

## **COMMUNICATION MEDIA LITERATURE IN HEALTH MANAGEMENT IN HANDLING THE HAZARDS OF DHF IN GAMBUT DISTRICT**

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### **ABSTRACT**

Recent technological advances are very strategic and very significant in the interactions in the midst of our people's lives, including public health, which is even more crucial, because of that the government is very concerned about public health, if public health is good, it will support the economic life of the community itself, So that awareness of the importance of health within the community in the Peat district is the main thing to be put forward, given that the recent rainy season has caused a lot of standing water which is not impossible to cause dengue fever. Dengue Hemorrhagic Fever (DHF) is a disease that spreads rapidly, especially in tropical and subtropical regions. DHF can be transmitted quickly because the dengue virus is transferred by the *Aedes aegypti* and *Aedes albopictus* mosquitoes into the human body. The cause of the inadequate DHF control program is that there is no mapping related to dengue susceptible areas. Communication media is inevitable for health, especially in health management in handling the dangers of dengue fever in Peat District, considering that communication media is an element of communication that can be used to convey health information to the public about the dangers of dengue fever itself. The research methodology that the author uses is descriptive qualitative methodology with a qualitative judgment approach to provide a literacy description of communication media in health management and the dangers of dengue fever for the community. The results of this study are expected to be useful for the government, especially the management of health management in using communication media in handling the dangers of dengue fever itself.

*Keywords: communication of media, communication; health management*

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### **INTRODUCTION**

Dengue Hemorrhagic Fever (Dengue Hemorrhagic Fever) or DHF (Dengue Haemorrhagic Fever) is a disease that has the potential to cause outbreaks, because it is difficult to predict and easily transmitted. Dengue fever is one of the an acute disease, with bleeding manifestations and a tendency to cause shock which can lead to death. Causes of dengue fever (DHF) is a dengue virus of the Flaviviridae family, transmitted from the bite of the *Aedes mosquito aegypti*. Dengue virus is taxonomically included in the group of viruses from RNA genus *Flavivirus* and family *Flaviviridae*, but are also specifically classified belongs to the group of viruses transmitted by arthropods (*Arbovirus*).

There are 4 types of dengue virus serotypes, namely DEN-1, DEN-2, DEN-3 and DEN-4. The four serotypes may be found circulating freely in Indonesia with DEN-3 as the most serotype. People infected with one dengue serotype are immune to that serotype for life but not immune to other serotypes (Febrian-to, 2012).

The severity of dengue infection in humans has many factors depending on the interaction of different serotypes with the immune background

of a person who also differ from one another. It is often suspected that the infectious response severe is an immune response to several different serotypes (immune response cross serotype), which often occurs in people who have a second infection with different viral serotypes. This theory believes that there is an antibody-dependent mechanism behind this increase (ADE). Antibodies from the old serotype will interfere with the immune response to the new serotype, thereby facilitating more many viruses enter the host's body (Dejnirattisai et al., 2010).

Humans are the main potential for being exposed to the virus, although some research shows that monkeys in some parts of the world can be infected and can act as a source of virus for biting mosquitoes. DHF is a diseases that can be transmitted through the bite of infective mosquitoes, especially *Aedes aegypti*. When infected, mosquitoes remain infected for the rest of their lives, transmitting virus to susceptible individuals by biting and sucking blood. The female mosquito infected can also transmit the virus to generations of mosquitoes by transovarian, but this is rare and probably not significantly exacerbate human transmission (Wahyuningsih, 2014). DHF vector requires a

comfortable environment for breeding. Environmental factors are environmental physical, chemical, biological and socio-cultural (Dinata & Dwantara, 2012). Contact with the development of the disease, including DHF, changes in elements of the physical environment That is, climatic factors need to be watched out for. Among these climatic factors are temperature, humidity and rainfall (Ramachandran & Madhumathy, 2016). This thing can evidenced by several studies, for example research on Performances in Guangzhou, South China there is a significant relationship between climate elements, namely temperature and humidity with the incidence of DHF in the period 2005 to 2014 (Dai, Xiang, Li, & Bai, 2016).

