



## Social Capital and Cross-Sector Governance in Local Stunting Reduction Programs in Semarang, Indonesia

Cendikia Nabila Ikhsani ✉ & Fadly Husain

Department of Communication Science, Faculty of Social and Political Sciences, Universitas Negeri Semarang, Semarang, Indonesia

---

### Info Articles

#### History Articles:

Received October 02, 2025

Approved December 12, 2025

Published March 20, 2025

#### Keywords:

cross-sector governance;  
social capital; stunting; public  
policy

### Abstract

Stunting remains a major public health problem in developing countries, including Indonesia, requiring integrated social and institutional approaches beyond purely technical interventions. This study aims to examine the role of social capital in strengthening cross-sector governance in the implementation of the Rumah Pelita program in Semarang. The research employs a qualitative case study approach using in-depth interviews, participant observation, and document analysis to explore collaborative dynamics among stakeholders. The findings show that the effectiveness of Rumah Pelita in reducing stunting prevalence by approximately 50–60% is supported by strong institutional networks, trust among actors, and shared social norms that encourage collective action. The program integrates nutritional support, child development stimulation, parenting education, and continuous monitoring through collaboration between government agencies, professional organizations, community cadres, and local businesses. These collaborative mechanisms reflect the practical application of Putnam's social capital theory, demonstrating how networks, trust, and norms facilitate coordinated governance in public health interventions. This study contributes to the literature by highlighting the role of institutionalized social capital in strengthening cross-sector governance for local stunting reduction programs.

---

✉ Correspondence Author:  
Email: [nabilaaikhسانی@gmail.com](mailto:nabilaaikhسانی@gmail.com)

P-ISSN 2549-0737  
E-ISSN 2621-6272

## INTRODUCTION

Stunting represents a major public health challenge in many developing countries, including Indonesia. The condition refers to impaired growth and developmental limitations in children caused by chronic malnutrition beginning in the prenatal period and continuing through the first two years of life, widely known as the 1.000 day window of opportunity. Children experiencing stunting generally demonstrate lower height-for-age outcomes compared to children with healthy growth patterns. The consequences extend to cognitive development, learning abilities, communication skills, and long-term productivity (Imeldawati, 2025). A meta-study by Miller et al. (2016) that examined datasets from 15 low- and middle-income countries reported an inverse association between stunting and literacy, numeracy, as well as broader intellectual capabilities. In Indonesia, stunting affects individuals, families, and broader social structures while posing a substantial obstacle to national sustainable development efforts.

UNICEF (2023) reported that more than 140 million children worldwide experience stunting, with the highest prevalence concentrated in low- and middle-income countries. Indonesia remains among the countries with considerable stunting prevalence. Although national trends show gradual improvement, the prevalence rate reached 21.6% in 2022, which remains significantly above the national target of 14.3% in 2024 (Kementerian Kesehatan RI, 2022). The Government of Indonesia introduced the National Strategy for the Acceleration of Stunting Prevention 2018–2024, involving 23 agencies and a budget allocation of USD 44.8 billion (Wegino, 2022). The strategic framework reflects a shift from fragmented sectoral policies toward integrated, multisectoral interventions involving coordination across government and non-government institutions.

The operationalization of national strategies at regional levels continues to face substantial challenges. Empirical studies document limited coordination and fragmented implementation within local governance structures. Susanto (2020) reported that sub-district stunting-prevention programs remain insufficiently integrated and often operate in sector-specific silos. Andriyani and Wahyudi (2021) identified weak institutional interaction and inadequate local leadership as major barriers to coherent program development. Afandi

et al. (2023) emphasized that top-down mandates for coordination often neglect informal collaboration mechanisms that naturally emerge within local implementation contexts. These persistent disparities between national frameworks and localized practices indicate the need to examine cross-sector collaboration as a dynamic institutional process rather than a purely administrative directive.

Sociocultural norms also influence community responses to stunting-prevention initiatives. Birungi et al. (2023) demonstrated that child-feeding practices are shaped by prevailing cultural expectations, communal interpretations, and social structures. Technical or biomedical interventions alone frequently fail to address the underlying belief systems embedded in local contexts. In the coastal region of Sekuro Village, Jepara, for example, many mothers continue to interpret stunting as a hereditary condition rather than a preventable developmental outcome (Mardihani & Husain, 2021). Such perceptions constrain community engagement and reduce the effectiveness of nutrition-based programs.

Institutional environments also influence the effectiveness of stunting-management efforts. Numerous regions continue to lack well-developed coordination mechanisms and demonstrate limited involvement from non-state actors. Van den Bold and Pede (2020) argue that improving institutional capacity and formalizing mechanisms for cross-sector cooperation are essential for low-income and middle-income settings. Nisbett et al. (2017) further reported substantial barriers to institutional collaboration in Indonesia, including limited regional leadership, fragmented planning systems, and insufficiently sustained communication networks.

Evidence from the city of Semarang presents a contrasting illustration of successful multisectoral implementation. The municipal government and several institutional partners initiated Rumah Pelita Stunting, a childcare service model that integrates nutrition assistance, anthropometric monitoring, cognitive stimulation, and parenting support. The program operates through coordination between public health centers, the municipal health office, professional organizations, and posyandu leaders. The Ministry of Women's Empowerment and Child Protection acknowledged the contribution of Rumah Pelita to a 10.9% decrease in stunting

prevalence in Semarang (Kemendikbud, 2023). Rumah Pelita serves as an institutional hub that facilitates inter-organizational cooperation through shared responsibility, trust building, and structured communication among professional actors.

Social capital theory developed by Putnam (2000) provides an analytical framework for understanding collaborative processes embedded within such institutional models. Social capital comprises networks, shared norms, and trust that enable coordinated actions among actors. Rumah Pelita strengthens bonding social capital through close relationships among actors with aligned interests and enhances bridging social capital through cooperation between institutions from diverse professional backgrounds. Both forms contribute to participatory, sustainable, and context-responsive approaches to stunting management.

