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Social Determinants of Stunting and Implications for Public Health Programs in Indonesian Coastal Fishing Communities: A Qualitative Evidence Synthesis

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Abstract

Children in Indonesian coastal and fishing communities experience stunting despite living close to abundant marine food. This qualitative evidence synthesis aimed to identify the social determinants of stunting from caregivers' experiences of child feeding and household food security, and their implications for public health programs. Following the ENTREQ statement, qualitative and mixed-methods studies published from 2015 to 2026 were identified through Google Scholar, Garuda, and journal websites. Study quality was appraised with the CASP checklist, findings were analyzed using thematic synthesis, and confidence was assessed with GRADE-CERQual. Seven studies from six provinces were included. Five themes were developed: (1) abundant sea, narrow plate, as fish was sold or seasonal and cheap snacks filled the gap; (2) inherited beliefs and household hierarchy, including taboos on fish and eggs and the prioritization of fathers at meals; (3) mothers caught between knowing and doing; (4) coping with an uncertain livelihood through debt, cheaper foods, and reduced portions; and (5) support that reaches unevenly. Child diets in coastal Indonesia are constrained less by the absence of fish than by livelihood insecurity, food beliefs, household food allocation, and uneven support. Interventions should combine culturally tailored feeding counselling that involves the wider family with livelihood and food-access support for fishing households.

Keywords: coastal public health, fishing households, food security, qualitative evidence synthesis, social determinants of health, stunting prevention

INTRODUCTION

Stunting reflects chronic undernutrition and recurrent infection during the first 1,000 days of life and has lasting consequences for cognitive development, schooling, productivity, and adult health (Dewey & Begum, 2011; Black et al., 2013; de Onis & Branca, 2016). In Indonesia, national stunting prevalence fell to 19.8% in 2024 but remains above the target of 14.2% for 2029 (Ministry of Health of the Republic of Indonesia, 2025). Prevalence rises sharply during the second year of life (Health Policy Agency, 2025), when children depend increasingly on complementary foods and on the caregiving practices that surround them (Stewart et al., 2013).

Coastal and fishing communities are central to Indonesia's stunting challenge. Fish is a rich source of high-quality protein and micronutrients, and animal-source foods are associated with better linear growth (Headey et al., 2018). Yet quantitative studies in Indonesian coastal settings report a high prevalence of stunting alongside low dietary diversity and household food insecurity (Mahmudiono et al., 2019; Islamiah et al., 2022; Hasan, 2023; Felicia et al., 2026). In coastal

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Kotawaringin Barat, for example, one in five children aged 6–23 months was stunted even though almost all met their protein requirements (Cahyani et al., 2026). Globally, the relationship between household food insecurity and stunting is inconsistent across settings (Patriota et al., 2024), suggesting that its effects depend on how households and caregivers respond to food shortages.

Quantitative indicators describe what children eat and whether households are food insecure, but not why feeding takes the shape it does. Questions such as why fish is delayed in infants' diets, how mothers decide what to feed when the catch fails, or how household norms govern who eats first require qualitative evidence. Individual qualitative studies in Indonesian coastal communities have addressed these questions, but they are small, scattered across journals and disciplines, and have not been synthesized. A qualitative evidence synthesis can integrate such studies to produce findings that are more transferable and policy-relevant than any single study (Thomas & Harden, 2008).

From a public health perspective, understanding the barriers and opportunities at the household, community, and health service levels is necessary to design context-appropriate stunting reduction programs for coastal areas. The social determinants of health framework emphasizes that health is shaped by structural conditions such as occupation, income, and social norms, and by intermediary factors such as material circumstances, behaviors, and access to health services (Solar & Irwin, 2010). This review therefore aimed to synthesize qualitative evidence on the experiences of caregivers and other stakeholders in Indonesian coastal and fishing communities regarding the feeding of children under five and household food security, in order to identify the social determinants of stunting and their implications for public health programs in these settings.

METHOD

Design

This review used thematic synthesis (Thomas & Harden, 2008) and was reported according to the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) statement (Tong et al., 2012). Confidence in review findings was assessed using the GRADE-CERQual approach (Lewin et al., 2018). A review protocol was not registered.

