

Community-Based Early Childhood Development Center as a Platform to Overcome Stunting in PAUD Kenanga Mekar Asri Semarang

Dwi Kustriyanti^{1*}, Boediarsih², Witri Hastuti³, Hermeksi Rahayu⁴, Indah Wulaningsih⁵, Mardiyani⁶, Andrew Sitepu⁷

¹⁻⁷University of Karya Husada Semarang, Central Java, Indonesia

Article Info

Article history:

Received June 05, 2024

Revised June 21, 2024

Accepted June 24, 2024

Keywords:

Community-Based Development Center; Early Childhood; Stunting.

Abstract

Purpose: This community-based early childhood development center program aims to promote early childhood growth and development by providing a safe stimulating environment and increased knowledge about nutrition that impacts improved dietary practices. **Methodology:** The method of activities carried out was chosen in the form of counseling, mentoring, and training. The approach uses participatory rural appraisal (PRA) and is modified with oriented project planning (OPP). These two approaches are to achieve a catfish pond/tilapia program as an innovation project and urban farming of various vegetables. This activity requires the participation and role of partners, with the principle of and for the community itself. **Findings:** The children were boys (60%) with the highest ages being 36 and 48 months (30%). The majority of children develop according to age (70%), of which 4 children (28.5%) are aged 30, 36 & 48 months, 2 children (14.2%) are 42 months old, Suspect development is 30%, of which 2 children (33.3%) are 36 & 48 months and 1 child (16.7%) is 42 and 30 months old. There is only 1 child (5%) who is underweight and male, none of whom are stunted.

This is an open-access article under the CC BY-SA license.



Corresponding Author:

Dwi Kustriyanti

University of Karya Husada Semarang, Central Java, Indonesia.

E-mail: dwikustri@stikesyahoedsmg.ac.id

A. Introduction

Nutritional problems that still exist and the number tends to increase are undernutrition and malnutrition issues.¹ Malnutrition is strongly influenced by people's

¹ Nathaly Aguilera Vasquez and Jana Daher, "Do Nutrition and Cash-Based Interventions and Policies Aimed at Reducing Stunting Have an Impact on Economic Development of Low-and-

lack of knowledge, socioeconomic circumstances, and disease incidence.² As for malnutrition cases, 26 cases were found, a decrease from last year which amounted to 34 cases. Of all cases of malnutrition, interventions have also been carried out, especially efforts to improve community nutrition in the form of PMT recovery activities for 180 days, treatment, and treatment both in the *Community Health Center* (Puskesmas) and hospitals with the help of funds for the Poor People's Health Insurance program. These efforts still have not stopped the addition of stunting, conditional assistance only meets nutritional needs in the short term. Balanced nutrition must be given continuously until nutritional problems are met and require a long period.³

Based on data from the Rowosari Semarang Health Center in 2020, there were around 12 cases of neonatal infant deaths, the majority of which were due to asphyxia (10.29%), and severe dehydration (3.8%). The majority of infant mortality cases (1-11 months) are caused by other diseases (54%) such as cases of breast milk aspiration, dehydration, respiratory failure, and febrile seizures. Febrile seizures occur in about 2.2 to 5% of children who have had febrile seizures before reaching age 5 years. The development of the nutritional condition of the community can be monitored through the results of recording and reporting community nutrition improvement programs which are reflected in the results of weighing infants and toddlers every month at Posyandu. According to the report of Puskesmas in 2011 in Semarang City, the number of Live Born Babies was as many as 25,852 babies, and the number of existing toddlers amounted to 113,936 children. For the case of babies with Low Birth Weight (BBLR) in 2011 there were 187 babies (0.7%) consisting of 88 male babies and 99 female babies. The number of toddlers who came and weighed at the Posyandu from all existing toddlers was 87,965 toddlers with details of the number of toddlers who gained weight as many as 66,123 children (75.2%) and Below the Red Line (BGM) as many as 736 children (0.8%).

Middle-Income Countries? A Systematic Review," *BMC Public Health* 19, no. 1 (2019): 1419, <https://doi.org/10.1186/s12889-019-7677-1>.