Extensive research on stunting in Indonesia has primarily emphasized technical interventions and national policy frameworks. Chanani et al. (2019) and Gillespie et al. (2015) highlighted the relevance of political commitment, multisectoral programming, and effective leadership, while Jones et al. (2021) focused on quantitative assessments of nutrition and food security without examining relational dynamics within program implementation. Although recent studies increasingly acknowledge the importance of social relationships, empirical investigations beyond community-based initiatives remain limited. Afandi et al. (2023) underscored the inadequacy of mandated coordination in capturing informal collaboration practices. Astuti et al. (2025) reported that trust-based social interactions significantly influence the effectiveness of stunting-reduction programs. Setianingsih et al. (2024) provided further evidence that institutional-level social capital correlates with reductions in stunting prevalence.

Given the limited analytical attention to institutional collaboration beyond grassroots initiatives, the present study explores cross-sector governance through the case of Rumah Pelita, a service-based intervention that formalizes trust building, informal coordination, and inter-agency cooperation. The study examines the role of Rumah Pelita in managing stunting-prevention programs in Semarang and identifies collaborative dynamics among participating stakeholders. The analytical focus emphasizes institutional processes and

relational mechanisms that shape program implementation. Conceptually, the study extends the application of social capital theory within structured service environments. Practically, the findings offer guidance for policymakers, local authorities, and practitioners in developing adaptive, participatory, and sustainable collaborative models for stunting reduction.

## METHODS

The research employs a qualitative method that uses a case study approach. The methodological choice enables a detailed exploration of complexities, personal meanings, and social situations within real-life contexts. Creswell and Poth (2018) argue that qualitative inquiry is effective for understanding phenomena in natural settings, whereas Patton (2015) highlights the capacity of case studies to generate in-depth insights through multiple data-collection strategies and triangulation. The research site is Rumah Pelita, located at Jl. Candi Pawon Tim. III, Manyaran, West Semarang, Indonesia. Rumah Pelita functions as a cross-sector daycare and institutional intervention center designed to address child stunting through integrated services. The research was conducted over a two-month period from January to February 2025.

Informants were selected through purposive sampling based on relevance to the Rumah Pelita program and direct involvement in service implementation. The study engaged five participants: a caregiver, a nutritionist, a representative from the municipal health office, a local food provider, and a parent of a participating child. Each informant contributed perspectives related to caregiving practices, nutritional management, health governance, community collaboration, and beneficiary experiences. Data collection involved semi-structured interviews guided by a structured interview protocol and recorded with informed consent, participant observation to document daily interactions and implementation processes, and secondary data obtained from institutional archives, academic literature, and policy documents.

Data analysis follows Miles and Huberman's interactive model (Miles et al., 2014), which comprises data reduction, data display, and conclusion drawing with verification procedures. The analytical process included open and axial

coding to identify salient themes, followed by the arrangement of coded data into thematic matrices to support systematic interpretation. All stages of analysis were conducted manually without qualitative software assistance. Credibility was strengthened through triangulation of sources, methods, and time. Ethical procedures were applied, including written informed consent, strict confidentiality of participant identities, and formal approval from the academic supervisor and Rumah Pelita's administrative authority.

## RESULTS AND DISCUSSION

### Profile of Rumah Pelita, Semarang City

The first Rumah Pelita was dedicated on February 21st, 2023, and was officially opened by the Minister of Women's Empowerment and Child Protection, Ibu I Gusti Ayu Bintang Darmawati. *"...the original cause of the Rumah Pelita's construction is because this was initiated by the city of Semarang itself as a means of addressing the issue of stunting as quickly as possible"* (Interview with L, January 24th, 2025). Before the establishment of Rumah Pelita, the Semarang City Government, through the Health Office, had initiated several initiatives since 2016 to address stunting as part of a zero-stunting effort in the city of Semarang. The first initiative was the distribution of basic food packages that included eggs, rice, and chicken, these packages were exclusively distributed to children that exhibited stunting. The objective was to increase the protein intake of the family, particularly for toddlers. However, the evaluation results suggested that the effectiveness of the program was still limited because the distribution of food in the field was not yet fully dedicated to children with stunting. The next initiative involves providing supplementary food in the form of nutritious meals prepared for children.. The results of this program were still not optimal, as there were still parents who lacked knowledge on how to provide the appropriate amount of nutrition. As such, the food assistance provided was not always eaten by the children who sought it, particularly when the toddlers didn't like the food.

Despite both initial initiatives having been employed, field evaluations revealed numerous problems, including the lack of effective interventions in addressing stunting, as well as the fact that many stunted children still lacked the optimal nutritional status. In response to the

forementioned issues associated with stunting, the Semarang City Government initiated the establishment of Rumah Pelita, a daycare center dedicated to the care of children under two years of age suffering from stunting. The objective of creating Rumah Pelita is to promote the growth and development of children in three main ways: through nutritional enhancements, developmental stimulation, and the enhancement of parenting. Nutritional enhancements are accomplished through counseling, the distribution of nutritious food, and nutritional monitoring that is jointly conducted with public health centers (puskesmas) and posyandu officials. Additionally, children are given motor, intellectual, and emotional stimulation via various age-based educational endeavors. Meanwhile, parents are given instruction, facilitated discussion groups, and mentorship that aims to improve their capacity to raise their children.

The creation of Rumah Pelita was also intended to enhance and improve on previous programs that were considered less significant. This initiative was initiated by the elevated percentage of stunting in West Semarang District, particularly in working families and households with lower economic standing. *"... Many of the parents fail to recognize how to make sure the food is actually eaten by the child. In rare instances, the extra food (PMT) that's distributed isn't given to the child but instead is eaten by their larger sibling or by the parents themselves."* (Interview with L, January 24th, 2025)

The Office of Women's Empowerment and Child Protection collaborated with the West Semarang Sub-district Government to initiate the Rumah Pelita program. Through this initiative, families could access preventive health services, psychosocial consultations, and social assistance tailored to their needs. In doing so, the burden of childcare for working parents could be reduced, while simultaneously empowering families to adopt better parenting practices and structured caregiving services. This ensures that children from these families continue to receive appropriate care and guidance in line with their developmental needs.