Eligibility criteria

Studies were included if they: (1) used a qualitative design or a mixed-methods design with reported qualitative findings; (2) were conducted in marine coastal, fishing, or small-island

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communities in Indonesia; (3) included caregivers of children under five, other family members, community leaders, or health workers; (4) reported experiences or perceptions related to feeding young children or household food security; and (5) were peer-reviewed and published in English or Indonesian from 2015 to 2026. Studies in riverine or lakeside settings, studies focusing only on program implementation without feeding or food security data, quantitative-only studies, reviews, theses, and community service reports were excluded.

Search strategy

Searches were conducted in November 2026 using Google Scholar, the Garuda portal, and the websites of Indonesian and international journals, supplemented by hand-searching the reference lists of included studies. Search terms combined Indonesian and English keywords for setting (*pesisir*, *nelayan*, *pulau kecil*, coastal, fishing, fisher, island), topic (*MP-ASI*, *pola asuh makan*, *ketahanan pangan*, child feeding, complementary feeding, food insecurity, food beliefs, taboo), and design (*kualitatif*, *fenomenologi*, *wawancara mendalam*, qualitative, phenomenology, interview, focus group). An example string is: (*kualitatif* OR qualitative OR phenomenolog*) AND (*pesisir* OR *nelayan* OR coastal OR fishing) AND (*MP-ASI* OR *pola asuh makan* OR "child feeding" OR "food insecurity").

Study selection

Records were screened by title and abstract, followed by assessment of full texts or, where full texts were not openly available, detailed abstracts. Screening and eligibility assessment were performed by the author against predefined criteria; studies of uncertain eligibility were re-examined against each inclusion criterion before a final decision was made, and reasons for exclusion were recorded.

Quality appraisal

The methodological quality of included studies was appraised using the CASP qualitative checklist (Critical Appraisal Skills Programme, 2018). For mixed-methods studies, only the qualitative component was appraised. Studies were not excluded on the basis of quality; instead, appraisal informed the assessment of methodological limitations in GRADE-CERQual.

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Data extraction and synthesis

Study characteristics were extracted into a standardized table. All text labelled as results or findings, including participant quotations and authors' interpretations, was extracted as data. Synthesis followed the three stages of thematic synthesis (Thomas & Harden, 2008): (1) line-by-line coding of the findings of each study; (2) organization of codes into descriptive themes that remained close to the primary studies; and (3) development of analytical themes that went beyond the primary studies to answer the review question. The UNICEF conceptual framework on maternal and child nutrition, which places diets and care practices as immediate determinants and household food access and livelihoods as underlying determinants (UNICEF, 2021), was used to interpret the relationships among themes. Themes were also mapped onto the social determinants of health framework (Solar & Irwin, 2010) to distinguish structural determinants (livelihoods, income, cultural norms) from intermediary determinants (feeding practices, environmental conditions, and access to services).

Assessment of confidence in review findings

Each review finding was assessed using the four GRADE-CERQual components: methodological limitations, coherence, adequacy of data, and relevance (Lewin et al., 2018). Confidence was rated as high, moderate, low, or very low.

Reflexivity

The author has a public health background with an interest in community nutrition and stunting prevention. This background may lead to judging feeding practices against standard nutrition recommendations. To reduce this bias, participants' experiences were taken as the starting point, findings of primary studies were explicitly distinguished from the author's interpretations, and local beliefs and practices were treated as part of the social context rather than simply as knowledge deficits.

RESULT AND DISCUSSION

Study selection and characteristics

The search identified 177 records. After 60 duplicates and non-article pages were removed, 117 records were screened, and 106 were excluded. Of the 11 reports assessed for eligibility, four were excluded: one mixed-methods study whose qualitative findings were not reported in accessible text, one study focused on program implementation without feeding data, one study that used a quantitative

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design despite a parenting-related title, and one whose full text could not be retrieved. Seven studies were included (Figure 1).

