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# ANALYSIS OF CLEAN AND HEALTHY LIVING BEHAVIOR IN ELEMENTARY SCHOOLS IN PALEMBANG

# Memo Harry Sandra,1\* Maksuk,2 Ferly Oktriyedi 3

- <sup>1</sup> Postgraduate Program of Public Health, Kaderbangsa University, South Sumatra, Indonesia
- <sup>2</sup> Environmental Health Department, Health Polytechnic of Palembang, South Sumatra, Indonesia
- <sup>3</sup> Anak Bangsa University, Bangka Belitung Island, Indonesia Correspondence author: memoharrysandra123@gmail.com

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## **ABSTRACT**

**Background:** Clean and healthy living behaviors remain a problem, especially among elementary school children. This study aims to analyze clean and healthy living behaviors among elementary school children. Methods: This research is an analytical observational study with a cross-sectional design. Data were collected using a questionnaire through student interviews. Then, they were analyzed univariately, bivariately using the chi-square test, and multivariately using multiple logistic regression. Results: The research results showed that knowledge, facilities and infrastructure, information exposure, and the role of teachers and staff were satisfactory, but the majority of attitudes remained negative. All of these variables were significantly correlated, with two variables being the most dominant in determining clean and healthy living behavior; knowledge and facilities and infrastructure. Conclusion: Clean and healthy living behavior is significantly related to knowledge, attitudes, facilities and infrastructure, exposure to information, the role of teachers, and the role of officers.

Corresponding Author: Memo Harry Sandra, memoharrysandra123@gmail.com Postgraduate Program of Public Health, Kaderbangsa University, South Sumatra, Indonesia Copyright © 2025, Perhimpunan Ahli Epidemiologi Indonesia

#### INTRODUCTION

Clean and Healthy Living Behavior (CHLB) is one of the main pillars of a Healthy Indonesia, designed to reduce the burden on the state and society of healthcare costs. A healthy state can be achieved by changing unhealthy behaviors to healthy ones and creating a healthy environment. Therefore, health needs to be maintained, nurtured, and improved by every member of the household and championed by all parties (Nurmahmudah, Puspitasari, and Agustin 2018). School-age children are a critical age group because they are vulnerable to health problems. School-age children are also vulnerable to health problems, as they are highly sensitive to stimuli, making them easily guided, directed, and instilled with good habits, including clean and healthy living habits. The emergence of various diseases that frequently affect school-age children (ages 6-12) is generally related to Clean and Healthy Living Behaviors (CHLB) (Rusdi et al. 2021).

Clean and healthy living behavior is grouped into 5 levels, namely CHLB at school, CHLB at home, CHLB at health institutions, CHLB at work, and CHLB in public places. Of the five clean and healthy living behaviors, clean and healthy living behavior in schools is the first step in improving and creating a healthy and quality level of health. (Nugraheni and Indarjo 2018). Based on 2013 Ministry of Health data, only 22.5% of schools have implemented CHLB, compared to the national target of 70% for educational institutions. The prevalence of CHLB in schools in South Sumatra in 2016 was 35.2%. CHLB in the school setting is a set of behaviors practiced and implemented by students, teachers, and the school community (Aminah, Huliatunisa, and Magdalena 2021). A healthy school is a school that can maintain its environment to improve the health of students, teachers, and the wider school community, including those surrounding the school. (Ayu et al. 2018). Through CHLB, it is hoped that students can develop healthy lifestyles by maintaining, preserving, and improving their health levels, thereby solving problems independently. (Rusdi et al. 2021).

CHLB can prevent disease and protect against the threat of disease. Poor CHLB can lead to illnesses such as diarrhea, gastroenteritis, dysentery, typhoid, and dengue fever. The incidence of diarrhea in South Sumatra remains quite high, at 223,209 cases. This number decreased by 26% from 2013 to 2016, but increased by 10% from 2016 to 2017. According to the 2020 School Sanitation Profile, in South Sumatra province, basic access to water facilities at the elementary school level was 79.12%. Access to basic sanitation facilities at the elementary school level was 44.76%. Access to basic hygiene facilities at the elementary school level was 52.57% (Hakim et al. 2020). Several factors hindering school residents, especially students, from practicing clean and healthy behaviors include the lack of a canteen and the lack of teachers trained in the school health unit (UKS). The existence of CHLB in the school area must be supported by individual self-awareness. (Ismaya, Nurfatiah, and Triyani 2022). In carrying out CHLB activities at school, facilities and infrastructure are very necessary, such as a place to wash hands using water and soap, separate trash bins for dry and wet waste, a clean and healthy canteen, and so on.