Rumah Pelita has since expanded and now operates across 11 daycare service locations in Semarang City. The first facility was established on Jl. Candi Pawon Timur III, Manyaran, West Semarang Sub-district, Semarang City, Central Java. The name "Rumah Pelita" itself is an acronym

for Penanganan Stunting Lintas Sektor Bagi Baduta (Cross-sectoral Stunting Management for Children Under Two), reflecting the program's core purpose. Like other daycare services in Semarang City, Rumah Pelita offers a range of flagship programs, including the provision of nutritional support and developmental stimulation for children. These care services are intended for children under five years of age and are accessible to all residents of Semarang City. All facilities and programs are provided free of charge, with no costs imposed on participating families.

To be eligible for this daycare program, children must meet three main criteria. First, the child must be identified as having poor or inadequate nutritional status, determined through weight and growth monitoring. Second, the child must come from a family listed in the Integrated Social Welfare Data, ensuring that the program reaches the intended beneficiaries. Third, the child's parents or guardians must work outside the home and require professional childcare support.

To improve service quality, all Rumah Pelita branches are staffed with a caregiving team consisting of a head caregiver and a nutritionist. The head caregiver is responsible for organizing daily activities, designing motor and cognitive development stimulation programs, and monitoring children's social interactions. Meanwhile, the nutritionist is tasked with analyzing each child's nutritional needs, formulating balanced menus, and providing education to parents on the importance of healthy eating patterns. The synergy between these two roles is key to ensuring that each child receives attentive care and achieves optimal physical, cognitive, and social growth according to their developmental stage.

### **The importance of the Rumah Pelita in addressing stunting**

Stunting remains a persistent public health concern in urban districts such as West Semarang, where prevalence rates are shaped by structural constraints and limited parental awareness. The establishment of Rumah Pelita provides a structured and innovative mechanism to improve child nutrition and caregiving practices. Rumah Pelita was designed to address recurring gaps in parental understanding of age-specific dietary requirements, appropriate caregiving strategies, and early developmental indicators of stunting. In many

households, children's meals are often equated with adult portions, without adjustments for developmental needs. Limited access to clear, structured information about causes and prevention of stunting further intensifies the problem, resulting in household practices that fail to prevent undernutrition effectively.

As an intervention model, staff members from Rumah Pelita and the public health center actively encourage families with children experiencing nutritional deficiencies or stunting to participate in the program. Outreach is conducted through routine engagement at community health posts, where health workers provide education and counseling regarding the importance of early treatment. The objective is to strengthen parental understanding that children's growth can be optimized through structured, continuous support facilitated by trained professionals.

Community responses to program recommendations remain varied. Some parents declined enrollment due to the belief that independent management would be sufficient, while others expressed doubt regarding program sustainability, perceiving the initiative as a temporary government project. However, many families agreed to participate following recommendations from health personnel. To reduce resistance and improve enrollment, staff from Rumah Pelita and puskesmas adopted persuasive strategies such as door-to-door visits and focused small-group educational sessions intended to clarify program benefits.

Educational outreach is further strengthened through digital platforms. Rumah Pelita actively disseminates psychoeducational materials via social media, particularly Instagram, to broaden public awareness regarding stunting prevention. Shared content covers topics such as age-appropriate nutrition, developmental milestone monitoring, tantrum management, and early indicators of malnutrition. This digital strategy expands audience reach, especially among working families with limited availability for in-person sessions. The combination of offline and online approaches demonstrates an inclusive model of community-based health education tailored to urban contexts.

One central strategy for addressing stunting at Rumah Pelita involves the provision of daycare services. Daycare centers generally perform developmental stimulation, basic caregiving, and

health-related monitoring, making them essential for working mothers, particularly during critical developmental periods. Daycare institutions also conduct regular growth assessments and help prevent the transmission of infectious diseases, which have strong relevance for stunting prevention (Mitra et al., 2025). Rumah Pelita integrates anti-stunting educational components into daycare services through active caregiver participation and family involvement, reinforcing optimal child development (Nabila et al., 2024). Through this design, the daycare function evolves into a comprehensive early prevention mechanism supported by integrated programs.

The primary program at Rumah Pelita focuses on the provision of nutritious foods and beverages that support child development. Daily services include nutritionally balanced meals, milk, and healthy snacks prepared under the supervision of professional nutritionists to ensure alignment with individualized requirements. Menu designs prioritize variety and developmental suitability. A staff member explained, *“Children at this age have difficulty concentrating on food. Creativity is needed to encourage consumption, such as chopping vegetables into small shapes or making fruit puddings. Children who dislike milk may prefer milk processed into ice cream. Menu rotation prevents boredom while maintaining nutritional adequacy”* (Interview with A, January 24, 2025). Such creative adaptation aims to increase meal acceptance without compromising nutritional value.

These creative approaches in food presentation not only address feeding resistance but also ensure sustained nutritional support essential for growth and healthier eating routines. Rumah Pelita’s nutrition program consistently meets daily caloric requirements of approximately 1440 kcal through two main meals, one snack, and two servings of milk. To achieve this, Rumah Pelita applies 11 menu cycles designed to maintain diversity and balance shown in **Table 1**. Each cycle offers structured combinations of food items to align with children’s developmental needs and promote healthier dietary behavior.

Nutritional intervention is complemented by a comprehensive child development program delivered through educational and caregiving activities, both indoors and outdoors. These activities support motor, linguistic, cognitive, and

emotional development. Program components draw on Early Childhood Education principles and the Montessori curriculum, both of which emphasize play-based developmental stimulation aligned with children’s developmental stages. Activities such as sensory play, morning exercise, and theme-based learning sessions encourage growth across multiple domains. Observations during fieldwork show improvements in child responsiveness and developmental engagement, reinforcing findings from Maulana and Eliasa (2024) regarding the benefits of integrated stimulation. Parental involvement is also prominent, as highlighted by Yuniarni et al. (2024), whose findings emphasize the influence of parental emotional support on children’s behavioral and learning outcomes.