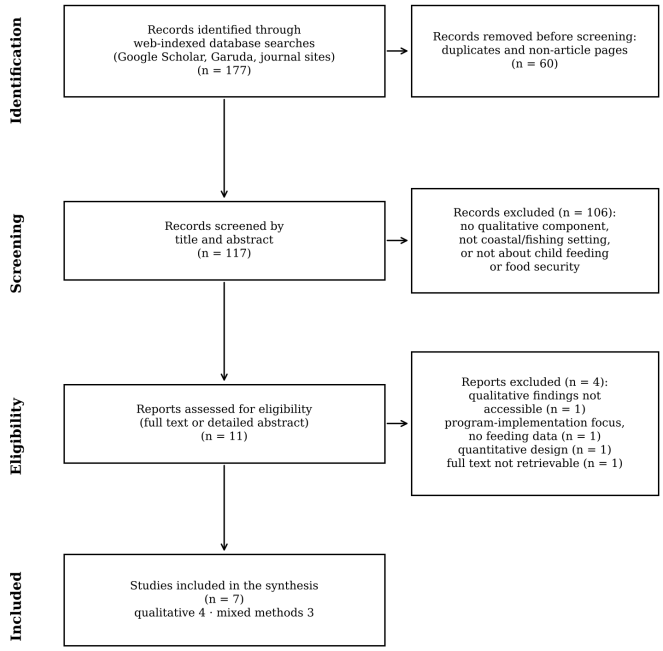


Figure 1. Flow diagram of study selection

The seven studies were published between 2019 and 2026 and were conducted in six provinces: Banten (Patty & Nugroho, 2019), East Nusa Tenggara (Gibson et al., 2020, 2021), Bengkulu (Herlina et al., 2025), the Riau Islands (Hidayati et al., 2026), East Java (Wilujeng et al., 2026), and North Kalimantan (Zulfia & Hasriana, 2026). Four were qualitative studies and three were mixed-methods studies. The two studies by Gibson et al. (2020, 2021) drew on the same fieldwork in Komodo District and were treated as one sample with complementary findings. Participants included mothers of children aged 6 months to 5 years, fathers, grandmothers, community and religious leaders, *posyandu* and family welfare (PKK) cadres, social workers, nutritionists, and heads of health centers (Table 1).

Table 1. Characteristics of included studies (n=7)

Author (year)	Location	Design; data collection	Participants	Analysis	Focus
Patty & Nugroho (2019)	Nagani, Serang City, Banten	Qualitative descriptive; in-depth interviews, observation, documents	About 15: 5 fishing families with malnourished children, village officials, cadres, social worker, nutritionist	Descriptive	Poverty, food beliefs, sanitation, services
Gibson et al. (2020)	Three island villages, Komodo District, East Nusa Tenggara	Mixed methods; survey (66 households, two seasons), interviews, FGD, observation	Women with children 6 months–5 years; key informants	Mixed	Dietary diversity, fish use, taboos, food environment

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Author (year)	Location	Design; data collection	Participants	Analysis	Focus
Gibson et al. (2021)	Same as above	Mixed methods; survey, interviews, FGD	Same sample	Mixed	Food insecurity experiences and coping
Herlina et al. (2025)	Coastal Bengkulu City	Mixed methods; survey (70), 11 in-depth interviews	Mothers, community leaders, health workers	Thematic	Determinants of stunting prevention
Hidayati et al. (2026)	Serasan and Serasan Timur, Natuna, Riau Islands	Qualitative descriptive-analytic; 2 FGD, 4 interviews	18 mothers of stunted and non-stunted children 6–24 months; 2 health center heads; 2 nutritionists	Thematic (NVivo)	Knowledge and practice of complementary feeding
Wilujeng et al. (2026)	Coastal Banyuwangi, East Java	Phenomenology; in-depth interviews	10 mothers of underweight children 6–24 months; triangulation with cadres and nutrition officers	Colaizzi	Local wisdom-based complementary feeding
Zulfia & Hasriana (2026)	Coastal Tarakan City, North Kalimantan	Descriptive phenomenology; in-depth interviews, observation	17 mothers of stunted toddlers	Thematic	Mothers' feeding experiences

Note: FGD, focus group discussion.

Quality appraisal

Table 2 summarizes the CASP appraisal. All studies stated clear aims and used appropriate designs. Common limitations were the absence of researcher reflexivity, limited description of analysis in two studies, and thin reporting of qualitative data in one mixed-methods study (Herlina et al., 2025). One study (Zulfia & Hasriana, 2026) was appraised from its abstract because the full text was not openly accessible.

