Indonesian Journal of Global Health Research
Volume 6 Number 5, October 2024
e-ISSN 2715-1972; p-ISSN 2714-9749
http://jurnal.globalhealthsciencegroup.com/index.php/IJGHR

COMPARISON OF HEALTH CADRE'S KNOWLEDGE REGARDING STUNTING PREVENTION IN LOWLAND AND HIGHLAND

Melisa Fitria Saputri*, Restuning Widiasih, Khoirunnisa
Faculty of Nursing, Universitas Padjadjaran, Jl. Raya Bandung Sumedang KM.21, Hegarmanah, Jatinangor, Sumedang, West Java 45363, Indonesia
*melisa20002@mail.unpad.ac.id

ABSTRACT
On 2022, the incidence of stunting stilll exceed the target recommended by World Health Organization (WHO). Efforts to prevent stunting require the involvement of all parties in society, including health cadres and their knowledge about stunting prevention. The purpose of this research was to compare the level of knowledge of health cadres on stunting prevention between lowland and highland villages in Pangandaran. This research design used a descriptive comparative with a cross sectional time. The population in this study are health cadres in Karangjaladri village and Cimanggu village. The sampling technique used a total sampling technique of 80 cadres. Data collection has been done through filling out a questionnaire about stunting prevention. The questionnaire has been measured for validity and reliability tests which are declared valid based on the Guttman scale because the Kr value is> 0.90 and reliable because Ks> 0.60. The data obtained has been analyzed using categorical univariate analysis which will then be analyzed comparatively using the Mann-Whitney analysis test. The research results showed that health cadres in lowland and highland villages had a high level of knowledge about stunting prevention. However, there were knowledge indicators with low scores, including pregnancy checks, implementation and administration of vitamin A capsules, and interpretation of KMS. Overall, there's no significant difference between the knowledge of lowland cadres and highland cadres regarding stunting prevention.

Keywords: geographical location; health cadres; stunting; stunting prevention knowledge

First Received	Revised	Accepted
12 March 2024	22 April 2024	29 April 2024

Final Proof Received	Published
29 May 2024	01 October 2024

How to cite (in APA style)
Saputri, M. F., Widiasih, R., & Khoirunnisa, K. (2024). Comparison of Health Cadre's Knowledge Regarding Stunting Prevention in Lowland and Highland. Indonesian Journal of Global Health Research, 6(5), 2563-2570. https://doi.org/10.37287/ijghr.v6i5.3442.

INTRODUCTION

WHO (World Health Organization) stipulates that the stunting rate target worldwide is 20% by striving to achieve the 2nd Sustainable Development Goal (SDGs), namely ending hunger and malnutrition as a whole and achieving food security in 2030 (Bappenas, 2017). Stunting is the one of the health problems regarding children's growth and development that has an impact in the short and long term. Stunting is a problem of failure to thrive experienced by babies under five years old who experience malnutrition from the time they are in the womb until the baby was born and it will appear when the baby is two years old (National Team for the Acceleration of Poverty Reduction, 2017).

Currently, stunting is still a health problem in the world. The number of stunting cases is higher in countries with lower middle income (32.0%) compared to countries with upper middle income (6.9%) and high income (2.5%) (Rao et al., 2020). The Indonesian government's stunting reduction target is 14.00% in 2024 (National Strategy for Accelerating Stunting Prevention, 2021). Based on the results of the 2022 Indonesian Nutrition Status

Survey, the prevalence rate of stunting in Indonesia in 2022 reached 21.6% of cases (SSGI, 2022). Pangandaran Regency is in 12th place with the highest number of stunting cases out of 27 districts in West Java with 20.00% cases (Open Data Jabar, 2021). Thus, Pangandaran is still a district with a high risk of stunting.

