



# The mysticism of Wadengo traditional medicine from a medical perspective: A case study of BPJS patients in a private dental practice in Gorontalo

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## ABSTRACT

The practice of using saliva as a means of treating wounds in Gorontalo culture has been going on from generation to generation. People believe that there are many more benefits and uses of saliva. This study describes analytic observations of BPJS patients in choosing traditional and modern treatments, especially Wadengo treatment. Another goal is to conduct experiments on Wadengo's saliva by looking at the content, viscosity, clarity, and levels of acids and bases. This research employs a Mixed-Methods research design. This study also uses analytic observational with a cross-sectional study design, and a research library to obtain data to compare research results in the field and existing information. The results showed that dhikr can affect the content of saliva in treatment. The mysticism of saliva resides in the content of the saliva itself, which contains a protein called histatin. This histatin is an antimicrobial and antifungal protein and has been shown to play a role in closing wounds, this histatin also has antifungal properties and can prevent its absorption in the digestive tract. This is proven by the lab results about saliva on healers who use the dhikr method and do not use dhikr. In the medicine dhikr, the examination results found that the saliva was not cloudy and the pH was normal. Meanwhile, the medicine that does not dhikr results in the condition of the saliva being cloudy and the pH contained in the saliva being less than normal.

**Keywords:** BPJS patients; Wadengo; medicine

## 1. INTRODUCTION

In the introduction section, you provide an overview of the research topic and its significance. You introduce the problem or research question that your study aims to address and provide the necessary background information. This section sets the context for your research and outlines the motivation behind it. It should also include a clear statement of the objectives or purpose of your study. Your introduction is to about 500-750 words.

The term medicine comes from the Latin word *ars medicinae*, which means the art of healing. Medicine is the science and art of healing. This scientific field covers a variety of healthcare practices that are continuously changing to maintain and restore health by preventing and treating disease.<sup>1</sup>

Traditional medicine has always been something that will never be separated from people's lives. Most people still adhere to customs and traditions that are believed to be effective in treating all diseases. The assumption is that traditional medicine is safer and easier to reach than having to spend much money on medical services. There are two types of traditional medicine: one uses herbal remedies, while the other is frequently called mystical medicine and does not involve medical personnel. The understanding of people who still use traditional medicine through mysticism is still effective and still exists in modern times today, its existence will never disappear in society.<sup>2</sup> Mysticism in Islam is called Sufism, and by Western orientalists, it is called Sufism. The word Sufism in Western Orientalist terms is specifically used for Islamic mysticism. Sufism is not used for the mysticism found in other religions.<sup>3</sup> According to Chalik, mysticism or mysticism has an affinity for things that are mysterious, obscure, and still enigmatic. Mysticism, in Mulder's view, can be seen through the motives, existence, and goals of the mysticists themselves. The motives and goals of the perpetrators of mysticism determine the rituals that will be carried out by the group or community, for example, the aim is to get blessings, ask for safety, pray, and so on.<sup>4</sup>

Education will definitely play a role in the mindset of every human being, which is why the majority of individuals visit a doctor when they are ill and also trust traditional medicine. The mindset of a diverse community makes traditional medicine never lose its existence; even education itself is still in line with traditional medicine. Medical treatment is a treatment that is done to treat a medical disease. Medical treatment is

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<sup>1</sup>Hikmah, Nurul. (2010). *Syifa Dalam Perspektif Al-Qur'an*. Thesis. Jakarta: UIN Syarif Hidayatullah, h. 52

<sup>2</sup>Jaiz, Amien. (1980). *Masalah Mistik Tasawuf dan Kebatinan*. Bandung: PT. Al-Ma'arif. h.30

<sup>3</sup>Ipendang, I. (2017). *Filsafat Akhlak dalam Konteks Pemikiran Etika Modern dan Misticisme Islam Serta Kemanusiaan*. *Jurnal KURIOSITAS: Media Komunikasi Sosial dan Keagamaan*, 10(1). p.5

<sup>4</sup>Setiawan, Arif. (2019). *Eksistensi Misticisme dalam Novel Amba Karya Laksmi Pamuntjak*. *KEMBARA: Jurnal Keilmuan Bahasa, Sastra, dan Pengajarannya*, 5(2), 146-156, h. 156

carried out by doctors through surgery to treat diseases and use drugs to cure them. In medical treatment, there is a doctor who is a medicine expert. Non-medical treatment is a treatment performed to treat non-medical diseases. Non-medical treatment involves reading verses of the Koran, ruqyah, and cupping.<sup>5</sup>