The outcomes observed in Rumah Pelita align with the study’s central objective of examining how integrative daycare-based interventions address stunting through multidimensional strategies. Field data show that nutritional assistance alone is insufficient without parallel efforts to improve parenting practices and maintain collaboration across institutional actors. The integrated design demonstrates the necessity of combining structured services with parental engagement and cross-sector partnerships to ensure long-term improvements in child health and development.

To operationalize this multidimensional approach, Rumah Pelita implements six interconnected intervention components: nutritional provision, developmental stimulation, parenting education, growth monitoring, community outreach, and cross-sector collaboration. These categories function collectively to address the biomedical, behavioral, and social determinants of stunting. As indicated in Table 2, the program incorporates daily nutritional services (approximately 1400 kcal/day), structured stimulation activities, anthropometric screenings, parental education, and partnerships with puskesmas, MSMEs, and professional organizations. The configuration illustrates that effective prevention of stunting requires synchronized cross-sectoral action rather than isolated, single-focus interventions.

Parenting classes serve as a foundational component to strengthen program sustainability and effectiveness. Conducted every seven days, sessions involve nutritionists and psychologists who deliver instruction on child nutrition, healthy

**Table 1.** Meal Menu Cycle

Cycle	Breakfast (08:00)	Snack (10:00)	Milk (11:00 & 15:30)	Lunch (13:00)
1	Rice, Crispy fried fish, Scrambled egg, Tofu, long bean & carrot curry, Watermelon	Macaroni Schotel	Milk	Rice, <i>Pop pop</i> chicken, <i>Balado</i> egg, Kangkung ( <i>water spinach</i> ) and tempeh soup
2	Rice, Fried <i>bandeng presto</i> , Chicken coconut milk soup, Fried tofu perkedel	Chicken, potato & cheese sempol	Milk	Rice, Chicken katsu, Braised egg, Tempeh, Melon
3	Rice, Chicken meatball coconut soup, Scrambled egg, Fried tempeh, Melon	<i>Barongko</i> banana pudding	Milk	Rice, Snapper soup, Sunny side up egg, <i>Bacem</i> tofu
4	Rice, Fish <i>otak-otak</i> , Sunny side up egg, Tempeh & chayote curry	Cheese-topped <i>kue lumpur</i>	Milk	Rice, Minced chicken teriyaki, Braised egg, <i>Sakura</i> tofu, Melon
5	Rice, Egg curry, Sweet soy chicken satay, <i>Mendoan</i> tempeh, Papaya	Bread pudding with egg	Milk	Rice, <i>Balado</i> fried egg, Fried snapper, <i>Lodeh</i> vegetable soup with tofu
6	Rice, Tofu balls, Omelette, Carrot & fish coconut turmeric soup	<i>Bubur sumsum</i> (rice flour porridge)	Milk	Rice, Chicken <i>opor</i> , Long bean egg stir-fry, Tempeh steak
7	Rice, Chicken carrot coconut soup, Quail egg satay, Tofu perkedel, Watermelon	Chocolate pudding	Milk	Rice, <i>Bandeng presto</i> , Scrambled egg, <i>Lodeh</i> tempeh & chayote
8	Rice, Chicken <i>gadon</i> , Scrambled egg, <i>Bobor</i> spinach tempeh soup	Potato croquette	Milk	Rice, Fish perkedel, Tofu & egg curry, Baby corn, carrot & long bean stir-fry, Melon
9	Rice, Chicken & egg coconut milk soup, Tempeh nugget, Melon	Fruit pudding with coconut milk	Milk	Rice, Tofu & egg coconut turmeric soup, Crispy fish, Long bean & carrot stir-fry
10	Rice, <i>Pop-pop</i> catfish, Omelette, <i>Lodeh</i> tempeh	<i>Jasuke</i> (corn, milk, cheese)	Milk	Rice, Braised chicken & tofu, Sunny side up egg, Watermelon
11	Rice, Chicken patty, <i>Garang asem</i> tofu & egg, Melon	Sweet potato balls	Milk	Rice, Yellow coconut fish soup, Braised quail egg & tempeh, Rainbow vegetable stir-fry

meal planning, and stunting prevention. Through this platform, parents receive structured guidance designed to reinforce optimal caregiving practices and support holistic child development. Instruction aims to help parents adopt evidence-based approaches rather than relying on customary practices that may hinder nutritional progress.

Despite the value of parenting classes, challenges persist regarding parental adherence at home. Some families continue to maintain previous feeding habits. A caregiver explained, “...*some parents remain inconsistent. For example, a child arrived with a bottle containing sweet tea, a habit from the mother. Every morning she brings snacks from street vendors and sweet tea, even though both are unsuitable for toddlers. We consistently remind parents during classes and through individual discussions, but the habit continues*” (Interview

with A, January 24, 2025). Such cases highlight the gap between knowledge acquisition and behavioral change.

Addressing these challenges requires acknowledging the essential role of parenting classes as platforms for knowledge development and peer discussion. The initiative provides opportunities for parents to reflect on developmental needs, differentiate between traditional practices and evidence-based caregiving, and adopt healthier routines. Through repeated participation, parents gradually develop a deeper understanding of developmental nutrition and caregiving strategies. Such engagement contributes to broader goals of improving child health and preventing stunting at the household level.

To strengthen continuity between daycare interventions and home practices, Rumah Pelita

monitors children's dietary intake both during attendance and at home, particularly during scheduled breaks. Monitoring is conducted through parent reports submitted via WhatsApp, including documentation of daily menus and milk consumption. This system supports consistency in caregiving and encourages active parental involvement. A parent stated, "...I've gained substantial knowledge about nutrition and healthy meal menus. Previously, my child ate whatever the family ate, but now I prepare separate meals to support recovery. I also try creative approaches to increase appetite. After learning from Rumah Pelita staff, I apply everything because I want my child to be healthy" (Interview with E, January 31, 2025).

