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RESEARCH ARTICLE

Exploring the Psychosocial Experiences of Mothers in Providing Complementary Feeding as a Strategy to Prevent Stunting in Children: A Qualitative Study

Diah Priyantini[1*)], Chlara Yunita Prabawati[1], Fathiya Luthfil Yumni[1], Daviq Ayatulloh[2]

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Abstract. Background: Stunting remains a chronic nutritional problem that affects children's physical growth, cognitive development, and future quality of life. One essential strategy for stunting prevention is appropriate complementary feeding during the critical period of 6–24 months. However, complementary feeding practices are not influenced solely by maternal knowledge, but also by mothers' psychosocial experiences, family support, social pressure, cultural beliefs, and emotional conditions. Objective: This study aimed to explore mothers' psychosocial experiences in providing complementary feeding as a strategy for preventing stunting in children. Methods: This study employed a qualitative descriptive exploratory design. Thirteen mothers with children aged 6–24 months were recruited using purposive sampling. Data were collected through face-to-face semi-structured in-depth interviews conducted from September to October 2024. Interviews were audio-recorded, transcribed verbatim, and analysed using thematic analysis. Trustworthiness was ensured through credibility, dependability, confirmability, and transferability. Results: Participants were aged 23–37 years, while their children were aged 6–24 months. Most participants were housewives and were currently providing complementary feeding. The findings indicated that mothers' experiences in providing complementary feeding were shaped by anxiety when children refused food, uncertainty in selecting appropriate foods, family pressure, cultural beliefs, social support, and maternal confidence in childcare. Conclusion: Mothers' psychosocial experiences play an important role in complementary feeding practices. Stunting prevention interventions should be designed in a contextual and empathetic manner by considering the emotional, social, and cultural dimensions of family life.

Keywords: Stunting; infant and young child feeding; responsive feeding; psychosocial experiences; qualitative descriptive study

Abstrak. Latar belakang: Stunting masih menjadi masalah gizi kronis yang berdampak pada pertumbuhan fisik, perkembangan kognitif, dan kualitas hidup anak di masa depan. Salah satu upaya penting dalam pencegahan stunting adalah pemberian makanan pendamping ASI (MP-ASI) yang tepat pada usia 6–24 bulan. Namun, praktik pemberian MP-ASI tidak hanya dipengaruhi oleh pengetahuan ibu, tetapi juga oleh pengalaman psikososial, dukungan keluarga, tekanan sosial, budaya, dan kondisi emosional ibu. Tujuan: Penelitian ini bertujuan untuk mengeksplorasi pengalaman psikososial ibu dalam memberikan MP-ASI sebagai strategi pencegahan stunting pada anak. Metode: Penelitian ini menggunakan desain kualitatif dengan pendekatan deskriptif eksploratif. Sebanyak 13 ibu yang memiliki anak usia 6–24 bulan dipilih menggunakan teknik purposive sampling. Data dikumpulkan melalui wawancara mendalam semi-terstruktur yang dilakukan secara tatap muka pada September–Oktober 2024. Wawancara direkam, ditranskripsi verbatim, dan dianalisis menggunakan analisis tematik. Keabsahan data dijaga melalui credibility, dependability, confirmability, dan transferability. Hasil: Partisipan berusia 23–37 tahun, dengan anak berusia 6–24 bulan. Mayoritas partisipan merupakan ibu rumah tangga dan sedang memberikan MP-ASI. Hasil penelitian menunjukkan bahwa pengalaman ibu dalam pemberian MP-ASI dipengaruhi oleh kecemasan ketika anak sulit makan, kebingungan memilih makanan yang tepat, tekanan keluarga, keyakinan budaya, dukungan sosial, serta kepercayaan diri ibu dalam merawat anak. Kesimpulan: Pengalaman psikososial ibu berperan penting dalam praktik pemberian MP-ASI. Intervensi pencegahan stunting perlu dirancang secara kontekstual, empatik, dan mempertimbangkan aspek emosional, sosial, dan budaya keluarga.

Kata kunci: Stunting; pemberian makan bayi dan anak; pemberian makan responsif; pengalaman psikososial; studi deskriptif kualitatif.

[1] Department of Nursing, Faculty of Health Sciences, Universitas Muhammadiyah Surabaya, Surabaya, Indonesia .

*) *corresponding author*

Diah Priyantini
Jl. Raya Sutorejo No.59, Dukuh Sutorejo, Kec. Mulyorejo, Surabaya, Jawa Timur 60113 Indonesia
Email: diahpriyantini@um-surabaya.ac.id

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INTRODUCTION

Stunting remains one of the most serious forms of chronic undernutrition and continues to be a major public health concern because of its long-term consequences for child health and human capital development (Lestari et al., 2024). Stunting has been associated with delayed cognitive development, reduced learning capacity, increased susceptibility to illness, and lower productivity in adulthood (Deshpande & Ramachandran, 2022; Sideropoulos et al., 2025). n Indonesia, despite continuous national efforts to reduce stunting, the prevalence remains higher than the World Health Organization target in many provinces, including East Java. Surabaya, as one of Indonesia's largest metropolitan cities, continues to face disparities in child nutrition that are influenced not only by socioeconomic conditions but also by family caregiving practices, making this setting particularly relevant for exploring maternal experiences related to child feeding (E. M. M. Has et al., 2024).

The period from 6 to 24 months represents a critical window for growth and development, during which appropriate complementary feeding plays an essential role in preventing stunting (Kurnia et al., 2024). Complementary feeding should be timely, nutritionally adequate, safe, and developmentally appropriate to meet children's nutritional requirements during rapid growth. Evidence suggests that complementary feeding interventions and nutrition education can improve child growth outcomes, particularly among children aged 6–23 months in low- and middle-income countries (Mukarromah et al., 2025; Munawar et al., 2024). However, improving maternal knowledge alone does not necessarily translate into optimal complementary feeding practices. According to the socio-ecological perspective, child feeding behaviours are shaped by multiple interacting influences, including individual beliefs, family relationships, social norms, cultural values, and the broader community environment. Consequently, mothers often make feeding decisions within complex family and social contexts rather than based solely on nutritional recommendations (Ashar et al., 2025).

