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The Relationship Of The Role Of Jumantik Cadre To The Free Larva Rate Through The 1 House 1 Jumantik Movement During The Covid-19 Pandemic In The Work Area Of The Ballaparang Health Center

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Abstract

The role of jumantik cadres is very important in increasing ABJ, one example is the implementation of PSN and outreach in the community. Community involvement in preventing dengue transmission was one of the reasons for the formation of the Jumantik 1 House 1 Movement (G1R1J). Several cities in Indonesia have implemented G1R1J such as Samarinda and Jambi. The purpose of this study was to analyze the relationship between the role of jumantik cadres based on PSN and counseling on increasing the larva free rate through the 1 house 1 jumantik movement during the COVID-19 pandemic in the ballaparang health center working area.This research was conducted in January-October 2021 with villages in cross sectional. The population of this research is the jumantik cadres who are actively serving in the working area of the ballaparang health center, totaling 35 jumantik cadres, while the sample is taken using the Exhaustive Sampling Technique. The instrument used was an online questionnaire in the form of a Google Form and larva free number data using secondary data taken from the puskesmas. Data were analyzed in 3 stages, namely univariate, bivariate and multivariate which were presented in tabular form using SPSS.The results showed that of the 35 respondents studied, there were 21 respondents (60%) of ABJ with an increasing category and 14 respondents (40%). = 0.001) and counseling (p = 0.015) on ABJ, while for multivariate analysis the variable that was significantly related was PSN (Sig = 0.015). It was concluded that the role of jumantik cadres was very helpful in implementing the eradication of DHF such as PSN and counseling which could significantly increase ABJ, and with the presence of G1R1J it could help ABJ 95%, which means that transmission can be prevented or reduced. It is hoped that cadres and to further maximize the implementation of PSN, as well as the implementation of more varied counseling, such as the use of tools to attract public interest in receiving information.

Keyword: ABJ, G1R1J, Jumantik, COVID-19

Introduction

Data obtained from the Health Information Platform for the America's (PLISA) shows that weekly cases of Dengue Hemorrhagic Fever (DHF) during 2020 or during the COVID-19 pandemic were reported at a higher rate than the weekly average of DHF cases during the 2014 period. - 2019, this is due to delays in treatment and mitigation measures as well as vector control interventions from health workers due to the shift in roles from dengue treatment to COVID-19 care during the pandemic.

This disease, which is transmitted by the Aedes Aegypti mosquito, is also a deadly disease. Based on the report from the Ministry of Health, in Indonesia from January 1 to April 27 2020 there were 49,563 cases of dengue fever. The highest numbers were in West Java (6,337 cases), Bali (6,050 cases), East Nusa Tenggara (4,679 cases), Lampung (4,115 cases) and East Java (3,715 cases). In the same period, there were 310 cases of death. The highest cases were in East Nusa Tenggara (48 cases), Central Java (39 cases), West Java (33 cases), East Java (31 cases), and Lampung (17 cases). The number of reported cases of dengue fever may still increase. On April 24, 2020, the number of dengue fever cases was 45,580 cases and on April 27 2020 the number of dengue fever cases was 45,580 cases and on April 27 2020 the number of cases of dengue fever reached 49,563 cases. This means, in just four days there have been an addition of around 3,983 cases or almost a thousand cases every day (Kemenkes, 2020)

The larva-free rate (ABJ) nationally as one of the indicators used for efforts to control DHF until 2018 has not reached the program target of 95%. ABJ in 2018 which was 31.5% decreased compared to 2017 which was 46.7%. ABJ is the expected output of the Jumantik 1 House 1 Movement (G1R1J) (Ministry of Health RI, 2019). In South Sulawesi, the districts that have succeeded in carrying out the Jumantik 1 House 1 Movement (G1R1J) are North Luwu and Pinrang districts. According to information from the sub-directorate of arbovirosis, the indication that districts/cities are implementing G1R1J is the issuance of a Regent's Decree. Actually, almost 75% of the city districts have socialized G1R1J, but it is recognized that there are obstacles, namely the issuance of the Regent's Decree so that it has not been carried out (Dinkes of Sul Sel Province, 2019).