CHLB activities in schools can start with simple things, such as washing hands with soap. By making it a habit to wash hands with running water and soap after defecating, before eating, and before preparing food, this behavior can be beneficial for improving health outcomes. (Ismaya et al. 2022). Based on the above explanation, researchers have conducted a preliminary study related to clean and healthy living behaviors in elementary schools. Some students still do not practice clean and healthy living behaviors, such as not washing their hands before eating, disposing of trash in the wrong place, and a lack of information related to clean and healthy living behaviors. Therefore, researchers are interested in conducting a study entitled Analysis of Clean and Healthy Living Behaviors in Elementary Schools. This research contributes to analyzing PHBS indicators in schools that are already known and implemented properly and correctly.

### **METHODS**

This study was an observational analytic study with a cross-sectional design. This study was conducted from July to August 2023 at State Elementary School 79 and Madrasah Ibtidaiyah Azharyah Palembang. The population was 6th-grade students, with a sample size of 136 students calculated using purposive sampling. Data were collected using questionnaires and interviews with students to gather variables related to clean and healthy living behaviors. Furthermore, the data were analyzed univariately, bivariately using the chi-square test, and multivariately using multiple logistic regression with the backward method.

### **RESULTS**

The results of data processing and analysis are presented in the table below:

Table 1. Frequency Distribution of Clean and Healthy Living Behavior (CHLB), Predisposing Factors, and Enabling Factors

Variables	n	Percentage (%)
CHLB		
- Good	112	82.4
- Not Good	24	17.6
Knowledge		
- Good	115	84.6
- Not Good	21	15.4
Attitude		
- Positive	13	90.4
- Negative	123	9.6
Facilities and infrastructure		
<ul> <li>Adequate</li> </ul>	119	87.5
- Inadequate	17	12.5
Exposure to Information Media		
- Yes	119	87.5
- No	17	12.5
The Role of Teachers		
- Good	122	89.7
- Not Good	14	10.3
Role of Officers		
- Good	114	83.8
- Not Good	22	16.2

Based on Table 1, it is explained that Clean and Healthy Living Behavior in elementary school students, both public and private, is good, and a small portion of knowledge is still poor, with facilities and infrastructure being inadequate, only a small portion of students are not exposed to information, and the role of teachers and staff is less than optimal. However, the majority of students' attitudes are still negative regarding the implementation of Clean and Healthy Living Behavior.

Table 2. Association between Predisposing Factors, Enabling Factors, and CHLB

Variables	Clean and Healthy Living Behavior (CHLB)			Total		p value	PR 95% CI	
		Good		Not Goot				
	n	%	n	%	n	%	<u>-</u>	
Knowledge								65.571
- Good	108	79.4%	4	2.9%	112	86.7	0.000	(17.331-248.09)
- Not Good	7	5.1%	17	12.5%	24	17.6		(17.551-240.05)
Attitude								
- Positive	106	77.9%	6	4.4%	112	82.4		7.275
- Negative	17	12.5%	7	5.1%	24	17.6	0.000	(2.181-24.265)
Facilities and infrastructure								
- Adequate	104	76.5%	8	5.9%	112	82.4		7.800
- Inadequate	15	11.0%	9	6.6%	24	17.6	0.000	(2.608-23.326)
Exposure to Information Media								,
- Yes	103	75.7%	9	6.6%	112	82.4	0.001	5.722
- No	16	11.8%	8	5.9%	24	17.6		(1.927-16.991)
The Role of Teachers								
- Good	105	77.2%	7	5.1%	112	82.4	0.001	6.176
- Not Good	17	12.5%	7	5.1%	24	17.6		(1.924-19.826)
The Role of Officers								
- Good	101	74.3%	11	8.1%	112	82.4		7.769
- Not Good	13	9.6%	11	8.1%	24	17.6	0,000	(2.813-21.457)

Based on Table 2, it is explained that the variables that are significantly related to Clean and Healthy Living Behavior are: knowledge, attitudes, facilities and infrastructure, exposure to information media, the role of teachers, and the role of officers.

