Medical Research, Nursing, Health and Midwife Participation
https://medalionjournal.com| ISSN: 2986-7754

THE EFFECT OF ANTHROPOMETRIC MEASUREMENT TRAINING ON POSYANDU cadres' KNOWLEDGE IN JOHAN PAHLAWAN DISTRICT

Redha Riska Fatwati[1], Teuku Muliadi[2], Itza Mulyani[3], Wardah Iskandar[4]
Faculty of Public Health, Universitas Teuku Umar
*Correspondence Email:teukumuliadi@utu.ac.id,redhariskafatwati@gmail.com

Abstract

Posyandu nutritional status monitoring activities are carried out by posyandu cadres. Quality anthropometric measurement results are influenced by the knowledge and skills of posyandu cadres. The aim of this research was to see whether there was an influence of anthropometric training on the knowledge of posyandu cadres. This research was carried out in Johan Pahlawan District, West Aceh Regency in November-December 2023. Using quantitative research methods and experimental research design with a Quasi Experimental design. The research sample was posyandu cadres in the Johan Pahlawan Community Health Center working area, with a sampling technique namely Multistage Random Sampling. Data processing uses Paired T-test. The results of this research showed a significant difference in the knowledge of posyandu cadres before and after training (p-value> 0.000), and there was an increase in the average value of knowledge of posyandu cadres, where the average value of knowledge before training was 78.62 and after training was 93.46. In conclusion, there is a significant influence between anthropometric training and the knowledge of poyandu cadres and there is a difference in the average knowledge of cadres before and after training for cadres in Johan Pahlawan District.

Keywords*: Anthropometric Training, Knowledge, Posyandu Cadres*

INTRODUCTION

Nutritional status is a person's physiological condition which is described by the absorption of nutrients (absorption), use of nutrients (ultilazation) and also food consumption (Kundanti, 2015). One way to measure nutritional status is to use anthropometry (Putra, Officialati and Eru M., 2021). Anthropometrics is the activity of measuring body dimensions, where the results of the measurement data will be converted into data for making decisions in implementing programs and also enforcing health status/degree of health in a group. Assessment of nutritional status using anthropometry can be carried out by Community Health Centers, Posyandu, and also a team of nutritional status survey members. Posyandu is an integrated health monitoring activity to help community health centers provide services or places to monitor the nutritional status of children and the elderly and the growth and development of children and the elderly. A person in the community who volunteers (sincerely) to help with posyandu activities, has the ability, time and skills and has a soul with character as an enforcer in public health is called a posyandu cadre (Esli Juraidah Siregar, 2021).

Data from measuring nutritional status must be equipped with knowledge and skills related to anthropometry, accurate data will influence the success of determining and making decisions in health actions to see and determine the level of health and determine the prevalence of a disease in the area and will be the basis for making decisions (Gandasari, A ., J., 2017). To obtain quality data from anthropometric measurements, there are several factors that can influence them, namely the measuring officer and Standard Operative Procedures (SOP). Posyandu cadres as measuring officers should have knowledge and skills in anthropometry, understand the nature of objects, know the nature of measuring instruments and SOPs (Esli Juraidah Siregar, 2021). The importance of cadre knowledge is also based on the high level of nutritional problems in Indonesia. Data from the 2022 National Nutrition Status Survey (SSGI) shows that the prevalence of stunting in Indonesia is 21.6%, wasting 7.7%, underweight 17.1% and overweight 3.5%. It also shows nutritional problems in the Aceh area, namely the prevalence of stunting (31.2%) is in 5th place,

wasting (11.3%) is in 4th place, the highest underweight (24.3%) is in 3rd place. SSGI data for 2022 also shows the prevalence of nutritional problems in West Aceh, namely cases of underweight 22.5%, stunting 30.4%, overweight 1.4%, wasting 10.5%. Based on this data, it can be seen that to reduce stunting rates among children, Posyandu cadres must have good knowledge and skills as a form of health support at the village level and as a first step in screening cases of nutritional problems in Indonesia.

Posyandu cadres in monitoring children's nutritional status must be accompanied by knowledge so that measurement errors do not occur. One of the things that can increase knowledge is training. Based on this background, the researchers wanted to see whether there was an increase in knowledge among posyandu cadres after being given training as a lesson in assessing nutritional status using anthropometric methods and assessing the knowledge of posyandu cadres in Johan Pahlawan District.

