Journal for Re Attach Therapy and Developmental Diversities
eISSN: 2589-7799
2023 August; 6 (10s2): 949-955

A Study of Factors Affecting Health Student Behavior on Stunting Issues in East Nusa Tenggara Province, Indonesia

Frans Salesman[1] , Emanuel Gerald Alan Rahmat[2] Abdul Madjid[3]

[1,3]Citra Bangsa University, Kupang, Indonesia

[2] Health Polytechnich of Ministry oh Health in Kupang

Correspondence Author
Frans Salesman
Faculty of Health, University Of Citra Bangsa, Kupang, Indonesia
Jalan Manafe No.17, Kayu Putih, Oebobo Kota Kupang
franssalesman@gmail.com

Received: 28- June -2023
Revised: 12- July -2023
Accepted: 25- August -2023

Abstract

Background: East Nusa Tenggara Province is one of the areas with the highest prevalence of stunting in Indonesia. Programs to prevent and deal with stunting problems are not only through government program interventions but require the role of students as future health worker candidates and nourish an educational function to the community.

Objective: This study aims to determine the factors related to the involvement of health students in supporting the prevention of stunting problems in the province of East Nusa Tenggara, Indonesia **Method:** A cross-sectional study was conducted in this study. The study population was health students at Citra Bangsa University in East Nusa Tenggara, Indonesia. There were 311 respondents in the study. Proportional random sampling is used for sampling. The SPSS 25 program was used to perform descriptive and bivariate data analysis.

Result: The results of Spearman's correlation analysis showed that there was a relationship between knowledge variables ($p = 0.000$; $r = 0.389$), attitude (($p = 0.002$; $r = 0.203$), and motivation ($p = 0.000$; $r = 0.211$) with the intervention of health students in stunting handling programs. Based on the results of the study, it shows that the knowledge variable ($r = 0.389$), was most related to student involvement in supporting stunting handling programs.

Conclusion: The learning process of health students needs to optimize empowerment in aspects of knowledge, attitudes and motivation in teaching, research, and community service activities as factors related to shaping student concern for stunting problems.

Keywords:- Attitude, Behavior, Knowledge, Moitivation

Introduction

The quality of a country's Human Resources is greatly influenced by the level of health of its population [1][2]. One of the issues that is still a serious problem in the health sector that still occurs in developing countries, including Indonesia, is related to stunting [3]. Stunting is a linear growth failure that is a marker of various pathological disorders associated with morbidity, mortality, loss of physical growth potential, decreased cognitive function, and an increased risk of chronic disease in adulthood. Stunting is also associated with a decrease in a person's immune function [4]. According to the Asian Development Bank (ADB), the stunting prevalence rate is one of the determinants that cause the decline in the Human Capital Index of a country including Indonesia [5]

According to Data (WHO, 2021) in 2020, the incidence of stunting in the world reached 149.2. Indonesia is a country with a stunting prevalence rate ranked 115th in the world and is the second highest in Southeast Asia [2]. Based on the results of the 2022 Indonesian Nutritional Status Survey (SSGI), the stunting prevalence rate in Indonesia is still at 21.6%. East Nusa Tenggara Province is one of the regions in Indonesia with the highest stunting prevalence in Indonesia, which is 37.80 percent (SSGI, 2022), as many as 9 out of 22 urban districts in East Nusa Tenggara have a stunting prevalence above that average [6]

Stunting prevention and handling programs in Indonesia have been carried out by the government through the Ministry of Health program which focuses on nutrition interventions and the health status of mothers and infants [7]. One of the government's efforts in reducing the prevalence of stunting is through the stunting care student program, students are expected to be a companion to families at risk of stunting and provide education to the community about stunting prevention [8].

