



**FACTORS INFLUENCING SUCCESS OF CADRE EMPOWERMENT  
IN STUNTING PREVENTION IN INDONESIA: A SCOPING REVIEW**

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**ABSTRACT**

Cadres are public health volunteers chosen from a local community. Cadres should undergo constant educational training and empowerment since they play an active role in monitoring health issues in their community, in this case stunting. The planning, implementation, and evaluation processes of cadre empowerment are not always successful and effective. This scoping review aims to identify the factors that influence the success of cadre empowerment in Indonesia, so that a model of empowerment and education can be formulated by focusing on the factors that can give the most optimal results. This scoping review is based on the guidelines of PRISMA-ScR. The article search involves two databases, PUBMED and Google Scholar. The keywords used include: Stunting [MeSH] AND "Health Cadres OR Health volunteers" AND Factors associated OR determinant. "Stunting AND Kader AND pemberdayaan AND Factor". The review resulted in the selection of eight articles, with one focusing on a particular region of Sumatera (Aceh), while the rest are on Java (West Java, Yogyakarta, and East Java). The review finds certain shared factors that influence the success of cadre empowerment, including KAP (knowledge, attitude, and practice), self-efficacy, sectoral and community support, and resources.

Keywords: cadre; empowerment; stunting

**How to cite (in APA style)**

Wiwaha, G., Husnida, N., Adnani, Q. E. S., & Hilmanto, D. (2024). Factors Influencing Success of Cadre Empowerment in Stunting Prevention in Indonesia: A Scoping Review. *Indonesian Journal of Global Health Research*, 6(S5), 397-404. <https://doi.org/10.37287/ijghr.v6iS5.4603>.

**INTRODUCTION**

Stunting is a long-term effect of chronic malnutrition that developing countries, including Indonesia, has yet to solve (Budiastutik, 2018). In 2018, the Ministry of Health stated that Indonesia placed 17th from the 117 countries with high prevalence in stunting. Indonesia placed third in Southeast Asia with the highest instances of stunting at 36.4%, higher than that of Malaysia (20%) and Thailand (10,5%) (Huriah, 2020). Stunting is caused by various factors that are not limited to the nutritional state of a child or pregnant mother (Danaei, 2016). Certain factors that influence the high prevalence of stunting in Indonesia include negative parenting, lack of access to health facilities, including ANC, particularly for pregnancy health, limited access to nutritious food for the whole family, and limited access to clean water (Beal, 2018). This variety of factors calls for multi-sectoral solutions that involve both health workers and non-health workers, such as cadres. Cadres serve as the frontliners in the handling of stunting in synergy with health workers (Rawal, et al., 2016).

Cadres are health volunteers chosen from the community based on their ability, integrity, loyalty, and commitment to improving the health and well-being of the community (Shiroya-Wandabwa, et al., 2018). The role of cadres are highly important in the health of mother and children, including in the strategizing of reducing stunting (Mediani HS, 2022). Cadres should

be continuously and regularly trained to identify the health problems of the individual and the community; as such, they then can contribute in promoting health, counseling, and referring certain health problems to health facilities (Solikhah, 2018). The training and empowering of cadres are the task of the local government and health workers. Nevertheless, the process of empowering and training does not always achieve its target and effectiveness. The involved health workers should have the ability to arrange appropriate trainings by identifying various issues and factors that determine their success (Yousafzai, 2016). This scoping review aims to identify the factors that influence the success of the empowering process of health cadres in Indonesia, so that the success can become an empowering role model and the focus can be narrowed down to the factors that determine that success, in order to achieve the maximum result.

**METHOD**

The proposed scoping review is conducted according to the framework put forth by Arksey and O’Malley which comprises identifying research questions, identifying relevant studies, selecting type of study, data mapping, composing, summarizing, reporting results, and consulting (Arksey H, 2005) as well as presenting the PRISMA-ScR table of results (McGowan, 2020). To obtain information on various factors that influence the success of cadre empowerment in stunting prevention in Indonesia, we also include original grey literature papers that are not published, if available. We also conduct reviews on the previous studies published in the past ten years, more accurately from January 2014 to August 2024. As a result, we formulate the following research question: “Which factors likely improve the success of cadre empowerment in stunting prevention in Indonesia?”