² Venny Marisai Kullu, Yasnani, and Hariati Lestari, "Faktor-Faktor Yang Berhubungan Dengan Kejadian Stunting Pada Balita Usia 24-59 Bulan Di Desa Wawatu Kecamatan Moramo Utara Kabupaten Konawe Selatan Tahun 2017," *Jurnal Ilmiah Mahasiswa Kesehatan Masyarakat* 3, no. 2 (2018): 1-11.

³ Christine P. Stewart et al., "Contextualising Complementary Feeding in a Broader Framework for Stunting Prevention," *Maternal and Child Nutrition* 9, no. S2 (2013): 27-45, <https://doi.org/10.1111/mcn.12088>.

The prevalence of stunting is mostly in the early childhood stage, namely the age of toddler 1-3 years.⁴ The early age stage is the child's age stage where accelerated development and growth can reach the maximum stage.⁵ Good early childhood cognitive, social, and emotional development requires nutritional support, and stimulation both from the family and the educational environment, namely ECCE. Stunting is a growth problem caused by low nutritional intake in the first 1000 days of life, namely from the fetus to the age of two years.⁶ Sanitation factors such as access to clean water and environmental cleanliness can be at risk of causing stunting.⁷ The impact of stunting is that children experience developmental growth failure, and affects children's intelligence or cognition.⁸ Lack of nutritional fulfillment is closely related to the family's economic condition. Poverty factors are at higher risk, children are stunted because of the family's inability to meet children's nutritional needs including protein, vitamin, and mineral intake.⁹ Lack of family knowledge in food menu selection and processing will affect nutritional intake. There are still 24 malnourished children in the Tembalang sub-district area in 2022. This contributes to increasing stunting rates in 2023. Estimates of the global malnutrition burden show that undernutrition causes more than 3 million child deaths and as many as 155 million children under the age of 5 are stunted. Indonesia faces nutritional risks associated with low diet/menu quality and chronic malnutrition. The prevalence of stunting in Indonesia is between 22.09% - 48.01%. Micronutrient deficiencies also result in increased maternal and child mortality and impaired mental and physical development of children.¹⁰ The

⁴ Z Mehmood et al., "Prevalence-and-Determinants-of-Stunting-among-Preschool-and-Schoolgoing-Children-in-the-Floodaffected-Areas-of-Pakistan--Prevalencia-e-Determinantes-Da-Baixa-Estatura-Entre-Crianas-Em-Idade-Prescolar-e-Em-Idade-Esc.Pdf" 82 (2022): 1-9.

⁵ Sunita Taneja et al., "Impact of a Package of Health, Nutrition, Psychosocial Support, and WaSH Interventions Delivered during Preconception, Pregnancy, and Early Childhood Periods on Birth Outcomes and on Linear Growth at 24 Months of Age: Factorial, Individually Randomised Co," *The BMJ*, 2022, <https://doi.org/10.1136/bmj-2022-072046>.

⁶ Hijrawati et al., "Use of Technology for Monitoring the Development of Nutritional Status 1000 Hpk in Stunting Prevention in Indonesia," *Gaceta Sanitaria* 35 (2021): S231-34, <https://doi.org/10.1016/j.gaceta.2021.10.028>.

⁷ Oliver Cumming and Sandy Cairncross, "Can Water, Sanitation and Hygiene Help Eliminate Stunting? Current Evidence and Policy Implications," *Maternal and Child Nutrition* 12 (2016): 91-105, <https://doi.org/10.1111/mcn.12258>.

⁸ Günther Fink et al., "Home- and Community-Based Growth Monitoring to Reduce Early Life Growth Faltering: An Open-Label, Cluster-Randomized Controlled Trial," *American Journal of Clinical Nutrition* 106, no. 4 (2017): 1070-77, <https://doi.org/10.3945/ajcn.117.157545>.

⁹ Shahla Akram, Feroz Zahid, and Zahid Pervaiz, "Socioeconomic Determinants of Early Childhood Development: Evidence from Pakistan," *Journal of Health, Population, and Nutrition* 43, no. 1 (May 2024): 70, <https://doi.org/10.1186/s41043-024-00569-5>.

¹⁰ In-Sook Lee and Jeong-Hee Jeon, "Factors Influencing Children's Emotional and Behavioral Problems Perceived by North Korean Refugee Mothers: A Descriptive Study.," *Child Health Nursing Research* 30, no. 2 (April 2024): 129-41, <https://doi.org/10.4094/chnr.2024.011>.

developmental growth period can be well stimulated through ECCE schools that take part in screening for failure to thrive.