Several studies have shown that the program of providing education by health professionals with students through assistance in providing healthy food significantly ($p < 0.005$), reduces stunting rates in children in the Burundi region[9]. The role of students in handling health problems can be implemented in the form of community service through education, being involved in research, and initiating stunting campaigns in the community. The results of a study showed that optimizing the role of students through stunting education programs increased visits for toddlers in the Musi Rawas area, South Sumatra by 15% [10]. One important aspect that needs to be emphasized in forming health worker professionalism is starting from the education period, otherwise known as a concept *(ascribed status)*, the education process as a systematic, measurable educational process [11]. The education process of prospective health workers must be carried out properly to support the skills of prospective health workers and achieve the required competency standards (Ministry of Health of the Republic of Indonesia., 2014)

Universitas Citra Bangsa is one of the educational institutions in Indonesia that has been educating prospective health workers since 2019 Data shows that the number of students who are taking education programs in the health sector is 2260 students who are divided into several specializations in the health sector including nursing, midwifery, and pharmacy.

Sebagai upaya mendukung program pemerintah dalam pemberatasan stunting melalui peran mahasiswa, sangat penting untuk melakukan sebuah langkah *assesment* awal tentang tingkat pengetahuan dan sikap, serta perilaku mahasiswa dalam mendukung program penanganan dan pencegahan masalah stunting di Provinsi Nusa Timur. Menurut (Green et al., 2022) kajian terhadap faktor predisposisi merupakan fase penting dalam tahap *educational and ecological diagnosis* sebagai hal yang paling esensial mempengaruhi perubahan perilaku seseorang. *Prediposing factor* meliputi pengetahuan, sikap, merupakan faktor yang paling dominan mempengaruhi perilaku seseorang [12]. Konsep teori digunakan sebagai dasar teori pada penelitian, sehingga dapat mengetahui hubungan pengetahuan, sikap dan motivasi terhadap intervensi mahasiswa dalam pencegahan stunting di provinsi Nusa Tenggara Timur, Indonesia.

This research is expected to provide input for improving the health education curriculum so that there is an increase in the capacity and readiness of students as prospective health workers. Previous studies have not been able to see the relationship between knowledge, and student attitudes in shaping one's behavior.

Methods

Design

This study is a type of observational study, using a *cross-sectional* approach. The study was conducted from April 2023 to June 2023. The study population was health students at Citra Bangsa University of 2,260 people. Calculation of the number of samples using the Slovin formula obtained the number of samples amounted to 340. The respondents of the study were students of the faculty of health at Citra Bangsa University, Kupang. The research sampling technique uses *proportional random sampling* so that the number of student samples is obtained nursing 140 respondents, Midwifery 98 respondents, Pharmacy 102 people. Data Analysis consists of descriptive analysis and *Spearman Rank* correlation test using SPSS Version 25 program.

Research Ethics

The Research Ethics License was issued by the Ethics Commission of Universitas Citra Bangsa with No.549/KE/UCB/2023

Assessment

Data collection using questionnaire instruments was shared using Kuesio. id application. The questionnaire is composed of 4 (four) constructs, namely knowledge, *attitudes*, motivation, and behavior in handling stunting, consisting of 40 indicator statements. The instrument validity test stage includes validity, content, and visual

validity with experts and practitioners in the health sector. Construct validity was carried out on 30 students who had the same sample characteristics as research respondents. Testing the construct validity of the research instrument using the *total correlation-correction item* method with valid criteria r> 0.306 and reliability testing using *Cronbach's alpha* with a value of > 0.7. The results of the validity test show that all items meet validity. The reliability test results state that all items were *reliable*.

DATA ANALYSIS

Data analysis includes descriptive univariate analysis and bivariate analysis using the *Spearman Rank* correlation test method, using SPSS Version 25 software.

RESULTS

Research has been conducted at Citra Bangsa University, Kupang, Indonesia. Researchers have taken data from a total of 311 respondents from a total of 340 respondents, consisting of nursing students (130) respondents, midwifery students (111) respondents), and pharmacy students (70) people. The percentage of respondents involved in the research reached 91.47%.

