



The effect of the simulation of Maena dance on knowledge about balanced nutrition among housewives in Hiliwaele I Village, Botomuzoi Sub-district in Nias Regency in the year of 2018[☆]

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KEYWORDS

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Abstract The objective of the research was to identify the effect of the simulation of Maena dance on housewives' knowledge of balanced nutrition in 3–5 year-old children at Hiliwaele I Village, Botomuzoi Sub-district, Nias Regency, in the year of 2018. The study employed a quasi-experimental method with one-group pretest–post-test design. The measurement and assessment of the research subjects were done before and after the simulation. The samples included 45 respondents selected through purposive sampling technique which fulfilled inclusion and exclusion criteria. The result of paired *t*-test obtained *p*-value = 0.000 with the average score of knowledge before the dance simulation was 11.60, and after the simulation was 19.31 (post-test) indicating that score increase of knowledge post the simulation was 7.71. It is recommended that the health promoters in Botomuzoi Sub-district provide counseling about nutrition to women who have children with the age range 3–5 years old by using Maena dance simulation. © 2020 Elsevier España, S.L.U. All rights reserved.

Introduction

Health issue is still challenged in Nias Island. The main factor of this problem is its remote location. Nias Island is one

of the outer islands located at the west coast of Sumatera Island which makes it isolated from the mainland. Its remote location also accounts for the slow construction of many facilities and economic condition in various sectors, including health facilities. As the result, the economic growth in this island is slow affecting the community's ability to get good healthcare services.

In general, nutritional problems can be prevented by improving community's knowledge, attitude, and behaviors through nutritional counseling.

Basically, nutritional counseling employs marketing principles in educating people to be more aware on the

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importance of nutrients which eventually leads to better nutritional condition. In this case, housewives become the primary target of the nutritional counseling since they play important role in determining dietary habits of the family members.¹

Ref. [2] proposes that nutritional status of children under five years is influenced by two factors, namely direct and indirect factors. Direct factors include nutrients intake and infectious diseases, while the indirect factors include knowledge and attitude of housewives. Housewives' inadequacy of knowledge and attitude on nutrients need might cause malnutrition among children. Housewives with lack of knowledge and nutritional attitude will find difficulty in choosing and providing nutritious food for their family members, particularly children, which will affect their nutritional status. As a result, children's growth will be disadvantaged since imbalance nutrients intake may disrupt growth in various areas such as body size, brain growth and intelligence.

Knowledge enhancement can be conducted through a variety of health promotion methods. One of the health promotion methods that has been studied is lecturing through counseling activities. The result of the previous study showed that there was an increase of housewives' knowledge about nutrition (73.3%) after a health counseling was given to housewives in the intervention group compared with that of their counterpart (56.7%).³ Simulation method through training activities to enhance knowledge about health has also been studied, and it was obtained that there was an increase of adolescents' knowledge about adolescent reproductive health after Maena training and reproductive health modules carried out in adolescent participants.⁴

Maena is a lively and energetic traditional dance from Nias Island.

This dance is normally performed in wedding ceremony or cultural festivals. However, these days, this dance is also performed in other formal occasions, such as seminars and graduation ceremonies which makes Maena becomes more popular. During the performance, the dances not only show energetic movements, but also sings lyrics with full of messages to teach the listeners values and teachings. Therefore, Maena dance is potential to be used as a means to promote health education to community.⁴

Methods

The research employed a quasi-experimental method with one-group pretest-post-test design. The measurement and assessment of the research subjects were done prior and post the Maena dance simulation. The samples were 45 respondents, selected by using purposive sampling technique which fulfilled inclusion and exclusion criteria. This research was conducted in the village of Hiliwaele I Botomuzoi District of Nias Regency. The primary data in this research was directly collected from the respondents through interviews using questionnaires. The data were analyzed by computerized calculations.

The ethical clearance was obtained from ethical committee of Sari Mutiara Indonesia University and the informed consent from the respondents.

Results and discussion

Housewives' knowledge before Maena dance simulation

Knowledge is the result of knowing and learning something. It is obtained after people observe a particular object. Knowledge is crucial to shape one's actions.⁵ The knowledge of respondents in this regard is the knowledge of housewives about the need for nutritional intake which is very important in the growth and development process of toddlers. The majority of respondents in this study were high school graduates. The low level of education makes it difficult for people to receive information as this will impede the development of individuals' attitude toward the acceptance of new information and values introduced. This is in line with⁶ stating that highly educated housewives can prevent malnutrition in their children compared with lowly educated housewives. In other words, a poorly educated housewife is at risk almost 3 times greater to have a toddler with poor nutritional status.⁶

Another factor that also affects the knowledge of housewives is occupation. The majority of respondents in this study were housewives who had a side job as farmer. Social environment such as at work is a factor contributing to ones' knowledge. Working people have higher tendency to be more knowledgeable than those who don't work. It is due to a lot of experience and information they receive at their workplace.⁷

Housewives' knowledge after Maena dance simulation

Simulation process actively stimulates individuals to focus more on the information so that they can develop their ability to deeply comprehend any kinds of information given. Ref. [5] proposes that the speed of individuals acquiring knowledge is influenced by the ease of obtaining information. The quality of knowledge is linear to the effort they do to get the information. In other words, the less effort they do to get the information the better the quality of knowledge they will acquire.⁸

The statistical calculation using paired *T*-test obtained *P*-value was 0.000 ($P < 0.05$) with the average score of knowledge before Maena dance simulation was 11.60 (pre-test) and after the simulation was 19.31 (post-test). It can be inferred that the score of knowledge after the dance simulation was 7.71, indicating that the knowledge of the respondents after Maena dance simulation was increased (Tables 1 and 2).

There are several factors that might be contributing to the increase of housewives' knowledge after Maena dance

Table 1 Respondents' knowledge before and after Maena dance simulation.

Knowledge	N	Mean	SD	P-value
Before	45	11.60	0.809	0.000
After	45	19.31	0.821	

Table 2 Paired *T*-test.

Knowledge	<i>N</i>	Mean	SD	<i>t</i>	<i>P</i> -value
Before–After	45	–7.711	1.036	–49.920	0.000

simulation including the small group divisions (15 people in each group) and relatively young age respondents which helped the respondents to better understand remember the instructions from the researchers. Respondents' age also played role in performing the dance simulation. Besides, the ethnicity of the respondents which was dominantly Nias might also contribute to the increase. Most of the respondents were familiar with the dance that makes it easy for them to follow the instructions. Besides, the nutritional information in the lyrics was in Nias language making it understandable and easy to be remembered.

The results of this research are in line with those of conducted by studying the effect of simulation game method in improving students knowledge about drug hazards, obtaining *P*-value of 0.000 ($P < 0.005$) which showed that there was an effect of simulation game method on the increase of students' knowledge about drug hazards.

The study about the lyrics of Maena in improving knowledge was also in line with that of by Ref. [9] studying the use of Diba Lyrics in increasing adolescents' knowledge about reproductive health Pondok Pesantren Nurul Falah Puri in Mojokerto. Comparing the results of the present study to the previous studies, it can be concluded that the simulation of Maena dance in the village of Hiliwaele I Botomuzoi District in Nias Regency can be used to improve housewives' knowledge about balanced nutrition in toddlers aged 3–5 years.

Conflict of interests

The authors declare no conflict of interest.

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