LITERATURE REVIEW

1. Anthropometric Training

Training is a process and a series of learning processes as well as providing material to share knowledge, as well as increase abilities and skills so that officers can carry out their duties and be responsible in their work and provide benefits and good work results for their work because of their ability to continue to be implemented and improve the quality of an officer's work. (Elfrianto, 2016). Anthropometry is the measurement of body dimensions and body composition, for example upper arm circumference and thickness of fat under the skin, body weight, height (Supariasa, et al, 2013). Meanwhile, the explanation related to anthropometric training is training in providing material and practicing anthropometric measurements (Rahmawati, HA, 2017). The aim of anthropometry training for posyandu cadres is to increase cadres' knowledge, improve the quality of the workforce, skills and abilities in anthropometry during posyandu activities (Fajri, 2016).

2. Knowledge

Knowledge is the result of knowing a person after sensing a certain object from sight, smell, hearing, taste and also touch (through the eyes and ears). In Notoadamojo (2017) individual knowledge can be grouped into 6 levels, namely:

- Remembering the learning that has been given and given previously in learning or known as Know (know)
- A person's ability to explain and answer correctly and precisely questions related to variables and indicators that have been studied and can implement them correctly and well or is called understanding
- Ability and skills to apply and realize the learning and knowledge that has been given in actual conditions, application.
- The ability to describe and explain in detail the material that has been studied in part of a structure and the relationship between the part and other components, is called analyzing.
- Demonstrate or apply the expertise and skills possessed and apply them and be able to connect existing objects into new forms, or what is called synthesis
- The ability to justify and assess an object and material that has been given, evaluate.

3. Factors That Can Influence Knowledge

According to Suprihatin 2018, there are several factors that can influence a person's knowledge, namely:

a. Social culture, traditions or culture can influence a person's mindset regarding good and bad things

b. Education, namely changes in behavior and attitudes of a group or person as well as efforts to mature through training and learning, the higher the education, the higher the person's knowledge.
c. Economics can influence whether or not facilities are available to obtain good knowledge or education
d. The environment can influence an individual's knowledge by looking at a person's feedback or response to knowledge
e. Age, or age is how long a person lives in years. Age can influence the knowledge a person acquires, the higher the age, the more influence a person's understanding and mindset will have.
f. Information is a process and technique for collecting data, preparing data, storing data, grouping and distributing data for special purposes. Information is obtained from non-formal and formal education and influences a person's knowledge. A lot of information will influence a person's level of knowledge.
g. Experience is a person's length of work and also the process by which a person obtains the truth of knowledge through repeated knowledge and resolves problems that existed in the past and can be used to obtain knowledge.

4. Integrated Healthcare Center

Activities and places for monitoring and assessing the nutritional status and development of babies, toddlers, children, pregnant and breastfeeding women and the elderly as well as integrated health monitoring to help community health centers carry out their duties and provide services are called posyandu. Posyandu (Integrated Service Post) is a group in the development and development of society so that it can create families and communities together guided by health center health workers and cadres towards community life with prosperous and happy small families. Posyandu is also a combination of family planning (KB) posts, village health posts, weighing posts/anthropometry posts, immunization posts and vaccination posts. (Ezli Zuraidah, 2021). Posyandu aims to monitor nutritional status, namely reducing child and maternal mortality rates, as well as health monitoring and anthropometric measurements for target objects that have been determined in posyandu activities, namely pregnant women, postpartum and breastfeeding mothers, babies, toddlers, couples of childbearing age and the elderly (Nurul Mardiana, et al, 2016).

5. Posyandu cadres

A posyandu cadre is someone in the community who has a sincere and selfless spirit and is willing to set aside time to carry out activities in the implementation of the posyandu. Cadres will then carry out tasks starting from preparations before the posyndau starts, when the posyadnu is held and also after the posyadnu is completed. Cadres in accordance with the division of tasks and schedules that have been determined, cadres can increase success in posyandu activities by assisting in data collection on nutritional status, immunization, providing PMT and PMT-P, as well as counseling related to targeted health which aims to improve the level of nutritional status (Fitriani A, Purwaningtyas DR, 2020). A common problem that often occurs during posyandu activities is the problem of lack of knowledge of posyadnu cadres related to measuring and weighing, understanding of equipment and standard operational processes (SOP), resulting in decreased performance of posyandu cadres and causing problems in early detection of nutritional problems in objects at posyandu (Patimah, et all., 2020). The role of posyandu cadres is very important in improving a person's nutritional status both in groups and individually, therefore requires good measurement abilities and skills with the aim of posyandu cadres carrying out posyandu activities optimally and reducing bias in measurements (Putri, Magdalena Sukarno P, 2022) . Several factors that can influence the

measurement results by cadres are age, knowledge, skills, training, experience and also education (Hardiyanti, 2018).