Table 1. Presenting data on student knowledge of stunting, the majority of respondents amounting to 199 (64.00%) respondents have a good knowledge category, but there are still 26 (8.40%) respondents who have less knowledge. The average score of knowledge on stunting is still in the medium category, which is 71.30 ± 15.03.

Tabel 1B menyajikan data analisis deskriptif sikap responden terhadap masalah stunting, mayoritas responden sebesar 204 (65.60%) responden memiliki sikap positif terhadap permasalahan stunting. Analisis deskriptif pada Table 1C shows that the majority of respondents (184 (59.20%) have good motivation to handle stunting in NTT province. Table 1D data shows that student involvement in handling stunting problems is mostly 212 (68.20%) in the good category, but there are 28 (9.00%) respondents, who have a low participation rate.

Table 1C shows that the majority of respondents (184 (59.20%) have good motivation to handle stunting in NTT province. Table 1D data shows that student involvement in handling stunting problems is mostly 212 (68.20%) in the good category, but there are 28 (9.00%) respondents, who have a low participation rate.

DISCUSSION

The results showed that knowledge variables had a relationship with the involvement of health students in stunting handling programs. This means that the better the level of knowledge of respondents, the more student involvement in supporting stunting handling programs. The findings in this study support the results of studies that have been conducted in several regions of Indonesia, which show that the level of knowledge of good health cadres is positively correlated and significant to efforts to overcome stunting [13]. A person's knowledge of an object is a sensing process that can determine the making of an action or decision [14]. Knowledge will greatly shape an educational process [12]. Knowledge is one of the indicators of achievement in a health education process, the level of knowledge of a health worker in being a description of the competence and qualifications of a prospective health worker [15]. The results of the analysis in Table 2 show that the majority of respondents as many as 199 (64.00%) have a good knowledge category about stunting, many respondents amounted to 148 (17.60%), but there are still 86 (27.70%) respondents in the sufficient category and 26 (8.40%) are in the less category, the average score of knowledge is also still in the medium category (71.30 ±15.03). Menurut sebuah hasil studi yang dilakukan terhadap mahasiswa fakultas kesehatan pada sebuah universitas di Indonesia, menunjukan bahwa pengetahuan berhubungan dengan keterlibatan mahasiswa terhadap pencegahan masalah kesehatan di masayarakat [16], masih adanya mahasiswa yang memiliki tingkat pengetahuan dapat disebabkan oleh rendahnya tingkat literasi dan keterlibatan mahasiswa dalam mengikuti seminar, perkuliahaan yang membahas masalah kesehatan di wilayah Nusa Tenggara Timur ,terutama terkait isu stunting . Lack of knowledge, of course, will potentially reduce students' interest and attitudes in supporting the stunning handling program [11][13] . Increasing student time and direct involvement through a system-based practice method has been proven as a curriculum innovation strategy to increase student knowledge [17], in addition to increasing student involvement in workshops, workshops or seminars related to stunting may be applied to increase student knowledge of stunting problems, as has been applied in other countries. The results also showed that the knowledge variable was a strong factor in the relationship (r = 0.389) with student involvement in supporting stunting handling programs. Good knowledge will certainly be one of the predisposing factors, which will initiate and facilitate a health worker in taking an action or decision [19]. Strengthening the knowledge aspect can certainly be a

key step in shaping the quality and competence of good health workers in the future [20]. Education of prospective health workers certainly needs to strengthen the lecture curriculum, community service, and research that contributes positively to solving health problems in the community including stunting.

