

# The Relationship of Knowledge, Motivation and Rewards to the 1 House 1 Jumantik (G1R1J) Movement during the Covid-19 Pandemic at the Ballaparang Puskesmas, Makassar City

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**Abstract** - Ballaparang Health Center had an average larvae-free rate (ABJ) of 80.0% in the previous quarter, namely 84.0% in 2016, 84.0% in 2017, decreased by 83.0% in 2018, and experienced a drastic decline of 75.0% in 2019 and 75.0% in 2020. Therefore, a more active role of Jumantik (Flick Monitor) cadres is needed. The 1 House 1 Jumantik movement is one of the efforts to control dengue fever. This study aims to determine the factors related to the role of jumantik cadres in the 1 house 1 jumantik movement during the COVID-19 pandemic at the Ballaparang Health Center Makassar City. This research is a quantitative study using a cross-sectional approach with a total sample of 35 Jumantik cadres. The sampling technique used was total sampling. Methods of data collection using interview and observation techniques. Data were analyzed using Fisher's exact test. The results showed that there was a relationship between knowledge ( $p = 0.003$ ), reward ( $p = 0.016$ ) on the efforts of the 1 House 1 Jumantik Movement, there was no relationship between motivation and the efforts of the 1 House 1 Jumantik Movement ( $p = 0.348$ ). It is suggested that it is necessary to empower jumantik cadres through training, workshops or seminars for jumantik cadres so as to increase the motivation of the cadres.

**Keywords:** - Jumantik, G1R1J, ABJ.

## INTRODUCTION

Dengue Hemorrhagic Fever (DHF) is a disease caused by a viral infection that is transmitted through the bite of *Aedes aegypti* and *Aedes albopictus* mosquitoes that have previously been infected with the dengue virus in DHF patients. Dengue Hemorrhagic Fever (DHF) is one of the infectious diseases with a high enough incidence rate that causes death in the world [1]. This disease is mainly spread by mosquito vectors, which is very detrimental to public welfare and health [2].

Based on the Ministry of Health (2020), during the COVID-19 pandemic, public health efforts will continue to be carried out by paying attention to the priority scale, local governments can add services according to health problems in their area, especially anticipating extraordinary events, such as dengue fever, this is supported by a circular letter from the Director General of Prevention [3]. Disease Control regarding the implementation of dengue control and prevention during the COVID-19 pandemic situation [4].

In an effort to control dengue fever, the government runs the 1 House 1 Jumantik (G1R1J) Movement campaign to increase the larva-free rate (ABJ). The purpose of the Socialization of the One House One Jumantik (Flick Monitor) Movement is to establish independence between the health sector and the community so that G1R1J can be carried out (in one house there is one jumantik cadre) and improve the skills of jumantik in monitoring larvae together with health workers and the community to be protected because an evaluation is carried out on larval monitoring [3]. In the implementation of G1R1J in Makassar City, the G1R1J Target is the percentage of districts/cities that implement G1R1J by 40%, the achievement of the target for the province of South Sulawesi is 12.5%, because the implementation of G1R1J must be proven by the existence of a G1R1J SK signed by the Regent/Mayor, and the districts that have committed to implementing it are North Luwu district, Sidrap district and Maros district (Sul-Sel Provincial Health Office, 2019).

Ballaparang Health Center is the first Puskesmas (Community Health Center) to run G1R1J in Makassar city. However, this program is still in the socialization stage, so that the monthly puskesmas reports are not yet available at the city health office. From the observations of the researcher with the person in charge of the program at the Ballaparang Health Center, although the Ballaparang Health Center is still in the socialization stage, and there are 35 Jumantik members working at the Ballaparang Health Center, this activity is still taking place in the working area of the Puskesmas, although Jumantik cadres have played a very good role in coordinating with community, but the report on the larval free rate (ABJ) of the Ballaparang Health Center in its working area is still less than 95%, which is an average of 80.0% in the work area of the previous quarter.

The role of jumantik cadres in carrying out their duties and responsibilities in the health sector for the prevention of DHF is an important factor. Therefore, researchers are interested in conducting research related to factors related to the role of jumantik cadres in the effort of the 1 house 1 jumantik (G1R1J) movement during the covid-19 pandemic in the work area of the Ballaparang Health Center Makassar City.

## METHODS

This research will be carried out from September to October 2021 in the working area of the Ballaparang Health Center, Rappocini District, Makassar City. This study uses a quantitative research method using an analytic survey method with a cross sectional design. This research was conducted using an observational approach and data collection at the same time. Data were analyzed using Fisher's exact test. The population in this study were all jumantik cadres in the Puskesmas which were the research locations with a total of 35 jumantik cadres, where the cadres were divided based on the working area of the Ballaparang Health Center. The sample in this study was the entire population, namely as many as 35 cadres who were taken using the total sampling technique.

