

## PHYSICAL EDUCATION, SPORT, AND HEALTH EDUCATION AS STUNTING INTERVENTION IN MATTIROWALIE VILLAGE

**Maria Herlinda Dos Santos<sup>1</sup>, Rahmat Ilahi<sup>2</sup>, Hezron Alhim Dos Santos<sup>3</sup>,  
Endang Pratiwi<sup>4</sup>, Sugirah Nour Rachman<sup>5</sup>, Rita Ernita<sup>6</sup>**

Universitas Muhammadiyah Bone<sup>1,2,6</sup>, Universitas Negeri Makassar<sup>3,5</sup>, Universitas Islam  
Kalimantan Muhammad Arsyad Al Banjari Banjarmasin<sup>4</sup>  
[mariaherlinda@unimbone.ac.id](mailto:mariaherlinda@unimbone.ac.id)<sup>1</sup>, [rahmatilahi@unimbone.ac.id](mailto:rahmatilahi@unimbone.ac.id)<sup>2</sup>,  
[hezronsantos@unm.ac.id](mailto:hezronsantos@unm.ac.id)<sup>3</sup>, [pratiwiendang@uniska-bjm.ac.id](mailto:pratiwiendang@uniska-bjm.ac.id)<sup>4</sup>  
[sugirah.nour.rahman@unm.ac.id](mailto:sugirah.nour.rahman@unm.ac.id)<sup>5</sup>

### **Abstract**

*This research was conducted because of the high rate of stunting in Bone Regency. Bone Regency itself is the area with the most stunting sufferers in South Sulawesi. Stunting is a condition of failure to thrive in five year old children, this occurs due to malnutrition or recurrent infections, especially in the first 1,000 days of life (HPK). The high rate of stunting was also noted by Riskesdas, that there were 9 million children under five experiencing stunting. As a result, many children are shorter in height and tend to be slow in thinking or do not receive optimal cognitive, motor and verbal development. This research was carried out in Mattirowalie, precisely at SMPN 9 Watampone, with the research subjects being 50 class VII students. The method used is class action (which is an examination of learning activities in the form of an action, which is deliberately created and occurs in a class together. This action is given by the teacher or with direction from the teacher which is carried out by students). The research object is Physical Education, Sports and Health. This research stage went through a pre-cycle and two cycles. The first cycle consists of the stages of planning, implementation (action), reflection observation. This research uses a qualitative approach. The results of this research are that in the pre-cycle phase, there was 1 female student who knew for sure, 8 female students who knew partially, 11 female students who were unsure and 30 female students who did not know at all what stunting was. After carrying out the first and second cycles, the results showed that there were 38 female students who knew for sure, 12 female students who knew partially, 0 were unsure and 0 did not know.*

**Keywords:** *Physical Education; Stunting and Health*

Submitted : 26<sup>th</sup> of October 2024

Accepted : 02<sup>th</sup> of December 2024

Published : 09<sup>th</sup> of December 2024

Correspondence Author: Maria Herlinda Dos Santos, Universitas Muhammadiyah Bone, Indonesia.

E-Mail: [mariaherlinda@unimbone.ac.id](mailto:mariaherlinda@unimbone.ac.id)

DOI <http://dx.doi.org/10.31851/hon.v7i2.16936>



Jurnal Laman Olahraga Nusantara licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/)

## INTRODUCTION

Bone Regency is the district with the largest population of stunting sufferers in South Sulawesi. Data on the distribution of stunting in Bone Regency is 50.5%. Stunting or often called stunting or stunting is a condition of failure to

grow in children under five years of age (toddlers) due to chronic malnutrition or recurrent infections, especially in the first 1,000 days of life (HPK), namely from the fetus. until children are 23 months old (Fitriani Pramita Gurning et al., 2021). The Ministry of Health's Basic Health Research (Riskesdas) data shows that from 2013-2018, the prevalence rate of stunting remained high and occurred across income groups. 2013 Riskesdas data found that 37.2% or around 9 million children under five were stunted.