Variables	В	S.E	Wald	p value	Exp(B)
Knowledge	4.744	.959	24.817	0.000	118.651
Attitude	1.576	1.129	1.951	0.163	4.838
Facilities and Infrastructure	2.633	1.010	6.803	0.009	13.918
Exposure to Information	1.589	1.070	2.205	0.138	4.899
The Role of Teachers	0.940	1.056	7.93	0.373	2.560

0.942

-7.934

Table 3. Results of the Final Multiple Logistic Regression Model Analysis

.980

1.864

.924

15.873

0.336

0.000

2.566

0.000

Based on Table 3, it is explained that of the 6 variables included as candidate models, there are 2 variables that are most dominant in determining Clean and Healthy Living Behavior, namely knowledge, facilities, and infrastructure.

## **DISCUSSION**

The Role of Officers

Constant

Based on the research results, the majority of elementary school students from both schools have good Clean and Healthy Living Behaviors. These results are consistent with research conducted on students at Medan Selayang State Junior High School, which found that some students at the school have good Clean and Healthy Living Behaviors (PHBS), while the rest are in the adequate category. (Valentine 2020). Clean and healthy living behavior has a big impact on health status, especially if clean and healthy living behavior is in the good category, then the level of health status should be in the high category, however, there are still many who ignore their body health, so that many diseases arise if clean and healthy living behavior is in the low category, namely infectious diseases that are often suffered by school-age children in Indonesia, namely diarrhea, gastroenteritis, acute upper respiratory tract infections, typhoid fever, worms, allergies, etc. (Kemenkes 2011). Clean and healthy living behavior (CHLB) is the embodiment of a healthy paradigm in the culture of life of individuals, families, and communities that is health-oriented and aims to improve, maintain, and protect physical, mental, spiritual, and social health. Its targets include five levels: household, educational, health, workplace, and public places. (Kemenkes 2011).

Clean and Healthy Living Behavior is something that should be implemented by schools because the benefits obtained include mental and physical health, and focus on gaining knowledge, as well as the creation of a beautiful, fresh, and peaceful school atmosphere, which makes the school environment feel comfortable. (Valentine 2020). Based on existing facts, the majority of respondents have good hygiene and healthy living habits. Good hygiene and healthy living habits should be applied in daily life, especially at school. The respondents who have a poor clean and unhealthy lifestyle are due to there still being respondents who do not know what PHBS is, and not many understand how to maintain personal and environmental hygiene, as well as the benefits of PHBS. Poor clean and unhealthy lifestyle behavior can affect health behavior, namely, the worse a person's PHBS, the more it affects mental and physical health, and focus on gaining knowledge, as well as not creating a beautiful, beautiful and peaceful school atmosphere.

Based on the results of research at SDN 79 and MI Azharyah Palembang, based on the level of knowledge, the majority of respondents had good knowledge, amounting to 115 students (84.6%), while the level of knowledge was poor, amounting to 21 students (15.4%). The results of this study also align with research conducted by (Redjeki and Rahmawati 2023) This showed that out of 50 respondents, 33 students (66.0%) had good knowledge, while 17 students (34.0%) had poor knowledge. The majority of respondents in this study had good knowledge.

The knowledge level of students at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang is higher in the good category than in the poor category. This is because students are serious about learning and understand what they learn in school. However, some students have a low level of knowledge, due to their

lack of understanding and initiative to find out what they don't know. Therefore, special attention is needed for students with a low level of knowledge.

Based on the results of the study at SDN 79 and MI Azharyah Palembang, most of them have a good attitude, where respondents with a good attitude numbered 123 students (90.4%). Meanwhile, respondents with a less positive attitude numbered 13 students (9.6%). The results of this study are in accordance with research conducted by (Redjeki and Rahmawati 2023). From a total of 50 respondents, positive attitudes numbered 28 respondents (56.0%), more than negative attitudes numbered 22 respondents (44.0%).

