



Weighing Determination Guideline's Influence Cadre's Knowledge And Skill To Determine Weighing Result

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ABSTRACT

Background. Growth monitoring is a main program in nutrition which focuses on prevention and enhancement under five nutrition statuses. Based on observation in integrated service post or posyandu, 50% cadres failed to determine weighing result. Even cadre's role is essential on preventing protein energy malnutrition (PEM), especially in posyandu.

Purpose. This research aims to analyze the effect of cadre's training using weighing determination guideline towards cadre's knowledge and skill to determine weighing result.

Method. This is an experimental research using pretest and posttest with control group design. Treatment group was given guideline during training while control group was given material verbally. Independent variable is training to determine weighing result and dependent variable is cadre's knowledge and skill to determine weighing result. Independent sample t-test was done in order to compare the effect of treatment.

Result. The weighing determination guideline usage can increase cadre's knowledge score about interpreting weighing result. There is cadre's skill enhancement to determine weighing result. The guideline helps cadres to understand growth monitoring, step to make growth graphic and determine weighing result.

Conclusion. The usage of weighing determination guideline has significant impact towards cadre's knowledge and skill to interpret weighing result in posyandu.

Keywords: training, growth monitoring, interpreting weighing result.

BACKGROUND

Growth monitoring is a main program in nutrition which focuses on prevention and enhancement under five nutrition statuses¹. It consists of continuous growth assessment with weighing monthly, determination weighing result based on Under five's Healthy Card, follow up every growth disorder cases by counseling and referring, society policy and motivation to empower family².

Based on observation in integrated service post or *posyandu*, 50% cadres failed to determine weighing result. Cadre also didn't give counseling based on weighing result. It indicates if cadre miss interpret weighing result can cause wrong nutritional policy product, especially on prevention protein energy malnutrition (PEM). Besides, if cadre didn't give counseling at table 4th it means PEM prevention didn't implemented correctly. Cadre's role is essential on preventing protein energy malnutrition (PEM) especially in *posyandu*, but there are mistakes that cadre's done.

METHOD

This is an experimental research using pretest and posttest with control group design³. Treatment group was given guideline during training while control group was given material verbally. Population is cadre who work at *posyandu* in Srandakan Public Health Center (PHC) working area, Bantul District, Yogyakarta. Independent variable is training to determine weighing result. Dependent variable is cadre's knowledge and skill to determine weighing result. Control variable is cadre's job, cadre's education, and length of working as cadre. Independent sample t-test was done in order to compare the effect of treatment.

RESULT

1. Subject Characteristic

Subject of this research is cadre of *posyandu* who active to weigh under five. Cadre characteristic is served in Table 1.

a. Cadre's Education

Table 1. Cadre's Education

Education	Treatment		Control		X ²	P
	n= 37	%	n= 37	%		
Elementary School	2	5.3%	1	2.9%	0.533	.912
Junior High School	7	18.4%	7	20%		
Senior High School	26	70.3%	26	70.3%		
College	2	5.3%	3	8.6%		

Table 1 show both treatment group and control group were graduated from senior high school (70.3% cadre). Statistical test results there is no difference between treatment and control group with p value= 0.912 ($p>0.05$). It means that two groups have similar educational background.

b. Training and Cadre's Age

Both members of treatment group and control group have trained. Cadre's age is served in Table 2.

Table 2. Cadre's Age

Age	Average	Deviation	T	P
Treatment Group	46.65	0.81	0.402	0.689
Control Group	45.84			

Table 2 shows deviation between the average of treatment and control group is 0.81. Statistical test result shows p value = 0.689 ($p>0.05$), which means that there is no significant difference between two groups.

c. Years of Work as Cadre

Data of years of work as cadre is served in Table 3.

Table 3. Years of Work as Cadre

Years	Average	Deviation	T	P
Treatment Group	13.84	1.73	0.685	0.496
Control Group	12.11			

Table 3 shows deviation between the average of treatment and control group is 1.73 years. Statistical test result shows p value = 0.496 ($p>0.05$), which means that there is no significant difference between two groups.

2. Cadre's Knowledge Before Training

Cadre's knowledge about interpreting weighing result is served in Table 4.

