



eISSN: 2281-7824

<https://www.pagepressjournals.org/index.php/hls/index>

**Publisher's Disclaimer.** E-publishing ahead of print is increasingly important for the rapid dissemination of science. The *Early Access* service lets users access peer-reviewed articles well before print / regular issue publication, significantly reducing the time it takes for critical findings to reach the research community.

These articles are searchable and citable by their DOI (Digital Object Identifier).

The **Healthcare in Low-resource Settings** is, therefore, e-publishing PDF files of an early version of manuscripts that undergone a regular peer review and have been accepted for publication, but have not been through the typesetting, pagination and proofreading processes, which may lead to differences between this version and the final one.

The final version of the manuscript will then appear on a regular issue of the journal.

E-publishing of this PDF file has been approved by the authors.

Healthc Low-resour S 2024 [Online ahead of print]

*To cite this Article:*

Annisa Wuri Kartika, Setyoadi, Yati Sri Hayati, Cici Indah Setiowati. **Roles and challenges of health cadres in handling stunting: a qualitative study.** *Healthc Low-resour S* doi: 10.4081/hls.2024.13057

 ©The Author(s), 2024

Licensee [PAGEPress](#), Italy

Note: The publisher is not responsible for the content or functionality of any supporting information supplied by the authors. Any queries should be directed to the corresponding author for the article.

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article or claim that may be made by its manufacturer is not guaranteed or endorsed by the publisher.

## Original Article

### Roles and challenges of health cadres in handling stunting: a qualitative study

Annisa Wuri Kartika,<sup>1</sup> Setyoadi,<sup>1</sup> Yati Sri Hayati,<sup>1</sup> Cici Indah Setiowati<sup>2</sup>

<sup>1</sup>Department of Nursing, Faculty of Health Sciences, Universitas Brawijaya, Malang, Indonesia

<sup>2</sup>Malang City General Hospital, Malang, Indonesia

**Running title:** Roles and challenges of health cadres in handling stunting

**Acknowledgment:** The authors are grateful to all participants and Ciptomulyo Primary Health Care, Faculty of Health Sciences, Universitas Brawijaya for the support provided during this study.

**Correspondence:** Annisa Wuri Kartika, Department of Nursing, Faculty of Health Sciences, Universitas Brawijaya Malang, Jl Puncak Dieng, Kalisongo, Kecamatan Dau Malang, East Java, Indonesia, Postcode: 65151, Ph: +62341569117, Email: annisa\_tika@ub.ac.id

**Key words:** community empowerment; health cadres; stunting

**Contributions:** All authors contributed equally to this study AWK and CIS conducted this study, SS and YSH served as supervisors and carried out the review.

**Conflict of interest:** The authors declare that there is no potential conflict of interest.

**Funding:** This study was financially supported by BPPM Faculty of Health Science, Universitas Brawijaya.

**Conference presentation:** Part of this article was presented at the 4<sup>th</sup> International Nursing and Health Sciences Symposium, from 27<sup>th</sup>-28<sup>th</sup> of October 2023, Universitas Brawijaya, Malang, East Java, Indonesia.

**Significance for public health:** The study on the role and challenges of health cadres in overcoming stunting in Indonesia is essential to increase public awareness. Health cadres are part of the community, possessing the ability to initiate positive behavioral changes in the environment. However, the challenge of negative stigma in society is among the main difficulties for cadres in carrying out health education. Therefore, this study aimed to increase efforts in improving the training and skills of cadres by providing health information. The results showed the importance of integrating cadres into health information dissemination efforts along with other strategies, particularly including the community and religious leaders to increase understanding of stunting through cultural methods. The data generated can be a basis for changing or developing policies that are more effective in overcoming stunting, specifically in community empowerment programs.

## **Abstract**

Health cadres are volunteers or healthcare workers in the village who possess knowledge and skills in delivering basic healthcare services to the community. These people have direct access to the community at the grassroots level, playing an essential role in detecting, preventing, and addressing stunting. This study aimed to explore the experience of health cadres to increase understanding of their role in the community to address stunting.

This study was carried out using a qualitative method and Focus Group Discussions (FGD), which included 40 participants for data collection. The instrument used was an FGD interview, consisting of questions about stunting, the experience as cadres, and the identification of stunting problems in the village. Subsequently, the data obtained were analyzed using the narrative analysis method.