This problem is the background for the government to arrange the National Strategy for Stunting Prevention (Stranas Stunting) for 2018 – 2024 as the initial stage of massive prevention of Stunting. There is a government program entitled Five Pillars for Accelerating Stunting Reduction which consists of leadership commitment and vision, socialization and communication of behavior change, convergence, coordination and consultation of central, regional and village programs, food and nutrition security, as well as monitoring and evaluation. The West Java government has launched the "Zero New Stunting 2023" campaign. One of the steps taken by the West Java government in realizing Zero New Stunting is implementing a convergence strategy by involving 1.5 million PKK cadres in villages or sub-districts in socializing stunting prevention actions. Furthermore, Pangandaran is creating a follow-up program to "Zero New Stunting 2023", namely the PATAS (Pangandaran without Stunting) program in June 2023. This program maximizes the Family Assistance Team consisting of PKK Cadres, Family Planning Cadres and health workers (nakes). The focus of the PATAS (Pangandaran without Stunting) program is to provide prevention to pregnant women and treatment of stunted children, by providing additional food (PMT) to anemic pregnant women and toddlers at risk of stunting and stunted toddlers through monitoring by health cadres.

The problem of stunting involves several sectors in the context of efforts to prevent and reduce it, both by the health team and the government team. One of the delegates trusted by the government is health cadres. Health cadres are men or women who are selected and trained to handle the health problems of a person or community (WHO, 2015). In this case, cadres are the part closest to the community before the health workers at the health center or hospital. Health cadres play an important role in efforts to deal with stunting, so they are expected to have good knowledge and high motivation in efforts to prevent stunting (Mediani et al., 2020). However, reviewing the available research, there is still limited research that examines knowledge regarding stunting prevention among health cadres in areas with different geographical and different topographical locations. Based on the background that has been explained, this research aims to compare the level of knowledge of health cadres on stunting prevention between lowland and highland villages in Pangandaran because one of the factors that influences stunting is cadres' knowledge. Beside that, this research is useful for nurses who work in communities and health centers and interact with the wider community. So nurses in carrying out interventions to prevent stunting, can be adjusted to their geographical location.

METHOD

This research design used a descriptive comparative with a cross sectional time. The population in this study are health cadres in Karangjaladri village (lowland village) and Cimanggu village (highland village). The sampling technique used a total sampling technique of 80 cadres (40 health cadres in Karangjaladri village and 40 health cadres in Cimanggu village). The instrument for this research used a Knowledge Questionnaire Regarding Stunting Prevention based on Specific Nutrition Planning Guidelines for Optimizing Movement for the First 1000 Days of Life which was classified for pregnant women, breastfeeding mothers, and mothers of babies aged 0-23 months. This research instrument is valid with a result of 0.9345 (Kr>0.90) and reliable with a result of 0.6275 (Ks>0.60) (Afifa,

2019). The analytical method used in this research is univariate categorical analysis for the health cadre knowledge regarding stunting prevention variable. Then, we used Mann - Whitney comparative analysis to determine the differences in health cadres' knowledge regarding stunting prevention in lowland villages and highland villages in Pangandaran. The data analysis results were categorized into three categories: high (76 - 100%), moderate (56-75%), and low (<56%).

RESULTS

Table 1.
Respondent Characteristics (n= 80)

Respondent characteristics	Lowland		Highland	
	f	%	f	%
Gender				
Male	0	0.0	0	0.0
Female	40	100.0	40	100.0
Age				
18-40 years old	26	65.0	24	60.0
41-60 years old	13	32.5	16	40.0
>60 years old	1	2.5	0	0.0
Educational Level				
Elementary school	3	7.5	5	12.5
Junior high school	13	32.5	16	40.0
Senior high school	24	60.0	15	37.5
Bachelor	0	0.0	4	10.0
Working Period				
< 5 years	19	47.5	16	40.0
5-10 years	12	30.0	16	40.0
>10 years	9	22.5	8	20.0

Table 1 from this research that conducted on 80 respondents, it was found that in general all respondents were female (100%). Then, the age of the respondents was mostly in the early adulthood group (18-40 years) 26 people (65%) in the lowlands and 24 people (60%) in the highlands. The highest level of education for cadres in the lowlands is mostly high school as many as 24 people (60%), but in the highlands most of them are junior high school as many as 16 people (40%). In carrying out their profession as health cadres, 19 respondents (47.5%) in the lowlands had less than five years' experience, while in the highlands 16 respondents (40%) had less than five years' experience and 16 respondents (40%) had less than five years' experience more than 5-10 years.