The condition of partner communities is still below the poverty line, lack of family knowledge about balanced nutrition, and food security that only depends on assistance or programs from external parties needs to be addressed jointly between the surrounding community and the family.¹¹ The proposed work program is to initiate the establishment of early childhood development center facilities by empowering families to overcome stunting children. This program is expected to grow public awareness to optimize stunting prevention and nutrition problems from an early age. The focus of this service overcomes 3 aspects that are carried out, namely aspects of early childhood education in PAUD Rowosari Puskesmas area in detecting and stimulating early child development growth; areas of nutritional fulfillment include knowledge, practices of providing balanced nutrition (selection, procurement, processing and presentation of food).

The purpose of this activity is expected to grow public awareness to participate in optimizing stunting prevention and nutrition problems from an early age. The focus of this activity overcomes 2 aspects that are carried out including, aspects of **early childhood education** in PAUD Rowosari Puskesmas area in detecting and stimulating early child development; **The health area** of nutritional fulfillment includes knowledge, balanced nutrition practices (selection, procurement, processing and presentation of food).

B. Method

The method of implementing the selected activities is in the form of counseling, mentoring, and training. Methods are tailored to partner solutions and goals, to produce outcomes as expected. The approach uses *participatory rural appraisal (PRA)* and is modified with *oriented project planning (OPP)*. These two approaches are to achieve a catfish pond/tilapia program as an innovation project and *urban farming* of various vegetables. This activity requires the participation and role of partners, with the principle of and for the community itself.¹² The stages and steps of implementation are as follows:

¹¹ Christopher R Sudfeld et al., "Effect of a Community Health Worker Delivered Health, Nutrition and Responsive Stimulation Package and Conditional Cash Transfers on Child Development and Growth in Rural Tanzania: Protocol for a Cluster-Randomized Trial.," *BMC Public Health* 19, no. 1 (May 2019): 641, <https://doi.org/10.1186/s12889-019-7008-6>.

¹² Joshua Jeong et al., "Parenting Interventions to Promote Early Child Development in the First Three Years of Life: A Global Systematic Review and Meta-Analysis.," *PLoS Medicine* 18, no. 5 (May 2021): e1003602, <https://doi.org/10.1371/journal.pmed.1003602>.

1. Preparatory stage

The initial stage is to coordinate local officials and conduct an in-depth survey of the condition of target partners. There are 3 program plans to solve 2 problem areas, namely:

- a. Improvement of health services: child care & stimulation programs, nutrition programs.
- b. Improvement of service facilities in the field of education: provision of Health Education about child growth and development and stimulation and nutrition in children.

Furthermore, preparation of equipment for stimulation, detection, early intervention of early childhood growth and development, and coordination of resource persons to educate parents/caregivers about balanced nutrition.

2. Implementation stage

- a. Activity 1: the service team conducts stimulation, detection, and early intervention of early childhood growth and development by collaborating with Puskesmas officers through the Posyandu agenda and coming to PAUD around partner target areas.
- b. Activity 2: providing education to parents/caregivers about balanced nutrition (selection, procurement, processing, and presentation of food.
- c. Activity 3: Establishment of an early childhood development center by forming a management team, determining the location, duties, and responsibilities as well as the types of activities that can be carried out in the place.

3. Final Stage

The final stage will be an evaluation of each training while conducting mentoring and monitoring. Pre-Post is given during training to measure the increase in partner knowledge.

Partner participation:

1. The role of partners in activities is as a subject of activity in the sense, that partners as drivers of activities with the target of activities are the families of the Rowosari Health Center area. The object of the activity is parents/caregivers of early childhood and their families.
2. The role of active partners: community partners in the Puskesmas area Puskesmas are involved in making urban vegetable farming in the surrounding area as an effort to increase the production of nutritious food for stunted children.
3. The role of passive partners: in this case, the target partners are parents/caregivers of early childhood who receive training and education from resource persons on balanced nutrition, and urban farming of various vegetables for staples.