The identified themes included role played as cadres and the associated challenges. The roles that were identified included assisting primary health care programs, providing health education to mothers, weighing children, making referrals when there were problems, and helping to collect data needed by primary health care. The challenges observed were community perceptions underestimating the problem of stunting, attitudes of mothers, stigma in society about stunting, and other activities of health cadres.

In conclusion, this study shows that the roles of cadres are expected to be an important factor in handling stunting. Consequently, providing adequate training and supervision for health cadres is essential to improve their role in the community.

## **Introduction**

Stunting is a chronic nutritional problem widely recognized as a major global child health problem. A child is said to be stunted when the height measurement according to age is  $< -2$  standard deviations below the median standard set by WHO for children under 5 years of age. The World Health Organization (WHO) states that stunting becomes a public health problem when the prevalence reaches  $\geq 20\%$  of the population.<sup>1</sup> Based on the United Nations report in 2018, the global prevalence of stunting was observed to be 22.2%. In Indonesia, the prevalence decreased from 37.2% to 30.8% between 2013 and 2018, along with a significant reduction to 27.67% in 2019 according to the study on the Nutritional Status of children.<sup>2-4</sup> Although there is a significant reduction, stunting persists as a major problem due to the higher prevalence of more than 20% set by WHO.

Generally, stunting is a condition where children experience stunted physical growth due to chronic malnutrition during the first 1,000 days of life, from pregnancy to the age of 2 years. This condition has serious implications for the physical, cognitive, and social development of children, capable of reducing the productivity and quality of life in adulthood. Previous studies have shown that stunting is a risk factor for developing chronic diseases.<sup>5-7</sup> This long-term impact shows that the focus of handling stunting is directed towards promotive and preventive strategies including multisector collaboration.

Factors related to the incidence of stunting in Indonesia include individual, family, and community.<sup>8,9</sup> Regarding individual characteristics, stunting is related to gender, birth weight, morbidity, infection rates, and diet. In the context of family and society, sociodemographic factors, health services, and family knowledge in caring for children influence the incidence of stunting.<sup>9-12</sup> Lack of maternal knowledge and negative parenting are also associated with a higher risk of overcoming stunting.<sup>13</sup> Other factors include limited health personnel to deliver health education, leading to low healthcare delivery, particularly in remote areas. To address this challenge, stunting management program with a community empowerment method is required.<sup>15,16</sup>

The role of health cadres is crucial, particularly in the sociocultural method to empower the community in addressing stunting. Health cadres are volunteers or healthcare workers at the village or neighborhood level, possessing knowledge and skills in delivering basic healthcare services to the

community. These people have direct access to the community at the grassroots level, playing significant roles in detecting, preventing, and addressing stunting.<sup>15</sup> The roles of health cadres in stunting management are attributed to several factors, including proximity to the community, as majority typically reside in the same region, possessing knowledge of the local needs and customs. This proximity facilitates effective engagement with the community and the provision of appropriate methods. Another factor is the effectiveness of early stunting detection through regular child weight measurement at Pos Pelayanan Terpadu (Posyandu). Health cadres can also educate the community about the importance of balanced nutrition and child care. Furthermore, there is provision of nutrition education to pregnant and breastfeeding mothers, as well as information on supplementary feeding for children. Health cadres have the potential to be pioneers in the development of healthy community by increasing the awareness of child nutrition and health, thereby contributing to stunting prevention efforts.<sup>15-19</sup>

In Indonesia, the roles of health cadres in maintaining health of children under five have a positive impact on efforts to preserve the quality of life and development. These roles include monitoring growth and development, provision of health education for pregnant and breastfeeding mothers, early detection and health referrals, as well as family health education and community health campaigns.<sup>20</sup> However, health cadres often face challenges such as limited resources in terms of personnel, knowledge, and skills, including lack of understanding, hindering the ability to change the wrong perceptions of the community.<sup>17,21</sup> This shows the need for adequate support to optimize the roles of health cadres in preventing stunting. Therefore, this study aimed to explore the experiences of health cadres in carrying out their roles in stunting management in the community.

