DIJEMSS: Dinasti International Journal of Education Management and Social Science
E-ISSN: 2686-6331
P-ISSN: 2686-6358
https://dinastipub.org/DIJEMSS dinasti.info@gmail.com +62 811 7404 455
DOI: https://doi.org/10.38035/dijemss.v6i3

Health Communication in Disease Prevention *Schistosomiasis* in Sigi Regency

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Abstract: The incidence of schistosomiasis japonicum in humans in Central Sulawesi and in 2019 has been below 0.5% not only that, from year to year this disease is very dangerous and if not done properly, it will have a negative impact on human physical health which can spread to various other areas in Central Sulawesi. The purpose of the study was to determine and provide an overview related to the application of health communication in preventing Conch Fever in Sigi Regency The concept used is health communication in conch fever disease prevention. Qualitative research method with purposive informant retrieval technique. Data collection techniques are In-depth Interviewing and direct observation. For analysis techniques using Data Reduction, Data Display and Conlusion Drawing / Verification. The results showed that to overcome the spread of schistosoma japonicum disease, the Public Health Office conducted (a) case tracking and then implemented the Klinik Berjalan Sehat Sigi (KIBAS) program at the Mobile Health Center which was carried out once a month where the communication process was door to door, (b) disseminating to the community media leaflets originating from the Central Sulawesi Provincial government, the message was written in the form of Kaili and Indonesian, (c) a form of socialization was carried out by presenting an extension team and community leaders, (d) medical teams such as extension workers also visited elementary and junior high schools by conveying messages about the dangers of schistosoma japonicum but using the local language on the Lindu Plateau, and (e) health promotion was also carried out conventionally in the form of notification boards located at 30 points where schistosoma japonicum spreads, as well as promoting it also through social media such as Facebook accounts and the Sigi Regency Public Health Office website.

Keywords: Health Communication, Schistosomiasis, Sigi Regency

INTRODUCTION

Health is the most important part of human life that can support the ability to behave, feel and think well. A healthy body is the dream of anyone and does not look at one's social startification. Human efforts to avoid disease, of course, can be done by exercising, healthy food, positive thinking, maintaining a good living environment and so on. However, if it is observed that efforts to maintain health are sometimes not done optimally, so that it can bring diseases that can endanger yourself and even others, for example in snail fever disease or called *schistosomiasis* which is an acute and chronic parasitic disease caused by trematode worms of the genus *Schistosoma* (Wartana, et al, 2023). According to Miyazaki, there are three species of Schistosoma found in humans, namely: *Schistosoma japonicum, S. haematobium S. Mansoni, S. intercalatum, and S. mekongi* (Rosmini, Jastal and Ningsi, 2016).

By 2021, it is estimated that at least 251.4 million people will require treatment. *Schistosomiasis* transmission has been reported in 78 countries. In general, schistosomiasis is found only in tropical and subtropical regions, especially in poor populations that do not have clean and safe drinking water sources and do not have adequate sanitation (WHO, 2023). *Schistosomiasis* can cause years of suffering, reduce work productivity and can end in death (Syam et al., 2018). 200,000 deaths per year are attributed to schistosomiasis in the world (Delaprilyani et al., 2018)

In Africa, South America and Asia, *schistosomiasis* is a major public health problem and requires considerable effort to eradicate completely. The number of schistosomiasis sufferers in the world reaches 200 million, while the population threatened by the disease reaches 600 million (Sudomo in Rosmini, Jastal and Ningsi, 2016). *Schistosomiasis* disease in Indonesia is only found in the Napu, Bada, and Lindu plains and is also found in the Sigi Regency area, Central Sulawesi Province, caused by schistosoma japonicum. This blood trematode can cause infection in humans, snails, and mammals (Wartana, et al 2023). This disease is certainly very dangerous because it can cause death for the sufferer. In humans, the incidence of schistosomiasis ranges from 0.65 to 0.95% on average. Infection rates in livestock and snails show higher rates than in humans, namely 1.22-10.53% and 5.56-40% respectively (Bappenas, 2018).

