

The Effectiveness Of Health Promotion Through Song Towards Mother's Knowledge On Balanced Nutrition In Kindergarten Student

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Abstract-- Malnutrition still a major public health problem in Indonesia. Lack of nutrition can not be resolved, the prevalence of malnutrition continues to rise. Efforts to optimize the delivery of Pesan Umum Gizi Seimbang need to be done to the community, through health education and promotion, as well as information, education, and communication that is appropriate and community-based. To achieve these goals, researcher used song as media to introduce Pesan Umum Gizi Seimbang through the lyrics of the song. The study was conducted on 15 mothers in the community of parents TK Al-Ikhlash Pandanwangi - Malang. This research is Pre-Experimental research method used is One Group Pre-Test Post-Test. The sampling technique using Purposive Sampling. Analysis of data using T-Test Related Sample with a significance level of 0.05. The results of T-Test Related Sample conducted states that the Sig. (2-tailed) of 0.000 < 0.05. Song that used as the media of balanced nutrition promotion is more effective than the use of conventional media. Therefore, song became recommendation as the media to promote balanced nutrition to the community.

Keywords: *Song Media, Knowledge, Balanced Nutrition*

I. INTRODUCTION

Nutrition continuously becomes major health problem in Indonesia. Today, malnutrition is unsolved problem since the prevalence of it gradually increases (Ministry of Health of Republic of Indonesia, 2015). Therefore, the government puts its constant effort to increase the degree of society health, especially in handling toddler's health problem. In fact, such effort affects the accomplishment of one of goals of the 2030 Sustainable Development Goals (SDGs), which aims to decrease two third of the degree of toddlers mortality (UNICEF, 2008). Such target is actually supported in the National Medium Term Development Plan for 2010-2014, which prioritizes the improvement of community's nutrition status by decreasing the prevalence of underweight toddlers to 15% in 2014. The result of Basic Health Research (BHR) in 2007 to 2013 reveals an apprehensive fact showing that the number of underweight toddlers increases from 18.4% to 19.6% (Ministry of Health of Republic of Indonesia, 2015). This means that malnutrition is still problematic in Indonesia. This fact surely worries Indonesian society because it threatens the quality of the significantly required Human Resources in the future. In addition, nutrition status is one of indicators in measuring the degree of society's health (Department of Health of Republic of Indonesia 2008).

The 2014 Health Profile Data of Malang City (Health Office of Malang City, 2014) denotes that there are 119 cases of malnutrition/Protein Energy Malnutrition (PEM) in Malang during 2014. The largest cases are found in the working region of Pandanwangi Community Health Center (CHC), which are amounted to 31 malnutrition cases. There are various efforts in preventing the incidence of PEM performed, including family empowerment, environment improvement, food availability security, consumption pattern improvement and parenting style development, the organization of information and education communication (IEC), organization of PEM case filtering and tracking, provision to counselling on Additional Food Provision (AFP), medical personnel mentoring, Dental Service Optimization in CHC, and Integrated Service Post (ISP) revitalization (Arikunto, 2007).

Information and Education Communication (IEC) is one of strategies performed to prevent PEM through learning process in the form of knowledge transfer and nutrition education (Karimawati, 2013). A previous research conducted by Nuhidayati (2008) figured out the relationship between mothers' knowledge on balanced nutrition and the degree of PEM in toddlers, with the probability value ($p = 0.0125 < \alpha = 0.05$, and correlation value = 0.98. The value of $p < \alpha$ indicates that there is a relationship between knowledge and PEM variables, with the correlation value amounted to 0.98, which shows the strong relationship between mothers' knowledge and PEM.

Knowledge on balanced nutrition is the result of thinking process relating to food consumption pattern, life style, physical activities and weight monitoring (Ministry of Health of Republic of Indonesia, 2012). As the effort, the government compiles Public Message of Balanced Nutrition to help the society in comprehending balanced nutrition. Such message is the reconstruction of "4 Healthy 5 Perfect" National Guideline, which is in accordance with the advancement of knowledge and technology in nutrition field, with more complete, simpler language, understandable, memorable, and practical content (Ministry of Health of Republic of Indonesia, 2014).