Table 2.
Frequency Distribution of Respondents based on Knowledge (n= 80)

Knowledge Category	Lowland		Highland	
	f	%	f	%
Higher Knowledge	38	95.0	35	87.5
Moderate Knowledge	2	5.0	5	12.5
Low Knowledge	0	0.0	0	0.0

Table 2 known that the majority of health cadres in lowland villages and highland villages have a high level of knowledge regarding stunting prevention, with results in lowland villages as many as 38 people (95.0%) and in highland villages as many as 35 people (87.5%).

Table 3 describes the knowledge of respondents from each category at the stages of pregnant women, breastfeeding mothers, and mothers with babies aged 0-23 months. It is known that 24 cadres (60%) in the lowlands have high knowledge, while 21 cadres (52.5%) in the highlands have moderate knowledge regarding stunting prevention in pregnant women. For stunting prevention in breastfeeding mothers, both villages have high knowledge, as many as

38 cadres (95%) in lowland villages and 37 cadres (92.5%) in highland villages. Then, both villages are also have high knowledge regarding stunting prevention for mothers of babies aged 0-23 months, with details of 38 cadres (95%).

Table 3.
Frequency Distribution of Respondents based on Stunting Prevention Knowledge Indicators (n= 80)

Knowledge Aspects	Lowland		Highland	
	f	%	f	%
Stunting Prevention in Pregnant Women				
Higher knowledge	24	60.0	19	47.5
Moderate knowledge	16	40.0	21	52.5
Low knowledge	0	0.0	0	0.0
Stunting Prevention in Breastfeeding Mothers				
Higher knowledge	38	95.0	37	92.5
Moderate knowledge	2	5.0	3	7.5
Low knowledge	0	0.0	0	0.0
Stunting Prevention for Mothers with Babies 0-23 months				
Higher knowledge	38	95.0	38	95.0
Moderate knowledge	2	5.0	1	2.5
Low knowledge	0	0.0	1	2.5

Table 4.
Frequency Distribution of Respondents based on Stunting Prevention Knowledge Items (n= 80)

Knowledge Items	Lowland				Highland			
	correct		incorrect		correct		Incorrect	
	f	%	f	%	f	%	f	%
Stunting Prevention in Pregnant Women								
1. Dietary restrictions	34	85.0	6	15.0	29	72.5	11	27.5
2. Anemia signs	40	100.0	0	0.0	40	100.0	0	0.0
3. Knowledge of vegetable and animal proteins	23	57.5	17	42.5	28	70.0	12	30.0
4. Iron folate supplementation	38	95.0	2	5.0	33	82.5	7	17.5
5. Iodized salt	38	95.0	2	5.0	38	95.0	2	5.0
6. Pregnancy checking	16	40.0	24	60.0	7	17.5	33	82.5
7. Tetanus toxoid immunization	38	95.0	2	5.0	39	97.5	1	2.5
8. Childbirth assistant	39	97.5	1	2.5	40	100.0	0	0.0
Stunting Prevention in Breastfeeding Mothers								
9. Colostrum	40	100.0	0	0.0	40	100.0	0	0.0
10. Exclusive breastfeeding	38	95.0	2	5.0	37	92.5	3	7.5
11. Breastfeeding hours	40	100.0	0	0.0	40	100.0	0	0.0
Stunting Prevention for Mothers with Babies 0-23 months								
12. Complementary foods for breastfeeding	40	100.0	0	0.0	40	100.0	0	0.0
13. Giving vitamin A capsules	20	50.0	20	50.0	15	37.5	25	62.5
14. Indications for basic immunization	40	100.0	0	0.0	36	90.0	4	10.0
15. Indications for basic immunization	37	92.5	3	7.5	38	95.0	2	5.0
16. Growth and development checking	40	100.0	0	0.0	40	100.0	0	0.0
17. Use of KMS	40	100.0	0	0.0	40	100.0	0	0.0
18. KMS Interpretation	35	87.5	5	12.5	36	90.0	4	10.0
19. KMS Interpretation	23	57.5	17	42.5	23	57.5	17	42.5
20. Handling sick toddlers	40	100.0	0	0.0	39	97.5	1	2.5

Table 4 can be concluded that health cadres understand almost all aspects of stunting prevention for pregnant women, breastfeeding mothers and mothers of babies aged 0-23 months. However, of the 20 points there are three items that need to be studied again because most of the health cadres still answered the wrong answers. Aspects of preventing stunting in

pregnant women with statement items regarding pregnancy checks, where only 16 people (40%) answered correctly in lowland village and 7 people (17.5%) in highland village. For the next aspect, regarding the prevention of stunting in mothers of babies aged 0-23 months with the statement item regarding giving vitamin A capsules, only 20 people (50%) answered correctly in lowland village and 15 people (37.5%) in highland village. Then the item about the interpretation of KMS in the lowland and highland, respectively only 23 people (57.5%) that answer correctly.