The incidence of *schistosomiasis* in humans in Central Sulawesi and in 2019 has been below 0.5% not only that, from year to year this disease is very dangerous and if not done properly, it will have a negative impact on human physical health which can spread to various other areas in Central Sulawesi. The main treatment in curing snail fever in humans certainly begins with the administration of drugs. However, the problem that also arises is the irrational use of drugs in several health service centers. This results in wasted costs, irrational use of drugs also increases the risk of side effects. Another effect is in the form of patient dependence on administration which will then widely increase the risk of resistance. Another cause is the inappropriate use of antibiotics in the population. The negative effects of irrational drug use are very diverse and vary depending on the type of irrational use.

This problem can only be experienced by patients (side effects and high costs) or by the wider population (germ resistance to certain antibiotics) and the quality of medical services in general (Tandi, 2018).Epidemiologically, *schistosomiasis* transmission is inseparable from behavioral factors or human habits. In general, schistosomiasis patients are those who have habits that are inseparable from water. Frequent contact with water or entering waters infected with *Schistosoma* parasites causes an increase in *schistosomiasis* patients in the community (Kasnodiharjo, 1994). Community behavior in supporting or preventing disease transmission is strongly influenced by the community's knowledge of the disease. Having good knowledge of a disease will give influence to behave and even take actions that support efforts to prevent transmission of the disease (Notoatmodjo, 1981). In relation to good

knowledge of *schistosomiasis* or snail fever, of course, it starts with the use of good communication, both through direct communication and *online* media.

The process of delivering messages in health-related communication must of course be well designed so that it can provide understanding or knowledge to the community about the adverse effects if infected with *schistosomiasis* disease which can also cause death if not handled properly. Health communication has a very

important role in the prevention of any disease such as *schistosomiasis*, medical personnel must be able to create and compile messages that are easy to understand so that they can be applied properly in the process of maintaining the health of the human body. Health communication includes the utilization of communication services in delivering messages, it is also an activity to disseminate information about health to the public about the importance of maintaining health and implementing a clean and healthy lifestyle (Hindayani, et al, 2022).

The main objective of health communication is to change health behavior in order to improve health status. Health communication is an attempt to positively influence the health behavior of individuals and communities using various communication methods, both interpersonal communication and mass communication. In addition, health communication is also understood as a study of how to use communication messages to disseminate health information that can influence individuals and communities to make the right decisions related to health management (Liliweri, 2009: 46). *The* importance of utilizing health communication in overcoming various diseases such as *schistosomiasis* can certainly have a positive influence on the health of the human body. This is what continues to be encouraged by the government of the Sigi Regency Public Health Office so that people can be free from *schistosomiasis.*

METHOD

This research uses qualitative methods that present data systematically, factually, and accurately about the facts or phenomena observed in the field, (Mahyuni, 2020). The phenomenon related to the endemic *schistosomiasis* disease in Sigi Regency and its prevention through health communication. The research subject is related to the main informants who are directly involved in the social interactions under study such as the extension team of the Sigi Regency Health Office (Hendarsono in Suyanto, 2005). The research was conducted with observation and in-depth interviews (Nasution, 1992). Data analysis is based on the view of Miles and Huberman (1994) that it consists of three streams of activities that occur simultaneously, namely: data reduction, data display, and conclusion drawing/verification.

RESULTS AND DISCUSSION

Schistosomiasis in Indonesia is caused by the trematode worm *schistosoma japonicum* with the intermediate host snail Oncomelania hupensis lindoensis. This disease is only found in Central Sulawesi Province, namely in the Napu Plateau and Bada Plateau, Poso Regency and the Lindu Plateau, Sigi Regency Various control efforts have been carried out for more than 20 years (Erlan, et al., 2020). In order not to be easily infected with these worms or parasites, the community must also be able to protect themselves when working outside the home, especially direct activities with soil and water. Furthermore, another prevention is the effort of health medical personnel to continue to provide socialization to the community regarding the impact of snail fever.

Schistosomiasis is a parasitic disease caused by infection with worms belonging to the genus schistosoma. *Schistosoma japonicum* is considered the most dangerous worm compared to other *schistosomas*. Schistosomiasis is a disease condition that can be acute or chronic, caused by infection with Schistosoma blood flukes of the genus Schistosoma. The disease

is endemic in Sigi Regency, Central Sulawesi Province. Transmission occurs through water containing schistosoma worm larvae (cercariae) and Oncomelania water snails (Handayani, et al, 2024). Symptoms include fever, swollen skin, generalized itching, abdominal distension and others (Tandi, 2018). This disease can affect anyone, especially people living in the Sigi Regency area, such as the community around Lake Lindu. Snail Fever is an endemic disease that is only found in Central Sulawesi, but more serious treatment must be carried out, especially in the form of socialization related to health communication.

