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Health Film Promotion Media And Motivation On Community Knowledge In Preventing Dengue Fever

M. Indra Tarigan [1,2], Muhammad Badiran [2], Linda Hernike Napitupulu[2]

[1] Binjai Department Health Office, Binjai,, Indonesia
[2] Master of Public Health, Institut Kesehatan Helvetia, Medan, 20124, Indonesia

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ABSTRACT

Introduction: Efforts to control dengue fever can be accomplished by promoting health awareness among those at risk of contracting the disease. Numerous factors, such as the health promotion methods and media used, will have an effect on health promotion. **Method:** The research method used is quasi-experimental with a factorial 2x2 design. The study sampled 66 individuals. The analysis in this study employed a two-lane variance (ANAVA) analysis with a confidence level of 95 percent **Result :** The findings of this study indicate that community knowledge about DHF prevention with companion discussion is greater than community knowledge about DHF prevention without companion discussion. The knowledge of highly motivated communities is greater than the knowledge of low motivated individuals. There is a relationship between extension strategies and motivation for a healthy lifestyle in terms of influencing public knowledge.**Conlusion** The Finale There is a relationship between extension strategies and motivation for a healthy lifestyle in terms of influencing public knowledge. It is suggested to the puskesmas officer that he conduct extension efforts on DHF disease prevention by using film media in conjunction with discussion to increase public awareness of DHF disease prevention

Corresponding Author:

M. Indra Tarigan
Binjai Depatement Public Health Office
Email: iin_tarigan@yahoo.com

1. INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is an infectious disease caused by the dengue virus and is transmitted through mosquito vectors of the Aedes aegypti sp and Aedes albopictus species. Dengue Hemorrhagic Fever (DHF) is a public health problem that can cause death in a short time and often causes extraordinary events so that it causes panic in the community because it is at risk of causing death, and its spread is very massive and fast (Saragih, 2019).

Vectors have a big role in spreading diseases that increase dengue cases during the rainy season when puddles of water arise, which become a breeding ground for mosquitoes. Various research results show that advertising and environmental conditions have an important role in the incidence of DHF; mobility and community density also play an important role in DHF (Kementrian Kesehatan Repoblik Indonesia, 2020). Dengue Hemorrhagic Fever (DHF) or Dengue Hemorrhagic Fever (DHF) describes diseases caused by dengue virus infection as one of the problems in public health. DHF is still easy to find in various countries, including tropical and subtropical countries, which have endemic or epidemic status (Hamzah, 2016).

North Sumatra Province became the province with the fifth-highest number of dengue patients in Indonesia in 2015, with 5274 cases and 30 deaths (CFR 0.57). This is significantly more than the 4,732 cases of DHF in 2013, which resulted in the death of 45 people, and the 4,747 cases of DHF in 2012, which resulted in the death of 36 people (Dinas Kesehatan Provinsi Sumatera Utara, 2019). Aedes aegypti mosquito habitat is a place that is found in clean water, including bathtubs, buckets, flower vases, bird drinking places, water reservoirs in dispensers, and water disposal areas under the refrigerator. Several etiological factors associated with DHF were host factors (age, sex, mobility), environmental factors (house density, mosquito breeding sites, mosquito resting places, mosquito density, larva free rate, rainfall), and behavioural factors. High sleep and activity patterns during the rainy season, for example, can cause flooding and puddles of water in a container/media that is a breeding ground for mosquitoes, such as hollows in bamboo fences, trees, used cans, old tires, roofs or house bones (Fadlilah, 2017; Ibrahim, 2017).

Vector eradication is carried out through Mosquito Nest Eradication (PSN) activities. How to eradicate mosquito nests can be done by draining, closing, burying (3M). The

success of PSN activities, among others, the Aedes Aegyptus mosquito population can be controlled so that the transmission of DHF can be prevented or reduced.

Various methods can be used to detect Aedes aegypti sp mosquito populations, including larval surveys, pupa surveys, adult mosquito surveys, and egg surveys. Egg surveys have proven to be quite effective in detecting the presence of Aedes aegypti sp mosquito populations, usually by using ovitrap or egg traps; the use of ovitrap has proven to be successful in reducing mosquito populations (Cahyati, 2016). DHF vector populations can be obtained through adult mosquitoes' containment through trapping ovitrap eggs (especially areas with mosquito density levels) (Fatmawati, 2014). Installation of ovitrap in the house shows more Aedes Aegypti sp mosquitoes than Aedes Albopictus; this is because Aedes Albopictus mosquitoes are more commonly found outside the house than inside the house, especially in gardens and vacant land that has dense vegetation (Wahidah, 2016; Alfiantya, 2018). If you use ovitrap, mosquito eggs will be found on the container walls close to the surface of the water. Aedes aegypti sp larvae can live in clear and calm water and contain organic matter (Hidayati, 2017; Rati, 2016).