Mothers play a central role in complementary feeding decision-making, yet the process is often accompanied by various psychosocial experiences (Tabangi et al., 2025; Tambunan, 2023). Mothers may experience anxiety when children refuse food, uncertainty in selecting appropriate foods, pressure from family members or the surrounding community, and conflict between recommendations from health professionals and established cultural practices (Graf et al., 2022). Their psychosocial experiences are also influenced by caregiving confidence, perceived maternal roles, emotional responses, and the availability of family and social support, all of which may affect the implementation of complementary feeding practices for stunting prevention (Imanishi et al., 2025).

Although many nutrition intervention programmes have promoted infant and young child feeding through education, most have primarily focused on increasing maternal knowledge, child nutritional status, or sociodemographic determinants (Ahmed et al., 2021). Previous studies have provided limited understanding of how mothers' psychosocial experiences influence complementary feeding decisions in their everyday family lives, particularly within the sociocultural context of Indonesia and urban communities such as Surabaya (Ashar et al., 2025). This knowledge gap is important because psychosocial experiences may explain why evidence-based feeding recommendations are not consistently implemented despite adequate knowledge and access to health information (Slekiene et al., 2025). Understanding these experiences may therefore support the development of family-based nutrition interventions that are more contextual, empathetic, and responsive to mothers' real-life circumstances (Mukarromah et al., 2025).

A qualitative descriptive approach is appropriate for exploring mothers' psychosocial experiences because it allows researchers to understand how mothers interpret, experience, and manage complementary feeding within their everyday social and family environments (Wiliyanarti et al., 2025). By exploring these psychosocial experiences, this study seeks to identify the emotional responses, perceived barriers, available support systems, and adaptive strategies that shape complementary feeding practices (Demirel Ozbek et al., 2025). The findings are expected to contribute to the development of health promotion strategies, family-centred nutrition education, and stunting prevention policies that are more responsive to the psychosocial needs of mothers and families (Kalam et al., 2025). The research question guiding this study was how do mothers experience the psychosocial process of providing complementary feeding as a strategy for preventing stunting among children aged 6–24 months in Surabaya, Indonesia? Based on this question, the study aimed to explore mothers' psychosocial experiences in providing complementary feeding as a strategy for preventing stunting in children.

METHODS

Study Design

This study used a qualitative descriptive exploratory design to gain an in-depth understanding of mothers' psychosocial experiences in providing complementary feeding as a strategy for preventing stunting in children. This approach was selected because it enables researchers to explore participants' perceptions, experiences, emotions, meanings, and social contexts related to complementary feeding practices. A qualitative design is appropriate for examining complex and contextual phenomena, particularly those related to maternal caregiving and child nutrition.

Study Setting and Period

The study was conducted in one Dharma Wanita organization in Surabaya, Indonesia, which is a community-based women's organization concerned with stunting prevention and maternal and child health services. The study site was selected purposively based on the availability of eligible participants and the relevance of its social and public health context to the study topic. The Dharma Wanita organization collaborates with local community health centres (Puskesmas), integrated health posts (Posyandu), and local authorities in implementing maternal and child health programmes. These institutions supported participant identification and recruitment; however, all interviews were conducted with members of the Dharma Wanita organization. Data collection was conducted from September to October 2024.

Participants and Sampling Technique

The participants were mothers who had children aged 6–24 months, which is a critical period for complementary feeding and stunting prevention. Participants were recruited using purposive sampling to ensure that those selected could provide rich, relevant, and in-depth information related to the study objectives. Potential

participants were initially identified by community coordinators from the Dharma Wanita organization who were familiar with eligible mothers. After obtaining permission from the organization, the researcher contacted potential participants individually, explained the purpose of the study, and invited them to participate voluntarily. Participation was entirely voluntary, and no incentives were provided. During recruitment, 17 eligible mothers were approached, of whom 13 agreed to participate, 4 declined participation because of personal reasons, and no participants withdrew after providing informed consent. The inclusion criteria were: biological mothers with children aged 6–24 months; mothers who were currently providing or had previously provided complementary feeding; mothers who had lived in the study area for at least six months; mothers who were willing to participate by signing informed consent; and mothers who were able to communicate effectively in Indonesian or a local language understood by the researcher. The exclusion criteria were: mothers with communication difficulties that could interfere with the interview process; mothers who refused audio recording; and mothers who withdrew at any stage of the study. In qualitative research, the number of participants is not determined rigidly in advance but is guided by the principle of data saturation, which occurs when additional interviews no longer generate new meaningful information or themes. Data saturation was monitored throughout data collection by comparing codes and emerging themes after each interview. Saturation was considered to have been achieved after the 11th interview, when no new codes or themes emerged. Two additional interviews were conducted to confirm data saturation and ensure the completeness and consistency of the findings. Based on this process, 13 mothers participated in this study.

Data Collection

Data were collected through semi-structured in-depth interviews. The interviews were conducted by the first author, a nursing researcher with experience in qualitative research and training in conducting semi-structured interviews. Prior to data collection, the interviewer received additional training in qualitative interviewing techniques, reflexivity, and ethical research involving human participants. The interviewer had no prior personal or professional relationship with any participants before recruitment. This method was chosen to allow the researcher to explore mothers' psychosocial experiences flexibly while maintaining focus on the study objectives. Interviews were conducted face-to-face in locations agreed upon by the participants and researcher, such as participants' homes, integrated health posts, community health centres, or other settings that ensured privacy and comfort.

Each interview lasted approximately 30–60 minutes and was audio-recorded after obtaining participants' consent. In addition to audio recordings, the researcher also prepared field notes to document non-verbal expressions, environmental situations, emotional responses, and other important observations during the interviews. The interview guide was developed based on the study objectives and literature related to complementary feeding practices, maternal psychosocial factors, and stunting prevention. The interview guide included broad open-ended questions such as: "Can you describe your experience of introducing complementary foods to your child?"; "What challenges have you experienced while providing complementary feeding?"; "How have your family members or people around you influenced your feeding decisions?"; and "How have these experiences affected your feelings and confidence as a mother?" Follow-up probing questions were used to encourage participants to elaborate on their responses. Open-ended questions were used to encourage participants to describe their experiences freely and in depth. All interviews were conducted in Indonesian. Audio recordings were transcribed verbatim in Indonesian immediately after each interview. Quotations presented in this manuscript were translated into English by bilingual researchers, and the translated quotations were reviewed by the research team to ensure conceptual equivalence and preserve the original meaning.