Table 4. Cadre's Knowledge Before Training

Group	N	Average	SD	T	P
Treatment Group	37	63.24	8.54	-1.23	0.22
Control Group	37	65.62	8.01		

Table 4 shows the statistical test using Independent sample t test result p value = 0.22. It means that there is no difference between treatment and control group on cadre's knowledge about interpreting weighing result.

3. Cadre's Knowledge After Training

Cadre's knowledge about interpreting weighing result is served in Table 5.

Table 5. Cadre's Knowledge After Training

Group	N	Average	SD	T	P
Treatment Group	37	81.40	7.50	7.75	0.00
Control Group	37	67.24	8.21		

Table 5 shows the statistical test using Independent sample t test result p value = 0.00. It means that there is significant difference between treatment and control group on cadre's knowledge about interpreting weighing result after training.

4. Cadre's Skill to Determine Weighing Result Before Training

Cadre's skill to determine weighing result before training is served in Table 6.

Table 6. Cadre's Skill to Determine Weighing Result Before Training

Group	N	Average	SD	T	P
Treatment Group	37	59.35	8.56	-1.05	0.29
Control Group	37	61.38	8.08		

Table 6 shows the statistical test using Independent sample t test result p value = 0.29. It means that there is no significant difference between treatment and control group on cadre's skill to determine weighing result before training.

5. Cadre's Skill to Determine Weighing Result After Training

Cadre's skill to determine weighing result after training is served in Table 7.

Table 7. Cadre's Skill to Determine Weighing Result After Training

Group	N	Average	SD	T	P
Treatment Group	37	77.78	7.99	7.30	0.00
Control Group	37	63.26	9.09		

Table 7 shows the statistical test using Independent sample t test result p value = 0.00. It means that there is significant difference between treatment and control group on cadre's skill to determine weighing result after training.

6. Cadre's Knowledge and Skill to Interpret Weighing Result

a. Weighing determination guideline's effect towards cadre's knowledge

In order to guarantee the conclusion of weighing determination guideline toward cadre's knowledge it is needed to control another variable. Variables which were controlled are; years of work as cadre,

education level, and cadre's training before this research held. All controlled variable were tested and it is determined that subjects are homogenous. Table 8 tells about cadre's knowledge to interpret weighing result before treatment.

Table 8. Cadre's Knowledge to Interpret Weighing Result Before Treatment

Group	Average	Deviation	T	P
Treatment Group	63.24	-2.38	-1.23	0.22
Control Group	65.62			

Table 8 shows the statistical test using Independent sample t test result p value = 0.22. It means that there is no significant difference between treatment and control group on cadre's knowledge to interpret weighing result before training.

Table 9. Cadre's Knowledge to Interpret Weighing Result After Treatment

Group	Average	Deviation	T	P
Treatment Group	81.40	14.16	7.75	0.00
Control Group	67.24			

Table 9 shows the statistical test using Independent sample t test result p value = 0.00. It means that there is significant difference between treatment and control group on cadre's knowledge about interpreting weighing result after training.

b. Cadre's skill to determine weighing result

Cadre's skill to determine weighing result is served in 10.

Table 10. Cadre's Skill to Determine Weighing Result Before Treatment

Group	Average	Deviation	T	P
Treatment Group	59.35	-2.03	-1.05	0.29
Control Group	61.38			

Table 10 shows the statistical test using Independent sample t test result p value = 0.29. It means that there is no significant difference between treatment and control group on cadre's skill to determine weighing result before treatment.

Table 11. Cadre's Skill to Determine Weighing Result After Treatment

Group	Average	Deviation	T	P
Treatment Group	77.78	14.52	7.30	0.00
Control Group	63.26			

Table 11 shows the statistical test using Independent sample t test result p value = 0.00. It means that there is significant difference between treatment and control group on cadre's skill to determine weighing result after treatment.

DISCUSSION

Subject of research both treatment group and control group have same characteristic of age, education, years of work based on statistical test. This condition is called homogeneous subjects, because there is no significant difference characteristic. Other result shows there is no significant difference between treatment group and control group of cadre's knowledge on interpret weighing result and cadre's skill to determine weighing result before treatment. After treatment was given, those score is increasing and there is significant difference between two groups.

