



The Effectiveness of the Als Model in Stunting Prevention Education (Case Study in Padang Selatan District)

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Abstract. This study aims to test the effectiveness of the Lesson Study Application (ALS) model in educating the public to prevent stunting. This research is a qualitative and quantitative study with a quasi-experimental, on mothers of children under five who have stunted and normal children under five. This research uses True Experimental Design. The sample of this study was mothers of children under five in Padang City in the Public health center area which had a high prevalence of stunting. The sampling technique is proportional random sampling, with a total of 60 people. The descriptive data analysis used the percentage (%) technique to explain the categories of learning outcomes for the experimental and control groups. Hypothesis testing using the t-test with the formula independent sample t-test as a comparative test used for paired samples or consisting of two different sample groups (treatment and control), the analysis was carried out using the SPSS program. The results of the study show that education as an effort to prevent stunting that has been carried out in the form of lesson study (ALS) applications can significantly improve maternal knowledge indicators.

Keywords: Lesson Study Applications · Mothers of Toddlers · Stunting

1 Introduction

The stunting prevalence rate in Indonesia moment is 30,8% (Indonesian Nutritional Status Study, 2021), which happened to drop by 3.3%, however number still on top of WHO tolerance is 20% [1]. Acceleration National Team Countermeasures Poverty (TNP2K) (2018) noted that there are several constraints in maintenance acceleration prevention stunting, including Limitations on capacity and quality program organizers, limitations amount power health that gives counseling to society [2]. Besides limitations amount power health, the government is also faced with a problem program lack of competent officers in operating education [3]. Besides, it's still lacking advocacy, campaigning, and dissemination related to stunting, and various efforts for prevention. Implementation of education in the community is also carried out by cadres, however, some of the problems faced by cadres in providing counseling are also related to their ability to understand the material to be taught. In addition, there is also a problem of self-doubt, because some of the participants are friends and neighbors [4]. Cadres do not understand well the

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materials that will be delivered, causing a feeling of insecurity. They need exercises and easy-to-understand teaching materials. Cadres can empower in providing counseling but need assistance and training.

Required step alternative for involves Public by direct, based to problems faced and needs Public in resolve problem that. Involvement Public in education stunting expected could apply as a tool to change attitude and behavior healthy, so capable lower risk happening stunting in toddlers [5]. Optimizing involvement Public in education begins with planning, implementation, and evaluation, of activities this expected capable increase knowledge about nutrition and changing attitude [6]. Happening enhancement knowledge and change attitude Public to importance cope problem stunting, hope could push risk appearance stunting in children toddler. Based on the background behind the above problem, then the formula problem in a study is **“How Application Lesson study (ALS) can effective for educating mother-child toddler”**.

1.1 Theoretical Framework

Approach lesson studies. Rated appropriate for describing problem tight stunting relationship with theory behavior. Stunting is problem health that can influence the quality of life child caused by factors of behavior and non-behavior mother or [7]. Behavior mothers by Specific influenced by knowledge mother about stunting, attitude to health, the practice of nutrition, perception, and culture[8].

Besides Doing an intervention on nutrition, possible to do intervention through education. Education to the Public is conducted through an approach participatory with involves the Public direct in the educational process [5]. Besides that to support achievement Theory learning, need to strive for enhancement ability extension, through approach lesson studies.

Intervention conducted with destination happening expected to change in the mindset of the community impact on change attitude to health, especially stunting. Evaluation success intervention will be seen by enhancing the knowledge Public about stunting. If intervention is already implemented and evaluated, then the policy will help program sustainability.

2 Methods

This study uses two methods, namely qualitative and quantitative (mixed methods). And consists of 2 stages, namely:

Stage 1, Identify Problems in Mothers of Toddlers.

In stages, this is to gather information about the difficulty of the mother in the following education. Data collection is done with interviews and observations. Data collection is done by semi- structured interviews and observation. An informant in a study consists of mothers who have stunting toddlers (24 – 59 months) [9]. Instrument study consists of researchers and interviewers with use: (1) guide interview, (2) guide observation, (3) notes field and equipment electronics. Data analysis was performed in 3 stages namely (1) Data Analysis, (2) Data Validity, (3) Data validity, and (4) Data Interpretation. Quantitative data is also collected for found out the attitude of a mother toward stunting

prevention. Data collected through questionnaire and processed to determine score raw knowledge use the formula:

$$SB = \frac{SM - \text{Min}}{\text{Max} - \text{Min}} \times 100$$

Note:

SB = Standard Score

SM = Raw Score

Min = Minimum Value

Max = Maximum Value

Stage 2 is planning Education. Several stages must be done in planning and implementing this stunting prevention education, namely: (1) planning solution, (2) composing plan education, and (3) preparation of module.