Study Procedure

The study was conducted in several stages. First, the researcher obtained research permission from the relevant institution and coordinated with community health centres, integrated health posts, or local authorities. The researcher then identified potential participants who met the inclusion criteria. Eligible participants received an explanation of the study objectives, benefits, procedures, confidentiality, and their rights as participants. After written informed consent was obtained, interviews were scheduled according to the participants' availability. Individual interviews were conducted until data saturation was achieved. Audio recordings were transcribed verbatim immediately after each interview to maintain data accuracy and completeness. When necessary, brief follow-up interviews or clarification sessions were conducted with selected participants to deepen or confirm specific information.

Data Analysis

Data were analysed using an inductive thematic analysis following the approach proposed by Braun and Clarke. The analysis was conducted systematically and began during the data collection process, allowing the researcher to identify patterns, meanings, and recurring themes from participants' experiences. The first stage involved repeatedly reading the interview transcripts to obtain a comprehensive understanding of the data. The researcher then conducted initial coding by identifying meaningful units from participants' statements and assigning codes to data segments relevant to the study focus. Initial coding was conducted manually by the first author through line-by-line examination of each transcript. Codes were generated inductively from participants' narratives rather than from predetermined categories. Similar codes were subsequently grouped into preliminary categories and continuously compared across transcripts. These categories were then analysed further to develop major themes that represented mothers' psychosocial experiences in providing complementary feeding. The preliminary categories were discussed among the research team to resolve discrepancies and reach consensus regarding the interpretation of the data. Through iterative discussion and constant comparison, the categories were refined into overarching themes representing mothers' psychosocial experiences in providing complementary feeding. Finally, the themes were presented in a descriptive and interpretive narrative supported by direct quotations from participants to enhance the depth and credibility of the findings. No qualitative data analysis software was used; all coding, categorization, and theme development were conducted manually.

Trustworthiness

To ensure the trustworthiness of the data, this study applied four criteria: credibility, dependability, confirmability, and transferability. Credibility was maintained through sufficient researcher engagement

during data collection, in-depth interviews, open-ended questioning, and member checking, whereby participants were invited to review summaries of their interviews and confirm whether the interpretations accurately reflected their experiences. The researcher also conducted regular peer debriefing sessions with the research team to discuss coding decisions, emerging themes, and alternative interpretations until consensus was achieved. Dependability was ensured by systematically documenting all stages of the research process, including the development of the interview guide, participant recruitment, data collection, and data analysis. Confirmability was supported through an audit trail consisting of interview transcripts, field notes, coding records, analytic memos, reflexive notes, and documentation of methodological decisions throughout the research process. The researcher also engaged in continuous reflexive journaling throughout the study to identify personal assumptions, document analytic decisions, and minimize potential researcher bias. Transferability was enhanced by providing detailed descriptions of participant characteristics, the study context, data collection procedures, and findings, enabling readers to assess the applicability of the results to similar contexts.

Ethical Considerations

This study obtained ethical approval from the Ethics Committee of the Faculty of Health Sciences, Universitas Muhammadiyah Surabaya with the number 1096/KEPK/FIK/2024. All participants provided written informed consent after receiving complete information about the study objectives, procedures, benefits, and their rights. Participant confidentiality was maintained by using codes in transcripts and reports. All research data were stored securely and accessed only by the researcher.

RESULTS OF STUDY

A total of 13 mothers participated in this study. The participants' ages ranged from 23 to 37 years, while their children's ages ranged from 6 to 24 months. Most participants had completed senior high school, while others had junior high school, diploma, or undergraduate education. In terms of occupation, the majority were housewives, while several participants worked as traders, entrepreneurs, teachers, private employees, or company employees. Most mothers were currently providing complementary feeding at the time of the study, whereas two participants had previously provided complementary feeding. This variation in maternal age, education, occupation, number of children, and complementary feeding status provided a basis for understanding how psychosocial experiences differed across mothers, rather than presenting complementary feeding as a uniform experience.

Theme 1. Constructing Maternal Understanding of Complementary Feeding and Stunting Prevention

Mothers described complementary feeding as more than simply giving food to the child. It was understood as a maternal responsibility to support growth, prevent illness, and reduce the risk of stunting. Participants emphasized that food should be nutritious, varied, given regularly, and related to the child's physical development. This theme reflects how mothers translated health information about stunting prevention into everyday feeding decisions. Their understanding was shaped not only by formal health education, but also by observation of the child's appetite, weight, height, and daily eating behavior.

Table 1. Characteristics of Participants (n = 13)

Participant Code	Mother's Age (years)	Child's Age (months)	Child's Sex	Highest Education Level	Mother's Occupation	Number of Children	Complementary Feeding Status
P1	24	7	Male	Senior High School	Housewife	1	Currently providing
P2	29	12	Female	Senior High School	Housewife	2	Currently providing
P3	32	18	Male	Diploma	Entrepreneur	2	Currently providing
P4	27	9	Female	Junior High School	Housewife	1	Currently providing
P5	35	24	Male	Bachelor's Degree	Private employee	3	Previously provided
P6	30	15	Female	Senior High School	Housewife	2	Currently providing
P7	26	11	Male	Senior High School	Trader	1	Currently providing
P8	31	20	Female	Diploma	Housewife	2	Currently providing
P9	28	8	Male	Senior High School	Housewife	1	Currently providing
P10	34	22	Female	Bachelor's Degree	Teacher	2	Previously provided
P11	23	6	Male	Senior High School	Housewife	1	Currently providing
P12	37	16	Female	Junior High School	Housewife	3	Currently providing
P13	33	14	Male	Diploma	Private employee	2	Currently providing

Table 2. Themes, Subthemes, and Categories Reflecting Mothers' Psychosocial Experiences in Providing Complementary Feeding as a Strategy to Prevent Stunting