Table 2. CASP appraisal of included studies

CASP item	Patty 2019	Gibson 2020/21	Herlina 2025	Hidayati 2026	Wilujeng 2026	Zulfia 2026
Clear statement of aims	Yes	Yes	Yes	Yes	Yes	Yes
Qualitative methodology appropriate	Yes	Yes	Partly	Yes	Yes	Yes
Appropriate research design	Yes	Yes	Partly	Yes	Yes	Yes
Appropriate recruitment strategy	Yes	Yes	Yes	Yes	Yes	Can't tell
Data collection addressed the issue	Yes	Yes	Partly	Yes	Yes	Yes
Researcher–participant relationship considered	No	Can't tell	No	No	Can't tell	Can't tell
Ethical issues considered	Can't tell	Can't tell	Can't tell	Yes	Can't tell	Can't tell
Sufficiently rigorous analysis	Can't tell	Can't tell	Partly	Yes	Yes	Yes
Clear statement of findings	Yes	Yes	Partly	Yes	Yes	Yes
Value of the research	Yes	Yes	Partly	Yes	Yes	Yes
Overall concerns	Moderate	Minor	Serious	Minor	Minor	Moderate

Note: "Can't tell" indicates that the item was not reported in the accessible text.

Synthesis findings

Five analytical themes were developed. Their relationships are shown in Figure 2: livelihood insecurity constrains household food access; household beliefs and allocation determine how available

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food reaches children; mothers translate these conditions into daily feeding under their own constraints; and support systems can moderate these pathways.

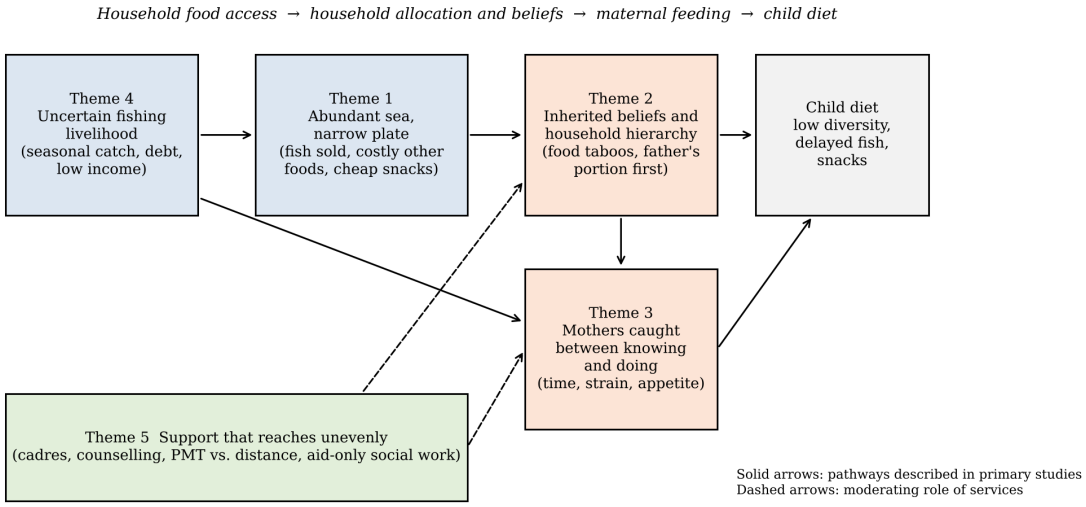


Figure 2. Conceptual model of the synthesis findings

Theme 1: Abundant sea, narrow plate

Across settings, fish was described as plentiful in principle but not reliably on children's plates. In fishing households, the catch was primarily a source of income: fish was often sold rather than eaten, and families sometimes kept only small or less-preferred fish (Patty & Nugroho, 2019; Gibson et al., 2020). The amount of fish available at home rose and fell with moon phases, storms, and the success of husbands' trips, and women sometimes had to buy fish when catches failed (Gibson et al., 2020). In remote island villages, the absence of cold storage, irregular vendors, and high transport costs to cheaper markets limited access to vegetables, fruits, and other perishable foods (Gibson et al., 2020). Fruit was described as unaffordable for many fishing families in Bengkulu (Herlina et al., 2025).