Stage 3, is the activity of implementing (implementing) the research design that has been prepared before. The implementation stages consist of: (1) Do (provide education), (2) See (observation), and (3) evaluation and revision module [10]. Implementation is done repeatedly according to the amount of material to be taught.

Stage 4, discusses the results of the implementation of lesson study activities at the “do” stage. The material discussed is the result of observations (see). The discussion is guided by a moderator. The moderator must be a person who understands the educational program provided and understands the stages of implementing ALS.

2.1 ALS Model Effectiveness Test

The experimental design used at the research stage is Quasi-Experimental Design. The form of design used is Non-Equivalent Control Group Design. Design study this could see in Table 1. The following.

Description:

01: Level of knowledge and attitude of mothers of toddlers before LS 02: Level of knowledge and attitude of mothers under five after LS

X: Stunting Education

03: Level of knowledge and attitudes of mothers under five in the control group before LS 04: Level of knowledge and attitudes of mothers under five in the control group after LS

Table 1. Pre-test-Posttest Non-Equivalent Control Group Design

Group	
Intervention group	01X 02
Control group	03 04

Table 2. Distribution Mother’s attitude towards effort prevention stunting

Indicator	Positive (n = 60)		Negative (n = 60)	
	f	%	f	%
Giving food child	13	22	47	78
Breastfeeding	52	87	8	13
Behavior life clean and healthy	28	47	32	53

The effectiveness of education is measured quantitatively, by comparing the scores of knowledge and attitudes based on the results of the pre-test and post-test.

3 Results and Discussion

Stage 1. Identify Problems with the child’s mother toddler, about attitude and knowledge mother in gift food children, breastfeeding and behavior Life Clean and Healthy.

Based on the Table 2 show the attitude respondent In “Giving” Eat some children large (78%) are in the category negative, while the attitude respondent in partial breastfeeding large (87%) are in the category positive. Attitude respondent towards PHBS”, almost balanced attitude negative (53%) with attitude positive (47%). The general attitude of mothers in breastfeeding is positive, however gift-eat children and behavior life clean and healthy, still must be improved.

Stage 2, Planning Education

Planning education with implementation of ALS carried out to time and place implementation, material learning, method teaching, instructors, learning media, strategies, and activities observation. Compilation plan education is done together Among health workers, cadres, mothers child toddlers, and facilitators.

Stage 3, Implementation

Application plan learning is carried out by the instructor and participants activity implementation, two things are carried out, namely, convey material (do) and do observation (see). Inside convey Theory education, ALS is based on principle learning in adults, because participants consist of mother-child toddlers. Implementation education involves participants starting from beginning learning, learning core, and closing learning. Following picture 1 result diagram observation During the activity.

After observing interactions that occur During 4 meetings, there are enhancements from day to day.on meeting first in general interaction still is in a category no good. But on the day second, occur the enhancement category the interaction that occurs in the peseta increasingly improves.

Meanwhile at the meeting third, happened drop category interaction. But at the meeting fourth occur enhancement interaction more good from day second.

Stage 4, Reflection

Reflection is conducted s after learning direct conducted through discussion Among teachers, observers, and mother-child toddlers guided by a facilitator to discuss learning.