Children who suffer from stunting have an impact on increasing the incidence of morbidity and death, children's cognitive, motor and verbal development is not optimal, body posture is not optimal. decreased reproductive health and less than optimal learning capacity at school age (Nurajizah, 2022). This impact is the basis for the government to take policies to reduce the prevalence of stunting. Reducing the prevalence of stunting is still a priority for Sustainable Development Goals (SDGs) in Indonesia until 2030 to reduce by 40% the number of stunted children under five (Pokhrel, 2024)

Involving teenagers in efforts to accelerate the prevention and control of stunting by increasing nutritional knowledge and clean living behavior is important. Health knowledge will influence behavior as a long-term outcome (Ginanjar et al., 2022). As the nation's next generation, it is very important to develop teenagers considering that they are a group with great potential (Juliana et al., 2022). The great potential of youth groups lies in their nature which tends towards renewal and change (Rofiq, 2019).

Stunting prevention is carried out through integrated nutritional interventions, including specific nutritional interventions and sensitive nutrition. Efforts to accelerate the prevention of stunting will be more effective if specific nutritional interventions and sensitive nutritional interventions are carried out for priority target families and sensitive nutritional interventions for especially adolescent women and pregnant women (Mutmainna et al., 2023). Energy and nutrient deficiencies that occur during this period can have negative impacts that can continue into adulthood. Adolescent girls in the village experience several

nutritional problems such as micronutrient deficiencies, especially iron deficiency anemia, as well as malnutrition problems, both undernutrition and short stature and overnutrition to obesity with its comorbidities (Christiana & Yulifah Salistia Budi, 2024). The solution to overcoming the problems in this village can be achieved by providing several interventions to these young women. (Dos Santos et al., 2022) Based on these problems, this research focuses on Physical Education as an intervention for preventing stunting in Mattirowalie Village.

Stunting prevention has become an international health priority program, therefore many growth and nutrition researchers have studied this phenomenon in depth (Akbar, 2023). Stunting was first formally introduced by nutritionist Cicely Williams (Nott, 2021). Various studies have been carried out by health experts with various focuses, including: Stunting is a complex and multifactorial health problem (Arrahima et al., 2024). A study of determinant aspects conducted by Hafid and Nasrul (2016) in Jeneponto Regency which focused on Stunting Risk Factors in Children Aged 6-23 Months showed low birth weight, mother's height, the behavior of child caregivers not washing their hands using soap and basic immunization. incomplete is a factor that contributes to the high incidence of stunting in Jeneponto (Purnama & Salamuddin, 2021)

Apart from that, a study was conducted by Pebrianty et al (2023) in Tana Toraja with the topic of studying the Acceleration of Stunting Prevention in Early Childhood with a Spacial Analysis Approach. (Pebrianty et al., 2023). The results of spatial analysis with overlay show that local food availability variables through natural resource potential, coverage of K6 antenatal care, complete basic immunization coverage and breastfeeding coverage can contribute to the proportion of stunting cases (Sari Ami Monika, 2021).

This PTK is carried out through 2 cycles, each cycle is carried out following procedures, namely planning, implementing actions, observing and reflecting. Through these two cycles, it can be observed that there is an increase in understanding regarding Stunting prevention using the Physical Education, Sports and Health learning model. The results of the evaluation in cycle I are still not

complete, so improvements are made in cycle II. Cycle I reflection was carried out to determine improvement steps in cycle II.

## METHOD

This research uses the classroom action research method. The object of this action research is physical education, sports and health. This research stage is through a pre-cycle and two cycles. The pre-cycle consists of the Planning, Observation and Reflection stages, followed by the first and second cycles as Implementation (Action).

This research uses a qualitative approach with the type of research being Classroom Action Research. Classroom Action Research is an examination of learning activities in the form of actions, which are deliberately created and occur in a class together. These actions are given by the teacher or with direction from the teacher which are carried out by students

**Table 1.** In implementing this class action the variables that will be investigated are as follows:

Input Variables	Class VIII students at SMP Negeri 9 Watampone
Process Variables	Using the Health and Recreation Physical Education Learning Model
Output variables	Understanding of stunting in the context of stunting prevention

This research was carried out at SMP Negeri 9 Watampone located in Mattirowalie Village, Bone Regency. The time this research was carried out was in the odd semester of the 2024-2025 academic year. This research was carried out in two cycles, namely, cycle I on 12 and 14 July 2024 and cycle II on 24 August 2024.

The subject of the study was grade VIII students of SMP Negeri 9 Watampone located in Mattirowalie Village, Bone Regency, which amounted to 50 female students. The subjects that are the target of the research are Physical Education, Sports and Health, especially in Adolescent Health material.