Theme	Subtheme	Category
Theme 1. Constructing Maternal Understanding of Complementary Feeding and Stunting Prevention	Perceiving complementary feeding as essential for child growth	Nutritional adequacy; food diversity; meal frequency; perceived link between feeding and growth
	Recognizing stunting risk through everyday observation	Comparing height and weight; monitoring appetite; noticing delayed growth
	Internalizing responsibility for child nutrition	Maternal duty; fear of failure; desire to protect children from poor growth
Theme 2. Emotional Labour of Feeding: Anxiety, Guilt, and Persistence	Managing anxiety around child appetite and growth	Worry about food refusal; fear of undernutrition; concern about insufficient weight gain
	Experiencing frustration during feeding	Child refusal; long mealtimes; emotional fatigue
	Persisting despite emotional strain	Repeated feeding attempts; patience; motivation to prevent stunting
Theme 3. Feeding within the Family System: Support, Conflict, and Cultural Negotiation	Receiving and negotiating family advice	Support from husband; influence of grandmothers; conflicting feeding recommendations
	Navigating cultural feeding beliefs	Food taboos; traditional foods; early or delayed food introduction
	Maintaining maternal autonomy in feeding decisions	Decision-making power; confidence to disagree; negotiation with elders
Theme 4. Structural Constraints Shaping Feeding Practices	Coping with economic limitations	Limited purchasing power; prioritizing affordable foods; difficulty providing animal-source foods
	Managing food access and availability	Market access; local food availability; seasonal variation
	Balancing feeding with daily responsibilities	Domestic workload; employment; limited preparation time
Theme 5. Adaptive Coping and Support Needs for Sustainable Complementary Feeding	Developing practical feeding strategies	Food modification; texture adjustment; meal variation; responsive feeding
	Seeking informational and emotional support	Posyandu counseling; health-worker advice; peer learning
	Expecting more practical, continuous guidance	Cooking demonstrations; portion-size examples; family-based education; psychosocial support

Perceiving complementary feeding as essential for child growth

This subtheme includes the categories of nutritional adequacy, food diversity, meal frequency, and the perceived link between feeding and growth. Mothers generally understood that complementary feeding should provide adequate nutrition rather than merely make the child feel full.

"I do not only think about whether my child is full. I also think about whether the food contains enough nutrition. I try to give rice, vegetables, egg, fish, or tempeh, even though sometimes I cannot provide everything in one meal." (P2, 29 years, housewife)

This quotation shows that the mother connected complementary feeding with nutritional quality, while also recognizing practical limitations in providing complete meals. Her account illustrates that knowledge about ideal feeding did not always translate easily into daily practice.

"After the Posyandu session, I understood that children need protein, not only porridge. Since then, I try to add egg or tofu because I am afraid my child will not grow well if the food is not nutritious." (P8, 31 years, housewife)

The mother's experience indicates the role of Posyandu counseling in changing feeding meaning from simply providing soft food to providing nutrient-dense food. Anxiety about poor growth became a motivation to improve food quality.

Mothers also tried to vary food to maintain the child's appetite, although the range of foods depended on what was available at home.

"If I give the same food every day, my child gets bored and does not want to eat. So I try to change the menu, even with simple ingredients. Sometimes I make porridge, sometimes rice with soup, sometimes mashed banana." (P4, 27 years, housewife)

This quotation reflects a responsive feeding strategy: the mother adapted the menu to the child's acceptance while using simple ingredients. Food diversity was therefore experienced not only as a nutritional principle, but also as a way to manage refusal.

"I want to give many kinds of food, but it depends on what we have at home. If there is no fish, I use tofu or tempeh. I try to make the food different so the child will still eat." (P11, 23 years, housewife)

This account highlights variation among mothers with limited household resources. The mother substituted more affordable protein sources, suggesting that feeding practices were shaped by both nutritional awareness and household food availability.

Meal frequency was also viewed as part of preventing poor growth, although mothers differed in their ability to maintain regular schedules.

"I try to feed my child three times a day and give snacks between meals. Sometimes it is difficult because I also have to do housework, but I feel worried if my child skips meals." (P1, 24 years, housewife)

Here, feeding frequency is linked to maternal vigilance and anxiety. The quotation also shows how domestic workload could interrupt ideal feeding routines, especially among mothers caring for young children at home.

"Before, I thought it was enough if the child ate a lot once. But the health worker explained that children

need to eat several times a day. Now I try to follow the feeding schedule." (P7, 26 years, trader)

This quotation demonstrates a shift in understanding after receiving health-worker advice. Compared with mothers who already emphasized frequent meals, this participant described a learning process in which prior assumptions were revised.

Recognizing stunting risk through everyday observation

Mothers recognized possible stunting risk through everyday signs such as appetite, weight gain, height, and comparison with other children. Importantly, these accounts represent mothers' perceptions of possible stunting risk and concern about growth; they should not be interpreted as objective evidence that a child had been clinically diagnosed with stunting.

"When my child eats well, I feel calm because usually the weight increases. But when my child refuses food, I start thinking, will this affect the height and weight?" (P5, 35 years, private employee, previously provided complementary feeding)

This quotation shows how mothers used visible changes in appetite and weight as informal indicators of growth. The mother's concern was anticipatory: she worried that feeding difficulty might later affect height and weight, rather than reporting confirmed stunting.

"For me, food is connected to growth. If the child does not eat nutritious food, I am afraid the child will become weak or short. That is why I try to pay attention to what my child eats." (P13, 33 years, private employee)

The participant associated inadequate food with weakness or short stature, showing how stunting prevention was interpreted through everyday maternal reasoning. This perception helped motivate careful feeding, but it remains a perceived risk rather than clinical evidence.

Internalizing responsibility for child nutrition

Mothers internalized feeding as part of maternal duty. This responsibility was expressed through fear of failure, desire to protect children from poor growth, and self-monitoring of feeding practices.

"When my child's weight does not increase, I blame myself. I think maybe I did not feed properly or maybe the food was not good enough. But I still try because I do not want my child to have growth problems." (P2, 29 years, housewife)

This quotation illustrates how growth concerns became personalized as maternal responsibility. The mother interpreted insufficient weight gain not only as a nutritional issue, but also as a possible sign of her own inadequacy.

This sense of responsibility was not identical across participants. Some mothers expressed responsibility through self-blame when growth was perceived as inadequate, while others emphasized learning, confidence, or practical adaptation as they gained feeding experience.

Theme 2. Emotional Labour of Feeding: Anxiety, Guilt, and Persistence

Mothers' experiences of complementary feeding were strongly shaped by emotional responses. Feeding was often accompanied by anxiety, guilt, frustration, and persistence, especially when children refused food or showed poor appetite. Mothers described mealtimes as emotionally demanding because they felt responsible for ensuring adequate intake and preventing stunting. This theme shows that complementary feeding was not only a technical practice of preparing food, but also emotional labour involving worry, patience, self-blame, and repeated efforts to sustain feeding despite difficulty.

Managing anxiety around child appetite and growth

This subtheme includes worry about food refusal, fear of undernutrition, and concern about insufficient weight gain. Mothers commonly connected low appetite with possible growth problems.