Education of ECCE mothers and teachers

Education for children through songs

Evaluation of program implementation:

Monitoring of program implementation is carried out by the proposer team and in collaboration with the head of the Puskesmas with a mentoring method that is carried out every month during the implementation of service and per semester after the implementation of service activities is completed. Assistance will continue as part of the lecturers' Tridharma which is carried out in a structured manner every six months so that the innovations that have been formed can last for a long time so that the principle of usefulness can continue to be enjoyed by the community. This model of the early childhood development center is expected to be in every layer of ECCE at the Rowosari Health Center.

There are 2 aspects of the problem addressed, namely the area of increasing knowledge about stimulation and early childhood care with indicators of increasing growth and development assessment; aspects of improving nutrition on balanced nutrition starting from the provision of selection, processing, presentation of menus with assessment indicators of improving nutrition practices. The target of education is parents/caregivers of early childhood, while agriculture involves the surrounding community to help manage food through local village unit cooperatives.



Child Development Screening

Child Growth Screening

C. Results and Discussion

The implementation of activities begins with coordination with the PAUD Principal to adjust the time of children's activities, so as not to interfere with children's learning activities. The first session began with learning by the teacher as usual, in the next hour the PKM team of Karya Husada University Semarang was given to fill the event by interacting with mothers and children. Initial screening by measuring TB and BB of children, followed by early detection of child development using KPSP according to age. After all, children have completed screening, continue by educating children on the topic of knowing themselves and getting to know children's reproductive health through songs. The song taught about "Touch May and Touch Must Not Be". Children and ECCE school teams work together to provide mutual learning and reward through door-pricing for children who are able and courageous with the right opinions and answers. The children were very enthusiastic and excited during the activity.

Table 1. Parent's Characteristics (n=20)

No	Parent's Characteristics	F	%
1	Father's Age		
	▪ 25-35 years old	12	60
	▪ > 35 years old	8	40
2	Father's Job		
	▪ Employee	17	85
	▪ Entrepreneur	2	10
	▪ PNS/TNI/Polri	1	5
3	Father's Education		
	▪ No Education	3	15
	▪ Elementary School	4	20
	▪ Junior High School	1	5
	▪ Senior High School	9	45
	▪ University	3	15
4	Mother's Age		
	▪ 20-25 years old	2	10
	▪ 26-35 years old	15	75
	▪ > 35 years old	3	15
5	Mother's Job		
	▪ Employee	11	55
	▪ Jobless	8	40
	▪ Others	1	5
6	Mother's Education		
	▪ No Education	1	5
	▪ Elementary School	1	5
	▪ Junior High School	3	15
	▪ Senior High School	11	55
	▪ University	4	20

Table 1. Shows that the majority of the age of father and mother children are in the childbearing age range of 25-35 years with an average high school education, only

10% of parents do not go to school. The majority of parents' jobs are private employees (70%).

The age of parents can affect the physical and emotional resources they have to support a child's growth and development. Younger parents may have more energy to interact and care for children but may lack experience and financial stability. On the other hand, older parents may be more emotionally mature and have financial stability but may lack the physical energy to play and actively interact with the child. Both situations can affect how parents provide their children with attention, support, and guidance.¹³ Parental education has a major impact on children's growth and development. Parents with higher education tend to have a broader knowledge and understanding of how to support children's optimal development. They are better able to provide an optimal learning environment stimulate the child in problem-solving, and encourage interest in education. In addition, parents with higher education also tend to have better access to educational resources and services for their children.¹⁴ The type of work parents do can affect the quality of time they spend with their children. Parents who work full-time may have limited time to interact with their child, while parents who work part-time or have time flexibility may be able to spend more time with the child. In addition, factors such as stress levels and work pressure can also affect the quality of parent-child interaction. Jobs that provide financial stability and job satisfaction can help parents maintain a balance between family and work needs.¹⁵

Overall, a parent's age, education, and occupation play an important role in shaping the family environment and influencing the way parents provide attention, support, and guidance to children, which in turn affects a child's growth and development. Good parental knowledge about stunting prevention in children can help to provide care for children for stunting prevention. Good knowledge is influenced by the characteristics of the level of education of parents. The age of parents in productive age allows parents to find information about stunting prevention. Adequate social and economic support can help families get sufficient financial resources for stunting prevention (Fatima, 2020; Cahyono, 2016).