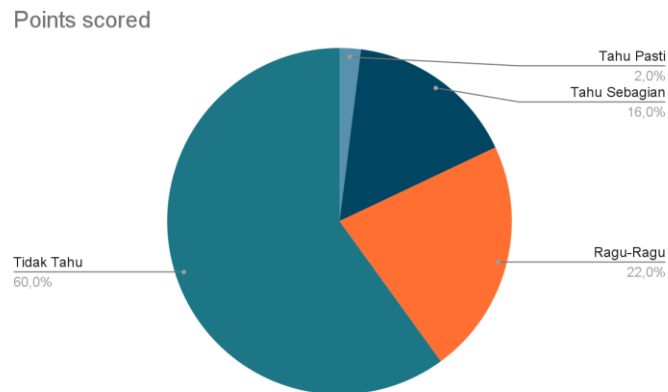
## RESULT AND DISCUSSION

The research was conducted in Mattirowalie, precisely at SMPN 9 Watampone. The number of respondents studied was 50 female students at SMPN

9 Watampone. Researchers conducted research in junior high schools because at the age of 13-15 years is the age when they are still in the growth phase. Researchers want to provide understanding regarding stunting from an early age and that this age is the right time. As an effort to reduce stunting rates, this solution is effective as a preventive measure and its sustainability is a reduction in stunting rates in Bone district.

Initial observations were carried out to see the initial condition of the sample and determine effective methods and solutions related to the needs and problems that occur in the Bone community, in connection with which Mattirowalie village is the third largest contributor to stunting rates in Bone Regency. Researchers made observations on female students and teachers. Based on the statement of the physical education teacher at the school, there has been no education regarding stunting for students. This means that knowledge about stunting in schools is still very minimal and follow-up is really needed so that the stunting rate can be reduced in this region.

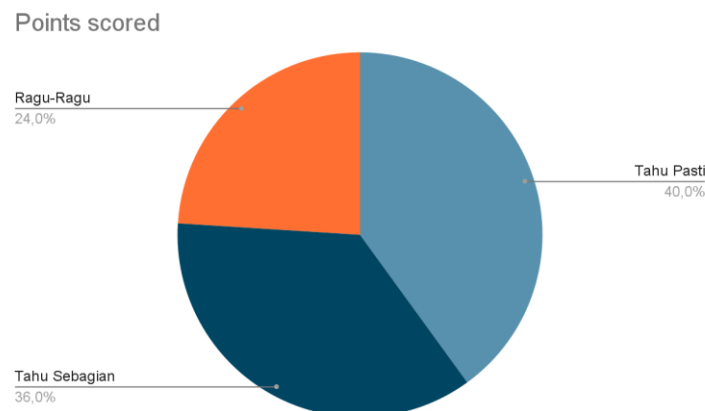
After knowing the existing problems, the researchers held discussions in the form of FGDs with several teachers, including physical education teachers. The discussion was held to find out the extent of understanding of teachers at this school regarding the dangers and ways to prevent stunting. After the discussion, researchers obtained an overview regarding teachers' understanding. This is because teachers act as liaisons or intermediaries in educating students about stunting. After the physical education teacher had been educated, then the researcher together with the physical education teacher conducted research together with 50 female students as a sample. This research was divided into two cycles, this was done to see the impact of the program provided. The following are the results of a student understanding test before being explained about stunting.



**Figure 1.** Pre-Cycle: data on students' knowledge about stunting.

After seeing the situation of students in the pre-cycle, the researcher observed that the physical education teacher was again conducting education about stunting, following are the results of the understanding from the first cycle of education.

### Cycle I



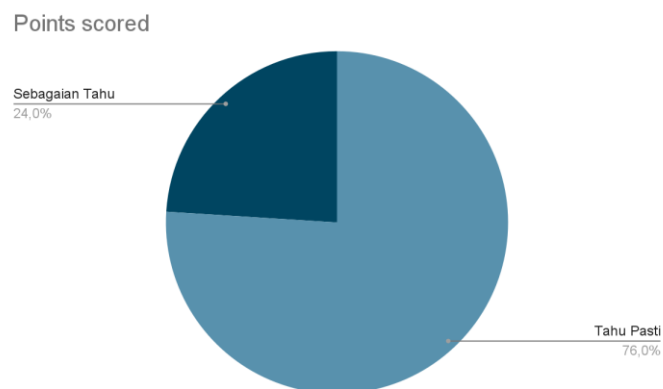
**Figure 2.** First Cycle results diagram

First Cycle: Based on the results of the first cycle, there were still 30 students who did not know for sure about stunting, so it was continued to the second cycle in order to achieve the aim of this research, namely that students understand for sure about stunting so that they can reduce the number of stunted children in Mattirowalie village, Bone Regency.