Traditional medicine is the local wisdom of our nation which can be found almost throughout Indonesia. Traditional medicines that are usually used by the Indonesian people in healing wounds or sick people depend on a region and tribe. The treatment methods used in various societies since ancient times were passed down and developed gradually from generation to generation based on the level of human understanding of knowledge from time to time. Traditional medicine or traditional medicine is also sometimes referred to as folk medicine, herbal medicine, and so on. The more common practices of traditional medicine include traditional African medicine, acupuncture, traditional Korean medicine, traditional Chinese medicine, Islamic medicine, Siddha medicine, Ayurveda, and jamu.<sup>6</sup>

Gorontalo Province is a province that is rich in culture and customs. One of the cultures that still exists is the treatment using saliva as a medium for healing wounds. There are many more benefits and uses of saliva. In Poowo Village, there are smart people who can heal traditionally by using spit water, commonly known as the Wadengo method, which is a simple medical tradition carried out by the elders. This treatment is a tradition that is quite old and interesting, so researchers are interested in exploring it further. Wadengo is a simple treatment method in Gorontalo. However, unlike modern-day medicine, Allah has its own therapy and medication to treat the wound. In addition to blowing readings or protective prayers, people also use saliva or spit as a medicine to treat pain and wounds. The method used is to wet the hands with saliva, then affix to the ground on the face of the earth. Furthermore, the soil that sticks to the hand is rubbed on the part of the body that feels pain. Then it is recommended to read the prayer. The prayer in question is found in the history of Bukhari. In the history of Bukhari, the Messenger of Allah SAW, carried out treatment with soil and water saliva. Then the Apostle recited a prayer: "In the name of Allah, with the dust on the ground of this earth and with some of our spit, may sickness be cured among us with the permission of our Lord." (HR. Bukhari).<sup>7</sup> This study describes and analytic observations of BPJS patients in choosing traditional and modern treatments, especially Wadengo

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<sup>5</sup>Al-Jauziyah, Ibn Qayyim. (2008). *Zaadul Ma'ad: Bekal Menuju Akhirat*. Jakarta: Pustaka Al-Kautsar, h. 6

<sup>6</sup>Prima Medika Hospital. (2017). *Perbedaan antara Pengobatan Tradisional dan Modern*. Retrieved from: <https://www.primamedika.com/id/kegiatan-berita-prima-medika/perbedaan-antara-pengobatan-tradisional-dan-modern>

<sup>7</sup><https://jurnalpalopo.mind-rakyat.com/kesehatan/pr-432570108/mengobati-luka-dengan-air-liur-dalam-Islamic-perspective>

treatment. Another goal is to experiment with Wadengo's saliva by looking at the content, viscosity, clarity and levels of acids and bases.

## 2. METHODS

### Methods and Types of Research

This study uses a mixed-methods research design, to discuss and address the issue of why Wadengo people in Gorontalo frequently combine traditional medicine with modern medicine. This study also uses analytic observational with a cross-sectional study design, which is a research design to observe the dynamics of the independent and dependent variables at a point in time, both qualitatively and quantitatively. This research also uses a research library to obtain information data to compare the research results in the field and existing information. Then an experimental study was also carried out, which functioned to look at the saliva of the Wadengo performers in terms of content, thickness, clarity, and acid and base levels and compared with those of the Wadengo performers.

### Research Tools and Materials

Some equipment and materials are used in this research. Equipment that needs to be prepared for salivary examination: 2 saliva trays, Aqua water, Glass plate, Gram stain, Microscope, Object glass, Pipette, Bunsen flame, Filter paper, Inoculation loop, Immersion oil.<sup>8</sup> Moreover, materials to be prepared for the salivary examination, namely: Sample to be examined, Colored liquid, Gram iodine solution Mordant, namely 1g iodine, 2g potassium iodide, 300 ml of sterile water, Decolorizing agent (Bleaching), namely 95% ethanol 50 ml or 50 acetone ml, Counterstain. The dye liquid used for gram staining consisted of solution A (2 g crystal violet, 20 ml 95% ethanol) and solution B (0.8 g ammonium oxalate, 80 mL sterile water). The counterstain liquid in this staining method gives a pink color to decolorized gram-negative bacteria. The counterstain consists of a stock solution (2.5 g of safranin O, 100 ml of 95% ethanol) and a working solution (10 ml of stock solution, 90 ml of sterile water).<sup>9</sup>

The sampling method was carried out by purposive sampling. The sample was all patients who came to have their teeth checked at a private dental practice when the research was carried out in May 2022 until it was finished. Based on the sample Lameshow table to estimate P within d percent absolute with 95% confidence, the

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<sup>8</sup>Moyes RB, Reynolds J, Breakwell DP. (2009). Differential staining of bacteria: gram stain. *Curr Protoc Microbiol*

<sup>9</sup>tripathi n, sapra a. gram staining. in: stats pearls. Treasure Island (fl): stat-pearls publishing; 2022 Jan-.

population estimate for P is 0.15 and d = 0.05, a minimum sample of 234 people is obtained.

