

Best Practices: Collaboration to Prevent The Transmission Covid-19 in Jambangan Spesial Region Yogyakarta

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ABSTRACT

There were 8 effective efforts to prevent the spread of the Covid-19: 1) activating the performance of the hamlet andvillage task force; 2) tracing the Covid-19 transmission with a rapid test and continued with PCR Swab for those who are reactive;3) self-isolation for citizens who were confirmed positive; 4) spraying disinfectant in the houses of citizens who were confirmed positive; 5) the application of the behaviors of wearing masks, washing hands, maintaining distance, avoiding crowds, and increasing body immunity; 6) support of local citizens to meet the needs of citizens who must self-isolation; 7) put up banners to prevent the transmission of the Covid-19 at every entrance to the hamlet; 8) installation of hand washing facilities in most of the citizens' houses, in public places, and at each hamlet entrance.

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1. Introduction

Corona viruses 2019 (Covid-19) are part of a family of viruses that cause illnesses ranging from the flu to more serious illnesses such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). This virus is a new type that was discovered in 2019 in Wuhan China and has never been identified as attacking humans before and is spreading rapidly throughout the world [1]. The World Health Organization has declared it a Public Health Emergency of International Concern [2].

In Indonesia, Covid-19 was first entered in March 2020. And based on data from the National Covid-19 Task Force until October 8, 2020 there were 315,714 people who had this Covid-19 confirmed PCR Swab. Meanwhile, the Special Region of Yogyakarta on October 8, 2020, as many as 2853 people tested positive for Covid-19. On October 8, 2020, in Sleman Regency there were 1,294 people who tested positive for Covid-19.

In Jambangan, Purwobinangun Pakem, Sleman, Yogyakarta, is divided into 4 neighbourhood with 167 families and 647 people. On September 8, 2020, one person aged 81 years old tested positive for Covid-19 and on September 11 died in hospital. After that, tracing was immediately carried out and with the PCR Swab examination, 3 people were confirmed positive, namely their wife and two children who had close contact. However, with the joint prevention efforts, there were no additional new cases until December 2020. In early January 2021, there were new cases confirmed positive for Covid-19, namely 2 health workers who were obtained from the hospital where they worked. These two cases also stopped without any additional new cases until February 2021.

Based on the findings and phenomena that occurred in Jambangan, researchers are interested in conducting more in-depth interview and observations to obtain information on collaboration and best practices for prevention of Covid-19 transmission carried out by the local government, Puskesmas, Covid-19 Task Force, and citizens of Jambangan so that the transmission chain is successful broke up without adding any new cases.

2. Materials and Methods

The design used in this study is a qualitative approach to find out a more in-depth interview and observations of the various efforts and behaviors to prevent Covid-19 transmission in Jambangan.

The population in this study were 647 citizens of Jambangan. The research sample is those who understand the situations and conditions directly and actually as many as 8 informants until they reach saturation. The snow-ball sampling technique was carried out and saturated starting

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from 2 people who were confirmed positive for Covid-19, followed by 2 people in the nuclear family with close contact; 1 head of neighbourhood, 2 local citizens; and 1 health worker from the Puskesmas.

Interviews and observations were conducted from January 10 to January 18, 2021 after obtaining permission and approval for the ethical review as well as written approval from the informant. In this case, informants are given the freedom to choose to participate in this research without coercion and are free to resign / change their mind at any time without any fines or sanctions.

The research instrument was a structured interview and observation guide developed by the researcher, starting from general open-ended questions to more specific matters. The focus of questions and observations is on the response of the local government and Puskesmas to collaborate with residents in activating the work of the Covid-19 Task Force, tracing that must be carried out, interventions for citizens who are confirmed positive, interventions with all citizens and efforts that must be carried out independently by all citizens to prevent transmission,

The results of in-depth interviews and observations were then transcribed and sent back to the informants to get the real perceptions and substance the informants wanted to convey (triangulation of qualitative content).