Schistosomiasis can cause years of suffering, reduce work productivity and can result in death (Syam et al., 2018). 200,000 deaths per year are attributed to *schistosomiasis* in the world (Delaprilyani et al., 2018). From year to year in the world, many people are found who die because of the snail fever disease they suffer. As a health educator in the field of *schistosomiasis*, certain efforts and strategies must be made. The communication delivered must be able to change the attitudes and behavior

of the people living in Lindu, Sigi Regency Based on 2019 data, the incidence of schistosomiasis in humans in Central Sulawesi (Napu, Bada, Lindu) in 2019 was already below 0.5%. However, the prevalence of schistosomiasis in snails is still high from year to year. In 2019, the prevalence of schistosomiasis in snails was 2.56%. The high number of snail foci that are a source of schistosomiasis transmission and people who still utilize clean water sources from snail foci will increase the prevalence of human transmission. Reducing the incidence rate to < 1% is the target of the *schistosomiasis* disease control program (DHO Central Sulawesi, 2022).

In humans, the incidence of *schistosomiasis* ranges from 0.65 to 0.95% on average. Infection rates in livestock and snails are higher than in humans at 1.22- 10.53% and 5.56-40% respectively (Bappenas, 2018). In the spread of snail fever, humans must of course be careful because it also ranges at 40%. Worms that enter the human body through the skin will not immediately give a reaction, but the parasite grows and develops in a few weeks to produce its eggs which are then discharged by humans through urine and feces. Diseases experienced by humans such as abdominal distension, fever, skin diseases and so on. This certainly requires the role of health communication in providing a good understanding to the community that has a lot of direct contact in the crater area in Lindu, Sigi Regency In addition to communication, of course, the community must also be able to protect themselves when doing activities outside the home or at work.

Socio-culture which includes: environment, knowledge, attitudes, beliefs, and behaviors including local community values and the realization of healthy living behaviors are factors that cause *schistosomiasis* transmission. Community contact with snail focal areas still occurs frequently because it is a place where people carry out daily activities (Syam et al., 2018). Community involvement in *schistosomiasis* prevention programs can lead to increased awareness about disease prevention so as to improve behaviors and habits that can ultimately reduce infections (Anyolitho, et al, 2022).

Schistosoma japonicum worms that enter the human body can be identified through fecal examination by health workers who have been assigned to the Sigi Regency Health Office. The examination process is of course based on established work standards, but as media personnel, good communication is also very much needed in

order to provide understanding to the community to be able to take care of themselves such as body health so as not to be entered by these worms. In a health concept, interpersonal communication can take place so that the resulting feedback occurs immediately and can provide maximum understanding to the recipient of the message (community).

Schistosomiasis is one of the neglected tropical diseases, which is only found in two regencies (Sigi and Poso) of Central Sulawesi Province. Efforts to control this disease have been ongoing for at least the last 35 years, and provide lessons learned that eradication of this

disease must be through a cross-sectoral approach, simultaneously in these endemic locations/villages (Erman, et al, 2020). Schistosomiasis causes *stunting* and anemia in patients infected with snail fever. Schistosomiasis in Indonesia is only found in 28 villages in Poso Regency and Sigi Regency, Central Sulawesi Province. *Schistosomiasis* can adversely affect the economy and public health. This is due to the onset of anemia in patients with this disease, which triggers *stunting* and reduced learning ability, especially in children (Widjaja, et al., 2022).

Schistosomiasis prevention can be done through the health communication process by Sigi Regency medical personnel, especially at the Sigi Health Office, where the process of delivering messages is not only delivered directly such as in people's homes, health institutions or at certain meetings, the Sigi Regency Health Office also uses media to again provide good understanding to the community such as using posters, banners, whatsApp and so on. The messages conveyed and written are not only related to the negative impact of *Schistosomiasis* japonicum on the body but there are also obstacles in obtaining drugs to cure the snail fever disease. So it is hoped that the community will still be able to protect themselves when working outside the home. Health communication aims to tackle snail fever caused by the *schistosoma japonicum* worm. This disease is certainly very dangerous for the body because it can cause death. The message conveyed to the community is not only direct, but still uses media as a tool so that the community continues to remember if one day they read it again. Written messages are the best strategy to make people understand the negative impact that results when the *schistosoma japonicum* worm enters the body through the

skin. Providing understanding to the public is certainly not easy, so a good and easy- to-understand message is needed so that it has a positive impact on daily behavior.