Attitude is a reaction or response that is still closed from a person to a certain stimulus or object, already involving the relevant opinion and emotional factors [21] [12]. Attitude is the readiness or willingness to act, and not the implementation of certain motives based on 3 (three) components, namely a) *trust*, ideas, and concepts of an object, b) emotional life or evaluation of an object, and c) tendency to act *(tend to behave)*[14] [22]. The results showed that attitude variables had a relationship with the involvement of health students in stunting handling programs ($p = 0.203$; $r = 0.203$). It can be said that the better the attitude of students toward the problem of stunting, the higher the involvement of students in supporting stunting handling programs. The results support the findings of another study, which found that attitudes correlated positively ($r = 0.371$; $p < 0.001$) to the positive practices of prospective nutrition specialists in Ghana regarding nutritional problems [23]. The high percentage of health students who have a positive attitude is shown in the analysis of Table 2. Handling stunting problems, of course, can be a good indication of student involvement more optimally in supporting stunting handling programs in the East Nusa Tenggara region.
Motivation is defined as all brain processes that energize and direct behavior, not just goals and conscious decision-making but include habitual processes, emotional responses, as well as analytical decision-making [24]. The results of the study are in Table 2. It shows that the majority of respondents (59.20%), have high motivation to be involved in stunting problem-handling programs in NTT province. This can also be seen from the results of the Spearman correlation output in Table 2, which shows that motivation variables are related to student involvement in supporting stunting handling programs. This also supports a study result, which found that the motivation of prospective health workers has been proven as an influential variable ($B = 0.51$; $p < 0.001$; $F=0.281$) in the development of the professional identity of medical students at the University of Mataram, Indonesia [25]. One of the main principles in health services is to prioritize aspects of *responsiveness* which are implemented in empathetic behavior towards health problems in the community [26][27]. The prospect of quality graduates of health workers in the future is expected to be developed as a concept of *care provider* [28]. High motivation will certainly support the formation of professionalism, and competence and meet qualifications in general, but understanding the needs and health problems in the community will certainly be a direction for the behavior of health workers in the future related to the problem of stunting which is still a major problem in East Nusa Tenggara province.

The majority of respondents in the study had well participated in supporting stunting problem-handling activities in East Nusa Tenggara Province, both through activities regularly carried out by universities, as well as independently by student organizations. Universities as educational institutions for prospective health workers need to increase the role and involvement of health students in the future, through the concept of students as initiators of healthy living in the community (agents of health), empowerment of healthy life changes for the community (agent of change), and also as agents who initiate improvements in the quality of public health (agent of development) [29]. The educational environment of prospective health workers will have a significant impact on the formation, development, and socialization of professionalism of a prospective health worker[30]. Adaptation and innovation to the education curriculum of prospective health workers to the needs and health problems that occur in the community must be an agenda in the transformation of the education system of prospective health workers at universities. The two main components that need to be prepared to face the transformation agenda are the main competencies according to the field of health, and the role of students as agents of change in the health system, which of course is based on the level of knowledge, motivation, and attitudes of students on strategic health issues [31]. Optimizing the role of students in the stunting problem-handling program in NTT province is expected to be an agent of change in the health system, the role of the university in preparing prospective health workers needs to be optimized through educational curriculum innovation, community empowerment, and research. A good education system is expected to shape students' knowledge, attitudes, and motivation to participate in the health system, especially the problem of stunting in East Nusa Tenggara province.

CONCLUSION

Student knowledge of stunting was still not optimal, and literacy efforts and modifications to the learners' curriculum still need to be made. Student attitudes and motivations tend to be a good category. Student intervention in stunting problems still needs to be optimized in research, learning, and community service activities. Knowledge, attitudes, and motivation can influence the optimization of the role of students in reducing stunting problems in the province of East Nusa Tenggara, Indonesia.

Acknowledgment

Thank you to the Kupang City Health Office, the One-Stop Integrated Service and Investment Services of East Nusa Tenggara Province, all Health Centers that have granted research permits, and the Citra Bangsa University that has granted research ethics permits, as well as all parties involved in completing this research.