Study analysis was carried out by analyzing transcript models, categorization, grouping data with tables for data synthesis, into sub-themes and themes manually.

3. Results

The results of data analysis were obtained through in-depth interviews and observations and will be presented qualitatively through the following table:

Table 1

Identity of Covid-19 Transmission Prevention Informants In Jamblangan			
No. Informans	Status	Age (Years old)	Relationship with Mr. T
1	OTG (Confirmed positive for Covid-19 without symptoms)	39	Daughter
2	Close contact	40	Son-in-law
3	Close contact	15	Grandchild
4	OTG (Confirmed positive for Covid-19 without symptoms)	49	Daughter
5	Head of the neighborhood	51	Head of the neighborhood
6	Jamblangan citizen	57	Neighbors
7	Jamblangan citizen	44	Neighbors
8	Puskesmas officer	49	Puskesmas officer

Analysis: Based on the data in table 1, it appears that the sources of information obtained are varied and can complement each other from those who really understand the actual situation and conditions of Jamblangan. Information sources are also considered to represent all citizens in providing the information needed by researchers.

Table 2

Data Analysis and Themes Recapitulation of the Eight Informants		
Synthesis of data and data sources.	Sub Themes	Themes
The involvement of all elements of the citizens of Jamblangan in efforts to prevent the transmission of Covid-19 (6)	Collaboration and empowerment of local village governments, hamlets, Puskesmas, RT, and Jamblangan	The performance of the Covid-19 Task Force in Jamblangan
The spirit of mutual cooperation in providing assistance to residents infected with Covid-19 (6)	citizens to prevent Covid-19 transmission by forming a Task Force	
Discontinuation of activities that involve large numbers of people or avoid crowds (5,6,7)	Covid-19	
Appeals to hamlet citizens to prevent Covid-19 transmission by limiting gathering events (5)		
Socializing the of 3M (5) : wearing a mask, washing hands, keeping a distance		
The commitment of the Hamlet Task Force in preventing Covid-19 transmission by always wearing a mask and washing hands (7)		
Collaboration between the village task force and the hamlet task force in spraying the recommended		