Changing the attitudes and behavior of others in terms of providing understanding related to the negative impact of snail fever disease must of course be conveyed routinely as is done by medical personnel as extension workers in the Lindu Plateau, Sigi Regency The routine message is delivered every month at meetings at the Health Center, Pustu and conducted by *Focus Group Discussions* on local communities and people who are considered to have a good influence such as village heads, community leaders, youth leaders and others. The message is expected to make people in the village to live healthy and protect themselves when working outside the home, especially in water areas as a hotbed of *schistosoma japonicum* worm disease. This is not an easy thing, but it is also not difficult if it is done seriously and there is a community attitude that is able to work well with medical personnel to prevent the spread of snail fever which can make humans not only feel pain in the body but can also die.

Counseling conducted by medical personnel (extension workers) is done in many ways and in different places, such as being done to school children who are taught from an early age related to the dangers of *schistosoma japonicum* worm disease. The message conveyed certainly follows the dialect of the local community so that it can bring closer emotional ties and can make it easier for students to understand the material presented. This form of strategy is part of the awareness of each individual, both medical personnel and the community, to be able to avoid the existence of snail fever. The task of a health promoter is also related to delivering verbal and non-verbal messages related to Clean and Healthy Living Behavior (PHBS) in schools, both elementary and junior high schools. The promotion is to explain the language of the *schistosoma japonicum* worm disease that attacks humans and not only makes body sick but can also be deadly. The explanation delivered by the health promotion team is to use language that is easy to understand and can understand the use of sentences and dialects that are often used by the local community. This is part of an emotional approach that must be applied properly.Teachers and medical teams who are also local residents assisted the health promotion teams in explaining the language of *schistosoma japonicum* worm disease

to elementary and junior high school students and students in Lindu Plain, Sigi Regency. This disease is very dangerous to the body so starting from an early age, children must be able to understand well, of course, delivered in sentences that are easy to understand and can change behavior in order to apply Clean and Healthy Living Behavior related to snail fever disease. In connection with the socialization of the dangers of *schistosoma japonicum* worm disease, *the* Sigi Regency Health Office implements the Sigi Healthy Walking Clinic (KIBAS) program for people in areas where snail fever is present. The program is carried out once a month and goes directly to people's homes *(door to door).* Communicating with residents is of course in a way that is easy to understand, such as using the language used by the local community, of course involving the medical team who lives in Lindu Village. Furthermore, notice boards were also made about snail fever disease at 30 points in the Lindu and Napu areas as the largest headquarters for *schistosoma japonicum* worms. These noticeboards are long-term information that is always seen and read by anyone so that they can take good care of themselves not to get sick from *schistosoma japonicum* worms. Even though they get free medicine, they still continue to strive so that people can avoid snail fever which can be deadly.

CONCLUSION

The conclusion of the research related to health communication in preventing snail fever *(schistosomiasis)* in Sigi Regency shows that to tackle the spread of *schistosoma japonicum* disease, *the* Health Office conducts (a) case tracking and then implements the Klinik Berjalan Sehat Sigi (KIBAS) program at the Mobile Health Center which is carried out once a month where the communication process is *door to door*, (b) disseminating to the community media *leaflets* originating from the Central Sulawesi Provincial government, the message is written in the form of Kaili and Indonesian, (c) socialization is carried out by presenting the extension team and community leaders, communication is also carried out in *Focus Group Discussions (FGDs)* and presenters, (d) medical teams such as extension workers also visit elementary and junior high schools by conveying messages about the dangers of *schistosoma japonicum* but using the local language in the Lindu Plateau, and (e) health promotion is also carried out conventionally in the form of notification boards located at 30 points where *schistosoma japonicum* spreads, and also promotes it through social media such as *Facebook* accounts and the Sigi Regency Public Health Office *website*.

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