The source of the data used in this study was obtained by conducting interviews using a questionnaire containing questions related to the research variables, namely about Knowledge, Motivation and Rewards and observations using observation sheets on respondents for the Jumantik 1 House 1 Movement effort from each village. The data that has been collected from the results of interviews and observations at the respondent's home will be analyzed descriptively and written in a frequency distribution table and then narrated

## RESULTS AND DISCUSSION

Table 1

Relationship between Knowledge Level and Efforts to Move 1 House 1 Jumantik Ballaparang Health Center, Makassar City in 2021

No.	Knowledge	Movement 1 House 1 Jumantik				Sum		P - value
		Good		Less		(n)	(%)	
		(n)	(%)	(n)	(%)			
1.	Tall	23	65.7	4	11.4	27	77,1	0,003
2.	Low	2	5.7	6	17.1	8	22,9	
<b>Total</b>		<b>25</b>	<b>71.4</b>	<b>10</b>	<b>28.6</b>	<b>35</b>	<b>100</b>	

Source: Primary Data, 2021

Table 1 shows that of the 27 jumantik cadres with a high level of knowledge, there are 23 (65.7%) cadres who carry out the Jumantik 1 House 1 Movement efforts in the good category, and of 8 jumantik cadres with low knowledge levels, there are 6 (17.1%) cadres who make efforts for the Jumantik 1 House 1 Movement are in the poor category. Based on the results of the analysis of the P-value = 0.003 < = 0.05 so that H0 is rejected and Ha is accepted, it shows that there is a relationship between rewards and the efforts of the Jumantik 1 House 1 Movement at the Ballaparang Health Center Makassar City in 2021.

Table 2

Relationship of Motivation to Efforts to Move 1 House 1 Jumantik Ballaparang Health Center Makassar City in 2021

No.	Motivation	Movement 1 House 1 Jumantik				Sum		P - value
		Good		Less		(n)	(%)	
		(n)	(%)	(n)	(%)			
1.	Big	16	45.7	5	14,3	21	60.0	0,348
2.	Small	9	25.7	5	14,3	14	40.0	
<b>Total</b>		<b>25</b>	<b>71.4</b>	<b>10</b>	<b>28.6</b>	<b>35</b>	<b>100</b>	

Source: Primary Data, 2021

Table 2 shows that of the 21 jumantik cadres with high motivation, there were 16 (45.7%) cadres who carried out the Jumantik 1 House 1 Movement efforts in the good category, and of the 14 jumantik cadres with low motivation, there were 9 (25.7%) cadres. those who make efforts for the Jumantik 1 House 1 Movement are in good category. Based on the results of the analysis of the P-value = 0.348 > = 0.05 so Ha is rejected and H0 is accepted, indicating that there is no relationship between motivation and the efforts of the Jumantik 1 House 1 Movement at the Ballaparang Health Center Makassar City in 2021.

**Table 3**

**The Relationship of Rewards to the Efforts of the 1 House 1 Jumantik Community Health Center in Ballaparang Makassar City in 2021**

No.	Rewards	Movement 1 House 1 Jumantik				Sum		P - value
		Good		Less		(n)	(%)	
		(n)	(%)	(n)	(%)			
1.	Enough	21	65.7	4	11.4	27	77,1	0,016
2.	Less	4	5.7	6	17.1	8	22,9	
<b>Total</b>		<b>25</b>	<b>71.4</b>	<b>10</b>	<b>28,6</b>	<b>35</b>	<b>100</b>	

Source: Primary Data, 2021

Table 3 shows that of the 27 jumantik cadres with the perception of sufficient rewards, there are 21 (65.7%) cadres who carry out the 1 House 1 Jumantik Movement efforts in the good category, and of the 8 jumantik cadres with the perception of insufficient rewards, there are 6 (17.1%) cadres who make efforts for the Jumantik 1 House 1 Movement are in the poor category.

Based on the results of the analysis of the P-value = 0.016 < 0.05 so that H0 is rejected and Ha is accepted, it shows that there is a relationship between rewards and the efforts of the Jumantik 1 House 1 Movement at the Ballaparang Health Center Makassar City in 2021

Increased knowledge of health will determine a person to behave well in maintaining health and preventing disease. Efforts that might be made to increase knowledge are health promotion in the form of social sports, among others by disseminating health information to Jumantik cadres or the public. The knowledge of Jumantik cadres about the concept of dengue disease and its prevention efforts will foster positive knowledge in the implementation of the program for eradicating and overcoming dengue cases [5]. In fact, based on field findings that health workers or related agencies have never provided training to the jumantik cadres of the Ballaparang Health Center, the information or knowledge they have comes from their own efforts by searching for material sources via the internet and other references.

From the analysis of research data, it shows that the formation of respondents' motivation for their performance as jumantik cadres of the Ballaparang Health Center which aims to suppress cases of dengue hemorrhagic fever still needs to be improved because there are still respondents who have a low level of motivation. Efforts can be made to increase the motivation of jumantik cadres, one of which is by increasing the empowerment of health workers to provide an understanding of the importance of preventing and overcoming cases of dengue hemorrhagic fever to jumantik cadres. A positive attitude will produce great motivation in preventing and overcoming cases of dengue hemorrhagic fever [6].