Source of funding

Self Funding

References

[1] Undurraga EA, Behrman JR, Emmett SD, Kidd C, Leonard WR, Piantadosi ST, et al. Child stunting is associated with weaker human capital among native Amazonians American Journal of Human Biology. Am J Hum Biol. 2018;30:23059.

[2] WHO. Stunting prevalence among children under 5 years of age (%) (model-based estimates). 2023.

[3] de Onis M, Branca F. Childhood stunting: a global perspective. Matern Child Nutr. 2016 May;12 Suppl 1(Suppl 1):12–26.

[4] Dhingra S, Pingali PL. Effects of short birth spacing on birth-order differences in child stunting: Evidence from India. Proc Natl Acad Sci U S A. 2021 Feb;118(8):e2017834118.

[5] World Bank. Indonesia Human Capital Knowledge Series. The World Bank Indonesia. 2019.

[6] Kebijakan B, Kesehatan P, Ri KK. BUKU SAKU Hasil Survei Status Gizi Indonesia (SSGI) 2022.

[7] Tiga Upaya Kemenkes Turunkan Stunting di Indonesia – Sehat Negeriku.

[8] PERPRES No. 72 Tahun 2021 tentang Percepatan Penurunan Stunting [JDIH BPK RI].

[9] Leroy JL, Olney D, Ruel M. Tubaramure, a Food-Assisted Integrated Health and Nutrition Program, Reduces Child Stunting in Burundi: A Cluster-Randomized Controlled Intervention Trial. J Nutr. 2018 Mar;148(3):445–52.

[10] Peran Mahasiswa Dalam Upaya Penurunan Stunting Di Kabupaten Musi Rawas Utara Nenny Wahyuni O, Hasyim H, Alam Fajar N, Rahmawaty A, Amin Arigo Saci M, Yuliana I, et al. Optimizing the Role of Students in Reducing Stunting in North Musi Rawas Regency: Din J Pengabdi Kpd Masy. 2023 Feb;7(1):68–75.

[11] Salesman F. Contribution of Health and Education to Improve the Human Capital Index in Indonesia. J Data Min Genomics Proteomics. 12:1000003–4.

[12] Sulaeman ES. Model dan Teori Perilaku Kesehatan. Bhisma Murti S, editor. UNS Press; 2016.

[13] Mediani HS, Hendrawati S, Pahria T, Mediawati AS, Suryani M. Factors Affecting the Knowledge and Motivation of Health Cadres in Stunting Prevention Among Children in Indonesia. J Multidiscip Healthc. 2022;15(December):1069–82.

[14] Notoadmodjo S. Ilmu Perilaku Kesehatan. Jakarta: Rineka Cipta; 2020.

[15] Salesman F. Potret Kesehatan Masyarakat Di Nusa Tenggara Timur. Surabaya: Jakad Publishing; 2018.

[16] Giovanni LY, Suryadinata H, Sofiatin Y, Rakhmilla LE, Ruslami R. Knowledge, attitude, and practice of undergraduate medical students in Indonesia on the COVID-19 prevention. J Prev Med Hyg. 2021

Sep;62(3):E598–604.

[17] Holloway R, Nesbit K, Bordley D, Noyes K. Teaching and evaluating first and second-year medical students' practice of evidence-based medicine. Med Educ. 2004 Aug;38(8):868–78.

[18] Sisa I, Garcés MS, Crespo-Andrade C, Tobar C. Improving Learning and Study Strategies in Undergraduate Medical Students: A Pre-Post Study. Healthc. 2023 Feb;11(3):375.

[19] Lawrence W. Green, Andrea Carlson Gielsen, Judith M.Ottoson, Darleen V.Peterson MK. Health Program Planning, Implementation, and Evaluation (Creating Behavioral, Environmental, and Policy Change). Jhon's Hopkins University Press; 2022.

[20] Salesman F, Tapung MM. The Quality Of Human Resources And The Scientific Culture Issue Post-Pandemic Covid-19 (A Case Study In Indonesia). J Posit Sch Psychol. 2022 Jul;2022(6):8894–900.