The effort of optimizing the Public Message of Balanced Nutrition needs to be delivered to society through education and health promotion, as well as appropriate and society-based IEC (Department of Health of Republic of

Indonesia, 2007). In the promotional effort of Public Message of Balanced Nutrition, the field personnel are required to be more creative and innovative in developing the culture and local wisdom-based messages. Specifically, audio-based media in the form of song may be used as the tool for health promotion. A study conducted by Sari *et al* (2012) also proves the effectiveness of song in learning and balanced nutrition implementation. To be more specific, the analysis of 2 Way Anova shows that $F\text{-count} > F\text{-table}_{(0.05, 1.66)} = 9.54 > 3.98$. Such value proves that song as the medium a used for health promotion are significantly better than *powerpoint* or conventional speech.

Song used as the medium of health promotion also becomes more practical to show the feeling, passion and spirit by respondents in learning and memorizing the message of balanced nutrition (Sinaga, 2014). According to Sitaresmi (2010), song is audio-based media that may decrease the boredom during the learning since it provides a lot of advantages, especially to train the audience's memory towards the song lyrics and to allow the audience to be more aware and enthusiastic. These benefits are surely able to make the learning situation more effective.

Based on the above description, the researcher conducts a set of research to research result as the effort of preventing and decreasing the number of malnutrition in Indonesia.

II. METHOD

The research type of this research is pre-experiment, which aims to measure the effectiveness of the influence of a given treatment. Such treatment refers to the use of song as the medium towards the learning of balanced nutrition towards the audience. In this research, the researcher use one group pre-test post-test as the model.

In determining the respondents, the researcher specify the inclusion and exclusion criteria. The former should choose respondents who: <40 years old, have babies/toddlers, and live in Pandanwangi Sub-district while the latter is for respondents who: suffer from visual and audio impairments, and illiteracy. Furthermore, the population of this research is the student guardians in Al-Ikhlas Kindergarten in Pandanwangi. Based on the

observation performed, the research successfully obtain the data of all student guardians (75 people) in the kindergarten. Meanwhile, according to inclusion and exclusion criteria, the researcher choose 15 people as the respondents of the research.

The technique of data collection used in this research is knowledge test on balanced nutrition. According to Arikunto (2007), such test is used as the tool or procedure to figure out particular matter within the environment by specified mean and rules. The tests referred in this research are pre-test and post-test relating to the knowledge on balanced nutrition. The pretest is conducted prior to the treatment, while the post one is performed after. The tests aim to find out the initial ability and final learning result of the respondents in comprehending the principle of balanced nutrition.

Moreover, the instrument used in this research is knowledge test on balanced nutrition in the form of questions with multiple choices, since such question type may be more objective than the description one. In this research, the researcher personally creates the questions based on the Guideline for Balanced Nutrition published by Ministry of Health of Republic of Indonesia in 2014. The corresponding tests refer to written test for the respondents. For tests results, the researcher gives 0 for incorrect answers and 1 for the correct ones. After conducting the test, the researcher obtains the data. Such data then is analyzed for the purpose of conclusion on the effectiveness of the use of song towards mothers' knowledge on balanced nutrition.

The researcher begins the data analysis by conducting analysis requirement tests, in the form of normality and homogeneity tests. When the data distribution is normal and the variety is homogenous, the hypothesis test is conducted by using non-parametric statistical test.

III. RESULT

The researcher collects the pre-tests and respectively figures out 77 and 38 as the highest and lowest scores accomplished by the respondents. More specifically, the table below describes the distribution of the pre-test score frequency.

TABLE I. DISTRIBUTION OF PRE-TEST SCORE FREQUENCY

Score	Frequency i	Valid Percent	Cumulative Percent
38	2	13.3	13.3
46	2	13.3	26.7
54	2	13.3	40.0
62	3	20.0	60.0
69	4	26.7	86.7
77	2	13.3	100.0
Total	15	100.0	

When the post-test data are collected, the researcher respectively reveals 100 and 77 as the highest and lowest

scores accomplished by the respondents. Table 2 below shows the distribution of post-test score frequency.

TABLE II. DISTRIBUTION OF POST-TEST SCORE FREQUENCY

Score	Frequency Frekuensi	Valid Percent	Cumulative Percent
62	2	13.3	13.3
69	2	13.3	26.7
77	2	13.3	40.0
85	2	13.3	53.3
92	4	26.7	80.0
100	3	20.0	100.0
Total	15	100.0	

A. Pre-Test Normality Test

Based on the measurement of the normality test of pre-test data distribution by using SPSS, the researcher figures out that the significance value is amounted to 0.200. When it is compared with $\alpha = 0.05$, the researcher finds that the

significance value is more than 0.05 ($p > 0.05$). Thus, the H_0 is received, which means that the data distribution is normal. The data of the normality test of pre-test data distribution is presented in the following table.

