spousal/family support, the promotion of formula milk, maternal disposition, profession, and education. To mitigate the influence of formula milk promotion on mothers' decisions, policy recommendations include enhancing regulations on formula milk advertising to prevent misleading claims and aggressive marketing tactics. This could involve stricter enforcement of existing regulations and the implementation of new policies that limit the promotion of formula milk in healthcare settings and through media channels. Awareness programs should also be initiated to counter the impact of formula milk marketing and promote the benefits of exclusive breastfeeding. The results of this study can be used to develop more effective education programs for breastfeeding mothers by focusing on the key factors identified. These programs should provide comprehensive education to improve maternal understanding of the benefits of exclusive breastfeeding, address misconceptions about breast milk insufficiency, and provide practical guidance on breastfeeding techniques. Furthermore, education initiatives should emphasize the importance of spousal and family support in promoting successful breastfeeding. Recommendations for healthcare professionals and the government also involve improving education on the advantages of exclusive breastfeeding and the associated risks of formula milk through training and seminars. Support from family, particularly spouses, should be enhanced through initiatives that foster a

conducive environment for breastfeeding. Moreover, adaptable workplace practices, such as prolonged maternity leave and lactation accommodations, can assist working mothers in maintaining exclusive breastfeeding. Comprehensive health education programs at school and community levels should be augmented to enhance awareness of exclusive breastfeeding. This integrated approach, combining policy changes, targeted interventions, and robust education, is crucial for generating evidence-based strategies to improve exclusive breastfeeding practices and reduce dependence on formula milk in Indonesia.

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