Attitudes are divided into two categories: good and bad. Good attitudes involve a tendency to approach, like, and anticipate certain objects. Bad attitudes, on the other hand, tend to distance themselves from, avoid, hate, and even dislike them. (Wawan and Dewi 2010). Attitude itself is also the most important domain in shaping a person's behavior. Attitude is a tendency to respond, whether positive or negative, to people, objects, or certain situations.

Attitude and behavior are not the same, and behavior itself does not always reflect a person's attitude. A person can often exhibit changes in actions that are contrary to their attitude. A person's attitude can change when they gain additional information about a particular object. (Notoatmodjo 2010). Students at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang's good attitudes that far outnumber those in the poor category. This indicates that the students' good attitudes are supported by the knowledge and roles they acquire at school. However, some students still exhibit poor attitudes due to neglect or a lack of concern for themselves and their surroundings.

Based on the research results obtained at SDN 79 Palembang, it was found that more than 119 students (87.5%) answered that the facilities and infrastructure were adequate. Meanwhile, 17 students (12.5%) answered that the facilities and infrastructure were inadequate. The results of this study are in accordance with research conducted by (Zakiudin and Shaluhiyah 2016) Among students at Islamic Boarding Schools in Brebes Regency, from a total of 293 respondents, it was found that the majority of respondents (58.0%) said that the facilities and infrastructure at Islamic boarding schools were complete, while 42.0% of respondents said that the facilities and infrastructure at Islamic boarding schools were incomplete.

Facilities are anything that can be used as a tool to achieve an aim or goal. Meanwhile, infrastructure is anything that is the main support for the implementation of a process. (Istighosah et al. 2022). Facilities and infrastructure in schools really support the success and success of a school, although there is no guarantee that complete facilities and infrastructure can guarantee the success of education at the school.

There are three types of facilities that must be provided by newly established schools, according to their priority level. The first is primary (main) infrastructure, which includes a mosque or place of worship as well as a guidance center, toilets, a canteen, school operational vehicles, and a school office. The second is secondary, which includes a library, sports field, and permanent classrooms. The third is tertiary needs, which are complementary to enhance the beauty and natural beauty of the school, including flower gardens, wall decorations in the form of nature paintings and calligraphy, and fish ponds. These facilities do not have to be realized immediately before primary needs are met.

The research also found that the infrastructure at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang is equipped with a fully equipped health unit (UKS) room, a healthy cafeteria, and trash cans with appropriate waste disposal facilities. However, some facilities are still inadequate. Based on the research results obtained at SDN 79 and MI Azharyah Palembang, it was found that 119 students (87.5%) answered that there was more information media. Meanwhile, 17 students (12.5%) answered that there was no information media. The results of this study are in accordance with research conducted by (Zakiudin and Shaluhiyah 2016) Among students at Islamic Boarding

Schools in Brebes Regency, from a total of 293 respondents, it was found that the majority of respondents (50.2%) said that information media in Islamic boarding schools were good, while respondents who said that information media was lacking in Islamic boarding schools were incomplete, namely 49.8%.

The results of this study tend to align with expert opinion, which concludes that health promotion strategies are an important determinant of healthy behavior in communities, families, and individuals. Institutionally, these research results demonstrate similarities with the provisions of the Committee on Health Education and Promotion terminology. The provisions of the Indonesian Ministry of Health, which make Health Promotion Strategies an important determinant of healthy behavior, and make health promotion strategies a program to improve healthy behavior or clean and healthy living behavior in communities, families, and individuals. (Notoatmodjo 2010) (Green et al. 1980).

From the research results, it was found that the information media at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang were equipped with hand washing posters, posters on throwing rubbish in its place, and information via loudspeakers as a reminder for students to always be reminded to wash their hands before eating and after eating. Based on the research results, it was found that at SDN 79 and MI Azharyah Palembang, 122 students (89.7%) responded that they received a positive teacher role. Meanwhile, 14 students (10.3%) responded that they received a less positive teacher role. These results are supported by research on students at Irene Christian Middle School in Manado, which found that most teachers played an active role in improving CHLB. (Paraso, Engkeng, and Punuh 2020).