TABLE III. THE RESULT OF THE NORMALITY TEST OF EXPERIMENT CLASS' PRE-TEST DATA

	Statistics	Df	Sig.
Pre_Ex	0.178	15	0.200*

B. Post-Test Normality Test

Based on the measurement result of the normality test of post-test data distribution by using SPSS, the researcher figures out that the significance value is amounted to 0.10. If it is compared with $\alpha = 0.05$, the researcher finds that the

significance value is more than 0.05 ($p > 0.05$). Thus, the H_0 is received, which means that the data distribution is normal. The data of the normality test of post-test data distribution is presented in the following table.

TABLE IV. THE RESULT OF THE NORMALITY TEST OF POST-TEST DATA DISTRIBUTION

	Statistics	Df	Sig.
Post_Ex	0.200	15	0.108

C. Variance Homogeneity Test

After the variance homogeneity test is conducted by using SPSS 22 for Windows, the researcher figures out that the significance value is amounted to 0.790 ($p > 0.05$).

Thus, the researcher concludes that the data distribution of pre-test and post-test are homogenous. The variance homogeneity of both tests are presented in the following table.

TABLE V. THE RESULT OF THE VARIANCE HOMOGENEITY TEST OF PRE-TEST DATA

	df1	df2	Sig.
0.73	1	28	0.790

D. Hypotheses Test

Alternative hypothesis (H_a) proposed in this research is "the use of song as the medium in health promotion is effective towards the increase of mothers' knowledge on balanced nutrition". For the purpose of related test, the researcher turns the alternative hypothesis into zero hypothesis (H_0) which states "the use of song as the medium in health promotion is ineffective towards the

increase of mothers' knowledge on balanced nutrition". In order to prove the abovementioned hypotheses, the researcher applies the statistical analysis with t-Test and significance degree $\alpha = 0.05$. The t-Test result is acceptable when the count value $> t_{table}$ or when the significance value is 0.05. This t-test measurement is conducted by using SPSS 22 program for Windows. Table 6 below is presented to clearly explain the abovementioned description.

TABLE VI. THE RESULT OF RELATED SAMPLE T-TEST RESULT

Data	T_{count}	T_{table}	df	Sig. (2-tailed)	Note
Post-Test	35,743	1.761	14	0,000	$t_h > t_c =$ significant

Based on the measurement result, the researcher reveals that the t_{count} is amounted to 35.743. After it is compared

with t_{table} with the significance degree amounted to $\alpha = 0.05$ and $df = 14$, the revealed value is amounted to 1,761. This means that t_{count} is higher than t_{table} . Based on the above t-test

result, the researcher finds out that the value of Sig (2-tailed) $0.000 < 0.05$. Thus, the two indicators show a significant difference before and after the provision of health promotion by using song as the medium. Therefore, Ho stating “the use of song as the medium a in health promotion is ineffective towards the increase of mother’s knowledge on balanced nutrition” is rejected. In other words, the alternative hypothesis (Ha) stating “the use of song as the medium in health promotion towards the increase of mothers’ knowledge on balanced nutrition” is accepted.

IV. DISCUSSION

Prior to the treatment, the researcher conducts the pre-test on balanced nutrition towards the respondents. The pre-test consists of 13 questions with multiple choices. The test aims to figure out respondents’ knowledge on balanced nutrition. Based on the result of homogeneity test between pre-test and post-test, the researcher reveals that both of the data do not show a significant variance, which means that the respondents equally have knowledge on balanced nutrition.

After the treatment, the researcher conducts the post-test to figure out the increase of knowledge on balanced nutrition. Such increase can be seen based on the average scores of the post-test. The average scores shows the significant increase of such knowledge.

The increase of the average scores is due to the treatment conducted by using song as the medium. Furthermore, the process of health promotion in class begins with: (1) researcher explains the materials to be taught, (2) respondents listen the song, then write down the lyric, (3) researcher explains the relationship between song lyric and the indicator of balanced nutrition, (4) researcher plays the song 3 times, the respondents try to sing the song with their note as the lyric guidance, (5) researcher acts as the conductors to lead the respondents singing without music so that they may sing fluently, (6) respondents sing song about balanced nutrition with music.

This increase of knowledge occurs due to the strength of song as the medium. Furthermore, conducting health promotion with song may also improve the respondents’ participation to learn, since singing is a type of exciting activity, so that they may receive the promotion materials properly. Other than that, singing method does not require complicated media and may be conducted with or without music (Kurniasari, Damayanti, & Kardiwinata, 2016).