Primary data was collected from BPJS participants who visit private dental offices to have their teeth examined and who consent to being interviewed and completing questionnaires. Secondary data comes from the BPJS office and other private dental clinics designated by the BPJS Gorontalo Branch.

Data processing is done manually and electronically using a calculator and computer SPSS version 21. The data is presented in the form of a frequency distribution table accompanied by an explanation and a table to see the relationship between the variables.

### 3. RESULTS AND DISCUSSION

#### Characteristics of Respondents

The number of samples in this study obtained a total of 243 samples. Primary data collection is done by distributing questionnaires according to the criteria. Then all the results of the research data were collected and recorded. As well as processing and analysis of data. The research results are shown in the distribution table as follows:

**Table 1.** Distribution of Respondents by Gender

Gender	Amount (n)	Percentage (%)
Man	116	47.74
Woman	127	52.26
<b>TOTAL</b>	<b>243</b>	<b>100</b>

Table 1 above shows that there are 116 male samples (47.74%) and 127 female samples (52.26%).

**Table 2.** Distribution of Respondents in Education Category based on Gender

Education	Gender		Amount (n)	Percentage (%)
	P	L		
SD	4	8	12	4.93
JUNIOR HIGH SCHOOL	6	9	15	6,17
SENIOR HIGH SCHOOL	84	55	139	57,2

DII	0	1	1	0.41
DIII	1	7	8	3,29
S1	27	30	57	23,45
S2	3	6	9	3,8
S3	0	2	2	0,82
<b>TOTAL</b>	<b>132</b>	<b>111</b>	<b>243</b>	<b>100</b>

Table 2 reveals that there were 4 female and 8 male elementary school education samples with a total of 12 samples (4.93%). In addition, 6 out of 15 samples (6.17%) of the responders who are female have completed junior high school. An overall sample size of 139 (57.2%) included 84 female and 55 male samples with high school diplomas. There were no female respondents and 1 male with a DII level of education, a total sample (0.41%). Female DIII education level 1 sample and male 7 samples, totaling 8 samples (3.29%). Female sex samples at educational level S1 totaled 27; male sex samples totaled 30, with a maximum of 57 (23.4%). Moreover, respondents with a postgraduate level of education were female 3 samples, and male sex 6 samples with a total of 9 (3.8%), while there were no female and only 2 male respondents who have doctoral degrees.

**Table 3.** Distribution of Respondents in Occupational by Gender

Job Category	Gender		Amount (n)	Percentage (%)
	P	L		
Work	71	83	154	63,38
Doesn't work	51	38	89	36,2

Based on Table 3, 71 female and 83 male respondents are employed, a total of 154 samples (63, 38%). 51 female and 38 male respondents do not work, with a total sample of 89 (36.2%).

**Table 4.** Distribution of Respondents Based on Education

Education Category	Amount (n)	Percentage (%)
SD	12	4.93
JUNIOR HIGH SCHOOL	15	6,17
SENIOR HIGH SCHOOL	151	62,13

DII	1	0.41
DIII	8	3,33
SI	52	21,39
S2	4	1,64
<b>TOTAL</b>	<b>243</b>	<b>100</b>

Table 4 lists the sample sizes for each level of education: 12 samples for elementary school (4.93%), 15 samples for middle school (6.17%), 151 samples for high school (62.13%), 1 sample for DII (0.41%), and 8 samples for DIII (3.33%). 52 samples of bachelor's degrees (21.39%), and 4 samples of master's degree (1.64%).

**Table 5.** Distribution of Respondents by Occupation

Job Category	Amount (n)	Percentage (%)
Work	154	63,38
Doesn't work	89	36,2
<b>TOTAL</b>	<b>243</b>	<b>100</b>

Based on Table 5 above with the Job Category, it shows that 154 people (63.38%) are working respondents and 89 people are not working (36.2%).