This DHF Mosquito Nest Eradication Activity (PSN DBD) must be supported by continuous and sustainable community participation; this is considering that the dengue mosquito has been widespread in all places, both in homes, schools and public places and can attack victims at any time morning and evening. DHF Mosquito Nest Eradication Activities (PSN DBD) will depend on the community's motivation to carry out DHF Mosquito Nest Eradication (PSN DBD).

Based on a preliminary survey conducted in January 2017 by interviewing six cadres and six homemakers in Cengkeh Turi Village, North Binjai District, it showed that as many as three cadres and three housewives had received information about the prevention of DHF through this method lectures but did not carry out the eradication of mosquito nets. However, they were very worried about dengue disease in their environment, so they also tried to ask about dengue disease. The purpose of this study was to analyze the effect of media promotion of health films (health films without assistance and health films with mentoring) and motivation on public knowledge in preventing dengue hemorrhagic fever in Cengkeh Turi Village, North Binjai District, Binjai City in 2017.

2. METHOD

The type of research used in this study is a quasi-experimental design with 2x2 factorial to determine the effect of media promotion of health and motivational films on public knowledge in preventing dengue hemorrhagic fever in Cengkeh Turi Village, Binjai City. This research was conducted in Cengkeh Turi Village, North Binjai District, Binjai City. The time of the research carried out to complete this research is from January 2017-December 2017.

Respondents in this study were divided into two groups, namely the health film media group with assistance and the health film media group without assistance, each having a minimum sample size of 33 people. The details of the two groups are:

a. Group I: health film counselling with assistance (films without a break from watching film screenings and not conducting question and answer sessions) for 33 people, which will be conducted to mothers in the neighbourhood II of Cengkeh Turi Village, Binjai City.
b. Group II: health film counselling with assistance (films that are given pauses to watch film screenings and do not do question and answer sessions) as many as 33 people in Environment VII, Cengkeh Turi Village, Binjai City.

After the data is collected, the researcher performs data processing (editing, coding, and entry) and then statistically analyzes it. Before the inferential analysis was carried out, the normality test was carried out first with the Liliefors test, if the p value> 0.05, then it was stated that the data were normally distributed, and to test the homogeneity of the data, the similarity test of the two variants was carried out through statistical tests using the Bartlett test, if p> 0, 05, it is stated that the data is homogeneous. Next, a two-way analysis of variance (ANOVA) with a 95% confidence level will be carried out; if $p<0.05$, it is stated that there is an effect of the independent variable on the dependent variable.

Furthermore, for hypothesis testing, the following formulation is carried out:

a) First Hipotesis Ho : $\mu A1 \leq \mu A2$ Ha : $\mu A1 > \mu A2$
b) Second Hipotesis Ho : $\mu B1 \leq \mu B2$ Ha : $\mu B1 > \mu B2$
c) Third Hipotesis Ho : $A><B = 0$ Ha : $A >< B \neq 0$

Ho: A x B= 0

Ha: A x B $\neq$ 0

Information :

a. A1= The average knowledge value of the community given health film media with assistance.
b. A2 = The average knowledge value of the community given health film media without assistance.
c. B1 = Average knowledge value of people who have high motivation for healthy behaviour
d. B2 = Average knowledge value of people who have low motivation for healthy behaviour
e. A x B = Interaction of health and motivational film media with knowledge value.

3. RESULT

The first, second and third research hypotheses were tested using 2 x 2 factorial analysis of variance. Statistical tables for hypothesis testing purposes can be seen in Table 4.1 below:
Table 1 Summary of Factorial ANOVA 2 x 2

Table 1. Summary of Factorial ANOVA 2 x 2

Varians Source	JK	Results F	F table 0,05
Extension Strategy (A)	52,74	4,09	3,11
Healthy Life Motivation (B)	41,35	3,21	3,11
Interaction (AB)	119,97	9,32	3,11
Error	798,46		

Based on the above summary, the hypothesis testing will be detailed as follows:

1. First Hypothesis

The test of the first hypothesis is that the results of public knowledge about dengue prevention through health film promotion media with discussion companions are higher than the results of public knowledge about dengue prevention through health film promotion media without discussion companions. The statistical hypothesis is:

Ho: A1 A2

Ha : A1> A2

Based on the 2 x 2 factorial ANOVA calculation, F-count = 4.09, while the F-table value = 3.11 for DK (1.62) with a significance level of = 0.05. It turns out that the value of F-count = 4.09> F-table = 3.11 so that the hypothesis testing rejects Ho and accepts Ha. Thus, it can be concluded that the results of public knowledge about dengue prevention

with discussion partners are higher than the results of public knowledge about dengue prevention through media promotion of health films without discussion partners. This can also be seen from the average result of public knowledge about dengue prevention through media promotion of health films with discussion companions ($\bar{x}$ = 21.54), which is higher than the results of public knowledge about dengue prevention through media promotion of unaccompanied health films (= 19.76).

2. Second Hypothesis

Testing the second hypothesis is that the results of public knowledge about dengue prevention through media promotion of highly motivated health films are higher than the results of public knowledge about dengue prevention through media promotion of low-motivated health films. The statistical hypothesis is:

Ho : $\mu B2 \leq \mu B1$

Ha : $\mu B2 > \mu B1$

Based on the 2 x 2 factorial ANOVA calculation, F-count = 3.21, while the F-table value = 3.11 for DK (1.62) with a significance level of = 0.05. It turns out that the value of F-count = 3.21> F-table = 3.11 so that the hypothesis testing rejects Ho and accepts Ha. Thus, it can be concluded that the results of public knowledge about dengue prevention through highly motivated health film promotion media are higher than the results of public knowledge about dengue prevention through motivated health film promotion media. This can also be seen from the average result of public knowledge about dengue prevention through media promotion of highly motivated health films (= 22.83), which is higher than the results of public knowledge about dengue prevention through media promotion of low-motivated health films (= 20.46).

3. Third Hypothesis

Testing the third hypothesis, namely the interaction between counselling strategies using health film media and healthy living motivation in influencing the results of public knowledge about dengue prevention. The statistical hypothesis is:

Ho : A X B = 0

Ha : A X B 0

Based on the 2 x 2 factorial ANOVA calculation, F-count = 9.32, while the F-table value = 3.11 for DK (1.62) with a significance level of = 0.05. It turns out that the value of F-count = 9.32> F-table = 3.11 so that the hypothesis testing rejects Ho and accepts Ha.

Thus, it can be concluded that there is an interaction between counselling strategies using health film media and healthy living motivation, which has been proven true.

Furthermore, further tests were carried out with the Scheffe test as shown in Table 2 below:

Tabel 2 Scheffe's Test Summary

No	Further Test Results		Fcount	Ftable
1	FA_1B_1	FA_2B_1	15,05	2,76
2	FA_1B_1	FA_1B_2	4,63	2,76
3	FA_1B_1	FA_2B_2	0,96	2,76
4	FA_2B_1	FA_1B_2	2,49	2,76
5	FA_2B_1	FA_2B_2	7,89	2,76
6	FA_1B_2	FA_2B_2	1,34	2,76

Information:

a. A1B1 : The average result of knowledge of community groups with outreach strategies through media promotion of health films with discussion companions and high motivation
b. A2B1 : The average result of knowledge of community groups with outreach strategies through media promotion of health films with discussion companions and high motivation
c. A1B2 : The average result of knowledge of community groups with outreach strategies through media promotion of health films with discussion companions and low motivation
d. A2B2 : Average knowledge learning outcomes of community groups who are taught with counseling strategies through media promotion of health films without discussion companion and low motivation

Overall, the results of the Scheffe test show that there are six combinations of average comparisons of knowledge learning outcomes of community groups who are taught with counselling strategies using health film media, so based on Table 2, three of the six-show insignificant results. The first which is not significant is the average result of knowledge of community groups with counselling strategies through media promotion of health films with discussion companions and high motivation with average learning outcomes of knowledge of community groups who are taught with counselling strategies through media promotion of health films without accompanying discussions and low

motivation. Second, the average result of knowledge of community groups with outreach strategies through health film promotion media without discussion and motivation is high. Third, the average result of knowledge of community groups with counselling strategies through media promotion of health films with discussion companions and low motivation with average learning outcomes of knowledge of community groups taught with counselling strategies through media promotion of health films without discussion companions and low motivation.