DISCUSSION

Characteristics of Health Cadres regarding Stunting Prevention between Lowland Villages and Highland Villages

The research results showed that all health cadre respondents were female (100%), because it was related to tradition, social and gender roles. The majority of society considers women to have an active role in health and children's care. Social traditions shape society's perception of women as nurses, midwives and other natural caregivers, making them suitable for the role of female cadres (Banowati, 2018). According with previous research which explains that cadres are midwife partners in monitoring the child's growth and development process (Rohmah & Siti Arifah, 2021). Beside that, according to research by Bariyyah & Latifah (2019), women have higher knowledge and emotional intelligence, characterized by having a motherly attitude, empathy, and always acting using feelings. Women can work carefully and attentively (Mahfudhah & Mayasari, 2018). Researcher assume that if the knowledge of health cadres regarding stunting prevention is in the high category, then this could be because the research respondents were all female.

Then, age characteristics are also a supporting factor in the level of knowledge. Where the majority of cadres in lowland villages (65%) and highland villages (60%) are in early adulthood, namely 18-40 years (Elizabeth B. Hurlock, 1961). Productive age is an age that has solid roles and activities as well as good cognitive abilities. This is in accordance with research by Suwaryo and Yuwono (2017) that as age increases, human comprehension and thinking patterns increase, so that the knowledge and understanding obtained becomes better. Beside that, as someone get older, their experience, ethics and quality of work will also increase (Fatimah, 2016). So, researcher assume that a person's knowledge is related to age in order to be able to process and understand something.

Educational level is one of the characteristics that influences a person's level of knowledge. According to research by Septyana et al. (2022), someone who has a higher education can more easily receive and understand information than someone who has a lower education. In line with other research which explains that the higher the level of person’s education, the higher the level of their knowledge (Fatimah, 2016). The higher the level of person’s knowledge, the greater the desire to utilize their skills and knowledge (Ibrahim & Hutagaol, 2024). In this study, the majority of health cadres in lowland villages had senior high school level (60%), while the majority of health cadres in highland villages had junior high school level (40%). Even though both villages have high knowledge, lowland health cadres have a superior score (95%) than highland health cadres (87.5%). Researchers assume that the higher the education level of health cadres, the higher the level of knowledge and the easier it is to receive and understand information.

The length of working period of a cadre in the lowlands is less than five years (47.5%) while a cadre in the highlands has less than five years of experience (40%) and 5-10 years of experience (40%). According to research by Hamariyana et al. (2013), there is no relationship

between the length of work of cadres and the knowledge of cadres because in carrying out their activities, health cadres receive training by health workers regarding the first 1000 days of life, providing complementary foods for breastfeeding (MPASI), stunting, and other training that can increase cadres' knowledge. In line with research by Himmawan (2020) which explains that there is no significant relationship between a cadre's knowledge and the length of time they have worked as a cadre, it's just that the length of time a cadre has worked will form an effective work pattern as a result of the experience they have had. Thus, researchers assume that a cadre's length of working period does not affect his knowledge of editing prevention.

Knowledge of Health Cadres regarding Stunting Prevention between Lowland Villages and Highland Village

The results of this research showed that there is no significant difference in the level of knowledge of health cadres in the lowlands and highlands regarding stunting prevention with P value of 0.136 which is greater than the value of 0.05 (0.136 > 0.05) for the Mann Whitney comparative test. Both villages in the lowlands and in the highlands have good knowledge percentages, with respective percentages of 95.0% for lowland villages and 87.5% for highland villages. From this percentage, the knowledge value of lowland health cadres is 7.5% higher than the knowledge value of highland health cadres. Success in organizing posyandu cannot be separated from the role of cadres which is balanced by several other supporting factors such as level of knowledge, level of education, length of time as a cadre, work, and self-motivation (Kurniati, 2020). In line with research which explains that understanding the First 1000 Days of Life (HPK) for cadres is an effort to improve the quality of cadres in preventing stunting (Lasmadasari et al., 2023). Each items has an indicator of health cadres' knowledge regarding stunting prevention, especially in the First 1000 Days of Life.