### **Level of Understanding of BPJS Patients on Traditional and Medical Medicine (Modern)**

**Table 6.** Level of Understanding of BPJS Patients on Traditional and Medicine (Modern)

Treatment Category	Amount (n)	Percentage (%)
<b>Traditional Medicine</b>	35	14.40
<b>Modern Medicine (doctor)</b>	98	40,32
<b>Traditional Medicine and Modern Medicine (doctors)</b>	110	45,28
<b>TOTAL</b>	<b>243</b>	<b>100</b>

Based on the results of the questionnaire, there were 35 respondents (14.40%) who trusted traditional medicine, 98 respondents (40.32%) who trusted modern medicine (doctors), and 110 respondents (45.28%) who believed in both. From the results of the

data above, we can conclude that many people understand traditional and modern medicine that is carried out according to the conditions they are experiencing. However, there are also not a few people who understand better that existing diseases will be known accurately and make sense if they use modern medicine (doctors). Nowadays, we know that many young people still practice traditional medicine only because it has been passed down from their parents, grandparents, or other families.

This is in accordance with research that was conducted by Soewondo et al. In (2020) regarding Utilization of Traditional and Complementary Medicine among Cancer Patients in Indonesia: A Systematic Review. The study explains that many patients in Indonesia choose to use traditional medicine as an alternative treatment, even though they also receive modern medical treatment.<sup>10</sup> A study by Widyawati, about Traditional, Complementary, and Alternative Medicine among Adults in Indonesia: Results from a National Survey", found that around 40% of respondents in Indonesia used traditional medicine along with modern medicine.<sup>11</sup> Moreover, a study by Wong et al., about the Utilization of Traditional and Complementary Medicine by Cancer Patients at a Tertiary Hospital in Malaysia, also supports previous research. This study shows that traditional medicine is used concurrently with modern medicine by most cancer patients in Malaysia.<sup>12</sup>

As for other research that supports it, people choose both treatments according to the disease they suffer. Li et al. (2018) found that many diabetes patients in Asia-Pacific choose to use traditional and modern medicine to manage their condition.<sup>13</sup> Also, the research by CC Khor et al. (2020) shows that most medical students in Malaysia recognize the importance of traditional medicine as an alternative treatment, and most of them also use traditional medicine along with modern medicine.<sup>14</sup>

Medical treatment is a treatment carried out to treat medical ailments: for example, treatment carried out by a doctor, through surgery to treat disease and using drugs for healing. Traditional medicine is non-conventional medicine aimed at improving people's

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<sup>10</sup>Wulandari, Putri, Ari Suwondo, and rr Sri Endang Praise Astuti. "Utilization of alkaline water as an alternative complementary therapy on triglyceride levels among patients with grade I hypertension." *International Journal of Nursing and Health Services (ijnhs)* 3.6 (2020): 662-671.

<sup>11</sup>Ernelind, n., et al. "Nurses' experiences of health promotion and prevention of cardiovascular diseases related to smoking." *int arch Nurs Health Care* 5 (2019): 124.

<sup>12</sup>Abdullah, S., Wf Wong, and Ct Tan. "The prevalence of anti-aquaporin 4 antibody in patients with idiopathic inflammatory demyelinating diseases presented to a tertiary hospital in Malaysia: presentation and prognosis." *Multiple Sclerosis International* 2017 (2017).

<sup>13</sup>Choudhury, H. Et al., (2018). An update on natural compounds in the remedy of diabetes mellitus: A systematic review. *Journal of Traditional and Complementary Medicine*, 8(3)361-376.

<sup>14</sup>Ho, WK. et al. (2020). European polygenic risk score for prediction of breast cancer shows similar performance in Asian women. *Nat Commun*, 11, 383



health status, including promotive, preventive, curative and rehabilitative efforts obtained through structured education with high quality, safety and effectiveness based on biomedical science. However, it has not been accepted in conventional medicine.

This traditional medicine is a shortcut for patient dissatisfaction with the usual medical treatment. Various advertisements for other treatment methods were found in print and electronic media, accompanied by testimonials from recovered patients who said that they had previously undergone medical treatment but were not satisfied. Then they used it as an excuse to undergo traditional medicine. Medical treatment is applied based on scientific research that has been done. Meanwhile, other ways of treatment are based more on experience and subjective assessment of the patient without any objective basis. However, there are traditional medicinal methods that people use, and sometimes they don't make sense because they are very out of sync with the latest medical concepts.

In essence, to improve the degree of public health is free to choose a treatment that can cure. Whether it's traditional medicine or modern medicine (doctors). All choices lie with the individual who needs healing for his illness.