¹³ Sudfeld et al., "Effect of a Community Health Worker Delivered Health, Nutrition and Responsive Stimulation Package and Conditional Cash Transfers on Child Development and Growth in Rural Tanzania: Protocol for a Cluster-Randomized Trial."

¹⁴ Jeong et al., "Parenting Interventions to Promote Early Child Development in the First Three Years of Life: A Global Systematic Review and Meta-Analysis."

¹⁵ Esther Coren, Kerry Ramsbotham, and Manfred Gschwandtner, "Parent Training Interventions for Parents with Intellectual Disability.," *The Cochrane Database of Systematic Reviews* 7, no. 7 (July 2018): CD007987, <https://doi.org/10.1002/14651858.CD007987.pub3>.

Table 2. Early Childhood's Characteristics (n=20)

No	Early Childhood's Characteristics	F	%
1	Sex		
	▪ Male	12	60
	▪ Female	8	40
2	Ages based on KPSP		
	▪ 30 months	5	25
	▪ 36 months	6	30
	▪ 42 months	3	15
	▪ 48 months	6	30
3	Child Development		
	▪ Appropriate	14	70
	▪ Suspect	6	30
	▪ Deviation	0	0
4	Growth Based on Weight/Ages		
	▪ Underweight	1	5
	▪ Normal	19	95
	▪ Overweight	0	0
5	Growth Based on Height/Ages		
	▪ Stunted	0	0
	▪ Normal	16	80
	▪ Tall	4	20

Table 2. It shows that most ECCE children are boys (60%) with the most ages being 36 and 48 months (30%). The majority of child development is age appropriate (70%) Where as many as 4 children (28.5%) aged 30, 36 & 48 months, 2 children (14.2%) aged 42 months, suspect development as much as 30%, where as many as 2 children (33.3%) aged 36 & 48 months and 1 child (16.7%) aged 42 and 30 months. Only 1 child (5%) is underweight and male but has age-appropriate development. None were stunted, as many as 20% were in the high category, of which 25% had suspect development.

Child development is influenced by several factors, including nutritional factors and stimulation provided by the family.¹⁶ Children with suspicious development, have a failure of several skills among aspects of fine motor, roughness, language, and socialization.¹⁷ Treatment of children with suspect development is to continue stimulation of the failed area for two weeks and repeat developmental screening measurements using the same KPSP as before. Children with underweight nutritional status are influenced by nutritional intake, knowledge, and family readiness in preparing food menus. Ongoing malnutrition

¹⁶ Mercedes de Onis and Francesco Branca, "Childhood Stunting: A Global Perspective," *Maternal and Child Nutrition* 12 (2016): 12–26, <https://doi.org/10.1111/mcn.12231>.

¹⁷ Stewart et al., "Contextualising Complementary Feeding in a Broader Framework for Stunting Prevention."

conditions can lead to chronic nutritional problems that can hinder a child's development.¹⁸ The risk of experiencing digestive diseases and other complications is greater than that of children with normal nutritional status.

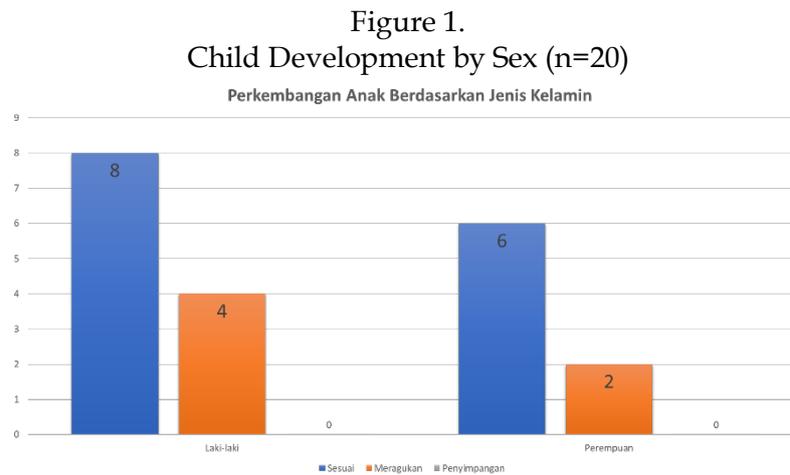


Figure 1 shows that 4 boys (33.3%) had suspect development and 2 girls (16.7%) had suspect development.