"When my child does not want to eat, I feel anxious. I keep thinking whether the nutrition is enough or not. Sometimes I compare my child with other children, and it makes me more worried." (P3, 32 years, entrepreneur)

This quotation shows that anxiety was intensified by social comparison. The mother evaluated her child's eating and growth not only against health advice, but also against the apparent development of other children.

"If my child eats only a little, I cannot feel peaceful. I worry about the weight, about the height, and about stunting. Even at night I sometimes think about what food I should prepare tomorrow." (P9, 28 years, housewife)

The participant's account indicates that feeding anxiety extended beyond mealtime into anticipatory planning. Concern about stunting functioned as an ongoing emotional burden, not merely as a momentary worry during feeding.

Experiencing frustration during feeding

This subtheme includes child refusal, long mealtimes, and emotional fatigue. Mothers described frustration when the effort of preparing food was not matched by the child's willingness to eat.

"Sometimes feeding takes a very long time. I have prepared the food, but my child closes the mouth or spits it out. I feel tired and frustrated, but I still try again later." (P6, 30 years, housewife)

This quotation illustrates the emotional cost of repeated feeding attempts. Although frustration was present, the mother continued feeding later, showing how persistence coexisted with exhaustion.

"There are days when I feel like crying because my child refuses everything. I have cooked, waited, persuaded, but the food is still not eaten. It makes me feel helpless." (P12, 37 years, housewife)

This account represents a more intense emotional response than simple worry. It shows that feeding refusal could produce helplessness, especially when mothers perceived that they had already made considerable effort.

Persisting despite emotional strain

This subtheme includes repeated feeding attempts, patience, and motivation to prevent stunting. Even when mothers felt guilty or tired, many continued to search for alternative feeding strategies.

"I feel guilty when I cannot prepare complete food. But I remind myself that I must keep trying. Even if my child refuses food today, tomorrow I will try another menu." (P10, 34 years, teacher, previously provided complementary feeding)

The quotation shows how guilt and persistence were intertwined. As a mother who had previously provided complementary feeding, this participant reflected on guilt but also described problem-solving. This variation suggests that experience may help some mothers reinterpret feeding challenges as manageable rather than purely as failure.

Theme 3. Feeding within the Family System: Support, Conflict, and Cultural Negotiation

Participants explained that complementary feeding was influenced by family members, especially husbands, mothers, mothers-in-law, and older relatives. Mothers often negotiated between health-worker recommendations and traditional advice within the family. While family support helped mothers provide food and care, conflicting opinions sometimes created pressure and confusion. This theme indicates that complementary feeding decisions were embedded in household relationships. Mothers did not make feeding decisions in isolation; they negotiated advice, financial decisions, cultural beliefs, and authority within the family.

Receiving and negotiating family advice

This subtheme includes support from husbands, influence of grandmothers, and conflicting feeding recommendations. Family involvement could be helpful, but it could also produce tension when advice differed from health-worker guidance.

"My mother often gives advice about what food should be given. Sometimes her advice is helpful, but sometimes it is different from what the health worker said. I have to choose carefully." (P1, 24 years, housewife)

This quotation shows that mothers evaluated family advice rather than accepting it passively. The phrase "choose carefully" indicates active negotiation between trusted family knowledge and formal health information.

"My husband supports me by buying eggs or fruit when he has money. But sometimes other family members say the child should just eat what adults eat. So I have to explain that the child's food must be softer and more nutritious." (P8, 31 years, housewife)

The participant described both support and conflict within the same household system. Husband support improved access to nutritious food, while other relatives' advice required the mother to defend age-appropriate feeding practices.

Navigating cultural feeding beliefs

This subtheme includes food taboos, traditional foods, and early or delayed food introduction. Cultural beliefs influenced mothers' confidence in offering certain foods, especially animal-source foods.

"In my family, some foods are believed to be unsuitable for small children. For example, they say fish can cause itching, so sometimes I hesitate. But I know protein is important, so I try to give it little by little." (P4, 27 years, housewife)

This quotation illustrates cultural negotiation rather than simple rejection of tradition. The mother respected family beliefs but gradually introduced fish because she understood the importance of protein.

"Older people sometimes say that as long as the child eats rice, it is enough. But now I understand that children need different foods. I still respect their advice, but I also follow what I learned from Posyandu." (P11, 23 years, housewife)

This account shows how younger mothers may balance respect for elders with new health knowledge. The mother maintained family harmony while adjusting feeding practices toward dietary diversity.

Maintaining maternal autonomy in feeding decisions

This subtheme includes decision-making power, confidence to disagree, and negotiation with elders or husbands. Mothers' autonomy varied depending on household financial arrangements and confidence gained from health education.

"Sometimes I want to buy certain foods for my child, but I must discuss it with my husband because he manages the money. If he agrees, then I can buy it. If not, I use whatever is available." (P7, 26 years, trader)

This quotation shows that autonomy was constrained by household control over money. Even when the mother knew what food she wanted to provide, final decisions depended on financial negotiation.

"I have become more confident now. Before, I always followed what others said. But after learning about stunting, I feel I have the right to decide what is better for my child's food." (P13, 33 years, private employee)

This account provides a contrasting experience in which knowledge about stunting strengthened maternal confidence. The participant's increased autonomy suggests that health education may support mothers in negotiating feeding decisions within the family.

Theme 4. Structural Constraints Shaping Feeding Practices

Although mothers understood the importance of complementary feeding, they faced structural barriers that limited their ability to provide ideal meals. These constraints included limited income, food availability, time pressure, and workload. Mothers often had to adjust feeding practices based on household resources rather than nutritional recommendations alone. This theme emphasizes that feeding practices were not determined by maternal knowledge alone. Economic resources, market access, employment, and domestic responsibilities shaped what mothers could realistically provide.

Coping with economic limitations

This subtheme includes limited purchasing power, prioritizing affordable foods, and difficulty providing animal-source foods. Mothers generally wanted to provide nutritious foods, but household income affected the frequency and variety of foods offered.

"I know that fish, chicken, egg, and fruit are good for children, but sometimes we cannot buy them every day. If money is limited, I choose cheaper foods like tofu or tempeh." (P5, 35 years, private employee, previously provided complementary feeding)

This quotation shows a gap between nutritional knowledge and economic capacity. The mother did not lack awareness; rather, she adapted by choosing cheaper protein sources when animal-source foods were unaffordable.