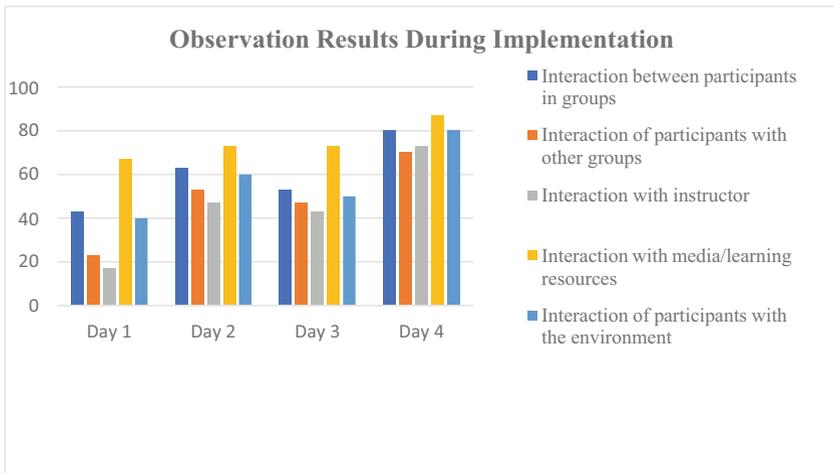


Fig. 1. Observation Results During Implementation

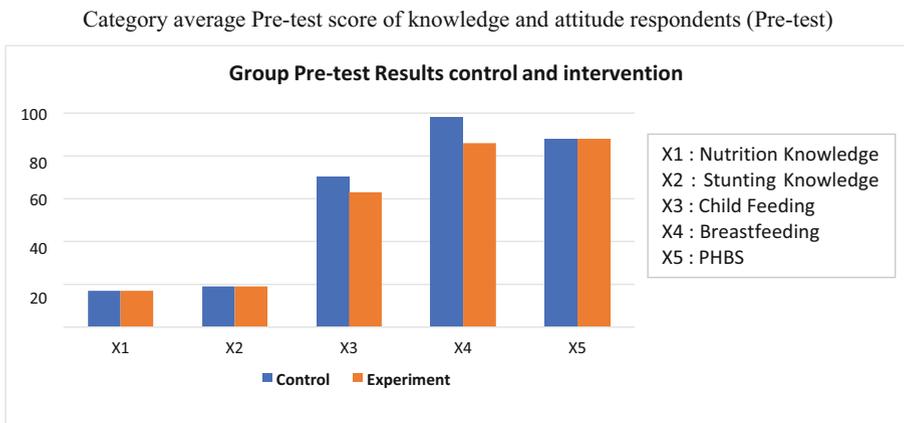


Fig. 2. Group Pre-test Results control and intervention

The model instructor gets started a discussion by conveying the impressions felt in doing the learning. Next, the observer was asked to convey comments from learning especially regarding activity participants. Knowledge level about nutrition sample in group control and intervention the results of the Pre-test are described Fig. 2.

Based on Fig. 2 above could explain the level of knowledge and attitude of respondents during the Pre-test between group control and intervention no there is a difference. The results of the Pre- test show that the knowledge of mothers about nutrition is in category less, good in the group control or group intervention. Whereas knowledge of mothers about stunting, giving food to children, ASI, and PHBS is in the category enough. Following this will see description results post-test on both groups.

Category knowledge and attitude mother in group control and intervention (Post-test)

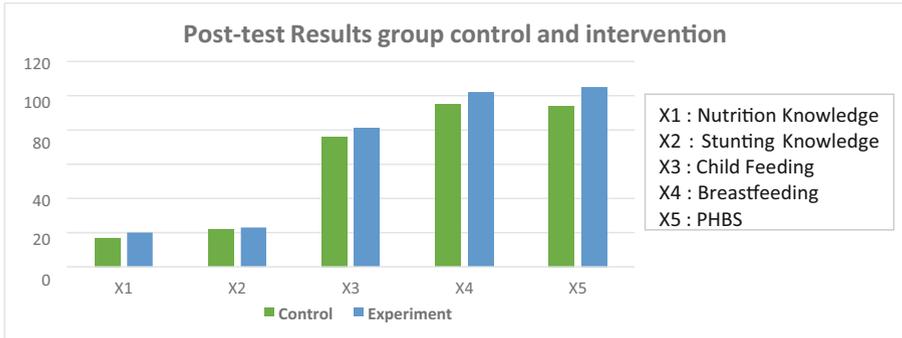


Fig. 3. Post-test Results group control and intervention

Table 3. The results of the independent sample t-test group control and intervention (Post-test)

Variabel	Indicator	Mean Difference	t count	t table	P
Knowledge	Knowledge Mother about Nutrition	3,433	5,281	2,045	0,000
	Knowledge mother about stunting	4,667	5,294	2,045	0,000
Attitude	Giving food child	5,233	2,748	2,054	0,008
	Breastfeeding	6,933	2,657	2,054	0,010
	Behavior life clean and healthy	10,533	3,698	2,054	0,000

Figure 3 shows that there are different results post-test Among group control that doesn't educate with ALS compared with group educated intervention with ALS. In group control enhancement knowledge mother about nutrition from a category not enough reach category medium. Temporary knowledge mother about stunting and attitude in gift eat children, breastfeeding and PHBS are not experience change.

In group educated intervention with ALS, looks change category knowledge and attitude mother to Theory effort prevention stunting. In group educated intervention with ALS from category less and enough, increase until is in category good.

The next results test hypothesis to determine whether there is a difference in education between the control group and the intervention group at the time of the post-test. Following is the result of the independent sample t-test.

The analysis results from I independent s ample t-test showing that there is difference results education group control and intervention. The most important picture that is known from Table 3 18 is that there is a difference between the intervention group and the control group, indicating that the value of t count > from the t table with a 95%

confidence level or = 0.05. This shows that ALS is effective in increasing the knowledge and attitudes of mothers towards the material for preventing stunting.

4 Conclusion

Based on the results of the research and effectiveness test, then could be concluded that the Effective Lesson Study Application in increase the knowledge and attitude of mother in stunting prevention.

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