Based on respondents' answers, the component for pregnant women was in the lowest position of high knowledge compared to the other. For indicator number 6 regarding pregnancy checks for pregnant women, 57 respondents answered wrong. This indicates that there are still many health cadres who do not know how many checks are carried out during the nine months of pregnancy. Pregnancy checks are carried out twice in the first trimester, once in the second trimester, and three times in the third trimester (Jebed Health Center, 2021). There is low knowledge regarding early detection of high-risk pregnancies, especially regarding pregnancy checks on pregnant women, so the knowledge of health cadres can be trained using the Poedji Rochdjati Score Card (KSPR) method as one of the treatments (Pratama et al., 2019).

For indicator number 13 regarding giving vitamin A capsules targeting babies aged 0-24 months, there were 45 people (56.25%) who answered incorrectly. The cause of this could be due to insufficient re-study of the material or lack of training regarding these skills about method and timing of providing this intervention. Blue vitamin A capsules are given to babies aged 6-11 months, while red vitamin A capsules are given to toddlers aged 12-59 months and postpartum mothers (Lampung Health Service, 2024). The cadres' lack of knowledge on this indicator can be overcome by counseling and simulating giving vitamin A to posyandu cadres. This is in line with research by Septyana et al. (2022) which states that education on providing vitamin A to posyandu cadres is very important to improve health services and coverage in achieving the target of providing vitamin A.

There were many respondents who answered indicator number 19 incorrectly regarding the interpretation of KMS for babies aged 0-24 months. This can be caused by a lack of

understanding regarding the KMS filling material. This problem can be given intervention such as training which can help increase cadres' knowledge about how to interpret the KMS. This is in line with research conducted by Wijhati et al (2018) which explains that DTKB (Toddler Growth and Development Detection) training can increase cadres' knowledge of filling out the KMS sheet. In accordance with research by Nurbaya et al (2022) which states that training activities using simulation methods and education can increase cadres' knowledge.

CONCLUSION

The purpose of this research was to compare the level of knowledge of health cadres on stunting prevention between lowland village and highland village in Pangandaran. Health cadres, both in the lowlands and in the highlands have high knowledge and there is no significant difference in the level of knowledge regarding stunting prevention especially in the First 1000 Days of Birth (HPK). The difference lies in the final value of knowledge from each village, where the final value of lowland health cadres is 7.5% superior to the final value of highland health cadres. This is supported by several other supporting factors such as gender, age, education, and length of time as a cadre. The results of this research can be used practically by governments and community nurses to give training and guidance in the context of the stunting prevention, especially in the aspects of pregnancy checks, administering vitamin A, and interpreting KMS with training and education activities. This research gives a research phenomenon that can be the beginning of the development of a theory about factors causing stunting regarding demographic differences in the knowledge of health cadres. It is hoped that this can become a source of information and reference material for further research.

REFERENCES

Afifa, I. (2019). Perbandingan lama menjadi kader terhadap kinerja kader posyandu yang dimediasi pengetahuan dan motivasinya pada pencegahan stunting di puskesmas pagelaran dan gedangan.

Banowati, L. (2018). Hubungan karakteristik kader dengan kehadiran dalam pengelolaan posyandu. 9(2), 101–111.

Bariyyah, K., & Latifah, L. (2019). Kecerdasan Emosi Siswa Ditinjau dari Jenis Kelamin dan Jenjang Kelas. JPGI (Jurnal Penelitian Guru Indonesia), 4(2), 68. https://doi.org/10.29210/02379jpgi0005

Fatimah, F. S. (2016). Gambaran Penerapan Prinsip Benar Pemberian Obat di Rumah Sakit PKU Muhammadiyah Yogyakarta Unit II. Jurnal Ners Dan Kebidanan Indonesia, 4(2), 79. https://doi.org/10.21927/jnki.2016.4(2).79-83