Teachers are individuals who can foster an atmosphere of health promotion and serve as role models for healthy behaviors in schools. One of the teacher's roles is to create a series of interrelated behaviors that are carried out in a specific manner, and are related to the progress of behavioral changes and child development as goals. This is all done by a teacher with enthusiasm and a desire to provide the best for their students. (Redjeki and Rahmawati 2023). The roles played by teachers at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang are slightly higher in the good category than in the poor category. Therefore, the role of teachers needs to be further optimized by adapting to the standards and qualities required of a teacher. A good role will improve the knowledge and attitudes of students.

Based on the research results obtained at SDN 79 and MI Azharyah Palembang, it was found that 114 students (83.8%) answered that they received a good response from the UKS officers. Meanwhile, 22 students (16.2%) answered that they received a poor response from the UKS officers. The results of this study are supported by research conducted on students at Mamba'ul Ulum Corogo, where, from a total of 32 respondents, it was found that the majority of respondents (71.2%) received a good response from the UKS officers, while 28.8% of respondents said that the UKS officers' role was poor. (Zuhro 2019)

UKS officers are people who dedicate themselves to the health sector and are health facilitators in schools. In this case, UKS officers are very important for improving healthy living skills, thereby increasing the harmonious and optimal growth and development of students, so that they become quality human resources. (Kemendikbud 2020). The role of health unit staff at SDN 79 and Madrasah Ibtidaiyah Azharyah Palembang, which are categorized as good, is much higher than that at those categorized as poor. This is due to existing research showing that health unit staff are active in providing health education and promotion to students at school. This way, student health can be improved by optimizing the role of health unit staff.

#### **CONCLUSION**

The research findings revealed that knowledge, facilities and infrastructure, information exposure, teacher roles, and staff roles were all good, but the majority of students still held negative attitudes toward implementing Clean and Healthy Living Behaviors. However, the most dominant factors determining Clean and Healthy Living Behaviors were knowledge and facilities, and infrastructure.

This research recommends that schools develop specific programs to improve students' knowledge of Clean and Healthy Living Behaviors and provide adequate facilities for these programs.

#### **CONFLICT OF INTEREST**

The authors declare that they have no conflict of interest.

#### **AUTHOR CONTRIBUTIONS**

The roles of all authors should be listed: MHS: Experiment, Methodology, MS: Writing- Original draft preparation. FO: script writing.

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#### REFERENCES

- Aminah, Siti, Yayah Huliatunisa, and Ina Magdalena. 2021. "Usaha Kesehatan Sekolah (UKS) Untuk Meningkatkan Perilaku Hidup Bersih Dan Sehat (PHBS) Siswa Sekolah Dasar." *Journal JKFT* 6(1):18–28.
- Anugrah, Alti Idah, Muhaimin Ramdja, and Iskandar Z. A. Iskandar ZA. 2005. "Prevalensi Infeksi Soil Transmitted Helminths Pada Siswa Sekolah Dasar Kecamatan Plaju Palembang."
- Ayu, Suci Musvita, Arif Kurniawan, Ainul Yaqin Ahsan, and Achmad Khoirul Anam. 2018. "Peningkatan Kesehatan Melalui Perilaku Hidup Bersih Dan Sehat (PHBS) Sejak Dini Di Desa Hargomulyo Gedangsari Gunung Kidul." *Jurnal Pemberdayaan: Publikasi Hasil Pengabdian Kepada Masyarakat* 2(1):20.
- Green, Lawrence W., Marshall Kreuter, Sigrid G. Deeds, and Kay B. Partridge. 1980. "Health Education Planning: A Diagnostic Approach." P. 306 in *Health Education Planning: A Diagnostic Approach*.
- Hakim, Abdul, Asimiyati Asimiyati, Katman Katman, Satriyo Wibowo, and Waadarrahman Waadarrahman. 2020. "Profil Sanitasi Sekolah 2020."
- Ismaya, Nur, Fitria Nurfatiah, and Sindi Triyani. 2022. "Analisis Perilaku Hidup Bersih Dan Sehat Di Sekolah Dasar." *Didaktik: Jurnal Ilmiah PGSD STKIP Subang* 8(2):2558–65.
- Istighosah, Nining, Hengky Irawan, Aprilia Nurtika Sari, Dian Rahmawati, Lia Agustin, and Widya Kusumawati. 2022. "PHBS Implementation in Pondok Pesantren During the Covid-19 Pandemic In Kediri, East Java, Indonesia, 2021." *ABDIMAS: Jurnal Pengabdian Masyarakat* 5(1):1892–1900.
- Kemendikbud, Pusat Data. 2020. "Statistik Pendidikan Luar Biasa (PLB) 2019/2020."
- Kemenkes, R. I. 2011. "Pedoman Pembinaan Perilaku Hidup Bersih Dan Sehat (PHBS)." *Jakarta: Kementerian Kesehatan RI*.
- Kurdaningsih, Septi Viantri. 2018. "Hubungan Kebiasaan Menggosok Gigi Dengan Timbulnya Karies Gigi Pada Anak Usia Sekolah Di SDN 135 Palembang Tahun 2017." *Jurnal' Aisyiyah Medika* 1(1).
- Notoatmodjo, Soekidjo. 2010. "Ilmu Perilaku Kesehatan." Jakarta: Rineka Cipta 200:26-35.
- Nugraheni, Hermien, and Sofwan Indarjo. 2018. Buku Ajar Promosi Kesehatan Berbasis Sekolah. Deepublish.
- Nurmahmudah, E., T. Puspitasari, and I. T. Agustin. 2018. "Perilaku Hidup Bersih Dan Sehat (PHBS) Pada Anak Sekolah. ABDIMAS: Jurnal Pengabdian Masyarakat, 1 (2), 46–52."
- Palembang, Dinkes. 2018. "Profil Kesehatan Kota Palembang 2018." Palembang: Dinas Kesehatan Kota