Research in Colombia, Cerete, showed that humidity and rainfall factors had a significant influence on the incidence of DHF in the period 2003-2008 where increased rainfall and humidity increased when cases of dengue increased (Mattar, Morales, Cassab, & Rodríguez-Morales, 2013 ). Research conducted in Batam City, Riau Islands, shows that there is a relationship between temperature and rainfall factors with the incidence of DHF in the period 2001-2009 (Arianti & Putra, 2018). Meanwhile, research conducted in the city of Semarang showed that climatic factors such as temperature, rainfall, and humidity had a significant relationship with the incidence of DHF in the period 2011-2015 (Argintha, Wahyuningsih, & Dharminto, 2016). The most influential climatic factors on DHF cases in DKI Jakarta are rainfall, temperature and humidity (Sintorini, 2007).

By knowing the impact of changes in climate factors on the incidence of DHF, can assist the government and the community in planning and implementing dengue prevention measures. Therefore, it is necessary to conduct research in the District Pandeglang regarding the influence of changes in climate elements (temperature, humidity and rainfall) with the incidence of DHF from 2011 to 2016. In line with previous research, the distribution of DHF in the Gambut sub-district Banjar Regency seems to have a lack of public awareness on the changes in climate factors to the incidence of DHF in 2021, because of the puddles of rainwater reservoirs that can become a place for the Aedes Aegypti Virus. So that communication media is needed for health management in handling the dangers of dengue fever, by strengthening communication media literacy for the community, and is expected to facilitate Health management in provide some

information on the dangers of dengue fever to the community.

## METHOD

The research above emphasizes the importance of being carried out by the author in research Furthermore, in this case regarding the use of communication media in disseminating information health information in the midst of people's lives. If the above research showing health information for the public, it is different from research This time the author reveals about communication media in spreading public health information.

The case study qualitative research method is a relevant method used in this study. By using this approach the author also can provide a comprehensive and in-depth view of the media health information. (Creswell, 2016) defines a case study with:

*"A case study is an exploration of a "bounded system" or a case (or multiple cases) over time through detailed, in-depth data collection involving multiple sources of information rich in context. This bounded system is bounded by time and place, and it is the case being studied a program, an event, an activity, or individuals. Multiple sources of information include observations, inter-views, audio-visual material, and documents and reports".*

Another definition of case study is expressed by Robert K. Yin. Yin states that a case study is an empirical inquiry that investigates phenomena in the context of real life, when the boundaries between phenomena and context is not clearly visible and where multiple sources of evidence Case study definitions more precisely leads to case finding by using how and questions why to obtain accurate and complete research results (Yin, 2004).

The primary data in this study have been obtained from related parties directly through data collection techniques, as follows:

1. Observations or observations made on the behavior of informants
2. In-depth direct interviews from research informants

Literature study conducted using various references relevant for example journals or previous research.

Results and Discussion Health communication, these communication skills are used for the sake of achieving the level of health in the community. Communication that effectiveness depends on several things,

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such as the situation when we want to convey information, who will be invited to communicate, and the form of the message itself, is it interesting enough or not. Besides, effective communication too involves knowledge of the sender of the message, interpersonal skills, intellectual and technical skills in communication (Kourkouta, 2014).

Communication plays an important role in nursing intervention services, increase patient satisfaction in obtaining nursing services, as well as protect the health workers themselves (Kourkouta, 2014). Individuals working at health settings and do not have good communication skills, tend to run into problems and mix personal affairs with problems in the context of their work. Problems that often arise in communication is when this principle cannot be fulfilled properly, so that the interaction in communication is not achieved. In the context of health communication, the principles communication focuses on strategies for delivering health information, and evaluate the health information submitted to Public. There are several things that need to be prepared to maximize the goal communication can be achieved optimally, including:

1. Preparation

These preparations include; parties or people involved in a team communication skills, communication skills and adequate funding needed to support this. For example, a free area campaign cigarettes, which includes a team of several people from different backgrounds related scientific background, such as; health, health economics, public policy and other

2. Designing the message model that will be used

In this stage, it is also necessary to formulate the concept or content of the message that is needed attractive and able to influence the public and who the party or person is who will deliver it. (Output) consists of the expected results of second stage.

The results of this communication product can be in the form of posters that will be used for dissemination, as well as the media that will be used for presentation

information, such as the organization's websites or linked website links with an organization's website

3. Number of staff who have received training related to communication

The number of staff receiving training in this communication is very important to be of concern, because they are the ones in control of the information processed to be delivered, so this will certainly affect the quality of the message communication to be conveyed or informed to individuals or Public.