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Synthesis of data and data sources.	Sub Themes	Themes
<p>disinfectant (8) When the results of Bp. ST was positive, so tracing was performed on about 34 people due to close contact. There were 5 people who had PCR swabs and three people tested positive without symptoms. Continue to be quarantined. Then ditracing the children and grandchildren again but nothing was positive. Independent isolation for those with confirmed Covid-19 (1,2,3, 4)</p>	<p>Tracing activities with Rapid tests, for those who are reactive, a PCR Swab</p>	<p>Contact Tracing</p>
<p>Efforts to maintain environmental cleanliness in mutual cooperation: spraying disinfectants in people's homes, especially those positive for Covid-19 (1,2, 3, 4, 5,6,7,) and places of worship (5)</p>	<p>Prevention of transmission from people with positive Covid-19 and surrounding citizens</p>	<p>Self-isolation</p>
<p>Prevention of Covid-19 transmission with 3 M (wearing a cloth or medical mask once a day, washing hands with soap, maintaining a minimum distance of 1 meter) even at home (1,2,3,4) Avoiding and stopping activities that involve large numbers of people or avoiding crowds (1,2,3,5,6,7) reduce direct interaction with others (3, 4) Efforts to increase immunity by praying more (1)</p>	<p>Good environmental cleanliness inside and outside the house.</p> <p>Prevention of Covid-19 transmission with 3 M (Wearing a mask, washing hands, and keeping your distance)</p> <p>Avoiding or limiting crowds</p> <p>Increasing the body's immunity when quarantine by take vitamins, drink honey, and ginger, exercising, sunbathing in the morning, praying a lot, and reducing anxiety / stress management</p>	<p>Spraying disinfectant in people's house's</p> <p>Behaviours : 5 M</p>
<p>Efforts to increase body immunity in the family by taking vitamins, honey and sunbathing in the morning (2, 3,4,7), takes ginger (4), exercise (4), looking for busyness (4), consumption of vegetables, fruit (7) Trying to be strong despite losing parents and being infected with Covid-19 (1) Efforts to reduce anxiety and stress by listening to music, doing activities and praying, entertaining oneself, (1) playing with family (2) Maintain communication with family even in isolation so as not to be lonely (1) Responds both to the hamlet and the Puskesmas towards residents who are independently isolated, do not isolate themselves (1,2,3, 4, 5, Assistance with basic necessities and cooked food for families undergoing self-isolation (1,2,3,4, 5,7) Psychological support for citizens infected with Covid-19 by paying attention and always asking about conditions (7) Appeals from the Jamblangan Covid-19 Task Force to encourage Covid-19 patients and their families by telephone and WA (7) Good support from Puskesmas with education on prevention of Covid-19 transmission and assistance to Family Welfare Development (PKK)partisipans (8) Assistance to citizens of Jamblangan infected with Covid-29 from the Puskesmas by providing information and attention (8) Appeals to citizens with the installation of media banners / banners on preventing the transmission of Covid-19 (7) at every exit and entry of the Dusun. Installation of hand washing facilities in public places in Jamblangan (5,6,7) Providing hand washing facilities in most citizens' houses and in public places as well as at each hamlet entrance (5, 6)</p>	<p>Support from both the Puskesmas and the hamlet</p> <p>Responds both to the hamlet and the Puskesmas towards residents who are independently isolated, do not isolate themselves (1,2,3, 4, 5, Support from both the Puskesmas and the Hamlet</p> <p>Appeal and education to prevent the spread of Covid-19.</p> <p>Provision of hand washing facilities for citizens and guests.</p>	<p>Support system : from environment</p> <p>Pict up of banners to prevent Covid-19 transmission Installation of hand washing facilities</p>

Note: (1,2,3,4,5,6,7,8) is a code sequence for informants or sources of information

Analysis: There were 8 attempts or behaviors that were considered the key to the success of preventing Covid-19 transmission in Jamblangan Hamlet when it was found that 4 residents were confirmed positive for Covid-19 through the PCR Swab examination. As shown in the theme in table 2.

3.1 Discussion

The discussion based on the predetermined themes is as follows :

a. The Covid-19 Task Force

Based on the Circular of Ministry of Home Affairs of the Republic of Indonesia, Number 440/5184/SJ concerning the Formation of a Task Force for Handling Corona Virus Disease 2019 (Covid-19) and the results of in-depth interviews it was found that in Jamblangan the Task Force was formed in early October 2020 [3].

The Covid-19 Handling Task Force at neighbourhood/Hamlet/Village Level has the task of carrying out and controlling implementation, solving problems, supervising strategic policies related to handling COVID-19 in the regions so that plans and commands carried out nationally can be implemented at the regional level and then the results are reported back to the center, namely the National Disaster Management Agency (BNPB) [3].

The performance of the Covid 19 Task Force that is felt most directly by Jamblangan residents is the Communication, Information and Education (KIE) Sector, the Social Welfare Sector, the Law Enforcement and Disciplinary Sector. Thus, it appears that the Covid-19 Task Force in Jamblangan has worked well and effectively.

b. Contact Tracing

Contact tracing is the process of identifying, assessing and managing people who are in close contact with a confirmed / probable case to prevent further transmission. This activity is important because confirmation cases can transmit the disease from 2 days before to 14 days after the onset of symptoms. The Contact Tracing protocol carried out by Puskesmas officers in Jamblangan complies with the guidelines prepared by the Ministry of Health of the Republic of Indonesia in 2020 [4].

c. Self-Isolation

Guidelines for Community Empowerment in Prevention of Covid-19 in neighborhood / Hamlet / Village requires that citizens with the status of People without Symptoms (OTG) are determined by the Puskesmas in terms of these were informants 1 and 4 who had to be self-isolated, one remained at home and one person in in the Hajj hostel with wife of Mr. ST who died due to being infected with Covid-19 [5].