In general, boys and girls have different patterns of physical development. For example, boys tend to have greater physical strength than girls, while girls may achieve their physical growth faster during puberty. Some research suggests that girls tend to develop language skills earlier than boys. However, this can vary greatly and depends on other factors such as environmental stimulation and social interaction. There are differences in the way boys and girls develop their social and emotional skills. For example, girls tend to be more likely to develop empathy abilities and non-verbal communication skills, while boys may be more inclined to express themselves through physical activity.¹⁹

Parents and educators should treat each child individually and provide equal opportunities to grow and develop according to their interests, talents, and needs, regardless of gender. Toddler and pre-school age is a golden period of child development. A thousand years of child development is very instrumental to children's lives in the future. Child development parameters can be seen from the KPSP assessment based on gross motor, fine motor, personal social, and language. A child's growth can be judged by weight,

¹⁸ Yunhee Kang et al., "Association between Stunting and Early Childhood Development among Children Aged 36-59 Months in South Asia," *Maternal & Child Nutrition* 14 Suppl 4, no. Suppl 4 (November 2018): e12684, <https://doi.org/10.1111/mcn.12684>.

¹⁹ Akram, Zahid, and Pervaiz, "Socioeconomic Determinants of Early Childhood Development: Evidence from Pakistan."

height, and upper arm circumference. Nutrition plays a role in supporting the growth and development of a child.²⁰

D. Conclusion

This community service activity can increase mothers' knowledge about growth and development and nutrition in children so that they can prevent stunting. Maternal skills and awareness in early detection and early stimulation of growth and development in the family environment as an effort to empower mothers in the family have also increased. This activity is carried out on an ongoing basis to monitor development.

E. Acknowledgements

The Author thanks the maternity department of the University of Karya Husada Semarang for sponsoring and financial support. Thank also to the Principal of PAUD Kenanga Mekar Asri and the Head of Puskesmas for facilitating this community service activity.

F. Author Contributions Statement

This activity was carried out by the maternity department team with the following division of tasks: Dwi Kustriyanti as the compiler of the manuscript, Boediarsih and Hermeksi Rahayu as educational resource persons for mothers and children, Witri Hastuti and Indah Wulaningsih as facilitators who conducted growth screening through weight and height measurements. Child development screening was conducted by Dr. Andrew Sitepu and Mardiyani.

G. References

- Aguilera Vasquez, Nathaly, and Jana Daher. "Do Nutrition and Cash-Based Interventions and Policies Aimed at Reducing Stunting Have an Impact on Economic Development of Low-and-Middle-Income Countries? A Systematic Review." *BMC Public Health* 19, no. 1 (2019): 1419. <https://doi.org/10.1186/s12889-019-7677-1>.
- Akram, Shahla, Feroz Zahid, and Zahid Pervaiz. "Socioeconomic Determinants of Early Childhood Development: Evidence from Pakistan." *Journal of Health, Population, and Nutrition* 43, no. 1 (May 2024): 70. <https://doi.org/10.1186/s41043-024-00569-5>.
- Coren, Esther, Kerry Ramsbotham, and Manfred Gschwandtner. "Parent Training Interventions for Parents with Intellectual Disability." *The Cochrane Database of Systematic Reviews* 7, no. 7 (July 2018): CD007987.

²⁰ Taneja et al., "Impact of a Package of Health, Nutrition, Psychosocial Support, and WaSH Interventions Delivered during Preconception, Pregnancy, and Early Childhood Periods on Birth Outcomes and on Linear Growth at 24 Months of Age: Factorial, Individually Randomised Co."

<https://doi.org/10.1002/14651858.CD007987.pub3>.