The implementation of parenting classes fosters a reciprocal relationship between Rumah Pelita and parents, enhancing child development outcomes. Parents increasingly recognize the importance of nutritious food and effective caregiving practices and begin incorporating new approaches into daily routines. However, parental participation remains limited, with many families enrolling primarily for practical childcare needs rather than program-based learning objectives. This situation indicates that collaborative engagement between parents and daycare personnel is still developing. Addressing stunting therefore requires sustained cooperation among caregivers, families, and supporting institutions.

Routine health monitoring is conducted every Thursday in collaboration with public health officials. Anthropometric indicators such as weight, height, head circumference, and mid-upper arm circumference are assessed to evaluate nutritional status and developmental progress (Erviana et al., 2024). Weekly results are compiled by the nutritionist team and reviewed internally to ensure accuracy. Critical findings are forwarded to the Semarang City Health Office as part of quarterly evaluations intended to support multisectoral coordination and evidence-based policy formulation.

Growth indicators are also used to determine eligibility for program graduation. Children diagnosed with stunting undergo an intensive three-month intervention period. If targeted nutritional and developmental benchmarks are unmet, the intervention may be extended to six months. Research shows that structured daycare programs with consistent anthropometric monitoring

significantly reduce stunting prevalence. If a child does not achieve recovery benchmarks after six months, continued monitoring becomes the responsibility of parents, supported by Rumah Pelita personnel to prevent regression into undernutrition.

### **Social Capital as the Basis of the Collaborative Stunting Program of Rumah Pelita**

Unlike earlier interventions that depended primarily on community mobilization or health-oriented outreach, Rumah Pelita illustrates how institutionalized care services structured around social capital principles can operationalize collective responsibility. Such a model represents a new direction in Indonesia's stunting-reduction strategies, particularly within dense urban environments where informal support systems are often limited. Through this approach, collaborative structures move beyond episodic engagement toward sustained, trust-based networks that reinforce early childhood health interventions.

The stunting problem in Semarang City is multidimensional and requires active participation as well as cooperative behavior from various administrative sectors. Responding to this complexity, the Semarang City Government introduced Rumah Pelita as an innovative daycare-based service model. The program delivers comprehensive childcare while simultaneously educating parents regarding appropriate caregiving practices. Since its launch on February 21, 2023, Rumah Pelita has functioned as a collaborative hub connecting multiple government agencies and supporting institutions. According to interview data, "*Mayor Hevearita Gunaryanti Rahayu envisioned comprehensive inter-agency collaboration to address stunting through Rumah Pelita. Several organizations are dedicated to providing help*" (Interview with AY, February 25, 2025). The initiative emerged from a need to establish a holistic, integrated mechanism for stunting reduction that surpasses single-sector interventions.

Collaboration in the management of stunting at Rumah Pelita originated from recognition by the Semarang City Government that stunting reflects not only nutritional deficits but also social conditions shaped through economic hardship, caregiving practices, and environmental factors. This understanding prompted the creation of cross-

sector partnerships involving government agencies, private sector contributors, and community members. Each participating entity carries a clearly defined role aligned with its institutional expertise, forming an interdependent system capable of addressing diverse determinants of child development.

The collaborative model demonstrated by Rumah Pelita reflects not only formal coordination mechanisms but also enduring social relationships that sustain long-term intersectoral cooperation. Robert Putnam's social capital theory offers a relevant analytical lens for understanding such dynamics. Putnam (2000) conceptualizes social capital as networks, trust, and norms that shape collective action. These shared norms and relational structures, formed through both direct and indirect linkages, guide stakeholders as they implement joint programs. Through this theoretical perspective, collaborative patterns at Rumah Pelita can be interpreted as outcomes of intentionally cultivated social capital that enables cohesive institutional behavior.

The findings contribute to scholarly discussions on social capital in public health by applying Putnam's framework within an institutional daycare context an area that remains underexplored in Indonesian stunting research. Beyond theoretical contributions, the model provides actionable implications for policymakers. Rumah Pelita demonstrates how structured collaboration anchored in trust and inter-organizational norms can be translated into scalable early childhood interventions. In urban settings characterized by social diversity and limited informal caregiving networks, this approach offers a replicable, sustainable solution that connects formal health services with shared societal responsibility.

The collaborative dynamics surrounding Rumah Pelita are reinforced by strong social capital composed of trust, norms, and networks, as articulated by Putnam (2000). Within Rumah Pelita, social capital is both utilized and intentionally developed through institutional arrangements and community engagement strategies. These dynamics operate in bonding forms, which strengthen internal cohesion among actors with similar roles, and bridging forms, which connect diverse institutional stakeholders. The table 3 outlines how trust, norms, and networks are reflected in both bonding

and bridging forms of social capital within the program.

### **Social Network**

Within social capital theory, social networks are reflected through partnerships that connect multiple actors, including professional organizations and broader community groups. Such partnerships in the Rumah Pelita program function not only at the symbolic level but also through direct operational involvement. The Health Office leads healthcare personnel, conducts standard health assessments, and manages the supplementary feeding program handled by nutritionists and supported by Rumah Pelita caregivers. The Office of Women's Empowerment and Child Protection provides infrastructure and social services, whereas the Agriculture Office strengthens food security through urban garden initiatives.

Several professional organizations also contribute to this collaborative network. The Indonesian Pediatric Society (IDAI) provides medical support and conducts monthly developmental assessments for enrolled children. The Indonesian Psychological Association (HIMPSI) supports psychosocial development through counseling and parenting guidance aimed at enhancing communication and motor functioning. The Indonesian Physiotherapy Association (IFI) delivers therapy addressing speech-related and oral-motor developmental challenges. Each professional body contributes domain-specific expertise, reinforcing the multisectoral design of Rumah Pelita.