4. Output

Output, which is in the form of the expected results after giving the intervention health communication. These results are in the form of changes in behavior local community after receiving certain health information, increasing public knowledge and shifting negative attitudes to positive health problems encountered. These changes make things is very important in measuring the success of health communication programs in improve health status.

5. Impacts are long-term measurement criteria that require

treatment of the previous stages of communication with routine and sustainable. From several interventions given from several parties involved in a health program. Therefore, the evaluation system is very needed to assess after a health program involving activities communication (Ashinyo et al., 2020).

Public health communications, such as health campaigns, most of them are still one-way, where there is delivery of information from experts (experts) to participants (audience). Ideally, a health communication involves communication in the preparation of activity plans and their implementation, to ensure that the health communication program meets the needs Public. The things that need to be considered by a messenger are: health literacy conditions, culture, and differences in society.

- A. Communication Media Literacy

Media literacy is very important in people's lives as a center media literacy development. It can be observed that media literacy is a set of perspectives of a person in

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utilizing effectively and efficiently, when communication media are used by active individuals, to interpret the meaning of the messages in the communication media. Media literacy shows a person's methods and levels in using communication media in their daily life. Thus, the media communication often provides a form of communication media content with various kinds of knowledge that have been structured in the meaning of communication as a way of shaping cultural content in cross-cultural communication (meaning; communication planning). Not everything in the communication media can be used as a good general guideline, the article is a lot of user behavior in managing and processing various forms of communication media content as the use of media content that is not worth accessing, thus providing the impact of inadequate or bad enough communication media on behavior communication media users. This opportunity is access to this communication media, often manipulated by various forms of media content behavior in media literacy. Media interpretation as This media literacy gets more attention when media literacy is used or appear in public. This fact shows the effectiveness of the media communication is very vulnerable to being left by one individual to another others, with communication patterns in planning, presentation or procedures, evaluation of the presentation of certain content. Due to someone's difficulty or incomprehension in their communication planning.

Media literacy has an important meaning in human life as a absolute requirement of the media literacy series. As data analysis for obtaining the data as a level of media literacy in accessing planning communication. Media literacy can be understood as a set of abilities to understand, use, study, and strategically communicate about the behavior of media users in utilizing and providing positive access to communicating messages (symbols) provided by the mass media with their media literacy "literacy" (media education and media education) (Druick, 2016).

## B. Health Communication Media Management

Health communication is generally done in the form of: (1) marketing social activities that aim to introduce or change positive behavior, (2) dissemination of information through the media, and (3) advocacy, mentoring community, group, or mass media with the aim of introducing policies, regulations, and programs to renew health (Liliweri, 2011). In this study, health communication is carried out by the Millennium Challenge Account Indonesia in the form of campaigns to selected areas (Suryana, Sugiana, & Trulline, 2016). Health information conveyed in the campaign This is in the form of stunting issues, causes, impacts and ways to prevent them.

This activity also focuses on healthy families that encourage men and women to active women share household decisions, as a series of actions planned communication with the aim of creating a certain effect on the audience in large quantities, carried out continuously over a certain period of time (Rogers & Storey, 1987).

According to (Ukas, 2004), that the function of communication is; information function, command function will command, influence function and distribution and function integration.

(Koehler, Anatol, & Applbaum, 1981) suggested four functions organizational communication, namely:

### a. Information Function.

From the communication function, that the information function, through communication then what does the resource person or leader want to convey? to subordinates can be given in oral or written form. Through managers or leaders with verbal subordinates can have direct dialogue in convey ideas and ideas. An organizational administrator must make decisions regarding programs that are arranged in certain stages based on information from the number of organizational components that are all boils down to the need for timely, correct and accurate information high validity.

### b. Regulatory Functions.

function is intended as a process carried out by managers, namely: Supervise the transfer of order information sending

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messages to subordinates. The order is understood by subordinates as a rule that must be followed. The function of regulation of orders is of course related to power, where People's power is the right to give orders to subordinates where subordinates are submissive and obedient and disciplined in carrying out their duties with full responsibility. A command will contain the cue for execution work that must be understood and understood and carried out by subordinates. With the order there is a relationship between superiors and subordinates as given Duty.

c. Persuasive Function

In the persuasive function, it means to include convincing elements from superiors, both motivational and guidance, so that subordinates feel obliged to carry out the work or duties that must be implemented. In influencing activities, communicators must be flexible to see situations and conditions in which subordinates will be given tasks and responsibilities answer, so that they don't feel that what their subordinates are actually doing it is a burden, he will feel duty and responsibility.

d. Integrative Function.