### Understanding Wadengo in Gorontalo Society

**Table 7.** Understanding Wadengo in Gorontalo Society

Understanding Level	Amount (n)	Percentage (%)
Understand	136	55.97
Do not understand	107	44.03
<b>TOTAL</b>	<b>243</b>	<b>100</b>

Based on the results of the study, it was shown that the Wadengo treatment was still the people's choice to obtain a cure for disease. There were 136 respondents (55.97%) who understood the Wadengo treatment and 107 respondents (44.03%) who did not understand the Wadengo treatment. Most of the people (respondents) used the Wadengo treatment because they were influenced by various kinds of information found in their environment, either from family or from other people. This Wadengo treatment will be more effective if it is done properly and according to what has been taught by experienced people, for example, reading Bismillah, Al-Fatihah, and prayers that have been passed down from generation to generation.

In the current era of globalization, although modern medical systems are widely known and applied in both urban and rural areas, traditional medical systems still play

an important role in the lives of Indonesian people. This traditional medicine includes efforts to cure diseases that have been passed down from generation to generation by using ingredients from nature or with the help of shamans who have the power to treat sick people (Hakim, et al, 2013).

In Indonesia, there are two known systems of medicine, namely modern medicine and traditional medicine. Modern medicine usually uses drugs and is carried out by health workers who have received formal education and use medically approved tools or materials. Meanwhile, traditional medicine is carried out from generation to generation and is based on ancestral recipes, customs, beliefs, or local habits, either by means of magic or traditional knowledge (Rahayu, DA, 2012).

### **Wadengo Medicine Along with Medical Perspective**

Wadengo treatment is not in line with the perspective of medicine because modern medical methods are based on in-depth knowledge, clinical evidence and scientific research, while traditional medical methods are based on traditional methods that have existed longer than modern medicine and are an important part of history. Keep in mind that each type of healthcare has certain advantages and limitations, and no one treatment can answer all diseases.

The most fundamental difference between modern medicine and traditional medicine is the way they treat and understand disease. Medical medicine understands disease simply as a biological condition characterized by abnormalities in the function or structure of a particular organ or organ system as a whole. Alternative medicine or traditional medicine looks more at disease because it is biological. This is something that is often overlooked by modern medicine.

This is in line with research by Amisim et al., which explained that the two medical systems appear to be different, but both are still present as a system that cannot be separated from people's lives. For example, rural people tend to seek the help of a traditional healer when they are experiencing pain. When traditional healers are found to be incompetent, they turn to modern medicine (doctors). In urban communities, there are usually various facilities where the sick are usually referred to doctors. When modern medicine is unable to cure patients or provide satisfactory health solutions, they seek the help of traditional healers.<sup>15</sup>

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<sup>15</sup>Amisim, Anius, Albert ws Kusen, and Welly e. Mamosey. "Pain perception and traditional and modern medical systems in the Amungme people (a case study in Alama sub-district, Mimika district)." *Holistic, journal of social and culture* (2020).

However, there are other motivations for patients to switch to medicine because of their distrust of conventional medicine. Patients think that conventional medicine in treating their disease has failed/is uncertain, as well as the patient's belief that the use of chemical drugs will have an impact on the organs of the body. In addition, the treatment of sense is more profitable than conventional medicine because the treatment is complete, inexpensive, and natural. According to patients, the disadvantages of treating sinusitis are that the medicine is impractical and unpleasant, and the cleanliness is not guaranteed. It is not recommended to immediately do traditional medicine or mix medicinal plants that are believed to be able to treat a disease. People still have to see a doctor to get treatment according to the diagnosis.

With these differences, it is possible that the two treatments complement each other. This is in line with research by Cheng Zhang, et al. in 2018, which examines the comparison between traditional Chinese medicine and Western medicine, as well as the integration of the two into modern medicine. The author states that traditional Chinese medicine and Western medicine can complement each other and provide great benefits in treating patients.<sup>16</sup>

#### The Relationship between Education Level and Employment of BPJS Patients in Choosing a Treatment Model

**Table 8.** The Relationship Between Education Level in Choosing a Treatment Model

Level of education	Treatment			TOTAL	p-value
	Traditional	Modern (Medicine)	Both (Traditional and Modern)		
SD	0	4	8	12	
JUNIOR HIGH SCHOOL	1	3	11	15	
SENIOR HIGH SCHOOL	28	65	58	151	

<sup>16</sup> Duan, L., Guo, L., Wang, L., Yin, Q., Zhang, CM, Zheng, Yang, & Liu, Eh (2018). application of metabolomics in toxicity evaluation of traditional Chinese medicines Milen i. Georgiev. in Chinese medicine (United Kingdom) (vol. 13, issue 1). Biomed Central Ltd. <https://doi.org/10.1186/s13020-018-0218-5>