Within this environment, cheap packaged snacks became a substitute for meals. Mothers in Serang described snacks from local stalls as filling and a way to quiet fussy children, and these purchases consumed a large share of food spending (Patty & Nugroho, 2019). A shift toward instant foods and snacking was likewise identified among mothers of stunted toddlers in Tarakan (Zulfia & Hasriana, 2026), and packaged snacks were widely consumed by mothers and children in Komodo (Gibson et al., 2020). Where fish did reach children, it was often combined with a narrow range of

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foods; mothers in Banyuwangi reported that meals repeated the same ingredients, and meat was eaten mainly on special occasions because of its cost (Wilujeng et al., 2026).

Theme 2: Inherited beliefs and household hierarchy

Food beliefs passed down from mothers and elders restricted the foods most available in coastal settings. Families in Serang believed that fish and eggs could cause itching, skin problems, or boils in young children, and some held to these beliefs even after health center education (Patty & Nugroho, 2019). In Komodo, mothers delayed fish and sea urchin because of fears of allergy and stomach upset; taboos on certain reef fish and shellfish were transmitted from mother to daughter, and some foods were withheld until the child stopped breastfeeding or began walking (Gibson et al., 2020). In Banyuwangi, some mothers avoided meat and eggs in early complementary feeding because they considered these foods "heaty" for infants (Wilujeng et al., 2026). Cultural norms were also identified as an influence on feeding in Tarakan (Zulfia & Hasriana, 2026).

These beliefs operated within household hierarchies that shaped who ate what. In Serang, fathers received the largest portions and the best side dishes, the best food was sometimes reserved for guests, and mothers and children ate less (Patty & Nugroho, 2019). Taboos were described as a personal choice, yet disregarding a mother's advice was seen as a breach of family obligation (Gibson et al., 2020). Together, beliefs and hierarchy meant that even when nutritious foods were in the house, they did not necessarily reach the youngest child.

Theme 3: Mothers caught between knowing and doing

Mothers generally knew when to start complementary feeding and how often to feed. In Natuna, most mothers of both stunted and non-stunted children identified six months as the right age to start and described appropriate meal frequencies (Hidayati et al., 2026). Mothers obtained information from midwives, *posyandu*, previous children, family members, and social media accounts run by health professionals (Wilujeng et al., 2026).

The gap lay in translating knowledge into consistent practice. Mothers of stunted children in Natuna described flexible feeding that followed the child's mood, without fixed schedules, and relied more on whatever food was available, whereas mothers of non-stunted children described regular routines guided by health workers (Hidayati et al., 2026). Mothers in Banyuwangi described children's poor appetite, uncertainty about the nutritional value of home-cooked meals, limited time, and a lack of recipe variety as barriers, and some felt discouraged when their children remained thin despite their

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efforts (Wilujeng et al., 2026). In Tarakan, mothers of stunted toddlers described the psychological burden of feeding decisions, alongside the resilience they drew on to cope (Zulfia & Hasriana, 2026).

Theme 4: Coping with an uncertain livelihood

Fishing income was described as low, irregular, and dependent on catch, season, and weather (Patty & Nugroho, 2019; Herlina et al., 2025). In Komodo, more than half of households experienced moderate or severe food insecurity, which worsened in the wet season (Gibson et al., 2021). Families responded with a range of strategies: borrowing money, buying on credit from food stalls, incurring high-interest debts to middlemen, buying cheaper and less-preferred foods, reducing portions, sharing food, starting small businesses, selling livestock, and shifting fishing effort to small reef fish (Patty & Nugroho, 2019; Gibson et al., 2020, 2021). Wives of fishers in Serang took laundry work when boats could not go out (Patty & Nugroho, 2019). Few households had savings, and these strategies were described as protecting household survival while eroding diet quality and deepening debt (Gibson et al., 2021). In some communities, families nevertheless prioritized basic food for children despite limited means (Herlina et al., 2025).

Theme 5: Support that reaches unevenly

Where health services were accessible and active, they supported mothers' feeding. *Posyandu* cadres in Banyuwangi recommended affordable local foods such as moringa leaves and sea fish, and the health center provided counselling and recipes and referred children whose weight dropped (Wilujeng et al., 2026). Health centers in Natuna ran supplementary feeding programs with cooking demonstrations and home monitoring, although remoteness delayed cadres' food deliveries in one area and parental engagement was described as weak (Hidayati et al., 2026). Mothers drew on social support and support systems to sustain feeding (Zulfia & Hasriana, 2026).