## **Materials and Methods**

### ***Research Methods***

This study used a qualitative method and focus group discussions (FGD) for data collection. Qualitative data were collected to explore the experience of health cadres regarding the roles and challenges of handling stunting in the community. FGD was selected to interview several participants

systematically and simultaneously due to the strength of convenience, economic advantage, high face validity, and speedy results.

#### *Sample size and sampling*

The selection of participants was carried out using a purposive sampling method, a non-random technique that determined specific characteristics. This study included 40 community health cadres of Pos Pelayanan Terpadu (Posyandu) from seven districts who had stunting cases. The inclusion criteria of the participants were a minimum experience of 6 months, ability to read and write, previous experience in stunting program, and willingness to participate in study activities to completion. To ensure that key participants represented the village, selections were made from all sub-districts.

#### *Data Collection and Analysis*

The instrument used was FGD interview, consisting of questions about stunting, the experience as cadres, and the identification of stunting problems in the village. Participants were divided into four discussion groups, each consisting of 10 people. Subsequently, four facilitators who conducted the FGD were public health experts experienced in qualitative study and nurses in Primary Health care. Before the discussion, the study objectives were explained and participants provided their consent. FGD was conducted once, with each discussion lasting for an average of 60-90 minutes. All interviews and FGD were digitally recorded and transcribed verbatim while the data obtained were processed as descriptive qualitative for analysis and conclusion. The transcripts were translated from the original Indonesian language into English for publication purposes.

#### *Ethics*

Ethical approval for this study was granted by the Health Research Ethics Committee Faculty of Health Sciences Universitas Brawijaya, Number 4735/UN10.F17.10/TU/2022. During the study process, the objectives were explained and participants provided written consent. Moreover, only the research team engaged in the investigation had access to the data.

## **Results and Discussion**

### *Characteristics of participants*

All participants in this study were female (100%), with an average age of 48.1 years (middle adulthood) (97%). The majority (55%) had a high school degree in education background, while 92% were married. Furthermore, 35% of participants had experience as cadres for more than 10 years and 10% had the longest of > 20 years. The data about characteristic participants are presented in Table 1.

### ***Analytical Findings***

The data analysis found three main themes that described the experience of health cadres when dealing with stunting. The identified themes included (1) the reason to become cadres, (2) roles as cadres, and (3) challenges. These themes as described in Figure 1 represent roles and challenges when dealing with stunting in the community from the perspective of cadres.

#### *Theme 1: Reason to become a cadre*

Becoming a cadre is a personal initiative motivated by passion, filling free time, volunteering, and a desire to learn. This was mentioned by the following participants:

*“...the calling of the heart led me to help society... (P1.2)”*

*“...filling the free time because I do not work (P2.3)”*

*“I am doing it voluntarily, I want a better generation understanding regarding nutrition (P1.5)”*

*“I want to learn and increase my knowledge regarding child health (P3.5)”*

In addition to personal initiative, the willingness to become a cadre is influenced by the feeling of responsibility toward the environment. This phenomenon occurs because cadres feel responsible for resolving problems found in the community.

This was mentioned by the following participants:

*“My heart was moved, my social spirit was touched when I saw the problem in my village (P2.5)”*

*“I have the responsibility for what happened in my community (P3.2)”*

*“....and I feel responsible for educating the public regarding my position (P4.3)”*



Another reason was the obligation to serve as a cadre, often appointed by the chairman due to the lack of volunteers. This was mentioned by one participant :

*“I was appointed by the chairman of the community association because there was no one else (P1.7)”*

### *Theme 2: Roles as a cadre*

The roles of cadres include assisting primary health care programs, providing health education to mothers, weighing children making referrals when there are problems, and helping in the collection of data required by the primary health care.

This was mentioned by the following participants:

*“I help with the supplementary feeding program, we invited mothers and gave additional food to their children” (P3.8)*

These cadres are also tasked with providing education to pregnant and breastfeeding mothers about nutrition and the importance of breastfeeding.

*“We provide health education to pregnant women about nutrition and breastfeeding (P2.6)”*

*“After every weight measurement, we also provide health information to the family (P1.5)”*

*“When a child is sick or losing weight, we make referral to the primary health care (P2.3)”*

*“We collect data on families in the village (P2.4)”*

### *Theme 3: Challenges while being a cadre*

The challenges faced as cadres are experiences acquired during the stunting management process. These include community perceptions underestimating the problem of stunting, attitudes of mothers, stigma in society, and other activities of cadres. The challenges faced by cadres also include the community's perception that the problem of stunting is trivial and unserious.