At the community level, health volunteers (*kader*) play a critical role as intermediaries. *Kader* initiate preliminary screenings, offer daily guidance, and provide parental instruction through community health posts integrated within the primary health system. Local businesses including small, medium, and large enterprises participate as caterers by preparing nutritionally balanced meals according to menus designed by nutritionists. This partnership not only fulfills children's dietary needs but also stimulates the local economy. Unlike findings reported by Kim et al. (2017) in Odisha, India, where nutrition-related coordination was constrained by sectoral conflicts and weak communication, the Rumah Pelita network demonstrates strong, systematic functional integration. The pattern indicates a collaborative

environment that supports all dimensions of stunting management through social capital that promotes bonding across groups with different backgrounds and responsibilities, fostering alignment around a shared goal (Setya, 2023).

### Trust

Trust forms the primary foundation upon which relationships among actors in the Rumah Pelita caregiving system are built. Such trust develops through direct interaction, shared respect, and commonly held values among caregivers, parents, and institutional partners involved in program implementation. These relational dynamics contribute to a stable collaborative environment that supports coordinated caregiving practices.

A prominent example of trust-building is the initial policy that permits parents to accompany their children during daily activities before full integration into daycare routines. Through this approach, parents gain familiarity with caregiving methods, daily rituals, and the physical as well as social environments where children spend time. One parent shared, *"I always feel comfortable there, because the caretakers have experience and will regularly send photos of what my child is attempting"* (Interview with E, January 31, 2025). This practice fosters emotional security and reinforces confidence that children receive attentive and responsible care. The finding aligns with Fitriyah and Anggraini (2025), who argue that emotional bonds between service providers and beneficiaries strengthen the effectiveness of community-based programs.

Caregivers consistently communicate children's developmental progress, health conditions, and nutritional habits through a formal reporting system. This structured interaction encourages mutual trust, improves parental understanding of each child's needs, and strengthens collaborative caregiving. Clear role delineation also supports trustworthy relationships between local MSME catering partners and Rumah Pelita staff. Nutritionists develop daily menus based on strict nutritional guidelines, whereas MSME partners manage food processing and preparation. Quality assurance is conducted through open evaluation procedures, including taste tests, presentation reviews, and periodic assessments, despite the absence of direct supervision during

food preparation. As stated by a staff member, *"...we don't directly oversee the processing of food, but we always communicate if something violates the agreement"* (Interview with AA, January 24, 2025). This arrangement illustrates how trust can function as an alternative to constant control without compromising quality. The finding corresponds with Batbual et al. (2023), who highlight the role of trust and flexibility in strengthening partnerships with local actors to prevent adverse outcomes.

### Social Norm

Social norms within Putnam's social capital framework play a central role in enabling effective collaboration among departments associated with Rumah Pelita. These norms reinforce shared values and collective behavioral expectations among parents, caregivers, community health workers, and local businesses, thereby creating bonds that strengthen child nutrition efforts. Parents are not positioned solely as recipients of services but as active participants in adopting new caregiving practices, as reflected in their involvement in parenting classes and their efforts to apply nutritional guidance. Such participation has contributed to the emergence of new standards that reshape parental perspectives toward more informed, adaptive, and responsive caregiving aligned with children's developmental needs.

Caregivers and community health workers consistently demonstrate strong social awareness, reflecting internalized values of shared responsibility. Local MSMEs that prepare food also exhibit moral commitment to quality and nutritional accuracy in carrying out their roles. This is evident in their attention to food presentation and the nutritional composition of each menu component. As one MSME representative noted, *"...We attempt to provide food that is as close to Rumah Pelita's preferences as possible. Nothing is reduced. Every menu item is considered the rice is considered, as well as the side dishes"* (Interview with AW, February 22, 2025). Such consistency demonstrates that technical adherence is driven not only by procedural guidelines but also by moral beliefs embedded in broader social commitments to child welfare.

This moral orientation extends beyond contractual arrangements and reflects a broader conviction that participation contributes to a

collective mission of supporting child growth. As stated by another partner, “...From the beginning, the Health Office clarified that this was not a business, but an attempt to assist children with stunting. I feel extremely committed to helping children recover at the daycare. I am sure this contributes to their improvement” (Interview with AW, February 22, 2025). Participation motivated by moral purpose strengthens a system grounded in humanitarian principles and solidarity. Informal norms such as the spirit of gotong royong and empathy toward children’s vulnerabilities enrich the value-based dimension of social capital. Over time, cooperation among actors has shifted from transactional arrangements to collaborative relationships built on shared ownership and collective responsibility, increasing the likelihood of program success.

To evaluate the effectiveness of the Rumah Pelita program, several indicators were identified based on field monitoring and stakeholder reports. These indicators capture improvements in nutritional outcomes, behavioral development, parental literacy, cross-sector involvement, and institutional sustainability. The results highlight the systemic effectiveness of Rumah Pelita’s integrative approach, particularly its ability to mobilize diverse stakeholders through shared values, trust, and collective responsibility. The monitoring and evaluation system operates as both a data platform and a communication channel, enabling accurate information exchange and equitable service delivery. Achievements such as a 50–60% recovery rate from stunting and expansion to 11 operational sites illustrate the tangible impact of this daycare-based intervention. The successful application of social capital elements trust, solidarity, and shared norms further legitimizes the program and strengthens collective ownership among stakeholders (Purwanto et al., 2023).

Building on these findings, the study offers insights that distinguish it from earlier research on stunting prevention. Previous work such as Sentika et al. (2024) emphasized the importance of interprofessional collaboration within health institutions such as puskesmas. The present study expands that perspective by demonstrating that cross-sector daycare services can also function as catalysts for operational-level social collaboration. Rumah Pelita illustrates how non-medical actors including MSMEs, professional associations, and

working families participate actively in public service delivery not merely as beneficiaries but as essential contributors within a social production system that supports integrated nutrition and caregiving interventions.