D2	1	0	0	1	0.046497
D3	0	3	5	8	
S1	6	22	24	52	
S2	0	3	1	4	
TOTAL	36	100	107	243	

Table 8 shows how the respondents' level of education relates to how they chose a treatment model. Those who have an elementary education level, 4 people chose medical treatments, while 8 other people chose both (traditional and modern). On the other hand, from the total 15 respondents with junior school education level, 1 person chose traditional treatment, 3 people chose medical treatments, and 11 people chose both (traditional and modern). In the meantime, of respondents with a senior high school level of education, 28 people chose traditional, 65 people chose modern medical treatment and 58 people preferred both (traditional and modern). Moreover, the only respondent with D-II educational level chose traditional treatment. None of the respondents with D-III educational level chose traditional treatment, 3 people chose modern treatment (medical), and 5 preferred both (traditional and modern). Of respondents with a Bachelor's degree, 6 people preferred traditional treatment, 22 chose modern treatment, and 24 people chose both (traditional and modern). Lastly, for respondents with a master's degree, 3 people preferred modern treatment and 1 chose both (traditional and modern). The p-value is 0.046497, which means there is a relationship between educational level in choosing a treatment model.

This is in line with the research of Liu et al. in 2020, which focused on the relationship between education level and health-oriented behavior with cancer patient satisfaction in China. The results showed that cancer patients with higher education tended to choose more modern and complex treatment models, such as targeted therapy and immunotherapy, while patients with low education preferred traditional treatments, such as herbal medicine and alternative medicine. This is related to the patient's level of knowledge and understanding of the treatment model and confidence in its effectiveness.

Besides, the study shows that cancer patients who are educated tend to be more active in looking for information about treatment and are more critical to the quality of service given, which influences the satisfaction of patients to service health. Results This

shows that level of education is important in influencing behavior maintenance and satisfaction of patients, as well as can influence the election model treatment chosen.<sup>17</sup>

**Table 9.** Occupational Relations in Selecting a Treatment Model

Work	Treatment			TOTAL	p-value
	Traditional	Modern (Medicine)	Both (Traditional and Modern)		
Work	10	58	62	130	0.005156
Doesn't work	25	39	49	113	
TOTAL	35	97	111	243	

Based on Table 9, the research results show that there is an occupational relationship in choosing a treatment model. In the work category, 10 respondents chose traditional treatment, 58 people preferred modern treatment (medicine) and 62 people chose both (traditional and modern). On the other hand, in the "not working" category, 25 people preferred traditional treatment, 39 people chose modern treatment, and 49 people preferred both (traditional and modern). From the analysis of the Occupational Relations test in choosing a treatment model, it was found that the value of  $p = 0.005156$ , which means there is a relationship between occupations in choosing a treatment model.

This is in accordance with the research of Brinks et al., about employment status and choice of therapy in patients with rheumatoid arthritis. The research shows that patients who are employed full-time tend to prefer more aggressive therapies, such as biologics, compared to patients who are not employed or are working part-time. In addition, patients who are not employed or are working part-time tend to prefer more conservative therapies, such as DMARD therapy (disease-modifying anti-rheumatic drugs). This study shows that employment status can affect the choice of therapy in patients with RA.<sup>18</sup>

### Viscosity Content, Clarity and Acid and Base Levels of Saliva in Wadengo Actors

<sup>17</sup> Liu, Y., Liu, L., Li, Y., & Chen, Y. The effect of education level on healthcare-seeking behavior and satisfaction among cancer patients in China. *bmc health services research*, 20(1),2020. pp 1-8.

<sup>18</sup> Hk Brinks, hr Westhoff, ts Spoorenberg, mh Van de Laar, employment status and choice of therapy in patients with rheumatoid arthritis", *rheumatology (Oxford)*. 2008 nov;47(11):1588-91.

**Table 10** Viscosity, Clarity, and Acid and Based Levels of Saliva in Wadengo Practitioners Who Dho Dhikr

Medicine	Before brushing teeth			After brushing teeth		
	pH	Proteins	Leukocytes	Ph	Proteins	Leukocytes
I	6	1	500	6	1	500
II	7	0.3	15	7	0.3	15

In the first treatment, the results showed that the salivary content was pH 6.0, meaning that the oral cavity was in a slightly acidic environment. Protein: 1.0 indicates protein/albumin levels in the oral cavity with a low oral cavity pH. Moreover, leukocytes: 500 leukocytes indicate a lot of normal flora in the oral cavity.

The second treatment yielded a pH content of 7.0, meaning that the oral cavity was in normal condition. Protein: 0.3 indicates a normal level of protein/albumin in the oral cavity. And Leukocytes: 15 leukocytes indicate a bit of normal flora in the oral cavity.