Criteria for article inclusion according to the PCC (Population, Concept, Context) approach

Table 1. PCC Criteria

Population	Concept	Context
The target population of the primary study comprises the health cadres that have received empowering intervention from trained health workers.	The implementation of empowerment considered in this review category directly engages the cadres both inside and outside of health facilities, such as village hall or other locations agreed upon by more than one cadre.	Empowerment is conducted at every primary healthcare facilities, Puskesmas (Community Health Center), Pos pelayanan terpadu (posyandu-integrated service post), pos pembinaan terpadu (posbindu-integrated guidance post)) and non-health facilities (village hall, cadre’s house, or local public health office). The outcome considered is the factor that influence the success of the empowerment outside of the main outcome variable.

Table 2.  
Article Search Strategy

Criteria	Search Strategy
Database	Pubmed and Google Scholar
Keywords	
Pubmed	" Stunting [MeSH Terms]AND “Health Cadres OR Health volunteers [MeSH Terms]” AND Factors associated OR determinant
Google Scholar	“Stunting DAN Kader DAN pemberdayaan DAN Factor”
Included article types	primary research with quasi-experimental designs or randomized controlled trial, observational, cross sectional, and qualitative study
Excluded article types	articles resulting from community services, secondary articles in the forms of review, short communication, expert opinion or letter to editor

**RESULT**

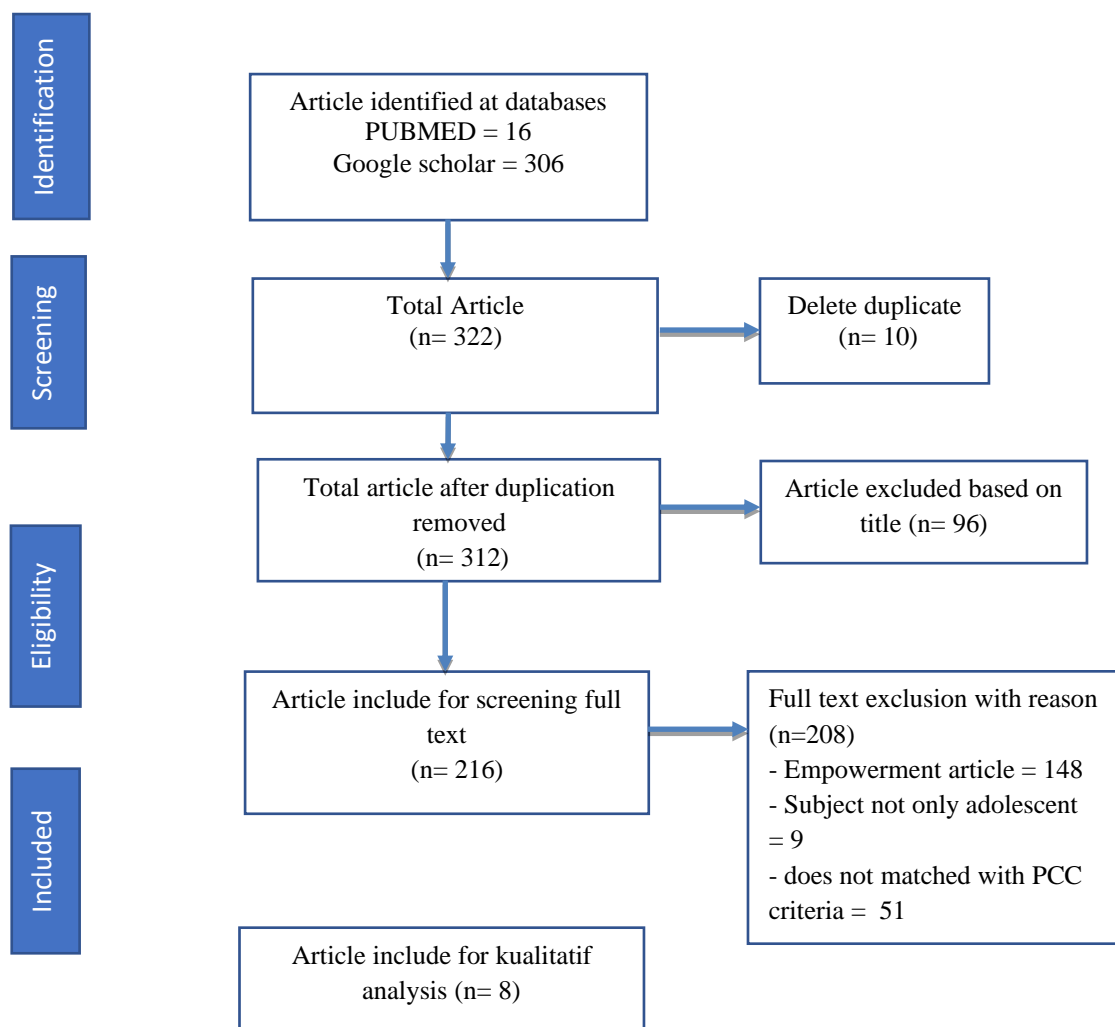


Figure 1. PRISMA Flow diagram

Tabel 3.