Elsewhere, support was distant or misdirected. In Serang, the only nutritionist was hard to reach because of damaged roads, families often consulted traditional healers first, and social workers focused on distributing aid rather than on empowerment or nutrition education (Patty & Nugroho, 2019). Reluctance to attend routine health checks was also noted in Bengkulu (Herlina et al., 2025). Poor sanitation, including a lack of toilets and the use of river water for bathing and waste disposal, formed part of the environment in which mothers raised their children (Patty & Nugroho, 2019).

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Confidence in review findings

Table 3 presents the GRADE-CERQual assessment for each review finding.

Table 3. Summary of qualitative findings and GRADE-CERQual assessment

Review finding	Contributing studies	Confidence	Explanation
Fish availability does not ensure fish or diverse foods in children's diets because fish is sold, catches vary, other foods are costly or distant, and snacks substitute for meals	Patty 2019; Gibson 2020; Herlina 2025; Wilujeng 2026; Zulfia 2026	Moderate	Consistent across five settings; moderate concerns about methodological limitations and thin data in some studies
Food taboos about fish, eggs, and meat, and the prioritization of fathers at meals, limit young children's access to available nutritious foods	Patty 2019; Gibson 2020; Wilujeng 2026; Zulfia 2026	Moderate	Coherent findings in diverse cultural settings; hierarchy reported mainly in one study
Mothers' knowledge of timing and frequency is often adequate, but practice is constrained by time, children's appetite, limited recipes, and emotional strain	Hidayati 2026; Wilujeng 2026; Zulfia 2026	Low	Only three studies, one assessed from its abstract; moderate concerns about adequacy
Households cope with irregular fishing income through debt, credit, cheaper foods, and reduced portions, which protects survival but erodes diet quality	Patty 2019; Gibson 2020, 2021; Herlina 2025	Moderate	Rich data from Komodo across two seasons; findings coherent with Serang and Bengkulu
Health services and cadres support feeding where accessible, but distance, weak engagement, and aid-focused services leave many families unsupported	Patty 2019; Herlina 2025; Hidayati 2026; Wilujeng 2026; Zulfia 2026	Low	Mixed and context-specific findings; limited depth of data on services

Discussion

This synthesis of seven studies from six Indonesian provinces shows that young children in coastal and fishing communities are not fed poorly because fish is absent. Instead, the paradox of an abundant sea and a narrow plate arises from interacting conditions: fish is an income source before it is a food; other nutritious foods are costly or distant; inherited beliefs and household hierarchies restrict what reaches the youngest child; mothers struggle to translate knowledge into consistent practice; and support services reach families unevenly.

These findings help explain quantitative observations from the same types of settings. Studies in coastal Indonesia have found that low dietary diversity and inadequate energy and protein intake are associated with stunting (Mahmudiono et al., 2019; Lestari & Budiono, 2025; Felicia et al., 2026), and that adequate protein intake can coexist with stunting (Cahyani et al., 2026). The present synthesis suggests mechanisms: diets built around rice, fish, and snacks may supply protein and energy but lack the diversity needed for growth (Krasevec et al., 2017; Millward, 2017). Similarly, the inconsistent association between household food insecurity and stunting, both in Indonesian coastal studies and globally (Sanggelorang et al., 2024; Patriota et al., 2024), may reflect the episodic nature of food

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insecurity in fishing households and the varied coping strategies documented here. Single-season surveys may miss the lean periods when diet quality deteriorates most.

The prominence of food taboos is consistent with findings from other fishing communities. In coastal Kenya, fish was likewise introduced late and in small amounts because of cost, availability, and beliefs about bones and allergies that were shaped by elders and cultural norms (Cartmill et al., 2022). Because taboos in this synthesis targeted fish, eggs, and meat, the very foods that coastal families can most readily access, they represent a particularly important and modifiable barrier. That beliefs persisted in Serang despite health education (Patty & Nugroho, 2019) and were transmitted from mothers to daughters in Komodo (Gibson et al., 2020) suggests that counselling directed only at mothers is unlikely to succeed. Programs should engage grandmothers, fathers, and community leaders, and address specific fears, for example by demonstrating how to prepare boneless small fish safely for infants.