Hamariyana, Syamsianah, A., & Winaryati, E. 2013. (2013). Hubungan Pengetahuan dan Lama Kerja Dengan Ketrampilan Kader Dalam Menilai Kurva Pertumbuhan Balita di Posyandu Kelurahan Tegalsari Kecamatan Candisari Kota Semarang. JurnalGizi Universitas Muhammadiyah Semarang, 2(April), 40–48. http://jurnal.unimus.ac.id

Himmawan, L. S. (2020). Faktor Yang Berhubungan Dengan Pengetahuan Kader Posyandu Tentang 1000 Hari Pertama Kehidupan (HPK). Jurnal Kesehatan, 11(1), 23–30. https://doi.org/10.38165/jk.v11i1.194

Ibrahim, S. A. S., & Hutagaol, E. K. (2024). Perilaku Partisipasi Ibu Balita Dalam Kunjungan Ke Posyandu Di Wilayah Kerja Puskesmas Mekarsari. 01(01), 18–25.

Kurniati, C. H. (2020). Faktor yang Mempengaruhi Keaktifan Kader dalam Pelaksanaan Posbindu Lansia di Desa Karangnanas Sokaraja Banyumas. Jurnal Publikasi Kebidanan, 11(2), 72–81. http://ojs.akbidylpp.ac.id/index.php/Prada/article/view/530

Lasmadasari, N., Nilawati, I., Sulastri, W., Ilmu, T., & Sapta, K. (2023). Penyegaran Kader Dan Kelompok Ibu Dalam Upaya Peningkatan Gizi Anak Pencegahan Stunting Di Kelurahan Kandang Mas Refreshment of Cadres and Mothers ' Groups in Efforts to Improve Child Nutrition to Prevent Stunting in Kandang Mas Village. 2, 71–78.

Mahfudhah, A. N., & Mayasari, P. (2018). Pemberian Obat Oleh Perawat Diruang Rawat Inap Rumah Sakit Umum Kota Banda Aceh. III(4), 1–9.

Mediani, H. S., Nurhidayah, I., & Lukman, M. (2020). Pemberdayaan Kader Kesehatan tentang Pencegahan Stunting pada Balita. Media Karya Kesehatan, 3(1), 82–90. https://doi.org/10.24198/mkk.v3i1.26415

Nurbaya, N., Haji Saeni, R., & Irwan, Z. (2022). Peningkatan Pengetahuan Dan Keterampilan Kader Posyandu Melalui Kegiatan Edukasi Dan Simulasi. JMM (Jurnal Masyarakat Mandiri), 6(1), 678. https://doi.org/10.31764/jmm.v6i1.6579

Pratama, B., Angraini, D. I., & Nisa, K. (2019). Penyebab Langsung (Immediate Cause) yang Mempengaruhi Kejadian Stunting pada Anak. Jiksh, 10(2), 299–303. https://doi.org/10.35816/jiskh.v10i2.167

Rao, N., Richards, B., Lau, C., Weber, A. M., Sun, J., Darmstadt, G. L., Sincovich, A., Bacon-Shone, J., & Ip, P. (2020). Associations Among Early Stimulation, Stunting, and Child Development in Four Countries in the East Asia–Pacific. International Journal of Early Childhood, 52(2), 175–193. https://doi.org/10.1007/s13158-020-00270-8

Rohmah, F. N., & Siti Arifah. (2021). Optimalisasi Peran Kader Kesehatan Dalam Deteksi Dini Stunting. BEMAS: Jurnal Bermasyarakat, 1(2), 95–102. https://doi.org/10.37373/bemas.v1i2.88

Septyana, D., Astuti, T., & Kunci, K. (2022). Pengaruh Pendidikan Pencegahan Stunting Terhadap Pengetahuan Kader Posyandu. Jurnal Ilmiah Kesehatan, 21(2), 83–89.

Suwaryo, P. A. W., & Yuwono, P. (2017). Faktor-Faktor Yang Mempengaruhi Tingkat Pengetahuan Masyarakat dalam Mitigasi Bencana Alam Tanah Longsor. 305–314.

Wijhati, E. R., Suharni,), Susilawati, B., Diii, P., Fakultas, K., Kesehatan, I., Kunci, K., & Balita, : (2018). Pelatihan Deteksi Tumbuh Kembang Anak Pada Kader Posyandu Ponowaren Gamping Sleman the Growth Development Child Training of Posyandu Cadres At Ponowaren Gamping Sleman 1). 2(2).