Based on information from the P2PL section of the Makassar City Health Office, that there have been a total of 1100 jumantik cadres spread across the city of Makassar, since 2016. Until now, the 1 house 1 jumantik movement is still at the socialization stage, which is carried out by jumantk cadres by giving stickers to every jumantik. House. The Puskesmas that has implemented the Jumantik 1 House 1 Movement (G1R1J) in Makassar City is the Ballaparang Health Center. Data on the larva-free rate (ABJ) of the ballaparang health center since the implementation of the G1R1J program is in 2016 which is 84.0%, 2017 is 84.0%, 2018 is 83.0%, 2019 is 75.0%. It can be seen that after the G1R1J the larvae-free rate did not increase, it is necessary for further evaluation of this matter (Makassar Health Office, 2019)

The COVID-19 pandemic and dengue hemorrhagic fever (DHF) that occur simultaneously can cause delays in diagnosis and it will have a negative impact on prevention, treatment and disease control interventions that are specific to each of these diseases. The COVID-19 pandemic also has a direct negative effect on the presence of dengue hemorrhagic fever because many cases are not reported due to the lockdown. In fact, many of the interventions that are an important part of an effective dengue

control program, such as residual spraying, control campaigns, source reduction and peridomestic residual spraying, are very much against the COVID-19 prevention and control guidelines (Cavalli.et.al. 2019).

On this basis, the researcher is interested in researching "The Relationship of the Role of Jumantik Cadre to the Larva Free Rate through the 1 House 1 Jumantik Movement during the COVID-19 Pandemic in the Ballaparang Health Center Work Area". The formulation resulted in questions based on the prevention and control of Dengue Hemorrhagic Fever (DHF) based on the Jumantik 1 House 1 Movement (G1R1J) program issued by the Ministry of Health with the aim of strengthening health services through a family approach by prioritizing promotive and preventive efforts, including prevention and control of arbovirus disease.

Methods

The research will be conducted using a quantitative study with an analytical survey method with a cross sectional design. The study was conducted in the working area of the Ballaparang Health Center, Rappocini District, Makassar City, during January-October 2021. The population and sample used were all jumantik cadres who served in the area. The work of the ballaparang health center, totaling 35 respondents, was drawn by exhaustive sampling. The data collection technique was carried out using an online questionnaire created using a google form where there are 2 sub-sections, each sub has about 8-10 question items containing the involvement and active role of jumantik cadres in carrying out the eradication and prevention of DHF in the community as well as secondary data collected taken at the health center. The researcher used 3 stages of data analysis technique, namely univariate, bivariate and multivariate.

Results And Discussion

Univariate Analysis

Table 1. Frequency Distribution of Respondents' Characteristics Based on Age Group, Last Education and Length of Being Jumantik in the COVID-19 Pandemic Period in the Ballaparang Health Center Work Area in 2021

Characteristics of Respondents	n	%
Age Group		
25-30 years	5	14,2
31-36 years	7	20,0
37-42 years	8	22,9
43-48 years old	8	22,9
49-54 years	7	20,0
The Last Education		
SMP	9	25,7
SMA	20	57,1
S1	6	17,2

Long Been Jumantic		
1-5 years	21	60,0
6-10 years	10	28,6
11-15 years	1	2,9
16-20 years	3	8,5

Based on the results of the study, it is shown that the frequency distribution is based on the age group of respondents in the working area of the ballaparang health center, where the largest number of age groups is 37-42 years as many as 8 respondents (22.9%) and age 43-48 years as many as 8 respondents (22.9%). while the minimum age group is 25-30 years as many as 5 respondents (14.2%). For the category of education level, the highest number of respondents was SMA with 20 respondents (57.1%) and the lowest number of respondents was S1 with 6 respondents (17.2%). And for the old category to be jumantik, the largest number of respondents is 1-5 years as many as 21 respondents (60.0%) and the smallest number of respondents is 11-15 years as many as 1 respondent (2.9%).

Table 2. Distribution of Larval Free Figures Before and During the Pandemic in the Work Area of the Ballaparang Health Center in 2021

Flick-Free Numbers (Quarterly)	**ABJ Before pandemic (%)**	**ABJ during a pandemic (%)**
I	81,67	79,33
II	86,00	83,33
III	84,17	78,00
IV	75,55	88,33

Based on the results of the study, it was shown that the ABJ value before the pandemic for the first, second and third quarters decreased during this pandemic, in contrast to the ABJ value in the fourth quarter which increased. Although this value is still <95%, it means that the ABJ value in the working area of the ballaparang health center is still below the specified standard and is at risk for transmission.