Furthermore, although Nugroho et al. (2023) identified household and community-level determinants such as maternal education and healthcare access as influencing stunting prevalence, their analysis remained situated at the micro-social level. In contrast, the present study shows that social capital can be institutionally cultivated through formal service design, such as the integrated daycare model implemented by Rumah Pelita. Regular interaction, structured education, and coordinated multi-sector arrangements collectively generate both bonding and bridging forms of social capital that enhance program effectiveness. These findings position collective norms and trust as foundational elements of long-term sustainability. Conceptually, the research extends the application of social capital theory from community-based environments to formal institutional settings.

Theoretically, the study advances Putnam’s (2000) concept of social capital by demonstrating that social capital need not arise solely from organic community processes but can also be intentionally created through institutional frameworks. Practically, Rumah Pelita serves as a prototype for value-driven, collaborative health interventions that integrate service delivery, social values, and inter-organizational networks. Such an approach is highly relevant for replication in urban settings characterized by social diversity and complex caregiving needs.

### **Challenges in the Implementation of the Rumah Pelita Program**

The stunting program implemented at Pelita Manyaran encounters several challenges directly associated with parental behavior and community perceptions. The first and most significant issue concerns inconsistent application of nutritional parenting practices at home. Numerous cases illustrate that once a child’s condition improves and the child is no longer enrolled in daycare, parents often revert to inappropriate feeding patterns. As described by a staff member, “*Sometimes they state that the results are effective after leaving daycare, but if we visit their residence three or five months*

later, it is common to find that the child's nutritional status has not been properly maintained" (Interview with Astrid, January 24, 2025). Such inconsistency is reflected in the continued provision of candy, instant foods, sweetened tea, and meals lacking adequate protein, all of which undermine recovery among children previously diagnosed with stunting.

A second obstacle involves limited parental awareness regarding the importance of addressing stunting. Certain parents remain indifferent to the child's condition even when aware of severe malnutrition. Financial constraints often contribute to this neglect, leading some parents to avoid purchasing nutritious foods despite recognizing nutritional deficits. Others display insufficient commitment to appropriate feeding practices, continuing to provide unsuitable meals despite knowing the child is undergoing recovery. Instances in which food is shared among multiple family members further contribute to children remaining malnourished. Such patterns indicate that knowledge alone does not guarantee behavioral change, and that deeper structural and motivational factors influence caregiving decisions.

The third challenge arises from stigma and public misconceptions about Rumah Pelita. Some community members mistakenly believe that children enrolled in the daycare receive invasive medical procedures such as injections. As one respondent explained, "*Individuals within the community believe that, at daycare, their children will be infused with substances, but this is not the case at all*" (Interview with L, January 24, 2025). Such misconceptions have contributed to reluctance among residents to participate in the program, despite its comprehensive and free services. Collectively, these three challenges demonstrate that program effectiveness depends not only on provider capacity but also on sustained parental engagement and accurate dissemination of information to the wider community. Continuous cooperation and supportive community perceptions are therefore essential to achieving long-term success in stunting reduction.

## CONCLUSION

The findings of this research indicate that the stunting-prevention program at Rumah Pelita in Semarang demonstrates significant effectiveness in

improving children's nutritional status through an integrated approach encompassing nutritional support, developmental stimulation, and parenting education. Implemented through a cross-sectoral mechanism, the model incorporates collaboration among government agencies, professional organizations, and local community actors, forming a systematic and functional partnership. The success of this intervention is closely associated with the strength of social capital particularly social networks, trust, and shared norms which enables coordinated action and sustained commitment among stakeholders. Field observations, however, show variations in parental engagement, suggesting that sociocultural dynamics at the household level continue to shape program outcomes. These findings position Rumah Pelita as a promising model of integrated public service delivery for stunting reduction, especially within urban contexts. Conceptually, the study advances the empirical application of Putnam's social capital theory within institutional health frameworks and provides a foundation for future program designs that emphasize holistic, participatory, and socially embedded strategies for improving public health.

## ACKNOWLEDGEMENT

The author extends sincere appreciation to Rumah Pelita Kota Semarang and the Semarang City Health Office for granting research access and providing essential information that significantly supported the examination of the stunting management program.

## REFERENCES

- Afandi, M. N., Tri Anomsari, E., Novira, A., & Sudartini, S. (2023). Collaborative governance in a mandated setting: Shifting collaboration in stunting interventions at local level. *Development Studies Research*, 10(1), 2212868.
- Andriyani, M. K., & Wahyudi, G. T. (2021). Evaluation and partnership model of the Super Tangguh program in Central Java Province.
- Astuti, S. J. W., Dwiningwarni, S. S., & Atmojo, S. (2025). Modeling environmental interactions and collaborative interventions for childhood stunting: A case from Indonesia. *Dialogues in Health*, 6, 100206.
- Batbual, B., Wanti, Ina, A., & Onggang, F. S. (2023). Management and prevention of