Self-isolation measures aim to keep those who become OTGs (Confirmed positive for Covid-19 without symptoms) from coming in contact with other people in order to break the chain of transmission. In addition, they must also apply Clean and Healthy Living Behavior (PHBS), maintain physical distance, apply cough etiquette, wear masks, wear separate eating and bathing utensils from other people including family members, and fill out a self-isolation / quarantine readiness sheet.

d. Spraying Disinfectant

Disinfectants are chemicals that are used to inhibit or kill microorganisms (for example, bacteria, viruses and fungi, except for bacterial spores) on the surface of inanimate objects, such as furniture, rooms, floors, etc. Disinfectants are not used on the skin or mucous membranes, because they risk irritating the skin and have the potential to trigger cancer. This is different from antiseptics which are intended for disinfection of the skin surface and mucous membranes [6].

Disinfectants can be used to clean the surface of objects by wiping the disinfectant solution on the contaminated part, for example on floors, walls, table surfaces, door leaves, electric switches etc. The use of disinfectants with spray or fogging techniques has been used to control the amount of antimicrobials and viruses in high-risk rooms. This process will prevent the transmission of pathogenic microorganisms from the surface of the object to humans. The informant provided information that the disinfectant used for spraying the environment outside and inside the house was a type of chlorine [7].

Chlorine group materials (for example chlorine dioxide, sodium hypochlorite, hypochlorous acid) can kill viruses by entering through the walls of the virus and will damage the inside of the virus. Chlorine is a volatile liquid / material, so it has the risk of interfering with breathing

when inhaled and causing shortness of breath to irritation of the lungs, according to the amount of chlorine inhaled [7].

e. Implementation of Transmission Prevention Behavior with 5M

The principle of transmission of Covid-19 is by droplets or through fluids that come out of an infected person¹⁾. The spread is very fast because if our hands touch an object exposed to this virus and then hold the nose, mouth or eyes, it will be infected. Prevention efforts include avoiding or keeping a distance from crowds of people, washing hands with running water and soap or disinfectant before and after handling or handling objects [8].

Guidelines for Community Empowerment in Prevention of Covid-19 recommends prevention methods by deciding on Covid-19 transmission at the individual level in the same way [5].

Based on the guidelines published by the Ministry of Health of the Republic of Indonesia, increasing personal immunity is also needed by consuming balanced nutrition; do physical activity / light exercise; bask in the morning for 15 minutes; adequate rest; not smoking, take vitamin supplements; controlling comorbidities such as diabetes mellitus, hypertension, asthma; and remain calm in responding to information and situations. In general, the guidelines for community empowerment in preventing transmission in Jamblangan have been carried out well at the individual citizen level [5].

Traditional ginger and honey drinks are done to increase body immunity. Ginger contains gingerol and is strong enough to overcome disease. Ginger also contains magnesium, vitamin C, vitamin B6, phosphorus, copper, iron, calcium and zinc in small amounts to help boost immunity [9]. Ginger is also effective in curing various diseases such as diarrhea, coughing, and entering angina. Ginger (*Zingiber officinale*) contains antioxidants, namely non-volatile phenol active compounds such as gingerol, zingeron, and shogaol [10]. Honey contains carbohydrates, protein, fat, vitamins and minerals Cu, Zn, and antioxidants Fe, flavonoids and carotenoids [11] which are very beneficial for health and immunity.

f. Support System from The Environment

A support system from the community or the environment is needed so that efforts and behavior to prevent Covid-19 transmission can be carried out optimally through deliberations to reach consensus among residents and in coordination with the Puskesmas. Support from the environment that is felt, and provided in the form of meeting basic daily needs and psychological support is in accordance with the Guidelines for Community Empowerment in Prevention of Covid-19 in neighbourhood/Hamlet/Village ⁶⁾.

g. Installation of Banner on Prevention of Transmission and Installation of Hand Washing Facilities

This activity is a tangible manifestation of Jamblangan residents' awareness of the performance of the Communication, Information and Education sector to facilitate efforts to prevent Covid-19 transmission based on Guidelines for Community Empowerment in Prevention of Covid-19 in neighbourhood/Hamlet/Village ⁶⁾.