In the integration function that the organization as a system must integrated in a total interrelated unit and all affairs each other cannot be separated, therefore the people who are within an organization or group is a unified system, in which someone will relate to each other and influence each other with each other in order to create a communication process to achieve shared goals that have been set (Koehler et al., 1981). For that in In order to improve the effectiveness of communication within the organization, it needs to be improved awareness of the need for effective communication to streamline tasks and achievement of objectives.

C. Communication as a Comprehensive System  
Submission of this health information, health workers need to pay attention to five important elements in communication, namely the communicator, the message delivered, the media for delivering health messages, the audience of the message and

the expected effect of the process of delivering a message.

Meanwhile, communication has the following roles:

- a. As a medium for sending messages, with the aim that others understand the contents of the idea sent
- b. Messaging also has a specific function to increase knowledge other people about something. We get this context a lot in context Health communication.
- c. Communication also aims to convey messages containing commands or messages an order to do something, and,
- d. Furthermore, this communication is expected to have an influence on the person who received the message. Communicators or parties who send or deliver messages must be able to convey the message clearly. The sender of this message must agree First, what is the importance of the message conveyed and the effect it has? expected from sending the message.

D. Health Information System Development

There are several things that must be considered in the development stages health information management system, which are as follows (Act, Ng and Unt, no date):

- a) Conduct a review on the existing system, which will serve as a need assessment of the need for evaluation of health information systems.
- b) Determine what data or information is needed in each unit in the health system
- c) Determine the most suitable data to be used as a basis considerations in health system management
- d) Design how data will be collected and what tools will be used in collecting the data. This is important to note, remembering certain data also require specific data collection techniques. For example, data on patient satisfaction with the services of a health center, will be collected through internet-based surveys to reach respondents wider.
- e) The next stage is how the procedures and mechanisms in processing information from the data that has been obtained.
- f) a training that aims to utilize data and Data management. This technical ability will greatly affect the how much a health information system can contribute to public. A good information system, but from the user

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aspect encountered obstacles or inappropriate use, then the information system it can be said that it is not optimal in supporting the achievement of implementation health program. Vice versa, the information provider (providers) who do not understand the health information system, will also result in the provision of insufficient or invalid data.

- g) Conduct pre-test, and if necessary redesign the process or Procedures for data collection, processing and utilization of data to suit with the stated goals.
- h) The next stage is monitoring (supervision) and evaluation of the system health information. This is done so that problems can be identified faced by both users and providers.
- i) After the information system is well developed and utilized properly, Optimally, it requires a stage of data dissemination and developing response or feedback processing system for system sustainability that information.
- j) The last stage is the need for continuous development of Health Management Information System (HMIS). Changes in the health care system, The flow of communication that is built at the technical level and the ability of users-providers to utilize health information data will be very influential

Information is an important thing in human life, one of which is health information because it relates to the physical condition of each individual. reveal the importance of building national information security in health communication perspective for urban women in the digital era. Resistance The information referred to in this case is of course health information. When technology is present, it provides convenience in the communication process media, then health information can be easily accessed by urban women in that era. By leveraging the role of the media digital, but in order to build national information security, they also has stages that are carried out in searching for health information mediate. These stages consist of selecting a credible source; existence cognitive filtering so as not to be exposed to hoax health information; choosing the right communication media;

and actively looking for a caring community health (Prasanti & Fuady, 2018).

#### E. Spatial Autocorrelation of Dengue Hemorrhagic Fever

The more cases of DHF in a densely populated area, the more the greater the chance of spatial autocorrelation, the pattern of distribution of dengue cases has a positive spatial autocorrelation. In addition, the phenomenon of autocorrelation DHF cases also occur, indicating that there is a relationship between population density with the pattern of distribution of dengue cases. The reason is because of the distance Mosquito flying about 50 meters will facilitate the transfer of dengue virus to humans densely populated housing. The same conditions also occur in the work area health center in an area. The distribution of dengue cases can be calculated the distance of the spread the case by using the average nearest neighbor. Some cases of DHF has a distance of spread of disease between 100-200 meters.