- stunting through supplementary feeding at Ota25 in Liliba Sub-district. *Jurnal Pengabdian Mandiri*, 2(6), 1423–1432. <https://bajangjournal.com/index.php/JPM/article/view/6094/4588>
- Bila, S. S., & Mardiana, M. (2024). Evaluation of the implementation of the Sekar Kasih Family House program in improving nutritional status in the Sekaran Health Center working area. *Jurnal SAGO Gizi dan Kesehatan*, 5(3B), 1015. <https://doi.org/10.30867/gikes.v5i3b.1939>
- Birungi, A., Koita, Y., Roopnaraine, T., Matsiko, E., & Umugwaneza, M. (2023). Behavioural drivers of suboptimal maternal and child feeding practices in Rwanda: An anthropological study. *Maternal and Child Nutrition*, 19(1). <https://doi.org/10.1111/mcn.13420>
- Chanani, S., Waingankar, A., Shah More, N., Pantvaidya, S., Fernandez, A., & Jayaraman, A. (2019). Effectiveness of NGO–government partnership to prevent and treat child wasting in urban India. *Maternal and Child Nutrition*, 15, e12706. <https://doi.org/10.1111/mcn.12706>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
- Erviana, Y., Kasanah, U., Sari, N., Munawir, A. N. E. R., Mahendra, Y., Munawaroh, S., & Yansa, H. (2024). Early childhood development. *Jurnal Golden Age*, 10.
- Fitriyah, R. D., & Anggraini, S. (2025). Locality-based assistance: Collective efforts to prevent stunting in communities. *Jurnal Akademik Pengabdian Masyarakat*, 3, 168–185.
- Gillespie, S., Menon, P., & Kennedy, A. L. (2015). Scaling up impact on nutrition: What will it take? *Advances in Nutrition*, 6(4), 440–451. <https://doi.org/10.3945/an.115.008276>
- Imeldawati, R. (2025). The impact of stunting on children's cognitive development: A literature review. *Jurnal Medika Nusantara*, 3(1), 101–107.
- Jones, A. D., Cruz, A. Y., & Becker, E. (2021). Multisectoral coordination for nutrition: A review of successful country experiences. *Food Policy*.
- Kemendikbud (2023) *Rumah Pelita turunkan angka stunting*. Jakarta: Kemendikbud. <https://www.kemendikbud.go.id>
- Kementerian Kesehatan RI. (2022). *Profil kesehatan Indonesia 2021*. Jakarta: Kementerian Kesehatan RI
- Kim, S. S., Avula, R., Ved, R., Kohli, N., Singh, K., Van Den Bold, M., Kadiyala, S., & Menon, P. (2017). Understanding the role of intersectoral convergence in the delivery of essential maternal and child nutrition interventions in Odisha, India: A qualitative study. *BMC Public Health*, 17(1), 1–12. <https://doi.org/10.1186/s12889-017-4088-z>
- Mardihani, P. W., & Husain, F. (2021). Mothers' knowledge of stunting among toddlers in the coastal area of Sekuro Village, Mlonggo Sub-district, Jepara Regency. *Solidarity*, 10(2), 219–230. <http://journal.unnes.ac.id/sju/index.php/solidarit>
- Maulana, R., & Eliasa, E. I. (2024). Exploration of the characteristics and developmental tasks of early childhood (2–6 years): Physical, cognitive, and socio-emotional implications in education and caregiving. *Educational: Jurnal Inovasi Pendidikan & Pengajaran*, 4(4), 239–252. <https://doi.org/10.51878/educational.v4i4.3404>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- Miller, A. C., Murray, M. B., Thomson, D. R., & Arbour, M. C. (2016). How consistent are associations between stunting and child development? Evidence from a meta-analysis of associations between stunting and multidimensional child development in fifteen low- and middle-income countries. *Public Health Nutrition*, 19(8), 1339–1347.
- Mitra, M., Rany, N., Herniwanti, H., & Syifa, E. D. A. (2025). Preventing infectious diseases and monitoring child growth to address stunting in daycare centers. *Mitra Mahajana: Jurnal Pengabdian Masyarakat*, 5(3), 429–437. <https://doi.org/10.37478/mahajana.v5i3.4988>
- Nabila, A. F., Muthohar, S., Nasikhin, N., & Razak, A. (2024). Anti-stunting education strategy in daycare: Analysing the role of caregivers and families towards early childhood. *As-Sibyan: Jurnal Pendidikan Anak Usia Dini*, 9(2), 193–218. <https://ftk.uinbanten.ac.id/journals/index.php/assibyan/article/view/10604>
- Nisbett, N., Davis, P., Yosef, S., & Akhtar, N. (2017). Bangladesh's story of change in nutrition: Strong improvements in basic and underlying determinants with an unfinished agenda for direct community-level support. *Global Food Security*, 13, 21–29. <https://doi.org/10.1016/j.gfs.2017.01.005>
- Nugroho, E., Wanti, P. A., Suci, C. W., Raharjo, B. B., & Najib, N. (2023). Social determinants of stunting in Indonesia. *Jurnal Kesehatan Masyarakat*, 18(4), 546–555.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (Vol. 3). SAGE Publications.

- Purwanto, H., Wahyuni, P., Nugrahajati, S. D., Paripurno, E. T., & Prasetya, J. D. (2023). Communication model for stunting management and social capital during the COVID-19 pandemic in Indramayu. *Jurnal Kajian Ilmiah*, 23(4), 397–408. <https://doi.org/10.31599/jki.v23i4.2895>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon & Schuster.
- Sentika, R., Setiawan, T., Rattu, D. J., Yunita, I., Masita, B. M., & Basrowi, R. W. (2024). The importance of interprofessional collaboration (IPC) guidelines in stunting management in Indonesia: A systematic review. *Healthcare*, 12(22), 2226.
- Setianingsih, T., Suharso, E., & Hussain, N. (2024). Influence of social capital on the stunting incidence: A cross-sectional study. *Padjadjaran Journal of Dentistry*, 36(1), 103–116.
- Setya, A. (2023). Evaluation of the national strategy for accelerating stunting reduction: A critical review. *Jurnal Kebijakan Publik Indonesia*, 9(1), 1–10.
- Susanto, A. (2020). Fragmentation of nutrition programs at the sub-district level. *Jurnal Ilmu Kesehatan Masyarakat*, 16(2), 113–122.
- Unicef. (2023). *State of the world's children: For every child, nutrition*. <https://www.unicef.org>
- Van Den Bold, M., Menon, P., & Kohli, O. D. (2020). Where is multisectoral nutrition happening? Understanding multisectoral planning and action at the subnational level in three countries. *Food Policy*, 93.
- Wegino, J. (2022). Scrutinizing the budget for accelerating stunting reduction in Indonesia. *Jurnal Anggaran dan Kebijakan Publik*, 5(3), 203–214.
- Yuniarni, D., Solichah, N., & Satwika, P. A. (2024). Pocketbook development: Parental assistance for optimizing early childhood cognitive development in the digital era. *Aulad: Journal on Early Childhood*, 7(3), 926–937. <https://doi.org/10.31004/aulad.v7i3.812>