[21] Notoatmodjo S. Pendidikan Dan Perilaku Kesehatan. Bumi Aksara; 2003. 182 p.

[22] Glanz, K., Rimer, B. and Viswanath K. Health behavior: Theory, research, and practice, 5th ed. Glanz K, Rimer BK, Viswanath K 'Vish', editors. Hoboken, NJ, US: Jossey-Bass/Wiley; 2015. xxv, 485–xxv, 485.

[23] Mogre V, Aryee PA, Stevens FCJ, Scherpbier AJJA. Future Doctors' Nutrition-Related Knowledge, Attitudes and Self-Efficacy Regarding Nutrition Care in the General Practice Setting: A Cross-Sectional Survey. 2017;

[24] Michie S, van Stralen M, West R. The Behaviour Change Wheel: a new method for characterizing and designing behavior change interventions. Implement Sci. 2011 Apr;6:42.

[25] Susani Y, Gandes R, Sanusi R, Prabandari Y, Mardiwiyoto H. DEVELOPING A MODEL OF PROFESSIONAL IDENTITY IN MEDICAL STUDENTS: THE ROLE OF MOTIVATION AND PARTICIPATION. J Pendidik Kedokt Indones Indones J Med Educ. 2018 Nov;7:159–69.

[26] Salesman F, Akram M, Clemens Y, Gobang G. Contributions to quality of health and education to improve human capital index in Indonesia. Int Res J Public Environ Heal. 2021 Jul;8(4).

[27] Negash WD, Tsehay CT, Yazachew L, Asmamaw DB, Desta DZ, Atnafu A. Health system responsiveness and associated factors among outpatients in primary health care facilities in Ethiopia. BMC Health Serv Res. 2022 Feb;22(1):249.

[28] Salesman F. Potret Kesehatan Masyarakat di Nusa Tenggara Timur. Lutfiah, editor. Surabaya: Jakad Publishing; 2020. 66 p.

[29] Ocktilia H. Higher Education's Roles as a Change Agent in the Implementation of Community Development Technology in the Independent Prosperous Village of Indonesia. Italienisch. 2022;12(2):277–86.

[30] Power JJ. Nursing and medical students as agents of change in health care: Impact of schools core values and culture-a discussion paper. IOSR J Nurs Heal Sci [Internet]. 2016;5(6):181–6. Available from: http://www.iosrjournals.org/iosr-jnhs/papers/vol5-issue6/Version-1/W050601181186.pdf

[31] McDermott C, Shank K, Shervinskie C, Gonzalo JD. Developing a Professional Identity as a Change Agent Early in Medical School: the Students' Voice. J Gen Intern Med. 2019 May;34(5):750–3.

Table 1. Demographic Characteristics of Respondents (n=311)

Variable	n (%)
Gender	
Male	85 (27.30)
Female	226 (72.70)
Age (Mean±SD)	(18.37±1.26)
Specialization	
Nursing	130 (41.80)
Midwifery	111 (35.70)
Pharmacy	70 (22.50)
Spent a Year in Higher Education	
2 Years	141 (45.34)
3 Years	170 (54.66)

Table 2. Bivariate Relationship between Variables (n=311)

Variable	n (%)	*p-value*	*Corelation coefisient (r)*
Knowledge		0.000	0.289
High	199 (64.00)		
Medium	86 (27.70)		
Low	26 (8.40)		
(Mean±SD)	71.30 ±15.03		
Attitude		0.002	0.203
Good	204 (65.60)		
Enough	78 (25.10)		
Bad	29 (5.30)		
Motivation		0.000	0.211
High	184 (59.20)		
Medium	74 (23.80)		
Low	53 (17.00)		
Role of Students in Stunting			
Good	212 (68.20)		
Enough	71 (22.80)		
Bad	28 (9.00)		