However, there is an interaction of counselling strategies and healthy living motivation on the results of public knowledge about dengue prevention; this can be seen from (1) DHF prevention counselling strategies through health film promotion media with discussion companions providing public knowledge about DHF prevention low and (2) the strategy of counselling on prevention of DHF through media promotion of health films without a discussion companion gave the results of public knowledge about prevention of DHF, people with low motivation were higher than those with high motivation. This is also evident from the average score of knowledge on dengue prevention with outreach strategies using health film promotion media with discussion companions and high motivation to live healthy (= 22.77), which is higher than people with low motivation to live healthy (= 20.07) and the average score of community knowledge about dengue prevention with outreach strategies through media promotion of health films without discussion companion and low motivation to live healthy (= 21.56) was higher than people with high motivation to live healthy (= 18.06).

4. DISCUSS

The Effect of Health Film Media with Discussion Assistance and without Discussion Assistance on Public Knowledge about DHF prevention

The results of this study indicate that training using film and leaflet media is proven to increase respondents' knowledge about making ovitrapes. The results of Kurniawati (2020) research show that housewives tend to have less knowledge about ovitrap. The low knowledge of housewives about ovitrapes can be caused by a lack of socialization about ovitrapes as an effort to control Aedes aegypti sp.

According to Anggraini (2016) that housewives know the control of Aedes aegypti sp mosquito larvae with the principle of draining, closing and recycling used goods, and housewives also do not know ovitrape. Knowledge is actually a stimulus for behavioural

change, including behaviour in health. According to Kurniawan (2016) that there are still many people who do not want to carry out Mosquito Nest Eradication (PSN) activities because of public knowledge about the importance of Mosquito Nest Eradication (PSN) is still low. People still do not routinely carry out Mosquito Nest Eradication (PSN), such as water reservoirs that are not closed, bathtubs are not drained once a week, used goods are not buried, and people still have the habit of hanging clothes behind doors.

The results of this study indicate that the results of public knowledge about dengue prevention through film media with discussion assistance are higher than the results of public knowledge about dengue prevention in film media without discussion assistance. This can also be seen from the average result of community knowledge about DHF prevention with discussion partners (= 21.54), which is higher than the results of community knowledge about DHF prevention without mentors (= 19.76).

Majid (2018) stated it is recommended that stated health education via calendar media be accompanied by other forms of health education such as lectures, demonstrations, or other methods. Karuniawati (2019), while participants can comprehend what the implementation team says, the implementation team has difficulty answering questions from participants.

One of the processes carried out so that there is no forgetting process or recall process is to carry out a recognition process, namely the process of recognizing information that has been learned through a guide that is faced with the organism, which is through discussions conducted by the facilitator and the community will make the public can recall the material about the prevention of dengue disease so that it will make public knowledge about dengue will be even better. Giving discussions in pleasant conditions by the facilitators also made the community happier in learning and remembering about the information on preventing DHF so that they became more motivated to understand information about preventing DHF and making it easier to digest information about prevention of DHF that was learned through discussion.

Discuss is one form of activity to increase the knowledge of housewives in the manufacture and use of ovitrapes as a method of controlling Aedes aegypti sp mosquito larvae in the community. Good knowledge about the manufacture of ovitrapes is expected to be one of the right solutions in reducing the number of Aedes aegypti sp. (Ernyasih, 2019).The results of Zuhriyah (2016) research show that people are not fully concerned

with the implementation of ovitrap at home; knowledge and awareness are still low, so that the application of making ovitrap is still low. Making ovitrapes requires a high commitment to both care and supervision.

The results of Putri (2017) research that the extension media only uses LCD (Liquid Crystal Display) and projectors so that the extension is monotonous and has an impact on the course of the extension. Syahraji (2019) research shows that counselling is only carried out orally (using a projector) and does not distribute leaflets to the public. The results of Anita (2016) research, the DHF disease eradication program (P2DBD) obtained media indicators of 77.8%, which included a book on the DHF control program, a DHF management book, a jumantik technical implementation manual, leaflets, flipcharts, posters, K-DHF forms, W2 form, and management chart for DHF patients.

So far, the counselling carried out by health workers only uses film media and is accompanied by the lecture method without conducting discussion assistance. The method used so far has made people in Cengkeh Turi Village tend to feel bored with the counselling delivered because learning becomes monotonous and only in one direction, which has an impact on increasing knowledge about preventing dengue fever. The material presented so far by health workers in Cengkeh Turi Village also tends to be easily forgotten by the community because people are not very interested in conventional counselling and do not fully involve the community in solving the problems they get in Cengkeh Turi Village.