This was mentioned by the following participants:

*“Some people still underestimate stunting. I have tried to invite people but some are unwilling to solve the issue (P.2.4)”*

*“The community feels that stunting is not a problem (P1.2)”*

*“We need a method to increase public awareness regarding stunting (P3.5)”*

*“There is difficulty in weighing children and residents are reluctant to come during the administration of vitamins. Therefore, there must be prizes to facilitate the participation of residents (P4.6)”*

Stigma about stunting in the community results in difficulty in initiating change and increasing participation. This was mentioned by the following participants:

*“If they are told about stunting, the resident will not participate (P1.6)”*

*“People are less open in talking about their problems, but when asked about the cause, they will finally speak (P3.7)”*

*“Sometimes there are mothers who refuse to be told that their children are stunted. Most the mothers do not want their children to be diagnosed stunted (P2.9)”*

The attitude of mothers in caring for their children is also a challenge for cadres in solving the problem of stunting in the community. This was mentioned by the following participants:

*“Mothers are impatient when dealing with their fussy children, finally giving snacks to their children (P.1.2)”*

*“The majority of mothers are workers and their children are looked after by grandmothers who often buy snacks for children (P2.4)”*

*“Mothers do not know about the importance of breastfeeding, as some prefer formula milk (P2.6)”*

Health cadres stated that challenges faced included their engagement with other jobs, leading to suboptimal performance sometimes. This was mentioned by the following participants:

*“I have another job, which limits frequent participation in the posyandu (P4.2)”*

Based on the results, there are three main themes obtained from the experience of cadres. The identified themes included the reason to become a cadre, role-play, and challenges. The reason for becoming cadres is a significant factor that facilitates the performance of required roles, as personal initiative increases self-confidence and empowerment.<sup>22</sup> Cadres who carry out their roles voluntarily have a sense of enjoyment, which motivates and improves performance.<sup>23,24</sup> Internal motivation, including self-actualization, achievement, and responsibility, play a significant role in enhancing self-

motivation and facilitating good performance.<sup>24</sup> Additionally, knowledge and active participation in each stage of community increase self-empowerment.<sup>15</sup>

Efforts to increase the knowledge, skills, and motivation of cadres are the main strategy for capacity optimization. The inclusion of cadres in every stage of implementing community empowerment, increasing knowledge, and external support in the form of financial incentives are efforts to increase cadre motivation.<sup>25,26</sup> Furthermore, increasing the number of cadres and program funding is essential to strengthen stunting program effectiveness.<sup>27,28</sup>

The roles of health cadres included evaluation of children's weight, providing health education to mothers, preventive programs such as offering additional feed, making referrals when there are problems, and administrative tasks by collecting data required for primary health care. Other roles that were identified included the provision of information and education along with monitoring, early detection, and appropriate interventions.<sup>20</sup> Health cadres also play a significant role in helping the community understand the importance of good nutrition, monitoring children's growth, and providing support in efforts to prevent and treat stunting. Through these efforts, health cadres contribute to reducing stunting rates and improving the health of children in Indonesia. Support from the government and community is essential to increase the knowledge and skills of health cadres to optimize their roles.<sup>29-32</sup>

The challenges faced by health cadres include the perception of the community that the problem of stunting is trivial and unserious. Despite being a significant concern in Indonesia, there is still a public perception that underestimates stunting due to negative stigma and low knowledge.<sup>33,34</sup> To overcome this challenge, health cadres can facilitate the understanding and provision of information regarding the perceptions of the surrounding community. This information will be useful in identifying the right strategy, providing required efforts to increase awareness, and understanding of stunting. Based on community empowerment, stunting management requires active and responsive participation, as wrong perceptions and low knowledge can become obstacles to achieving optimal outcomes.

Stunting is still observed negatively by the community, leading to a stigma associated with underprivileged families or as "bad luck." This stigma can make people reluctant to seek help or talk

openly about stunting, thereby hindering preventive and management efforts. In this study, some people were found to still reject the term stunting for their children, leading to suboptimal management and prevalence of new cases. Furthermore, the lack of family understanding regarding the effect of stunting, including long-term impacts on health, education, and productivity in adulthood, can lead to errors in feeding children and prevent early detection of growth problems.