The promotion on balanced nutrition becomes a critical matter to be performed in order to deliver the message of balanced nutrition to the society (Ministry of Health of Republic of Indonesia, 2007). The health promotion provided by the researcher uses song as the medium. Therefore, the result of the research in the previous chapter proves that song, as the medium, is highly effective.

Song compilation is specified based on the criteria of song which is favored by the respondent candidates. Next, the observation result of introduction performed to 40 respondent candidates from student guardian social association in Al Ikhlas Kindergarten in Pandanwangi

indicates that 60% of the candidates love solo-based music, 30% of them like pop music, while 80% of them are into songs with piano as the instrument. Therefore, in compiling the song used in this research, the researcher uses solo-pop music with piano. This aims to allow the created song to be the appropriate media of health promotion for respondents. By doing so, the respondents may follow the learning process in class excitingly and enthusiastically. Of such situation, the researcher expects that the purpose of health promotion on balanced nutrition may be accomplished.

The song created by the researcher then is consulted to musical school namely “Citra School of Music” located in Malang City in order to obtain the statement of feasibility as musical work and vocal which meets the criteria of appropriate tone, rhythm, and rhyme.

Nggiri (2014) conveys that the use of learning media in teaching and learning process may trigger the new desire and interest, motivation and learning activity stimulation, and even psychologically affect the respondents. Even more, the use of learning media in the stage of teaching orientation may really help the effectiveness of learning process and message delivery as well as learning content (Handayani, 2011). The use of media in learning and teaching activities are quite important, especially in the process of memorizing a concept, in this case is song as the medium to promote balanced nutrition, since such song may attract the respondents in the process of balanced nutrition promotion so the respondents are motivated to participate in the counselling (Sari, 2012).

Song, as a medium, is an audio-based medium that may decrease the boredom in learning process, since such media contains a lot of benefit, especially for training the respondents’ memory towards song lyric and allowing the respondents to pay attention and to have deeper spirit in following the learning, in which such condition may quietly affect the respondents’ learning situation to be more effective Sitaresmi (2010).

According to Nggiri (2014), song is a result of art work of music listened by using sound or musical instruments, and such sound may be used as the medium to express the idea to others, so it may allow the occurrence of communication, by using song as communication tool, therefore, song may use to teach the indicator of balanced nutrition through song with easy and understandable lyric. This is in line with Paquette (2008) who states that “Song can be used to teach a variety of skills, through the lyric it easier to memorize the meaning of the Song. Motions can be added to the Song to make them more meaningful and enjoyable”.

As the medium for health promotion, song is practical to express the feeling, interest and spirit of respondents in learning and memorizing the message on balanced nutrition (Sinaga, 2014). Based on the research result, the researcher reveals that the use of song as a medium may create an exciting learning atmosphere towards the respondents as well as to motivate them more to memorize the message on balanced nutrition.

The increase of knowledge on balanced nutrition revealed in this research shows that respondents are happier

when the researcher uses song as the medium of health promotion with containing balanced nutrition message. This is figured out from the changing attitude of the respondents when they participate in the counselling. They look fresh and happy to listen and sing the song used to promote balanced nutrition. Song, as the medium to promote health, also make the respondents indirectly memorize the message on balanced nutrition, since the sing the song on continuously. As proposed by Sinaga (2014), learning in class will be more relaxed and exciting, so the tension and unfavorable feeling by the learner to speak and do the exercises will be decreased. Also, the learner will be more motivated to learn understand as well as memorize the materials because they unconsciously repeat it.

Based on the various positive benefits that the respondents obtain, the researcher concludes that the use of song as the medium in health promotion is effective towards the increase of mothers' knowledge on balanced nutrition. According to the effectiveness obtained, the researcher also indicates the significant variance of mothers' knowledge on balanced nutrition, before and after the treatment. This denotes that the use of song as the medium in health promotion provides positive influence towards mothers' knowledge.

V. CONCLUSSION

On the basis of the conclusions of the data analysis result, hypotheses test and discussion, the researcher concludes that the use of song as the medium in health promotion is evidently effective towards the increase of mothers' knowledge in balanced nutrition. This conclusion is supported by the average value of post-test which is higher than the value of pre-test ($83.60 > 59.47$). Also, the result of independent t-Test shows that t_{count} is amounted to 35.743, which is higher than t_{table} 1.761, by the significance degree (α) = 0.05 and $df = 14$. More importantly, the value of Sig. (2-tailed) is amounted to 0.000, which is lower than 0.05.

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