Table 3. Distribution of ABJ, PSN, and Counseling during the COVID-19 Pandemic in the Ballaparang Health Center Work Area in 2021

Variable	**N**	**%**
Flick-Free Numbers		
Increase	21	60,0
Not Increasing	14	40,0
Eradication of Mosquito Nests (PSN)		
Good	26	74,3
Less Good	9	25,7
Implementation of Extension		
Good	26	74,3

Less Good	9	25,7

The results showed that from 35 respondents, there were 21 respondents (60.0%) ABJ with increased category and 14 (40.0%). good as many as 26 respondents (74.3%) while PSN DHF with poor category as many as 9 respondents (25.7%). And for the variable of extension implementation, of the 35 respondents in the counseling category with good categories as many as 26 respondents (74.3%), while for the poor counseling category as many as 9 respondents (25.7%).

Bivariate Analysis

Table 4. The Relationship between PSN and Counseling on the Larval Free Rate (ABJ) during the COVID-19 Pandemic in the Ballaparang Health Center Work Area in 2021

Category	Flick-Free Numbers (ABJ)				Total		P Value
	Increase		Not Increasing		n	%	
	n	%	n	%			
Eradication of Mosquito Nests (PSN)							***0,001***
Good	20	57,1	6	17,1	26	74,3	
Less Good	1	2,9	8	22,9	9	25,8	
Implementation of Extension							***0,015***
Good	19	54,3	7	20,0	26	74,3	
Less Good	2	5,7	7	20,0	9	25,8	

From the results of statistical tests using the Fisher Exact Test to see the relationship between PSN and counseling variables, on ABJ during the COVID-19 pandemic, the results obtained for both variables, namely PSN (p value = 0.001) and the implementation of counseling (p value 0.015) < (0.05) which means there is a significant relationship or H0 is rejected.

Multivariate Analysis

Table 5. Results of Logistics Regression Analysis of the Role of Jumantik Cadre on Lartic Free Rates in 2021

Independent Variable	Exp (B)	Itself.	Conclusion
PSN	65,479	0,015	Significant
Extension	9,700	0,182	Insignificant

Based on the results of the multivariate analysis in table 5, it shows that the independent variable that has a significant influence on the larva free number (ABJ) is the Eradication of Mosquito Nests (PSN) (Sig = 0.015 <α (0.05))

The Relationship of Mosquito Nest Eradication (PSN) to Larval Free Rates during the COVID-19 Pandemic

PSN DHF aims to foster community participation in eradicating dengue disease, especially eradicating the mosquito larvae that transmit it, so that the transmission of dengue disease can be prevented. The main target of PSN is for all families to carry out PSN DHF and maintain a clean environment at home and in their respective environments. (Depkes RI, 1995).

The results of this study indicate that there is a significant relationship between Mosquito Nest Eradication (PSN) and ABJ, which can be seen from the results of bivariate and multivariate tests. This research is in line with research conducted by Adnan & Sri (2019), which explains that the role of jumantik in eradicating good mosquito nests has 17 times the opportunity to produce good community behavior than eradicating poor mosquito nests in efforts to prevent dengue. can be seen by the increase in ABJ in the village of East Tebet.

According to Yulian Taviv (2010) the implementation of Mosquito Nest Eradication (PSN) activities is the activity that has the most influence on the presence of mosquito larvae in water reservoirs because they are directly related. If someone practices PSN correctly, the presence of mosquito larvae in water reservoirs can be reduced or even lost. Someone who practices PSN DHF means that he has implemented preventive practices which are aspects of health maintenance behavior and environmental health behavior (Notoatmodjo, 2003).

In addition, research from Liestyana (2019), shows that the role of health workers or jumantik plays a role in 12.9% will be related to the behavior of PSN carried out. This is because the role of cadres acts as a facilitator during counseling and providing information about eradicating mosquito nests to the community. Health workers not only act as facilitators but also provide support and facilities to the community such as cadres making home visits so that families/communities understand and are willing to carry out mosquito nest eradication activities, health workers also act as movers and supervisors in mosquito nest eradication activities.

This is also due to the active role of jumantik cadres in eradicating mosquito nests as a motivating factor for people to behave well in efforts to prevent dengue. Support as well as from health workers can motivate families to eradicate mosquito nests. The higher the support provided by health workers in the form of information, screening, and other preventive measures, the better the behavior of eradicating mosquito nests by respondents will be. This is in line with the research by Listyorini (2016) which explains that the role of officers significantly affects the behavior of eradicating mosquito nests by the community. Because after someone knows the stimulation or health object, then makes an assessment or income on what is known, the next process is expected to carry out or practice what he knows (Rinto, 2020).