It is hoped that the counselling with discussion assistance can be applied by health workers in every counselling about the prevention of DHF, both in the Cengkeh Turi Village environment or in other places. Mentoring discussions that have proven effective in Cengkeh Turi Village are expected to be the initial capital in preventing dengue fever in Cengkeh Turi Village; this is because people who have good knowledge are expected to take appropriate action in preventing DHF.

The Effect of Healthy Behavior Motivation on Public Knowledge about Dengue Prevention

According to Siregar (2020) and Notoatmodjo (2014) that motivation is an interaction between behaviour and the environment so that it can increase, decrease or maintain behaviour. People's motivation about preventing DHF will have an impact on people's behaviour in preventing DHF. According to Khaerani (2020), providing health education with the media will increase knowledge and attitudes towards health problems.

The results of the 2 x 2 factorial ANOVA calculation obtained F-count = 3.21 while the F-table value = 3.11 for DK (1.62) with a significance level of = 0.05. It turns out that the value of F-count = 3.21> F-table = 3.11. Thus, it can be concluded that the results of public knowledge about the prevention of DHF that are highly motivated are higher than the results of people's knowledge of motivated DHF prevention. This can also be seen from the average result of public knowledge about dengue prevention with high motivation (= 22.83), which is higher than the result of community knowledge about prevention of DHF with low motivation (= 20.46).

The high motivation of people's healthy living behaviour and good knowledge about the prevention of dengue disease will have an impact on community participation in the prevention of dengue disease. According to Nasution (2019) that there are three factors that influence the actions that will be taken by an individual, namely (1) Individual factors consist of abilities (knowledge) and skills, background and socio-demographic.

The presence of ovitrapes will make female mosquitoes will lay eggs on the walls of the ovitrapes then mosquito control will be easier to do. Ovitrap can be in the form of a vessel (can, plastic or bamboo-part), which is filled with water and paper on the inside for placing eggs (Nurjana, 2017). Ovitrap is placed near the bathroom with a placement that meets the criteria, namely the place is not bright, humid, and has little wind. Ovitrape placed for 14 days in a predetermined place. The ovitrape will be placed with various tractates in order to attract female mosquitoes to lay eggs; then, the eggs will hatch into larvae and then be shocked in the ovitrape, which has been installed with gauze (Fadlilah, 2017) .

Housewives (IRT) has actually been exposed to information about PSN 3M Plus and the use of ovitrapes, but the implementation of PSN 3M Plus and the use of ovitrapes is still very low. Housewives (IRT) consider that the practice of PSN 3M Plus does not need to be carried out routinely because the mother considers PSN 3M Plus to be less effective in controlling mosquitoes. Empowerment is an important thing in improving the practice of PSN 3M Plus and ovitrap, especially to increase the knowledge and skills of housewives (Susianti, 2017).

According to Barus (2019), the increase in knowledge and attitudes of community leaders who received treatment using leaflet media was higher than that of community leaders who received treatment using module media. Leaflet media the message content

was shorter and clearer, and easy to understand, so that community leaders could better understand the content, messages compared to thicker modules, contain longer information and take longer to learn so that it can cause community leaders to be lazy to read the module .

Prevention of dengue hemorrhagic fever can actually be done effectively through the 3M program (draining, closing and burying), which is an easy way and can be done without spending any money, but in reality, this program is not implemented well in Cengkeh Turi Village, North Binjai District. The non-implementation of the 3M program (draining, closing and burying) is very closely related to the motivation of the community in clean living habits, and the community's understanding and treatment of the dangers of dengue hemorrhagic fever is still very minimal. People's motivation about healthy living behaviour will provide encouragement to the community in finding out about DHF and prevention of DHF.

When the community has high health motivation about preventing DHF, it is hoped that the community will transfer its positive spirit to other communities to prevent DHF. High motivation in preventing DHF is also expected to make the community seek social support from both formal and non-formal community leaders to support their activities in preventing DHF in their home environment, and even the community can make advocacy efforts to the Puskesmas and Sub-districts to implement high awareness of dengue disease in their environment by carrying out various dengue diseases prevention activities such as eradicating mosquito nests and routine socialization about dengue disease prevention.

5. CONCLUSIOON

a. There is an influence of media for promoting health films with and without assistance on public knowledge.
b. There is an effect of health motivation on people's knowledge
c. There is an interaction between counseling strategies using health film media and healthy living motivation in influencing knowledge about prevention of DHF.

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