4. Conclusion

Collaboration on the prevention of Covid-19 transmission in Jamblangan between the local village government, Puskesmas, the Covid-19 Task Force, dan citizens from Jamblangan has been successfully managed to break the chain of Covid-19 transmission with:

- a. the Covid-19 Task Force;
- b. contac tracing ;
- c. self-isolation for those who are positively infected;
- d. spraying disinfectant in the houses environment;
- e. application of 5 M (wearing masks, washing hands, avoiding crowds, and increasing individual immunity of each citizens;
- f. support the positive system from the environment;
- g. pict up of Covid-19 prevention banners;
- h. installation of hand washing facilities in most citizens' houses, in public places, at every entrance to the hamlet.

Based on the results of this study, it is suggested that this best practice can serve as an example for other hamlets in order to break the chain of transmission of Covid-19. Best practice

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studies are also needed in other hamlets on the implementation of community empowerment guidelines published by the Ministry of Health of the Republic of Indonesia.

5. Reference

- [1] Anon. WHO & UNICEF. Water, Sanitation, Hygiene and Waste management for the Covid-19 virus.2020.
- [2] Cheng, V., Wong, S. C., & Chen, J. Escalating infection control response to the rapidly evolving epidemiology of Covid-19 due to SARS-CoV-2 in Hongkong. *Infection Control and Hospital Epidemiology*. 2020.
- [3] Anon. Surat Edaran Menteri Dalam Negeri RI, Nomor 440/5184/SJ Tentang Pembentukan Satuan Tugas Penanganan Corona Virus Disease 2019(Covid-19)
- [4] Anon. Panduan Singkat Pelacakan Kontak (Contact Tracing) untuk Kasus COVID-19, Kementerian Kesehatan RI Direktorat Jenderal Pencegahan dan Pengendalian Penyakit Tahun 2020).
- [5] Anon. Pedoman Pemberdayaan Masyarakat Dalam Pencegahan Covid-19 di RT/RW/Desa (Kementerian Kesehatan RI, Direktorat Jenderal Kesehatan Masyarakat Direktorat Promosi Kesehatan dan Pemberdayaan Masyarakat, Tahun 2020.
- [6] Anon. CDC's Cleaning and Disinfection Recommendations for COVID-19, <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
- [7] Rutala, W A., Weber, D J. and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 Update: May 2019.<https://www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/chemical.html>. 2019.
- [8] Singhal, T. A review of Covid-19. *The Indian journal of Pediatrics*.2020
- [9] Sunaryo, D. 2020. Optimalisasi Pendapatan Masyarakat dalam Pembuatan Bandrek jahe susu sebagai Peningkatan Imunitas di saat Pandemi Covid-19 di desa Sukaratu Kecamatan Cikeusal. *Jurnal Pengabdian Masyarakat*.
- [10] Wulandari, Niken. Kajian Aktivitas Antioksidan Ekstrak Jahe pada Es Krim. Thesis. Universitas Muhammadiyah Malang. 2018.
- [11] Mardhiati,at al. The Characteristic and Nutrient Content of Five Honey Samples Dispersed in Supermarket, *Gizi Indon* 2020, 43(1):49-56, *GIZI INDONESIA Journal of The Indonesian Nutrition Association* p-ISSN: 0436-0265 e-ISSN: 2528-5874. 2020.