The next strategy is to increase the role of health promotion in the form of efforts to increase knowledge and public awareness to carry out the PSN movement through the one house one jumantik movement, involving government and community officials. Currently, the PSN movement in Merangin Regency has increased with the activation of posyandu cadres who act as jumantik cadres. With routine larvae inspection activities carried out accompanied by education to the public, it has shown success with the achievement of ABJ reaching 98.25% (Susianti, 2018)

The Relationship of the Implementation of Counseling to the Larval Free Rate during the COVID-19

Pandemic

Health education is a health education activity by disseminating messages and instilling confidence, so that people are not only aware and understand but also make recommendations related to health. Counseling is also defined as one of the efforts to characterize a person's behavior in preventing dengue fever. Counseling can be done individually or in groups by health workers, health cadres, etc. (Arini & Zaenal (2014)

The results of this study indicate that there is a significant relationship between Mosquito Nest Eradication (PSN) and ABJ, which can be seen from the results of the bivariate test. This is in line with research conducted by Adnan & Sri (2019) which states that there is a relationship between the role of jumantik cadres in DHF counseling and community behavior in efforts to prevent DHF in the Tebet Timur sub-district. Analysis of the relationship between the two variables obtained an OR of 12,000 (95%, Cl: 4,812-29,925), meaning that the jumantik who did the extension activities had 12,000 times the opportunity to produce good community behavior than the jumantik who did not do the counseling, this can be measured by looking at the increase ABJ in the east tebet region.

Changes in community behavior are supported by reinforcing factors which in this study are health education from jumantik. This health education will motivate people to do PSN with 3M plus so they can create a larva-free area (Pohan, 2016). Behavior is the result of the relationship between stimulation or stimulus and response. Behavior is an individual's response to a stimulus, both from outside and from within. The stimulus or stimulus in this study was health education about the prevention and control of dengue fever, both from jumantik officers and from electronic media or other sources of information. Meanwhile, the response to the stimulus is the implementation of larva eradication efforts by improving hygiene by the community so that ABJ will increase beyond the national index (Rahayu, 2017).

Based on the results of the study showed that the frequency distribution based on the length of time being jumantik, the largest number of respondents was 1-5 years as many as 21 respondents (60.0%) and the smallest number of respondents was 11-15 years as many as 1 respondent (2.9%). Knowledge can be influenced by age, environment, experience, education, information/mass media, socio-cultural and economic factors, intelligence. Good knowledge and clear understanding are conducive factors for the growth of participation. The results of previous research by Kusnadi's (2001) research showed a strong correlation between knowledge and work behavior, the higher the knowledge, the higher the performance.

However, this is not in line with the research conducted by Putri (2017) which states that there is no relationship between the role of PSN larva monitoring interpreters (jumantik) and ABJ status in the working area of the Rawa Buntu Health Center in Tangerang City, this is not in accordance with the existing theory, where Counseling is one of the factors that influence a person's behavior. The researcher also assumes that there is no relationship between counseling and ABJ possibly due to other factors such as lack of knowledge of jumantik and the absence of extension media. Based on the results of the study, it was found that out of 10 jumantik who did not carry out counseling there were 6 people (60%) who had low knowledge, lack of knowledge related to dengue prevention resulted in less information conveyed to the community so that it did not change people's behavior to carry out PSN DHF.

In addition, because during this pandemic it is difficult to be able to hold meetings with residents to conduct counseling so that the counseling itself during this pandemic is done by door to door where the cadres provide counseling per family head.

Conclusion

Based on the results of research and discussion regarding the relationship between the role of jumantik cadres on the larva free rate through the 1 house 1 jumantik movement during the COVID-19 pandemic in the working area of the ballaparang health center, it can be concluded that the PSN and counseling variables have a significant relationship to the larva free rate.

Recommendations

Based on the results of the research that has been carried out, it is hoped that the jumantik cadres will continue to maximize activities in the context of eradicating DHF, and the implementation of these activities needs to be maintained. For puskesmas (Community Health Center) officers, they can facilitate training for cadres to increase knowledge related to dengue prevention

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