Data of identified papers

Researcher(s)	Location	Number of subject	Study design	Obtained empowering intervention	Factors influencing success
(Mediani HS, 2022)	Karawang, Tasikmalaya, Garut, Bandung, Subang, Sukabumi, Cianjur, and West Bandung	363 health cadres	Cross sectional	- Training - Health education	- Knowledge - Attitude - Behavior - Motivation
(Siswati T, 2022)	Yogyakarta	30 cadres	Quasi-experimental	Brief direct training using the classical theory and simulation with sub-groups on Children Growth Monitoring (CGM), Children Development	- Self-efficacy - Confidence - Opportunities and freedom in doing

Researcher(s)	Location	Number of subject	Study design	Obtained empowering intervention	Factors influencing success
(Sufri S, 2023)	Aceh	35 respondents	Cross sectional	Monitoring (CDM), and Infant Young Children Feeding (IYCF) by local experts. - Training and education on supplementary food/PMT - Establishment of the center of nutritional knowledge (Rumoh gizi gampong)	home visits - Inter-institutional coordination - Improvement of cadres' skills and knowledge
(Irdawati I, 2024)	Sukoharjo, Central Java	50 health cadres (25 intervention and 25 control)	Quasi-experimental	Intervention group receiving health knowledge using certain media (card and pocket book)	- Knowledge - Age (the older, the more difficult to receive new information)
(Akhmadi, 2021)	Yogyakarta	122 cadres (69 intervention dan 53 control)	Randomized controlled trial	Two-day workshop on cultural modification of Care for Children Development (CCD) guidelines	- Knowledge - Attitude - self-efficacy
(Purnamasari, 2020)	Tegal, Central Java	64 cadres (32 control and 32 intervention )	Quasi-experimental	Training process combining methods of lecture, discussion, and demonstration in the following steps: - Education - Counseling - Field practice for two weeks	- Knowledge - Attitude - Self-efficacy
(Diana Sugiarti, 2023)	Central Java	2 active cadres of posyandu (integrated service post)	Qualitative	Training, workshop, dan collaborative activities with health workers	- Limitation of resources - Motivation - Incentive - Community support
(Rejeki, 2023)	Sleman Yogyakarta	12 active cadres of posyandu (integrated service post)	Qualitative	Training from Puskesmas (Community Health Center)	- Community support (participation of mothers) - Cadre knowledge

The review resulted in the selection of eight articles, with one focusing on a particular region of Sumatera (Aceh), while the rest are on Java (West Java, Yogyakarta, and East Java). The review finds certain shared factors that influence the success of cadre empowerment, including KAP (knowledge, attitude, and practice), self-efficacy, sectoral and community support, and resources.

## **DISCUSSION**

### **KAP (knowledge, attitude, practice)**

The combination of knowledge, attitude, and practice is reported by three articles: (Mediani HS, 2022) (Purnamasari, 2020) (Akhmadi, 2021). The improvement of cognitive aspects of health cadres is the main objective and factor, since knowledge affects a person's attitude and behavior (Damayanti, 2022). Knowledge is the result of comprehension, which happens after a sensory experience with a particular object, be it vision, smell, taste, hearing, and touch. Most of human knowledge is obtained through the eyes and the ears, while cognitive knowledge plays an important role in shaping one's behavior. Cadres are the frontliners and mouthpiece of information towards the community. An empowerment attempt should be able to improve their knowledge; it should be information-concentrated yet easy to digest. The improvement of knowledge changes their perception, habits, and beliefs (Etrawati, 2023). This is in line with the study by Sopiatur (2021) who stated that enduring behavior depends on knowledge, awareness, and positive attitude. As such, the improvement of cognitive aspects of health cadres is important to prevent stunting in a community. Improvement of knowledge in an empowerment effort has the main objective to improve the cadre's attitude. In a previous study, it is shown that level of knowledge and attitude are closely related; the higher one's knowledge, the better the attitude (Muleme, 2017). In educating the community on health issues, a cadre's attitude should be a motivation for mothers to improve their knowledge on health. Their willingness turns into good behaviour when they interact with mothers or parents during counseling.