"The problem is not that I do not want to give nutritious food. Sometimes the money is only enough for basic needs. So I have to think carefully about what food can be bought and still be useful for my child." (P12, 37 years, housewife)

This account directly challenges the assumption that inadequate feeding results from lack of motivation. The participant framed feeding as a process of prioritization under financial constraint.

Managing food access and availability

This subtheme includes market access, local food availability, and seasonal variation. Mothers' choices depended on what was physically available and affordable in their surrounding environment.

"In my area, vegetables are easy to get, but fish or chicken is not always available or affordable. So I use what is around me. I try to make the food healthy, even if it is simple." (P6, 30 years, housewife)

This quotation illustrates environmental constraint and adaptive use of local foods. The mother tried to maintain nutritional value even when preferred foods were not available.

"Sometimes the market is far, and I cannot go every day. I usually buy ingredients that can last for a few days. But fresh food is better, so I feel limited." (P10, 34 years, teacher, previously provided complementary feeding)

This account highlights a different form of constraint among a working mother: distance and time limited access to fresh ingredients. Variation in experience therefore appeared not only through income, but also through mobility and daily schedules.

Balancing feeding with daily responsibilities

This subtheme includes domestic workload, employment, and limited preparation time. Mothers described how household duties and work responsibilities affected meal preparation and feeding schedules.

"I have to cook, clean the house, wash clothes, and take care of my child. Sometimes I want to prepare special food, but I am already tired. So I cook something simple." (P3, 32 years, entrepreneur)

This quotation shows how time and energy shaped feeding decisions. The mother did not reject nutritious feeding, but simplified preparation when domestic and caregiving work became overwhelming.

"When I work or help my family, feeding time becomes irregular. I know it is not ideal, but sometimes the situation makes it difficult to follow the schedule." (P9, 28 years, housewife)

This account provides variation from mothers who were able to follow regular feeding schedules. It shows that irregular feeding may occur because of competing responsibilities, even when mothers understand recommended practices.

Theme 5. Adaptive Coping and Support Needs for Sustainable Complementary Feeding

Despite emotional and structural challenges, mothers developed coping strategies to sustain complementary feeding. They modified food texture, changed menus, sought advice from health workers, learned from other mothers, and gradually built confidence through experience. However, participants expressed the need for more practical, continuous, and family-inclusive support. This theme demonstrates that mothers were active problem-solvers, not passive recipients of health messages. At the same time, their coping strategies required stronger support systems to become sustainable.

Developing practical feeding strategies

This subtheme includes food modification, texture adjustment, meal variation, and responsive feeding. Mothers adapted feeding practices according to the child's preferences, appetite, and developmental stage.

"If my child refuses rice, I make it softer or mix it with soup. If the child does not like vegetables, I cut them very small and mix them into porridge. I keep trying different ways." (P2, 29 years, housewife)

This quotation shows practical coping through texture modification and food mixing. The strategy also reflects responsive feeding because the mother adjusted the food according to the child's acceptance.

"I learned that I should not force too much. Sometimes I stop for a while, then feed again later. I also try to make the food look more interesting so my child wants to open the mouth." (P6, 30 years, housewife)

This account indicates a more patient feeding approach. Rather than using force, the mother used timing and presentation, suggesting that feeding support should include behavioral and emotional guidance, not only nutrition information.

Seeking informational and emotional support

This subtheme includes Posyandu counseling, health-worker advice, and peer learning. Mothers valued support that reduced uncertainty and helped them feel less alone.

"The advice from Posyandu helps me because I can ask about my child's weight and food. When the health worker explains calmly, I feel less worried and more confident." (P8, 31 years, housewife)

This quotation shows that health-worker communication had both informational and emotional effects. Calm explanation helped the mother interpret the child's growth and reduced anxiety.

"*I often talk with other mothers. Sometimes they share recipes or ways to handle children who refuse food. It makes me feel that I am not alone." (P11, 23 years, housewife)*

Peer support helped mothers normalize feeding challenges and exchange practical strategies. This suggests that community-based support may reduce isolation and strengthen maternal coping.

Expecting more practical, continuous guidance

This subtheme includes cooking demonstrations, portion-size examples, family-based education, and psychosocial support. Mothers wanted guidance that could be applied directly at home and shared with family members who influenced feeding decisions.

"I hope there will be more practical teaching, not only explanation. For example, how much food should be given, how to cook it, and what menu is suitable for children." (P4, 27 years, housewife)

This quotation shows that mothers needed concrete demonstrations, not only general messages about nutrition. Practical examples of portion size, menu planning, and preparation could help bridge the gap between knowledge and daily feeding practice.

"It would be better if husbands and grandmothers also joined the education. Sometimes mothers already understand, but at home the decision is influenced by other family members." (P13, 33 years, private employee)

This account links individual maternal knowledge with family-level decision-making. The need for family-based education is consistent with the earlier theme showing that husbands, grandmothers, and elders influence feeding practices.

DISCUSSION

This study explored the psychosocial experiences of mothers in providing complementary feeding as a strategy to prevent stunting in children. The main finding is that complementary feeding was not experienced merely as a nutritional practice, but as a psychosocial practice shaped by mothers' emotional burden, family relationships, cultural norms, health-system support, and structural constraints. Five interrelated themes emerged: maternal understanding and responsibility, emotional labour, negotiation within family and cultural systems, structural constraints, and adaptive coping and support needs. This finding extends previous work on complementary feeding and stunting prevention by showing that mothers' feeding practices are produced within everyday social and emotional contexts, not only through individual knowledge or motivation. Together, these themes suggest that successful complementary feeding depends not only on what mothers know, but also on what they are emotionally, socially, and materially able to do in everyday life. Therefore, interventions should frame stunting prevention as a shared family, community, and health-system responsibility rather than as a burden carried by mothers alone.

A central finding of this study is that mothers constructed complementary feeding as closely linked to child growth and stunting prevention, but this understanding also created a strong sense of personal responsibility. Mothers understood that adequate nutrition, dietary diversity, and regular feeding were important for child growth and stunting prevention. However, this awareness was accompanied by a strong sense of personal responsibility (Hanifa et al., 2026; Eka Mishbahatul Marah Has et al., 2024). However, the present findings add that knowledge may have an emotional consequence: mothers may interpret a child's poor appetite, slow weight gain, or feeding refusal as evidence of their own failure. Mothers often positioned themselves as the main person accountable for whether the child ate well, gained weight, and avoided growth problems. This finding suggests that nutrition education should be delivered carefully so that it increases maternal confidence without intensifying guilt or self-blame. Therefore, complementary feeding education should avoid placing responsibility solely on mothers and should instead frame child nutrition as a shared family and community responsibility (Hanifa et al., 2026).