**Table 11** Viscosity Content, Clarity and Acid and Base Levels of Saliva in Wadengo Practitioners Who Don't Dhikr

Medicine	Before Brushing Teeth			After Brushing Teeth		
	pH	Proteins	Leukocytes	pH	Proteins	Leukocytes
III	5.5	Negative	500	7	Negative	500
IV	6.5	1	Tall	6	Negative	Tall

The third treatment obtained the results of saliva content before brushing teeth: pH 5.5 (normal 6.2 – 7.6). The results show that the patient's saliva is in an acidic environment because it is lower than the normal pH standard. Acidic conditions affect the microbes to grow faster. Protein (normally negative): The results show that there is no protein. Leukocytes: Leukocytes obtained at 500 leukocytes/microliter show a high number in saliva samples waking up (patients who have not brushed their teeth), and this is associated with a low/acidic pH which is good for the growth of pathogenic microbes in the oral cavity. While the saliva content after brushing teeth is pH 7, the results show that the patient's saliva is in a normal state. Moreover, Protein obtained normal results. Moreover, leukocytes: obtained leukocytes 500 leukocytes/microliter, indicating a high number in saliva samples after brushing teeth. This is probably due to the patient's poor oral hygiene even though the patient has brushed his teeth.

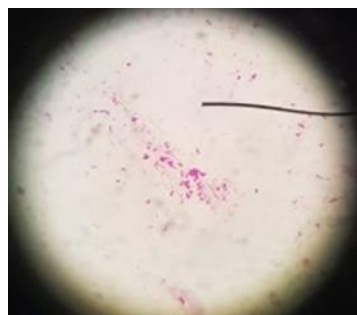
The fourth treatment obtained the results of saliva content before brushing teeth, namely the result of pH 6.5: indicating a normal state of saliva before brushing teeth. Protein: in small amounts (trace < 1.0 g/L). and Leukocytes: Before brushing teeth found in high numbers indicating a lot of microbes as seen in microbial examination. And the saliva content. After brushing your teeth, you get a pH of 6: lower than before brushing your teeth, and no protein is found. As well as Leukocytes show the same results before brushing your teeth.

### **Condition of Saliva of Practitioners of Traditional Medicine Who Do Dhikr and Those Who Don't**

Of the four healers interviewed regarding Wadengo treatment and personal hygiene, it was found that all four had known Wadengo medicine for a long time. For special treatment in using Wadengo treatment, such as remembrance, two healers use the dhikr method while the other two do not. For the success of the Wadengo treatment, all the healers are confident and say that their patients always recover. Especially for personal hygiene before treating patients, the three healers wash their hands first before treating patients. Moreover, to take a bath in a day, all the healers, as many as four people each take a shower twice a day.

This is also according to research published in the Journal of Family Medicine and Primary Care in 2019, showing that individuals who brush their teeth once a day tend to pay less attention to their overall personal hygiene. Furthermore, research conducted on the adult population in Indonesia in 2018 showed that individuals who only brush their teeth once a day have a higher likelihood of experiencing dental and oral health problems, including cavities and gingivitis.

This is supported by the results of lab tests on the medicinal saliva. The following are the results of laboratory tests.



**Figure 1.** Condition of Saliva for the First Treatment Before Brushing Teeth

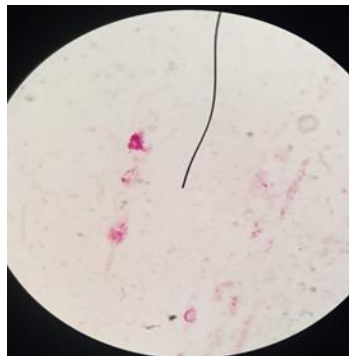
Based on Figure 1. The condition of the saliva on the first medication before brushing your teeth is that the preparation looks a bit cloudy. Gram-positive bacteria

were found in the form of cocci, and in the form of streptococcal chains, grape-shaped staphylococci, and also in the form of bacilli.



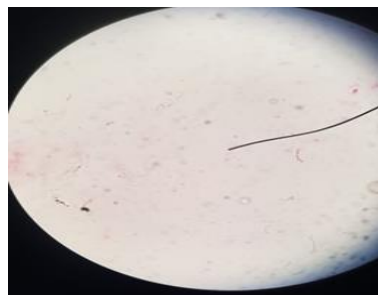
**Figure 2.** Conditions of Saliva for the First Treatment After Brushing Teeth

Based on Figure 2, conditions of saliva, the first treatment after brushing the teeth was that the preparation was not cloudy, and gram-positive bacteria in the form of cocci, grape-shaped staphylococci, and bacilli were found.