Efforts that can be made to increase public understanding about stunting include educational campaigns such as outreach at the community level, providing information through mass media, and using educational materials to aid understanding. Health education can be carried out by health cadres to provide information and assist in the early detection of growth problems directly in community forums. Meanwhile, the negative stigma towards stunting can be overcome through a culturally sensitive method. The inclusion of the community in discussions and problem-solving also serves as a potential solution to reduce stigma and build collective support for stunting prevention. By increasing awareness about the serious impact of stunting and reducing the negative stigma, the community can mobilize stronger collective efforts to prevent and treat stunting.

## **Conclusions**

In conclusion, this study showed the significant roles of health cadres in overcoming stunting among children in Indonesia. According to the sociocultural method, the roles that were identified included the implementation of preventive measures, provision of education, and enhancing community awareness about the importance of proper nutrition. Although several challenges were found, specifically regarding negative perception and stigma about stunting, the roles of health cadres in overcoming stunting were found very valuable. With adequate support, continuous training, as well as collaboration with community and religious leaders to increase understanding of stunting through cultural methods, health cadres could possess the potential to reduce stunting rates in Indonesia and improve the future quality of life for children.

## References

1. World Health Organization. Front Matter [Internet]. World Health Organization; 2018 [cited 2023 Aug 12] p. II–IV. (Equity considerations for achieving the Global Nutrition Targets 2025). Available from: <http://www.jstor.org/stable/resrep27878.1>.
2. Ministry of Health, Republic of Indonesia. Basic Health Research Data. Jakarta: Ministry of Health, Republic of Indonesia; 2018.
3. Ministry of Health, Republic of Indonesia. Nutritional Status Study of Toddlers in Indonesia in 2019. Jakarta: Ministry of Health, Republic of Indonesia; 2019.
4. Anggraini Y, Romadona NF. Review Of Stunting In Indonesia. Proceedings Of The International Conference On Early Childhood Education And Parenting 2019 (ECEP 2019)2020;454 (Ecep 2019):281–4.
5. Vilcins D, Sly PD, Jagals P. Environmental Risk Factors Associated With Child Stunting : A Systematic Review Of The Literature. 2018;84(4):551–62.
6. De Sanctis V, Soliman A, Alaaraj N, Ahmed S, Alyafei F, Hamed N. Early and Long-term Consequences of Nutritional Stunting: From Childhood to Adulthood: Early and Long-term Consequences of Nutritional Stunting. Acta Bio Medica Atenei Parmensis. 2021 Feb 16;92(1):11346.
7. 1. Wahyuningsih W, Bukhari A, Juliaty A, Erika KA, Pamungkas RA, Siokal B, et al. Stunting Prevention and Control Program to Reduce the Prevalence of Stunting: Systematic Review Study. Open Access Maced J Med Sci. 2022 Mar 8;10(F):190–200.
8. Rachmi CN, Agho KE, Li M, Baur LA. Stunting, Underweight And Overweight In Children Aged 2.0-4.9 Years In Indonesia: Prevalence Trends And Associated Risk Factors. Plos One. 2016;11(5):1–18.
9. Anastasia H, Hadju V, Hartono R, Manjilala S, Sirajuddin, Salam A, Et Al. Determinants Of Stunting In Children Under Five Years Old In South Sulawesi And West Sulawesi Province: 2013 And 2018 Indonesian Basic Health Survey. Plos One. 2023;18(5 May):1–18.
10. Suhardin S, Indarwati R, Meo CM, Sari NKPM, Halimatunnisa M. Social-cultural aspect of stunting: A systematic review. International Journal of Psychosocial Rehabilitation. 2020 Apr