- Palembang.
- Paraso, Saskia, Sulaemana Engkeng, and Maureen Irinne Punuh. 2020. "Determinan Perilaku Hidup Bersih Dan Sehat (PHBS) Pada Peserta Didik Di SMP Kristen Irene Manado." *KESMAS* 9(1).
- Pratama, Agung Pratama Agung Pratama Agung. 2023. "PENgalaman Ibu Dalam Memberikan Perawatan Pada Anak Penderita Demam Berdarah Dengue Di Wilayah Kerja Puskesmas Makrayu Palembang 2016."
- Redjeki, Endang Sri, and Windi Chusniah Rahmawati. 2023. "Perilaku Hidup Bersih Dan Sehat (PHBS) Selama Masa Pandemi Covid-19 Di Lingkungan Pondok Pesantren." *Jurnal Pendidikan Nonformal* 18(1):56–70.
- Rusdi, Mesa Sukmadani, M. Rifqi Efendi, Lusia Eka P. Putri, Sefrianita Kamal, and Sara Surya. 2021. "Edukasi Penerapan Perilaku Hidup Bersih Dan Sehat (PHBS) Sebagai Upaya Pencegahan Penyebaran Covid-19." *Jurnal Altifani Penelitian Dan Pengabdian Kepada Masyarakat* 1(1):47–51.
- Valentine, Deasy Amanda. 2020. "Hubungan Perilaku Hidup Bersih Dan Sehat (Phbs) Dengan Kesehatan Lingkungan Di Sdn 11 Langsa Tahun 2020." *Jurnal EDUKES: Jurnal Penelitian Edukasi Kesehatan* 3:239–46.
- Wawan, Ahmad, and Maria Dewi. 2010. "Teori Dan Pengukuran Pengetahuan, Sikap Dan Perilaku Manusia." *Yogyakarta: Nuha Medika* 12.
- Zakiudin, Ahmad, and Zahroh Shaluhiyah. 2016. "Perilaku Kebersihan Diri (Personal Hygiene) Santri Di Pondok Pesantren Wilayah Kabupaten Brebes Akan Terwujud Jika Didukung Dengan Ketersediaan Sarana Prasarana." *Jurnal Promosi Kesehatan Indonesia* 11(2):64–83.
- Zuhro, Safinatul. 2019. "Hubungan Peran Unit Kesehatan Sekolah (UKS) Dengan Penerapan Perilaku Hidup Bersih Dan Sehat (PHBS) Pada Siswa Kelas V (Di MI Mambaul Ulum Corogo Jogoroto Jombang)."