METHOD

The method used in this research is the Quasi Experiment design method or quasi-experiment with a quantitative approach. Using the Multistage Random Sampling sampling technique, which is a combination of strategies for drawing research samples with gradual planning and cluster division. The population in this research is all posyandu cadres in Johan Pahlawan District and the research sample is posyandu cadres who carry out weighing, measuring and recording tasks. The research was carried out by giving pre-test questions to cadres, then the cadres were given training and given questions again for the post-test. The questions consist of questions related to anthropometric measurements. Activities are carried out in the Johan Pahlawan Community Health Center Work Area, Johan Pahlawan District, West Aceh Regency, and will be implemented from November-December 2023.

RESULTS AND DISCUSSION

Contents Results and Discussion

The results of this research by providing anthropometric training to posyandu cadres in the Johan Pahlawan health center work area, there is a significant influence between anthropometric training and the knowledge scores of posyandu cadres and there is an increase in the average score of posyandu cadres. The dependent variable in this research is knowledge and the independent variable is anthropometric training. The research also used pretest and posttest questionnaires and used laptop and Power Point media, as well as measuring instruments as material for interpreting activities, so that cadres better understand the training that has been given.

The value of knowledge	Good	(%)	Not good	(%)	Mean	t count	Sig. (2-Tailed)	Level of Significance
	N		N					
Before Training	13	92%	0	8%	78.62	-5,422	0,000	0.05
After Training	13	92%	0	8%	93.46			
	Value ≤50		Value >50					

Based on the table above, it shows that there is a difference in the average knowledge value between the groups before and after anthropometric training, the group before anthropometric training had a lower average knowledge value than the high knowledge value after anthropometric training (78.62<93.46). In the Sig value (2-tailed), the p-value = 0.000 is obtained, which is smaller than the value □ = 0.05, which means (p-value <0.05), meaning there is a significant influence between anthropometric training and the knowledge of posyandu cadres in Johan Pahlawan sub-district. And it can be explained that the knowledge of posyandu cadres in Johan Pahlawan District is good, however, to see whether or not there is an increase in knowledge related to anthropometric measurements, it can be seen from the data that there has been an increase in the average value of knowledge among posyadnu cadres, this can explain that there is an influence between Anthropometric training with knowledge for Posyadnu cadres regarding anthropometric measurements.

This can be caused by several factors, namely increasing the level of cadre awareness of the importance of nutritional status, increasing knowledge of posyandu cadres, and also the level of understanding of each posyandu cadre. Knowledge can influence a person's actions and behavior, in this study cadre knowledge was in the good category for 92% of the 13 cadres, in accordance

with research by Hardiyanti, R., et al 2018, explaining that cadre knowledge had an effect on precision and accuracy values by 43.5% cadres have low knowledge and this affects the quality of anthropometric results. Knowledge is an important variable in anthropometric measurement results, shaping behavior and actions, therefore behavior must be based on knowledge and awareness. Knowledge is also something that someone knows (Rusmini, 2018). Knowledge interventions for cadres must be implemented to recall things that have been learned previously, one of which is through counseling and training which aims to increase cadres' knowledge and skills to obtain quality and valid measurement data (Naomi Intan and Budiono, I., 2022) . Knowledge in this study was intervened and also assessed using pretest and posttest, namely questionnaires before and after giving anthropometric training. Knowledge plays an important role in the performance of posyandu cadres in carrying out anthropometric measurements (Naomi Intan and Budiono, I., 2022).

During the training, measurement procedures or Standard Operational Procedures (SOP) are learned and also the appropriate anthropometric measurement tools according to the age of the target object. In the results of research on posyandu cadres in Johan Pahlawan District, it was found that before carrying out training, posyandu cadres had an average score of 78.62, lower than after being given anthropometric training, namely 93.46. This could be caused by a lack of refreshment or refreshing of knowledge in posyandu cadres, so Anthropometric training can increase cadres' knowledge regarding anthropometric measurements and this is in accordance with research by Intan Naomi, 2022 and Sari, Nurwati et al., 2020 which states that there is an influence and increase in posyandu cadres' knowledge regarding anthropometric measurements as evidenced by a comparison of the average pretest score (63.8 %) compared to the posttest score (89.4%) (Sari, Nurwati et al., 2020). It is also supported by a p-value of 0.000<0.05 so it can be concluded that there is a significant influence between anthropometric training and the knowledge of posyandu cadres. This proves that training if given frequently can improve posyandu cadres' skills and knowledge with the aim of posyandu cadres being more understanding and skilled in carrying out anthropometric measurements.