Another key finding is that complementary feeding involved emotional labour, particularly anxiety, guilt, frustration, and persistence when children refused food or when growth was perceived as inadequate. These emotions were not incidental; they were central to the feeding experience (Chen & Chien, 2022). The findings are consistent with literature showing that caregiving and feeding can become emotionally demanding when mothers feel responsible for preventing poor growth, but this study further shows how the fear of stunting gives feeding difficulties a deeper psychosocial meaning. Feeding difficulties became psychologically meaningful because mothers connected them with possible stunting, poor growth, and perceived maternal failure. This suggests that stunting prevention programs should not only assess feeding frequency, food diversity, and nutritional intake, but also recognize maternal stress, confidence, and emotional coping (Demirel Ozbek et al., 2025). Responsive feeding counselling may be particularly relevant because it supports mothers to respond to children's hunger, satiety, and refusal cues without excessive pressure, conflict, or self-blame (Cook et al., 2021). In practice, counselling should include strategies for remaining calm during food refusal, avoiding force-feeding, offering food again after a pause, and helping mothers interpret feeding difficulties without immediately blaming themselves.

The role of Posyandu emerged as important because it provided not only nutritional information, but also reassurance, emotional support, and a space for mothers to discuss concerns about child growth. In the findings, mothers valued opportunities to ask about weight, food choices, and feeding difficulties, and they felt more confident when health workers explained calmly. This expands the interpretation of Posyandu from a routine community health service into a psychosocial support setting where mothers can receive both technical guidance and emotional validation. Previous Indonesian evidence has shown that mothers and community cadres actively use knowledge and caregiving strategies to support child growth within stunting prevention programmes. The present study strengthens this evidence by showing that Posyandu support may reduce anxiety and increase confidence, especially when counselling is practical, respectful, and responsive to mothers' everyday constraints. Therefore, Posyandu-based interventions should combine growth monitoring, complementary feeding education, responsive feeding counselling, and emotional support for mothers.

Feeding practices in this study were negotiated within family and cultural systems, with different actors playing different roles in shaping complementary feeding. Husbands were described mainly as providers of financial or practical support, especially in buying eggs, fruit, or other nutritious foods; grandmothers and older relatives often influenced feeding through advice, cultural beliefs, or food taboos; extended family members could either support or challenge mothers' decisions; and health workers provided formal nutritional guidance (Faye et al., 2019). This finding is consistent with evidence that complementary feeding is relational and influenced by household and community actors (Thuita et al., 2021). However, the findings also show that these actors do not influence feeding in the same way, and therefore should not be discussed as a single undifferentiated "family" influence. Although mothers are often the primary caregivers, they are not always the primary decision-makers in the household. Therefore, interventions that target mothers alone may have limited effectiveness if husbands control food purchasing, grandmothers reinforce traditional feeding beliefs, or older relatives question health-worker recommendations. Family-inclusive education involving fathers and grandmothers may help create a more supportive home environment for appropriate complementary feeding (Umugwaneza et al., 2021).

The findings also reveal a gendered caregiving burden, because mothers were expected to manage feeding while also carrying domestic work, employment responsibilities, and emotional accountability for child growth. Mothers described cooking, cleaning, washing clothes, caring for children, working, or helping family members while also trying to maintain feeding schedules and prepare appropriate meals. This supports broader evidence that complementary feeding is shaped by caregivers' time, workload, and household resources, not only by knowledge or intention. Similar evidence shows that poverty, lack of money, limited food availability, lack of time, and heavy workload are major barriers to adequate complementary feeding practices (Rakotomanana et al., 2020). The implication is that stunting prevention programs should avoid messages that simply tell mothers what they should do without addressing whether they have enough time, support, and resources to do it. Programmes should

therefore include family redistribution of caregiving tasks, practical time-saving feeding strategies, and recognition of mothers' caregiving burden.

Structural constraints limited mothers' ability to translate nutritional knowledge into everyday feeding practice. Mothers understood the importance of nutritious foods, animal-source foods, dietary diversity, and regular feeding, but their practices were shaped by income, food prices, market distance, food availability, and competing responsibilities. Qualitative research in Rwanda found that complementary feeding practices are influenced by household resources, food access, and caregivers' everyday constraints (Umugwaneza et al., 2021). Food insecurity further shapes parents' feeding practices by limiting what foods can realistically be provided to children (Hevesi et al., 2024). In the Indonesian context, food availability, access, and utilization have also been identified as important pillars of stunting prevention (Prayitno et al., 2025). Rather than interpreting suboptimal feeding as lack of maternal commitment, these findings indicate that feeding practices must be understood in relation to social determinants of nutrition. Therefore, complementary feeding interventions should include affordable local menu options, food substitution strategies, and linkage with broader food-security and social-support programmes.

Despite emotional, family, and structural challenges, mothers demonstrated adaptive coping by modifying food texture, varying menus, seeking advice, and learning from other mothers. This finding is consistent with Indonesian qualitative evidence showing that family resilience contributes to fulfilling the nutritional needs of children with stunting (Rahmadiyah et al., 2024). The present findings add that resilience was expressed through everyday practical adjustments, such as softening rice, mixing vegetables into porridge, using tofu or tempeh when fish was unavailable, pausing when a child refused food, and trying again later. Mothers and community cadres have also been shown to actively use knowledge and caregiving strategies to support child growth within stunting prevention programmes (Ashar et al., 2025). These findings suggest that mothers are not passive recipients of health messages but active agents who adapt feeding practices within the limits of their household, social, and health-system contexts (Hanifa et al., 2026). However, adaptive coping should not be interpreted as proof that mothers can manage alone; instead, it indicates that mothers need sustained practical, emotional, and family-based support.

The practical implication of this study is that complementary feeding interventions should become more operational, practical, and family-based. First, education should include cooking demonstrations using affordable local ingredients, including examples of protein substitution when animal-source foods are unavailable or unaffordable. Second, health workers should provide concrete examples of age-appropriate portion sizes, meal frequency, food texture, and menu combinations, because mothers requested guidance that could be applied directly at home. Third, counselling should include strategies for dealing with feeding difficulties, such as food refusal, long mealtimes, low appetite, and child boredom with repeated menus. Fourth, Posyandu sessions should include husbands, grandmothers, and other influential family members so that feeding recommendations are understood by those who shape household decisions. Finally, programmes should provide psychosocial support for mothers by addressing anxiety, guilt, fatigue, and confidence, not only knowledge about nutrients. These implications shift stunting prevention from a mother-centered educational model toward responsive complementary feeding counselling, family-based education, and community support through Posyandu.