- Cumming, Oliver, and Sandy Cairncross. "Can Water, Sanitation and Hygiene Help Eliminate Stunting? Current Evidence and Policy Implications." *Maternal and Child Nutrition* 12 (2016): 91-105. <https://doi.org/10.1111/mcn.12258>.
- Fink, Günther, Rachel Levenson, Sarah Tembo, and Peter C. Rockers. "Home- and Community-Based Growth Monitoring to Reduce Early Life Growth Faltering: An Open-Label, Cluster-Randomized Controlled Trial." *American Journal of Clinical Nutrition* 106, no. 4 (2017): 1070-77. <https://doi.org/10.3945/ajcn.117.157545>.
- Hijrawati, Andi Nilawati Usman, Syafruddin Syarif, Veni Hadju, Suryani As'ad, and Yusring Sanusi Baso. "Use of Technology for Monitoring the Development of Nutritional Status 1000 Hpk in Stunting Prevention in Indonesia." *Gaceta Sanitaria* 35 (2021): S231-34. <https://doi.org/10.1016/j.gaceta.2021.10.028>.
- Jeong, Joshua, Emily E Franchett, Clariana V Ramos de Oliveira, Karima Rehmani, and Aisha K Yousafzai. "Parenting Interventions to Promote Early Child Development in the First Three Years of Life: A Global Systematic Review and Meta-Analysis." *PLoS Medicine* 18, no. 5 (May 2021): e1003602. <https://doi.org/10.1371/journal.pmed.1003602>.
- Kang, Yunhee, Víctor M Aguayo, Rebecca K Campbell, and Keith P Jr West. "Association between Stunting and Early Childhood Development among Children Aged 36-59 Months in South Asia." *Maternal & Child Nutrition* 14 Suppl 4, no. Suppl 4 (November 2018): e12684. <https://doi.org/10.1111/mcn.12684>.
- Kullu, Venny Marisai, Yasnani, and Hariati Lestari. "Faktor-Faktor Yang Berhubungan Dengan Kejadian Stunting Pada Balita Usia 24-59 Bulan Di Desa Wawatu Kecamatan Moramo Utara Kabupaten Konawe Selatan Tahun 2017." *Jurnal Ilmiah Mahasiswa Kesehatan Masyarakat* 3, no. 2 (2018): 1-11.
- Lee, In-Sook, and Jeong-Hee Jeon. "Factors Influencing Children's Emotional and Behavioral Problems Perceived by North Korean Refugee Mothers: A Descriptive Study." *Child Health Nursing Research* 30, no. 2 (April 2024): 129-41. <https://doi.org/10.4094/chnr.2024.011>.
- Mehmood, Z, T Afzal, N Khan, B Ahmed, L Ali, A Khan, J Muhammad, et al. "Prevalence-and-Determinants-of-Stunting-among-Preschool-and-Schoolgoing-Children-in-the-Floodaffected-Areas-of-Pakistan--Prevalencia-e-Determinantes-Da-Baixa-Estatura-Entre-Crianas-Em-Idade-Prescolar-e-Em-Idade-Esc.Pdf" 82 (2022): 1-9.
- Onis, Mercedes de, and Francesco Branca. "Childhood Stunting: A Global Perspective." *Maternal and Child Nutrition* 12 (2016): 12-26. <https://doi.org/10.1111/mcn.12231>.
- Stewart, Christine P., Lora Iannotti, Kathryn G. Dewey, Kim F. Michaelsen, and Adelheid W. Onyango. "Contextualising Complementary Feeding in a Broader Framework for Stunting Prevention." *Maternal and Child Nutrition* 9, no. S2 (2013): 27-45. <https://doi.org/10.1111/mcn.12088>.
- Sudfeld, Christopher R, Lilia Bliznashka, Geoffrey Ashery, Aisha K Yousafzai, and Honorati Masanja. "Effect of a Community Health Worker Delivered Health, Nutrition and Responsive Stimulation Package and Conditional Cash Transfers on Child Development and Growth in Rural Tanzania: Protocol for a Cluster-Randomized Trial." *BMC Public Health* 19, no. 1 (May 2019): 641. <https://doi.org/10.1186/s12889-019-7008-6>.
- Taneja, Sunita, Ranadip Chowdhury, Neeta Dhabhai, Ravi Prakash Upadhyay, Sarmila

Mazumder, Sitanshi Sharma, Kiran Bhatia, et al. "Impact of a Package of Health, Nutrition, Psychosocial Support, and WaSH Interventions Delivered during Preconception, Pregnancy, and Early Childhood Periods on Birth Outcomes and on Linear Growth at 24 Months of Age: Factorial, Individually Randomised Co." *The BMJ*, 2022. <https://doi.org/10.1136/bmj-2022-072046>.