- 1;24:7805–16.
11. Kusumajaya AAN, Mubasyiroh R, Sudikno S, Nainggolan O, Nursanyoto H, Sutiari NK, et al. Sociodemographic And Healthcare Factors Associated With Stunting In Children Aged 6–59 Months In The Urban Area Of Bali Province, Indonesia 2018. *Nutrients*. 2023;15(2):389.
  12. Safina SW, Nugraha AT, Nuraini AN, Taradipa FD, Setiadi INA, Rindika L, et al. Stunting Case as One of the Challenges of Sustainable Development in Salatiga City. *MGI*. 2023 Mar 2;37(1):76.
  13. Marsaoly OH, Nurwijayanti N, Ambarika R, Maria SK. Analysis Of The Causes Of Stunting In Toddlers In The Work Area Of Gandasuli Community Health Center South Halmahera Regency North Maluku (Qualitative Study). *Jqph*. 2021 Feb. 22;4(2):314-28.
  14. Atamou L, Rahmadiyah DC, Hassan H, Setiawan A. Analysis of the Determinants of Stunting among Children Aged below Five Years in Stunting Locus Villages in Indonesia. *Healthcare*. 2023 Mar 9;11(6):810.
  15. Setyoadi S, Kartika AW, Hayati YS, Setiowati CI. Community empowerment program to increase individual empowerment of cadres in stunting prevention. *jika*. 2023 Jun 22;8(2).
  16. Story WT, Pyle DF. A Blueprint For Engaging Communities To Reduce Inequities In Maternal And Child Health : Evidence From Rural Guatemala. *Int J Equity Health*. 2023;21(Suppl 2):1–6.
  17. Nugraheni N, Malik A. The Role of Posyandu Cadres in Preventing Stunting Cases in Ngijo Village. *Lifelong Educ J*. 2023;3(1):83–92.
  18. Muhamad Z, Mahmudiono T, Abihail CT, Sahila N, Wangi MP, Suyanto B, et al. Preliminary Study: The Effectiveness Of Nutrition Education Intervention Targeting Short-Statured Pregnant Women To Prevent Gestational Stunting. *Nutrients*. 2023 Oct 9;15(19):4305.
  19. Arini HRB, Peranto S. Social Analysis Of Childhood Stunting In Indonesia. *Southeast Asian J Trop Med Public Health*. 2023;54(Supplement 1):21–38.
  20. Nurhayati S. Optimizing the Role of Posyandu Cadres in Stunting Services. *BLK*. 2023 Jul 31;7(1):80–8.
  21. Hamdy MK, Rustandi H, Suhartini V, Koto RF, Agustin SS, Syifa CA, Et Al. The Role of Posyandu Cadres in Reducing Stunting Rates. *J Ilmu Sos Indones*. 2023;4(2):87–96.

22. (Brian) Joo BK, Park S, Lee S. Personal growth initiative: the effects of person–organization fit, work empowerment and authentic leadership. *IJM*. 2021 May 19;42(3):502–17.
23. Husniyawati YR, Wulandari, RD. Analysis of Motivation on the Performance of Posyandu Cadres Based on Victor Vroom's Theory. *Indonesian Journal of Health Administration* 2016;4:126–35.
24. Djuhaeni H, Gondodiputro S, Suparman R. Motivation of Cadres to Increase the Success of Posyandu Activities. *Bandung Medical Journal*. 2010 Dec 3;42(4):140–8.
25. Kasmel A, Andersen PT. Measurement Of Community Empowerment In Three Community Programs In Rapla (Estonia). *Int J Environ Res Public Health*. 2011 Mar;8(3):799-817.
26. Damayanti K, Widiyastuti T, Septasari DD. Providing Training and Motivation in Order to Improve Cadre Performance in Villages. *JAKD*. 2022 Jun. 21;8(1):25-3.
27. Syafrawati S, Lipoeto NI, Masrul M, Novianti N, Gusnedi G, Susilowati A, et al. Factors driving and inhibiting stunting reduction acceleration programs at district level: A qualitative study in West Sumatra. Zúniga-González CA, editor. *PLoS ONE*. 2023 Mar 31;18(3):e0283739.
28. Indra J, Khoirunurrofik K. Understanding The Role Of Village Fund And Administrative Capacity In Stunting Reduction: Empirical Evidence From Indonesia. *Plos One*. 2022;17(1 January):1–13.
29. Nuzula RF, Arfan NA, Ningrum S. The Role Of Cadres In Efforts To Improve The Nutritional Status Of Toddlers At Posyandu. *JKSI*. 2023 May 25;14(01):18–21.
30. Tumbelaka P, Limato R, Nasir S, Syafruddin D, Ormel H, Ahmed R. Analysis of Indonesia's community health volunteers (kader) as maternal health promoters in the community integrated health service (Posyandu) following health promotion training. *Int J Community Med Public Health*. 2018 Feb 24;5(3):856.
31. Sopiatus S, Maryati S. The Influence of Posyandu Cadre Training on Knowledge and Attitudes in Efforts to Prevent Stunting in Karawang: In Gresik, Indonesia; 2021 [cited 2024 Aug 12]. Available from: <https://www.atlantis-press.com/article/125961881>
32. Rahmawati ND, Dewi Sartika RA. Cadres' role in Posyandu revitalization as stunting early detection in Babakan Madang Sub-District, Bogor District. *ASEAN J Community Engagement*.