Statistical test shows there is significant difference between treatment group and control group after treatment. It means that different effect can be inflicted due to different treatment using guideline. Training

is a learning process which emphasize on practice rather than theory and done by person or group using maturity approach and has aim to increase skill or specific skill⁴. It is in line with research that says cadre's knowledge on *posyandu* management is increasing significantly after training using competency approach⁵. Hikmat concludes that after training there is teacher's knowledge and skill enhancement then, they can implement healthy school as planned⁶. One of training's aims is increasing performance or skill. It is in line with Hamalik who explains that training is a process include effort which done deliberately by professionals aims to increase participant's skill on specific skill or job in order to increase effectiveness and productivity⁷.

Training is every effort to improve work achievement on certain job and certain responsibility. Training has to be designed to actualize each employee's aims. Training is often considered as the most common activity and management supporting this training. By holding training, management want their employee will be more productive⁸.

The usage of weighing determination guideline in training can influence participant's knowledge on interpreting weighing result. After treatment was given, treatment group's knowledge is higher than control group. Guideline usage influence cadre's consideration on determining weighing result and it influences cadre's decision to interpret weighing result. Cadre as *posyandu* organizer has to have sufficient knowledge and skill. In order to get sufficient knowledge and skill, it needs correct method and time for training. One of best methods that should be done is practice using guideline⁹.

Information of under five's weighing result is affected by cadre's knowledge and skill to interpret weighing result. Weighing result can be determined by making growth graphic on Under five's Healthy Card. That card function as confidence to give counseling to under five's mother¹⁰.

Education by giving training to increase knowledge and skill needs guideline. Education to increase knowledge and skill needs certain activities to reach aims. Other expert explain that training is an activity to improve or fix work ability in economy activity, make handcraft, skill and attitude which needed by organization to reach their aims¹¹.

Training is an activity which held to increase comprehensive competency of employee in certain direction and outside their current working scope¹². Education and training are similar with development process to increase working skill both technical and managerial. Education oriented on theory, held in a class, have long term and support participant to answer "Why". Training oriented on practice, held in field, have short term and support participant to answer "How"¹³.

Cadres have to be trained before do their job and Public Health Center has responsibility to give training to cadre. Cadre's training in *posyandu* aims to increase cadre's knowledge and skill, beside dedication to serve community. Cadre's main job is implementing growth monitoring and concluding weighing result. Knowledge and skill's enhancement based on learning process during training¹⁴.

Weighing determination guideline helps cadre to determine weighing result and interpret weighing result. It aims to get correct under five's nutritional status from trained cadre using Under five's Healthy Card and counseling media. Related to ideal condition, the success program has to be supported by adequate facilities and guidance from health professionals. To guarantee the truth information about interpret weighing result, it is needed to give cadre weighing determination guideline that will be uses when filling and deciding interpretation of weighing result on growth monitoring monthly.

Training is series of effort that done deliberately which is given by professionals and aims to increase participant's work capability in certain job to increase effectiveness and productivity⁷. Healthy person or community is affected by two main factors; behavior and non-behavior². Behavior factor is determined by three factors; 1) predisposing factors such as knowledge, attitude, belief, social and norm, 2) enabling factors such as facility, health infrastructure, and accessibility, 3) reinforcing factors is factors supporting and strengthen behavior's change such as parents, health practitioners, and policy¹⁵.

CONCLUSION

1. Cadre's knowledge and accuracy enhancement to interpret weighing result in treatment group is higher than control group.
2. The usage of weighing determination guideline in training is significantly influence cadre's knowledge to interpret weighing result enhancement.
3. The usage of weighing determination guideline in training is significantly influence cadre's skill to interpret weighing result enhancement.

RECOMMENDATION

1. Programmer Nutrition in Public Health Center
It is recommended to use weighing determination guideline for cadre's training in order to increase cadre's skill and accuracy to interpret and determine weighing result as effort to prevent and combat Protein Energy Malnutrition (PEM).
2. Lecturer in Nutrition Department
Lecturer in Nutrition Department who give lecture in Community Nutrition can use this research to do community service, especially with topic prevention and countermeasures PEM.
3. Public Health Office

It is needed for public health office to facilitate cadre's training program using weighing determination guideline in order to reach optimum knowledge and skill enhancement.

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