The finding that mothers often knew the recommended practices but could not consistently apply them echoes broader evidence that complementary feeding is embedded in household resources, time, and social context (Stewart et al., 2013). Knowledge-focused education alone is therefore insufficient. Counselling that offers affordable local recipes, strategies for children with poor appetite, and attention to mothers' emotional strain may be more effective. The household hierarchy that gave fathers the best portions also indicates a need for nutrition messages that address intra-household food allocation explicitly.

At the structural level, the coping strategies described by fishing households point to the need for nutrition-sensitive interventions alongside nutrition-specific ones (Beal et al., 2018). Options include income smoothing or social protection during lean fishing seasons, access to credit that does not rely on high-interest middlemen, improved cold storage and market access for perishable foods, and support for home gardens. Poor sanitation, which emerged in this synthesis, also requires attention given its role in stunting through recurrent infection (Prendergast & Humphrey, 2014; Torlesse et al., 2016). Finally, the uneven reach of services highlights the importance of strengthening *posyandu* cadres in remote coastal and island villages and shifting social work toward empowerment and nutrition education rather than aid distribution alone.Implications for public health programs

Within the social determinants of health framework, Theme 4 (uncertain livelihoods) and part of Theme 2 (cultural norms and household hierarchy) represent structural determinants, whereas

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Themes 1, 3, and 5 reflect intermediary determinants: material circumstances, caregiving practices, and access to health services. This mapping indicates that stunting reduction programs focused solely on maternal nutrition education do not address the underlying structural determinants. The barriers and opportunities identified are summarized by level of intervention in Table 4.

Table 4. Barriers and opportunities for stunting prevention in coastal and fishing communities

Level	Barriers	Opportunities for intervention
Household	Fish sold, low dietary diversity, snacks replacing meals, fathers served first, maternal emotional strain	Counselling on diverse complementary foods using fish and local foods; messages on intra-household food allocation; strategies for children with poor appetite
Community and culture	Taboos on fish, eggs, and meat for infants transmitted across generations	Engaging grandmothers, fathers, and community leaders; cooking demonstrations on preparing boneless small fish for infants; community-based mothers' classes
Economy and livelihood	Seasonal income, debt to middlemen, limited market access and cold storage	Social protection and food assistance during lean seasons; access to microcredit; home food gardens; improved cold chains
Health services	Distance and poor access, weak parental engagement, aid-focused social services	Strengthening *posyandu* cadres in remote villages; monitoring feeding indicators at *posyandu*; integrating social services with nutrition education
Environment	Lack of toilets, limited clean water	Community-led total sanitation and clean water provision in coastal settlements

Strengths and limitations

This is, to the author's knowledge, the first qualitative evidence synthesis focused on child feeding and food insecurity in Indonesian coastal and fishing communities. It followed established methods for thematic synthesis and assessed confidence in findings using GRADE-CERQual. However, the evidence base is small, and two of the seven reports came from the same fieldwork. The search relied on Google Scholar, Garuda, and journal websites rather than bibliographic databases, so some studies may have been missed, and the record counts are approximate. One study was appraised and synthesized from its abstract because the full text was not openly accessible, which limited the depth of data extracted from Tarakan. Most included studies did not report reflexivity, only one was conducted in Sumatra, and none in Sulawesi, Maluku, or Papua, which limits transferability.

Implications for research

Future qualitative research should be conducted in under-represented coastal regions, follow households across fishing seasons, include fathers and grandmothers as participants, and examine how food is shared within households. Mixed-methods studies that pair the 2021 WHO-UNICEF feeding indicators (WHO & UNICEF, 2021) with in-depth interviews would help link measured diets to the experiences described here. Intervention studies are needed to test culturally tailored counselling combined with livelihood support.

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CONCLUSION

Caregivers in Indonesian coastal and fishing communities feed young children within constraints that go well beyond the availability of fish, so barriers to stunting prevention operate across levels, from the household to health services. Uncertain fishing livelihoods, costly or distant non-fish foods, inherited food taboos, household food hierarchies, the gap between maternal knowledge and practice, and uneven support services together narrow children's diets. Opportunities for prevention lie in family-centered, culturally tailored feeding counselling, the use of affordable local foods, stronger *posyandu* cadres, and nutrition-sensitive interventions that protect fishing livelihoods and improve food access and sanitation. Local governments should integrate stunting reduction programs with marine and fisheries sector policies and social protection.

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