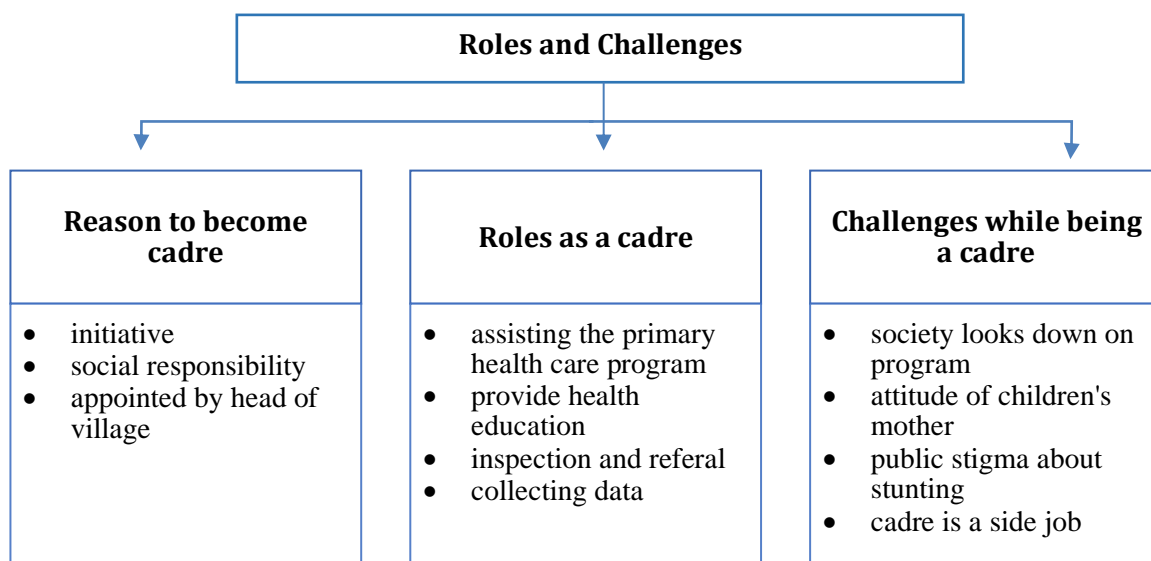
2020 Dec 31;4(2).

33. Setiyowati E. Negative Stigma in Mothers with Malnourished Children: Phenomenological Study. *Journal of Health*. 2017;8(2):277.
34. Lestari W, Kristiana L, Paramita A. Stunting : Studi Konstruksi Sosial Masyarakat Perdesaan dan Perkotaan Terkait Gizi dan Pola Pengasuhan Balita di Kabupaten Jember. *aspirasi*. 2018 Jun 21;9(1):17–33.



**Table 1. Characteristics of cadre (n=40)**

<b>Characteristics</b>	<b>Mean</b>	<b>f</b>	<b>%</b>
<b>Gender</b>			
Female		40	100
<b>Age (year)</b>			
Middle adulthood (30-60)		38	97
Late adulthood (>60)	48.1	2	3
<b>Cadre's Education</b>			
Primary		8	20
Secondary		10	25
Higher		22	55
<b>Marriage</b>			
Yes		37	92
Widow		3	8
<b>Experience as a cadre (year)</b>			
<2		8	20
2 > s/d ≤ 5	8.9	6	15
5 > s/d ≤ 10		8	20
>10		14	35
>20		4	10



**Figure 1. Diagram of roles and challenges of cadre during dealing with stunting in community**