Positive motivation can also be realized through the efforts of health workers to instill confidence in Jumantik cadres in the implementation of prevention and control of dengue hemorrhagic fever cases, such as telling Jumantik cadres to report any symptoms that lead to cases of dengue hemorrhagic fever, encouraging Jumantik cadres to invites the surrounding community to keep the environment clean from the nesting places of the Aedes aegypti mosquito, which is something that really needs to be done [7].

Jumantik cadres are people who are recruited from the surrounding environment who gain trust in efforts to eradicate mosquito nests. In L.Green's theory, incentives are a factor driving the behavior of jumantik cadres in carrying out their duties and responsibilities. In order for Jumantik to work and function as expected, operational cost support is needed. This financial support can come from several sources such as the Regency/City APBD, Health Operational Assistance (BOK), village fund allocations, and other budget sources [8]. Providing an imbalance can provide their own motivation and attractiveness to keep them enthusiastic in working to produce optimal performance by [9]. From the analysis of research data, it is shown that presenting an imbalance to Jumantik cadres can improve the performance of Jumantik cadres in carrying out their duties. Where satisfaction with the imbalance of the performance of the jumantik cadres of the Ballaparang Health Center Makassar City is closely related to the attitude of the jumantik cadres. This is supported by research conducted by [8] which states that there is a significant relationship between the imbalance (p-value 0.050) on the performance of jumantik cadres.

The COVID-19 pandemic is also directly negatively related to the presence of dengue hemorrhagic fever, because many cases are not reported due to the lockdown [10]. Difficulties in the movement to report cases even for medical reasons, as well as public concerns over the risk of COVID-19 infection in health services and the closure of various clinics which will affect access to reporting new dengue cases. The COVID-19 pandemic is also related to dengue vector control, where after the implementation of

the lockdown, the intervention area for vector disease control was reduced in all areas and the spraying of preventive insecticide residues was limited, especially in private spaces [11].

## CONCLUSION

Based on the results of the study, the researchers concluded that there was a relationship between knowledge and rewards for the efforts of the 1 House 1 Jumantik Movement, while motivation had no relationship with the efforts of the 1 House 1 Jumantik Movement, during the COVID-19 Pandemic in the work area of the Ballaparang Health Center Makassar City. It is suggested that it is necessary to empower jumantik cadres through training, workshops or seminars for jumantik cadres so as to increase the motivation of the cadres.

## REFERENCES

- [1] Sanyaolu, A., Okorie, C., Badaru, O., Adetona, K., Ahmed, M., Akanbi, O., ... & Raza, S. "Global epidemiology of dengue hemorrhagic fever: an update". *J Hum Virol Retrovirol*, 5(6), 00179. 2017
- [2] Boekoesoe, L. "Dengue Hemorrhagic Fever Threat". *Himalayan Ocean Publisher-Gorontalo State University*. 2015
- [3] Indonesian Ministry of Health. Indonesian Ministry of Health. 2021. Accessed on June 30, 2021 <https://www.kemkes.go.id/article/view/20070900004/to-juli-case-dbd-di-indonesia-reach-71-ribu.html>
- [4] Wilder-Smith, A., Chiew, C. J., & Lee, V. J. Can we contain the COVID-19 outbreak with the same measures as for SARS?. *The lancet infectious diseases*, 20(5), 2020. e102-e107.
- [5] Notoatmodjo, S. "Health Research Methodology". 2010. Jakarta : Rineka Cipta
- [6] Marha, D. A., Fatah, M. Z., & Winarko, W. The Role of Health Workers and Community Leaders to Prevent Dengue Hemorrhagic Fever in Magetan, East Java. *Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education*, 8(2), 172-181. 2020
- [7] Ningsih, A., & Isnaini, N. Pengaruh Edukasi Penanganan Awal Hipotermia Dengan Booklet Terhadap Tingkat Pengetahuan Pada Pendaki Gunung Prau. *Jurnal Keperawatan Muhammadiyah*. 2020
- [8] Chotimah, I., Winda, M., Abdul, M. Factors Affecting the Performance of Jumantik Cadres in the Eradication of DHF at the Kedung Badak Health Center, Bogor City in 2019. *Journal of Public Health Students*, Vol. 3 No. 6, December 2020. <http://ejournal.uika-bogor.ac.id/index.php/PROMOTOR>. Accessed on November 12, 2021
- [9] Karyus Aila. "Factors Related to Jumantik Cadre Performance in the Work Area of the All Mider Health Center, Central Lampung. *Indonesian Journal of Health Sciences*vol 1(1). 2020.
- [10] de Souza Conceição, G. M., Barbosa, G. L., Lorenz, C., Bocewicz, A. C. D., Santana, L. M. R., de Azevedo Marques, C. C., & Chiaravalloti-Neto, F. "Effect of social isolation in dengue cases in the state of Sao Paulo, Brazil: an analysis during the COVID-19 pandemic". *Travel medicine and infectious disease*, 44, 102149. 2021
- [11] Pangestika, T. L. "Factors Affecting Jumantik Behavior in Dengue Hemorrhagic Fever Early Alert System in Sendangmulyo Village". *Journal of Public Health*. (5) 1113-1122. 2017. <http://ejournal3.undip.ac.id/index.php/jkm>