## Cycle II

The results of the first cycle showed that there were still students who were still at the uncertain level of understanding and some knew, while the aim of this research was to try to reduce the risk of stunting in the future, so to reach a higher level of understanding in the definite understanding category, the researchers continued to the second cycle. with the same treatment as the first cycle. Efforts are made to improve student understanding. The following are the results of the second cycle:



**Figure 3.** Result Cycle II

Based on the results of the second cycle, the results showed that there were 38 students who knew for sure about stunting and 12 students who knew some about stunting. So this indicates that students' understanding of stunting has been achieved according to the objectives of this research.

## Discussion

Stunting cases in Indonesia have experienced a significant downward trend in recent years, but the government's ambitious target of reaching 14% by 2024 requires more intensive efforts. Based on the Indonesian Nutrition Status Survey (SSGI), the prevalence of stunting fell from 24.4% in 2021 to 21.6% in 2022. In 2023, the government is targeting further reductions to approach the national target, which is a priority in the National Medium Term Development Plan (RPJMN).

The Indonesian government has implemented various strategies to accelerate stunting reduction. One significant effort is collaboration with various institutions and increasing access to nutritional interventions, such as additional food for pregnant women and children under five, as well as parenting and sanitation education. These steps are expected to be able to push the prevalence of stunting to 14% by 2024, although challenges still remain considering the multidimensional approach needed to overcome this problem.

One of the efforts mentioned above is education, in this case researchers conducted research on students' understanding of stunting from the results of education carried out by physical education teachers. This effort was carried out to measure students' level of understanding about stunting so that in the future it can become a foundation for female students in improving their standard of living in a healthy way so as to avoid the causes of an increase in stunted babies.

From the research results, significant results were obtained regarding students' understanding of stunting at school. At pre-cycle, 60% of students did not know about stunting, 22% of students were unsure about stunting, 16% of students knew some about stunting and 2% knew for sure about stunting. In the first cycle, students' knowledge about stunting began to increase after being given education by the physical education teacher so that it increased to 24% of students were unsure about stunting, 36% of students knew some about stunting and 40% knew for sure about stunting. However, these results were not enough to answer the objectives of the research, so it was continued to the second cycle so that students would understand more about stunting and prevent the increase in stunting sufferers towards a golden Indonesia. So in the second cycle the results obtained were that 24% of students knew some about stunting and 76% of students knew for sure about stunting. These results can answer the objectives of this research. The understanding given to students by physical education teachers can be an effective solution to reduce the increase in stunting sufferers in the future.



Educational efforts will run well if physical education teachers know and understand the dangers of stunting and the relationship of physical education to the lives of their students. In addition, the emphasis on healthy lifestyles given to students from an early age is a good way to get students used to doing efforts that support student health. One of them is by consuming healthy and nutritious food from school age onwards. This can raise students' awareness of maintaining health so that in the future they can maintain nutritional balance during pregnancy and childbirth.

## CONCLUSION

The conclusions in this research are: 1) Students' understanding of stunting can increase by providing related material in language that can be easily understood. 2) The increase in students' understanding of stunting increased from the pre-cycle to the first cycle to the second cycle. In the first cycle, students' knowledge about stunting began to increase after being given education by the physical education teacher so that it increased to 24% of students were unsure about stunting, 36% of students knew some about stunting and 40% knew for sure about stunting. However, these results were not enough to answer the objectives of the research, so it was continued to the second cycle so that students would understand more about stunting and prevent the increase in stunting sufferers towards a golden Indonesia. So in the second cycle the results obtained were that 24% of students knew some about stunting and 76% of students knew for sure about stunting.