Overall, this study contributes to a deeper understanding of complementary feeding as a psychosocial practice embedded in mothers' daily lives. The prevention of stunting cannot be separated from the emotional realities of caregiving, family power dynamics, cultural beliefs, and socioeconomic conditions. The discussion of these findings should therefore avoid excessive emphasis on mothers' individual responsibility and instead recognize that appropriate complementary feeding requires supportive husbands, informed grandmothers and relatives, responsive health workers, accessible Posyandu services, and enabling socioeconomic conditions. Supporting mothers therefore requires an integrated approach that combines nutrition education, psychosocial counselling, family engagement, and context-sensitive food solutions.

This study has several limitations that should be considered when interpreting the findings. First, the findings were based on 13 mothers, which may limit the transferability of the results to different cultural, socioeconomic, or geographic settings. However, the depth of the interviews provided rich insights into mothers' lived experiences. Second, the study relied on self-reported data, which may be influenced by recall bias or social desirability, especially because feeding practices are closely linked to perceptions of good motherhood. Third, the study did not include direct observation of feeding practices; therefore, the findings describe mothers' reported experiences rather than observed mealtime behaviour, food preparation, or caregiver-child interaction during feeding. Fourth, the study did not collect or analyze anthropometric data, so mothers' concerns about stunting, weight, or height should be interpreted as perceived growth risk rather than objective evidence of children's nutritional status. Fifth, the study did not triangulate mothers' accounts with fathers, grandmothers, extended family members, cadres, or health workers, even though the findings show that these actors influence complementary feeding decisions. Future studies should include multiple household and community stakeholders, combine interviews with direct observation, and incorporate anthropometric assessment where appropriate to better understand how family, health-system, and social contexts influence complementary feeding practices and stunting prevention.

CONCLUSION

This study concludes that complementary feeding is experienced by mothers not only as a nutritional practice, but also as an emotional, social, cultural, and structural experience. Mothers understood the importance of adequate nutrition, dietary diversity, and regular feeding for preventing stunting. However, their ability to provide recommended complementary feeding was influenced by emotional pressure, child feeding difficulties, family advice, cultural beliefs, household workload, and limited economic resources. These findings indicate that stunting prevention should not place responsibility solely on mothers, but should be supported by families, communities, and health services.

Recommendations for health services: Health workers and Posyandu cadres should provide practical and responsive complementary feeding counselling. This may include cooking demonstrations using affordable local foods such as eggs, fish, tofu, tempeh, vegetables, and bananas; examples of age-appropriate portion sizes and food

textures; and strategies for managing food refusal or poor appetite without pressuring the child. Counselling should also include emotional support to help mothers manage anxiety, guilt, and frustration during feeding.

Recommendations for families: Fathers, grandmothers, and other family members should be actively involved in complementary feeding education. Family members can support mothers by helping provide nutritious foods, sharing caregiving tasks, respecting health-worker recommendations, and reducing conflicting advice. Complementary feeding should be understood as a shared family responsibility rather than only a maternal duty.

Recommendations for future research: Future studies should include direct observation of feeding practices, anthropometric assessment of children, and perspectives from fathers, grandmothers, cadres, and health workers. This would provide a more comprehensive understanding of how household, cultural, and health-service factors influence complementary feeding and stunting prevention.

DECRALATION

Ethics approval and consent to participate

This study obtained ethical approval from the Ethics Committee of the Faculty of Health Sciences, Universitas Muhammadiyah Surabaya with the number 1096/KEPK/FIK/2024. All participants were informed about the study objectives, procedures, voluntary participation, confidentiality, and their right to withdraw at any time without consequences. Written informed consent was obtained from all participants before participation.

Consent for publication

Not applicable. This manuscript does not contain any individual person's identifiable data, images, or personal information. If any anonymized quotations are included, participants provided consent for their responses to be used for research and publication purposes.

Availability of data and materials

The datasets generated and/or analyzed during the current study are not publicly available due to confidentiality and privacy considerations, but may be available from the corresponding author upon reasonable request and with permission from the relevant institution or ethics committee.

Conflicts of interest Statement

The authors declare that they have no conflicts of interest related to this study.

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Artificial Intelligence-Assisted Technology

During the preparation of this manuscript, the authors used artificial intelligence-assisted technology for language refinement, grammar checking, and improving clarity of academic writing. The authors reviewed and edited all AI-assisted outputs and take full responsibility for the accuracy, integrity, and final content of the manuscript. No AI tool was used to generate research data, conduct interviews, perform qualitative analysis, or replace researcher judgment.

Authors' contributions.

Chlara Yunita Prabawati contributed to the study conception, design, data collection, data analysis, and drafting of the manuscript. Diah Priyantini contributed to the study supervision, conceptualization, methodology refinement, critical review, and manuscript revision. Daviq Ayatulloh contributed to data analysis, interpretation of findings, and manuscript preparation. Fathiya Luthfil Yumni contributed to data collection, literature review, and manuscript drafting. All authors read and approved the final manuscript.

AUTHOR BIOGRAPHY

Diah Priyantini completed a Master's degree in Nursing at Universitas Airlangga, Indonesia, and is currently pursuing a PhD at Taipei Medical University, Taiwan. Her research interests include nursing education, public health, family and community health, and evidence-based nursing practice.

Chlara Yunita Prabawati completed a Master's degree at National Cheng Kung University, Taiwan. Her academic and research interests include nursing, health promotion, community health, and maternal and child health.

Fathiya Luthfil Yumni completed a Master's degree in Nursing at Universitas Airlangga, Indonesia. His academic interests focus on nursing science, maternal and child health, health promotion, and community-based interventions to improve health outcomes.

Daviq Ayatulloh completed a Master's degree in Nursing at Universitas Airlangga, Indonesia, and is currently pursuing a PhD at Taipei Medical University, Taiwan. His academic interests include nursing practice, community health, health promotion, and family-centered care.

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ADDITIONAL INFORMATION

Correspondence All inquiries and requests for additional materials should be directed to the Corresponding Author.

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