### **Self Efficacy**

Self efficacy is a person's conviction of their own ability to do something or to handle a situation. Self efficacy can also be defined as a person's view or perception on how they can function according to the situation at hand (Haryanti, 2021). Another study states that efficacy is very closely tied to knowledge and attitude (Zamani-Alavijeh, 2019). A person with good self efficacy is generally confident and succeeds in communicating with others. A cadre is expected to be a communicative person as a marker of high self efficacy. They are expected to convey information efficiently (Alber, 2016). An important aspect of the concept of efficacy is the indirect experience when they obtain new information from the activities of observation, demonstration, and role play as effective methods of empowering intervention. This enables them to improve their own efficacy. Normally, indirect experience, concept of self, and self efficacy act as interacting influences on a person's perception on belief, while professional knowledge and skills also help in improving efficacy.

### **Community Support**

The success of the empowerment effort relates directly to its target, the community. Community support, particularly from mothers and families is key to the success of a cadre. Previous studies have reported that many cadres felt the lack of enthusiasm from the community, since some of the community members thought that the cadres' knowledge and skills in conveying information were less than optimal, so that the cadres still depended on the health workers from the local health center in disseminating knowledge of and training in the prevention of stunting (Rejeki, 2023). The lack of participation from mothers of toddlers in post-posyandu activities was evident from their absence in a forum held after posyandu. The excuses for their absences range from their toddlers being fussy, hurrying working mothers, or them being represented by the children's grandmothers who are older and less receptive in receiving information. Not all members of the community actively involve themselves in stunting prevention programs. Several pregnant mothers and toddlers do not always follow the recommendations given by the cadres (Rejeki, 2023; Diana Sugiarti, 2023). As such, the

empowerment program should also be implemented according to the community awareness and needs.

### **Resources**

Although cadres play important roles, this study also expresses the various challenges they face in doing their tasks. One of the main challenges is the limited resources. Cadres often have limited access to educational materials, child growth measurement tools, and logistical support needed to do their tasks effectively. This limitation often hampers a cadre's attempt in providing optimal services to the community (Diana Sugiarti, 2023). Previous studies have reported that a community's self-sufficiency is marked by the ability to think of, decide on, and do something considered right in order to solve the problems faced using their own knowledge and skills. The knowledge and skills include cognitive, conative, psychomotor, and affective skills as well as other physical or material resources (Zhang, 2020).

### **CONCLUSION**

According to the review results, the factors that influence the success of cadre empowerment include: 1) KAP (Knowledge, attitude dan practice) that are interrelated and should be included in every empowerment material and program in which knowledge improvement is the main indicator; 2) Self efficacy which is an important part of an empowerment program in order to maintain a cadre's confidence and motivation; 3) Community and sectoral support in material terms (provision of educational tools and materials) and non-material terms (active participation in activities with cadres, following cadres' instructions, and welcoming cadres' presence in the community), as well as other resources.

### **REFERENCES**

- Arksey H, O. L. (2005). Scoping studies: towards a methodological framework. *Int J Soc Resear* [Inter-net, 8(1):19–32. Available from: <https://www.tandfonline.com/doi/abs/10.1080/1364557032000119616>.
- McGowan, J. S. (2020). Reporting scoping reviews—PRISMA ScR extension. *Journal of clinical epidemiology*, 123, 177-179.
- Mediani HS, H. S. (2022). Factors Affecting the Knowledge and Motivation of Health Cadres in Stunting Prevention Among Children in Indonesia. *J Multidiscip Healthc*, 1;15:1069-1082. doi: 10.2147/JMDH.S356736.
- Siswati T, I. S. (2022). Effect of a Short Course on Improving the Cadres' Knowledge in the Context of Reducing Stunting through Home Visits in Yogyakarta, Indonesia. *Int J Environ Res Public Health*, 10;19(16):9843. doi: 10.3390/ijerph19169843. PMID: 36011477; PMCID: PMC9408553.
- Sufri S, N. J. (2023). Child Stunting Reduction in Aceh Province: Challenges and a Way Ahead. *Matern Child Health J*, 888-901. doi: 10.1007/s10995-023-03601-y. Epub 2023 Feb 2. PMID: 36732463; PMCID: PMC98.
- Irdawati I, A. S. (2024). Efforts of Increase Cadre Capacity about Stunting Prevention. *MethodsX*, 13:102720. doi: 10.1016/j.mex.2024.102720. PMID: 39101122.
- Akhmadi, S. H. (2021). Effect of care for child development training on cadres' knowledge, attitude, and efficacy in Yogyakarta, Indonesia. *Belitung Nurs J*, 311-319. doi: 10.33546/bnj.1521.