## REFERENCES

- Akbar, S. (2023). Kajian Teoritis: Formulasi Kebijakan Potensi Pertanian dalam Pencegahan Stunting di Kalimantan Selatan. *Publikauma: Jurnal Administrasi Publik Universitas Medan Area*, 11(2), 157–162. <https://ojs.uma.ac.id/index.php/publikauma/article/view/10358>
- Arrahima, I., Ermayanti, D., Suluh, H., Talita, Z. A., Balqhi, C., Pkk, P., Perspektif, D., & Dan, E. (2024). Peran pkk dalam perspektif ekonomi dan kesehatan untuk pencegahan stunting. *Majalah Ilmiah "Pelita Ilmu,"* 1–11.
- Christiana, I., & Yulifah Salistia Budi. (2024). Pemberian Edukasi Kesehatan Reproduksi Dan Pemberian Tablet Tambah Darah Sebagai Upaya

- Pencegahan Stunting Pada Remaja. *Jurnal Pengabdian Masyarakat (JUDIMAS)*, 2(2), 222–231. <https://doi.org/10.54832/judimas.v2i2.284>
- Dos Santos, H. A., Nour Rahman, S., Hammado, N., Fitri, A. U., & Kamaruddin, I. (2022). *Sosialisasi model jari manis (remaja puteri mencegah stunting)*. 9(5), 356–363.
- Fitriani Pramita Gurning, Rahmia Yunita Sari S, Rizky Widya Astuti, & Ummu Balqis Munfaridah Sinambela. (2021). Implementasi Program Pencegahan dan Penanggulangan Stunting di Wilayah Kerja Dinas Kesehatan Kota Medan Tahun 2020. *Jurnal Kesehatan*, 10(1), 36–42. <https://doi.org/10.37048/kesehatan.v10i1.325>
- Ginanjari, M. R., Anggraini, P. T., & Dekawaty, A. (2022). Effect of Health Education on Knowledge and Attitudes of Mothers With Stunting Children. *Jurnal Masker Medika*, 10(2), 701–708. <http://jmm.ikestmp.ac.id/10.52523/maskermedika.v10i2.493>
- Juliana, Jahriani, N., & Mahyunidar. (2022). Jurnal Pengabdian Masyarakat Aufa (JPMA) Vol.2 No. 3 Desember 2020. *Jurnal Pengabdian Masyarakat Aufa (JPMA)*, 4(3), 58–64.
- Mutmainna, A., Rahman, S. N., & ... (2023). Sosialisasi Pencegahan dan Penanggulangan Stunting Melalui Peningkatan Gizi Ibu Hamil dengan Mengonsumsi Moringa Oleifera. ... *Jurnal PkM Ilmu ...*, 6(2), 441–449. <https://jurnal.univpgri-palembang.ac.id/index.php/dedikasi/article/view/13628%0Ahttps://jurnal.univpgri-palembang.ac.id/index.php/dedikasi/article/view/13628/7787>
- Nott, J. (2021). “No one may starve in the British Empire”: Kwashiorkor, protein and the politics of nutrition between Britain and Africa. *Social History of Medicine*, 34(2), 553–576. <https://doi.org/10.1093/shm/hkz107>
- Nurajizah, E. (2022). Analisis Faktor Riwayat Kehamilan Dan Riwayat Bayi Terhadap Kejadian Stunting Pada Baduta Usia 6-24 Bulan Di Wilayah Kerja Puskesmas Palabuhanratu Sukabumi Tahun 2021. *SIBATIK JOURNAL: Jurnal Ilmiah Bidang Sosial, Ekonomi, Budaya, Teknologi, Dan Pendidikan*, 1(6), 771–778. <https://doi.org/10.54443/sibatik.v1i6.91>
- Pebrianty, P., Lalli, L., & Embong, M. (2023). Percepatan Pencegahan Stunting pada Anak Usia Dini dengan Pendekatan Analisis Spasial. *Murhum : Jurnal Pendidikan Anak Usia Dini*, 4(2), 259–271. <https://doi.org/10.37985/murhum.v4i2.315>
- Pokhrel, S. (2024). Peran Dinas Kesehatan Dalam Upaya Penanggulangan Stunting Di Kabupaten Pasaman Barat. *Ayax*, 15(1), 37–48.

- 
- Purnama, T. B., & Salamuddin. (2021). *Dikawasan pesisir desa prioritas stunting nasional kabupaten langkat provinsi sumatera utara*. Perpustakaan Nasional: Katalog Dalam Terbitan (TKD).
- Rofiq, A. (2019). Pusat Informasi dan Konseling Remaja: Upaya Perwujudan Pendidikan Nonformal. *Diklus: Jurnal Pendidikan Luar Sekolah*, 3(2), 73–84. <https://doi.org/10.21831/diklus.v3i2.27026>
- Sari Ami Monika. (2021). Hubungan Cakupan Imunisasi Dasar Dan Asi Eksklusif Dengan Status Gizi Balita Di Indonesia. *Pharmacognosy Magazine*, 75(17), 399–405.