Analysis of the effectiveness of fogging by using a buffer. On research This shows that the fogging program has not been able to reach all dengue-prone areas (Pertwi & IP, 2020). The risk of spreading dengue in hotspots densely populated areas can increase if the people in the area still have not behaved in a clean and healthy life, especially implementing the 3M program (Drain, Close, Recycle). Therefore, the role of housewives become very important in breaking the chain of mosquito breeding *Aedes aegypti* around the house. Household grouping by density of *Aedes aegypti* mosquito larvae around the house can help in maximize the handling of dengue transmission (Putra & Kurniawan, 2016).

The DHF transmission control program at the puskesmas must be carried out regularly effective. The implementation of the DHF control program must be right at the radius of the spread dengue virus. For example, the implementation of fogging must cover the entire radius detected the presence of the *Aedes aegypti* mosquito carrying the dengue virus or in locations where the community has been exposed to dengue disease. But need to understand that dengue vector

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control through the thermal fogging program can create new problems if not managed properly. Use malation in the thermal fogging program can make the *Aedes aegypti* mosquito become resistant (Sukmawati, Ishak, & Arsin, 2018).

Physical environmental factors also have an influence on increasing DHF hotspot radius. Based on several studies, physical environmental factors such as rainfall and population density are major contributing risk factors against the spread of dengue fever. In addition, other factors that cause the ease with which DHF becomes an epidemic, namely the existence of a place to lay eggs (breeding habit) *Aedes aegypti* mosquitoes in clear and clean water around the home environment. The most preferred habitat for *Aedes aegypti* mosquitoes is the indoor environment home especially in the bath. The habit of biting the *Aedes aegypti* mosquito is anthropophilic, meaning that the *Aedes aegypti* mosquito is more likely to suck blood humans compared to other living things. When the *Aedes aegypti* mosquito sucking the blood of a dengue patient, the dengue virus infects the mosquito's body. The dengue virus that enters the body of the *Aedes aegypti* mosquito, finally into the salivary glands. Dengue virus requires more than eight days to multiply properly so that it becomes infective. After eight days, the dengue virus in the body of the *Aedes aegypti* mosquito will then continue to be infective throughout his life. Prevention of Dengue Hemorrhagic Fever (DHF) should be started by inhibiting the breeding of mosquito larvae. One way to reduce dengue fever can be done by suppressing the vector insect population (Syam & Pawenrusi, 2017). Besides that, *Aedes aegypti* mosquito breeding control can be done by: biological approaches such as using the Barren Insect Technique (TSM). TSM is a method of controlling dengue vectors by killing insects using the insect itself (autocidal technique). This technique can reduce the density of *Aedes aegypti* mosquitoes in an area (Sutiningsih, Rahayu, Santoso, & Yuliwati, 2017).

The results and discussion in this study can show that literacy the community

towards communication media in handling the dangers of dengue fever very diverse, this is due to the different levels of background, so as well as the knowledge possessed by citizens or society.

## CONCLUSION

The DHF transmission control program at the puskesmas must be carried out regularly effective. The implementation of the DHF control program must be right at the radius of the spread dengue virus. For example, the implementation of fogging must cover the entire radius. detected the presence of the *Aedes aegypti* mosquito carrying the dengue virus or locations where the community has been affected by dengue disease. Communication media needed for Health management in dealing with the dangers of dengue fever, by strengthening communication media literacy for the community, and is expected to facilitate health management in providing some hazard information dengue fever to the community.

Utilization of communication media in disseminating health information regarding prevention and control of dengue outbreaks in the midst of this community life very necessary in suppressing the outbreak of dengue fever so as not to spread, because of the background and lack of knowledge of the local community about DHF.

By knowing the impact of changes in climate factors on the incidence of DHF, can assist the government and the community in planning and implementing dengue prevention measures. Knowledge and ability about media is very important to support the quality of communication in an effort to produce management on the handling of the dangers of dengue fever (DHF) in the peat sub-district well and can cover the whole area and this is very much needed to assist the government in achieving the mission of the vision of creating a society that healthy with the best health management, especially in the control of DHF.

Based on this, the authors suggest that health literacy to local communities carried out routinely within a certain period, because of the dengue outbreak It is a predictable annual

event. Community background Local communities, both education and lifestyle, are important factors in success this health communication media, by using the reduction in the number of outbreaks as a measure of success.

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