CLOSING

Conclusion

There is a significant effect of anthropometric training on Posyadnu cadres' knowledge with a p-value <0.05 so that anthropometric training is proven to increase Posyadnu cadres' knowledge regarding anthropometric measurements. In this case there is also a difference in the average value before and after training, because after training there was an increase in the average value (78.62 <89.4%). This can be the conclusion that anthropometric training has an important influence in increasing the knowledge and skills of Posyadnu cadres in anthropometric measurements in the future and therefore anthropometric training must be carried out frequently and also intervened to obtain valid and high-quality measurement data.

Suggestions and Acknowledgments

1. It is hoped that the results of this research can be a guide for institutions to implement programs in the future by paying attention to posyandu cadres.
2. Posyandu cadres can pay attention to the importance of the value of anthropometric measurement results.
3. Other researchers can better understand and research other indicators that can influence the knowledge of posyandu cadres.

REFERENCES

Elfrianto. (2016). Human Resources Training Management in Improving the Quality of Graduates. EduTech: Journal of Education and Social Sciences, 2(2), 46-58.

Esli JS(2021). The Role of Posyandu (Integrated Service Post) Cadres as an Effort to Improve the Welfare of Mothers and Children. At-Taghyir Journal: Journal of Da'wah and Village Community Empowerment. Vol.3., No.2, Page: 171-190

Fitryia N., Ginting D., et al. 2017. The Importance of Accuracy and Precision of Measuring Instruments in the Household. Journal for the Republic of Indonesia. Faculty of Mathematics and Natural Sciences and Health, Muhammadiyah University of Riau. 1(2). Page: 61-63

Hardiyanti, R., Idrus Jus'at, Angkasa, D. (2018). Long Working Relationship as a Cadre, Knowledge, Education, Training with Precision and Accuracy of Toddler Weight Weighing Results by Posyandu Cadres. AcTion Journal: Aceh Nutrition Journal, 79-80.

Indonesian Ministry of Health. (2022). Pocket Book: Results of the 2022 Indonesian Nutrition Stautus Survey (SSGI).

Kurdanti et al. (2015). Factors That Influence the Incidence of Obesity in Adolescents. Indonesian Journal of Clinical Nutrition. 9: 179-190

Naomi, I & Budiono, I. (2022) The Effect of Anthropometric Training on the Knowledge of Posyandu Cadres. Indonesian Journal of Public Health and Nutrition. Semarang State University. 2(2).

Notoadmojo, Soekidjo. (2017) Health Promotion and Behavioral Science. Rineka Cipta Publisher: Jakarta

Nursalam. (2013). Nursing Research Methodology Practical Approach. Edition: 3. Jakarta

Nurul Mardiana, et al. (2016). The Role of Posyandu Cadres in Improving Maternal and Child Health in the Konda Health Center Working Area, South Konawe Regency. Public Health Scientific Journal

Patimah, S., Darlis, I., Nukman, & Nurlinda, A. (2020). Increasing the Capacity of Health Cadres in Efforts to Prevent Stunting in Mangki Village, Cempa District, Pinrang Regency. Journal of Community Dedication, 3(2), 113–119.

Putra, Istriati and Meiki Eru. (2021). Accuracy and Precision of Digital Height Measuring Instruments for Assessing Nutritional Status. Endurance Journal: Scientific Studies PRES Iroblema Health, 616-621.

Daughter, Magdalena Sukarno P,. (2022). Toddler Anthropometric Measurement Training for Cadres in the Context of Early Stunting Prevention at Posyandu Mawar. Journal of Community Service. Vol. 2(2).

Rahmawati HA (2017). The Effect of Training on Increasing Knowledge and Skills in Toddler Weighing Activities for Posyandu Cadres in Rengas Village, South Tanggerang City, 2017. Thesis.

Rusmini. (2018). Basics and Types of Science. Edu-Bio, 5, 79-94.

Sari, Y., Nurwati, I., Setyawan et al. (2020). Anthropometric Examination Training for Elderly Posyandu Cadres at the Gondangrejo Karanganyar Community Health Center. Abdidas Journal. 1(6), 603-6.

Concerned, Endang. (2018). Description of the Knowledge Level of Posyandu Cadres Regarding Exclusive Breastfeeding in Tegalombo Village, Kalijambe Community Health Center Working Area, Sragen, Central Java. SKIPSI.