- Purnamasari, H. S. (2020). Pelatihan kader posyandu sebagai upaya pencegahan stunting pada balita di wilayah kerja puskesmas margadana dan puskesmas tegal selatan kota tegal. *Jurnal Kesehatan Masyarakat*, 8(3), 432-439.
- Diana Sugiarti, M. S. (2023). Pemberdayaan Kader Kesehatan Dalam Pencegahan Stunting Di Desa Woro Kecamatan Kepohbaru. *Innovative: Journal Of Social Science Research*, 3(6), 2343–2350. <https://doi.org/10.31004/innovative.v3i6>.
- Rejeki, R. S. (2023). Analisis Peran Kader Posyandu Dalam Pencegahan Stunting Di Kelurahan Margoagung, Kapanewon Seyegan, Kabupaten Sleman. *Journal Of Social And Policy Issues*, 121-125.
- Budiastutik, I. &. (2018). Determinants of stunting in Indonesia: A review article. *International Journal Of Healthcare Research*, 1(1), 2620-5580.
- Huriah, T. &. (2020). Risk factors of stunting in developing countries: A scoping review. *Open Access Macedonian Journal of Medical Sciences*, 8(F), 155-160.
- Danaei, G. A. (2016). Risk factors for childhood stunting in 137 developing countries: a comparative risk assessment analysis at global, regional, and country levels. *PLoS* , 13(11), e1002164.
- Beal, T. T. (2018). A review of child stunting determinants in Indonesia. *Maternal & child nutrition*, 14(4), e12617.
- Rawal, L., Mahmud, K., Islam, S., Mahumud, R., Nuruzaman, & Ahmed, S. (2016). Training mid-level health cadres to improve health service delivery in rural Bangladesh. *Prim. Health Care Res. Dev*, 17, 503–513.
- Shiroya-Wandabwa, M., Kabue, M., Kasungami, D., Wambua, J., Otieno, D., Waka, C., . . . al, e. (2018). Coaching Community Health Volunteers in Integrated Community Case Management Improves the Care of Sick Children Under-5: Experience from Bondo, Kenya. *Int. J. Integr. Care* , 18, 5.
- Solikhah, U. K. (2018). Cadres competence in community-based management of child illness in Banyumas District, Central Java, Indonesia. *Belitung Nursing Journal*, 4(5), 492-501. <https://doi.org/10.33546/bnj.542>.
- Yousafzai, A. K.-S. (2016). Effects of responsive stimulation and nutrition interventions on children's development and growth at age 4 years in a disadvantaged population in Pakistan: A longitudinal follow-up of a cluster-randomised factorial effectiveness trial . *The Lancet Global Health*, 4(8), e548-e558. [https://doi.org/10.1016/S2214-109X\(16\)30100-0](https://doi.org/10.1016/S2214-109X(16)30100-0).
- Damayanti, D. F. (2022). Faktor-Faktor yang Mempengaruhi Peran Kader Posyandu dalam Upaya Pencegahan Stunting di Wilayah Puskesmas Sungai Melayu Kabupaten Ketapang. *Jurnal Kebidanan Khatulistiwa*, 8(1), 12.
- Sopiatun, S. &. (2021). The Influence of Posyandu Cadre Training on Knowledge and Attitudes in Efforts to Prevent Stunting in Karawang. In 1st UMGESHIC International Seminar on Health, Social Science and Humanities (UMGESHIC-ISHSSH 2020) Atlantis Press, pp. 514-517.

- Etrawati, F. L. (2023). Improving the Knowledge of Health Cadres for Stunting Prevention through Emotional Demonstration Technique. *Indonesian Journal of Human Nutrition*, 10(2), 116-123.
- Muleme, J. K. (2017). A framework for integrating qualitative and quantitative data in knowledge, attitude, and practice studies: A case study of pesticide usage in Eastern Uganda. *Frontiers in Public Health*, 5, 318-318. <https://doi.org/10.3389/fpubh.2017.00318>.
- Haryanti, F. M. (2021). Effect of care for child development training on cadres' knowledge, attitude, and efficacy in Yogyakarta, Indonesia. *Belitung Nursing Journal*, 7(4), 311.
- Zamani-Alavijeh, F. A. (2019). Sources of health care providers' self- efficacy to deliver health education: A qualitative study. *BMC Medical Education*, 19(1), 16. <https://doi.org/10.1186/s12909-018-1>.
- Alber, J. M. (2016). Social media self-efficacy of health education specialists: Training and organizational development implications. *Health Promotion Practice*, 17(6), 915-921. <https://doi.org/10.1177/1524839916652389>.
- Zhang, Y. (2020). "Promotion tournament 2.0": Why local cadres expand health-care provision in China. *Governance*, 33(4), 897-914.