**Figure 3.** The condition of Saliva in the Second Medication Before Brushing teeth

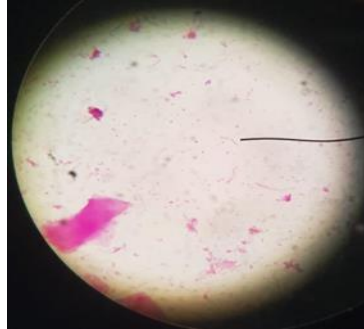
Based on Figure 3, the condition of the saliva in the second treatment before brushing the teeth, the preparations did not appear cloudy, and gram-positive bacteria were found in the form of cocci, chains of staphylococci, bacilli, and cocci.



**Figure 4.** Conditions of Saliva in the Second Treatment After Brushing Teeth



Based on Figure 4, the condition of the saliva in the second treatment after brushing the teeth, the appearance of the preparation is not cloudy. Found gram-positive coccus bacteria in the form of staphylococcal chains, staphylococcal grape-shaped.



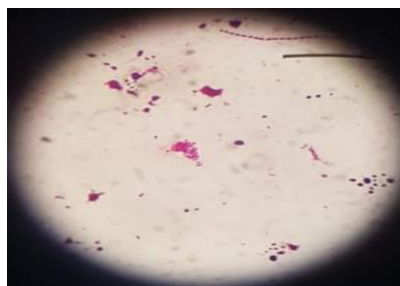
**Figure 5.** Conditions of Saliva on the Third Medication Before Brushing Teeth

Based on Figure 5, the condition of the saliva on the third remedy before brushing the teeth is visible cloudy preparations and cocci bacteria, streptococcal chain-shaped bacteria, diplococci and staphylococcal grape-shaped bacteria.



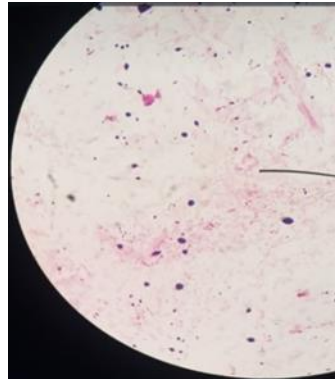
**Figure 6.** The Condition of Saliva in the Third Medication after Brushing Teeth

Based on Figure 6, the condition of the saliva on the third treatment after brushing the teeth, the preparation looks a bit cloudy, and gram-positive bacteria in the form of grapes, staphylococci, cocci, and bacilli.



**Figure 7.** Conditions of Saliva on the Fourth Medication before Brushing teeth

Based on Figure 7, the condition of the saliva on the fourth medication before brushing your teeth is that the preparation looks a bit cloudy. Found gram-positive bacteria in the form of long-chain streptococci, grape-shaped staphylococci, cocci, bacilli, and diplococci.



**Figure 8.** Conditions of Saliva on the Fourth Treatment after Brushing teeth

Based on Figure 8. the condition of the saliva on the fourth treatment after brushing the teeth, namely that the preparation looks cloudy, gram-positive diplococci, bacilli, and cocci are found.

The above results indicate that dhikr can affect the content of saliva in treating. The mysticism of saliva resides in the content of the saliva itself, which contains a protein called histatin. This histatin is an antimicrobial and antifungal protein and has been shown to play a role in closing wounds, this histatin also has antifungal properties and can prevent its absorption in the digestive tract. This is proven by the lab results about saliva on healers who use the dhikr method and do not use dhikr. In the medicine dhikr, the examination results found that the saliva was not cloudy and the pH was normal. Meanwhile, the medicine that does not dhikr results in the condition of the saliva being cloudy and the pH contained in the saliva is less than normal.

#### **4. CONCLUSION**

In the Gorontalo, treating wounds with saliva has been a tradition passed down from generation to generation. The findings indicated that dhikr can have an impact on the salivary content during therapy. Saliva's mystique actually comes from a protein called histatin that is present in the saliva itself. This histatin is an antibacterial and antifungal protein that has been demonstrated to aid in the healing of wounds. It also has antifungal qualities and the ability to stop it from being absorbed into the digestive system. This is demonstrated by the laboratory's findings about the saliva of healers who employ the dhikr method and those who do not. The examination results revealed that the saliva in the medication dhikr was not hazy and that the pH was normal.

Meanwhile, the medication using saliva without dhikr results in the condition of the saliva being cloudy and the pH contained in the saliva being less than normal.

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