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Profile of Self-Medication in the Community of Grogol Village Kediri Regency using Traditional Medicine during the Covid-19 Pandemic

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ABSTRACT

COVID-19 (Coronavirus disease 2019) Pandemic which is caused by the spread of SARS-CoV-2 since 11 of March 2020 have compelled the society to do such effort for maintaining their health, one of the effort is by using traditional medicine as self-medication. This is also the behaviour that Indonesian government suggest through the circular of Health Ministry Number: HK.02.02/IV.2243.2020 about the direction to utilize the traditional medicine due to pandemic COVID-19. The purpose of this research is to get an overview the using of traditional medicine for self-medication that occurs on the society at Grogol Village, Kediri Region due to pandemic. This is a descriptive research that the data collection is carried out by non-random sampling method by purposive sampling technique. There are 100 samples that fulfils the inclusion criteria. They are the society who lives at Grogol Village who wills to fill the questionnaire and to be interviewed and they have done using traditional medicine for self-medication within the time of pandemic COVID-19. The result of the research determines that the purpose of using self-medication is to look after the immune system in order to stay healthy (48%), the use of self-medication is because it saves cost (27.78%), and the use of traditional medicine is being chosen because of its natural (31.03%). Most of the respondents do not combine the traditional medicine and the modern one (87%), some respondents do not feel any side effects (72%), the symptoms that are mostly treated by traditional medicine is catch a cold (36.84).

Key words: Pandemic COVID-19, Profile, Self-medication, Traditional Medicine

INTRODUCTION

The world is experiencing global health challenges due to a COVID-19 pandemic (coronavirus disease 2019) caused by the spread of the SARS-CoV-2 virus. COVID-19 since it was

announced by WHO (World Health Organization) on March 11, 2020. Based on the Minister of Health Regulation No. 9 of 2020 concerning PSBB (Large-Scale Social Restrictions) guidelines, the government has taken preventive measures to prevent the spread of COVID-19 by implementing the PSBB policy, namely restrictions certain activities of residents in an area suspected of being infected with COVID-19. As an impact of this policy and as a result of the spread of the SARS CoV 2 virus so that the COVID-19 pandemic forced people to keep their distance, namely by staying at home, from the limitations of this mobilization, in the end it means that the only resource a person has in an effort to stay at home is to maintain safe distance is oneself to help oneself, take care of oneself and treat oneself (Matias, 2020).

Self-medication with traditional medicine and traditional medicine is a culture that has been carried out in the community for generations, this behavior is intended to overcome health problems. Traditional medicine has high potential because people have known it for a long time and for generations (Parwanto, 2013). The results of the 2020' Susenas shows that in Indonesia as many as 72.19% carry out self-medication (BPS, 2020). While the last survey on the use of traditional medicine was in 2014 and showed the results of 20.99% of people in Indonesia using traditional medicine (BPS, 2014). Research in Togo, a country in Africa, reported self-medication behavior from 955 respondents, 97 of whom used traditional medicine as an option in self-medication during the pandemic as a form of prevention against COVID-19, this figure also showed a higher value than the use of chemical drugs (Sadio, 2021).

The Ministry of Health on May 19, 2020 has issued a circular letter Number: HK.02.02/IV.2243.2020 which is intended for all governors, mayors/regents throughout Indonesia. The Ministry of Health, through the circular letter, provides directions for local government heads to direct people to use traditional medicine. The purpose of this recommendation is to increase awareness, willingness, and ability to live a healthy life in the community, and one way to do that is through the ability to do independent business, including efforts in COVID-19 health emergencies. Previously, researchers had conducted a preliminary study of 10 residents and it was found that 10 out of 10 residents did self-medication during the COVID-19 pandemic, 8 out of 10 people used standardized herbal medicines, and 6 out of 10 people used simplicia for their treatment, it can be concluded in simple terms that in Grogol Village the people use traditional medicinal preparations in their self-medication.

Based on the statements described above, further research is needed to find out the profile of traditional medicine self-medication by the people of Grogol Village, Grogol District, Kediri

Regency during the COVID-19 pandemic, so that it is hoped that an overview of the use of traditional medicines can be obtained according to government recommendations. through a circular letter from the Ministry of Health Number: HK.02.02/IV.2243.2020 regarding directions to regional heads to encourage people to use traditional medicines during the COVID-19 pandemic.

MATERIALS AND METHODS

This research is a descriptive research, with a model that conducted in order to describe a situation in a community or society. This research was conducted by direct survey and did not provide treatment to respondents by distributing questionnaires as primary data collection instruments to respondents who met the inclusion criteria. This research was conducted in Grogol Village, Kediri Regency. This research was conducted in June - November 2021. The population in this study were the people of Grogol Village, Kediri Regency. The sample of this study included the people of Grogol Village, Kediri Regency who met the inclusion criteria. The sampling method is non-random sampling using purposive sampling technique. The non-random sampling technique can be used for members of the population who are not homogeneous in nature (Notoatmodjo, 2010). The inclusion criteria in this study include: Respondents are people who live in Grogol Village, Grogol District, Kediri Regency who are willing to fill out a questionnaire and are willing to be interviewed with ages between 17 to 65 years and the respondent has done self-medication of traditional medicine during the COVID-19 pandemic. Meanwhile, the exclusion criteria in this study included: respondents with memory disorders, and respondents who did not complete the questionnaire.

Samples were taken using a non-random sampling method with a purposive sampling technique, namely sampling based on considerations made by the researchers themselves based on the characteristics of the desired population (Notoatmodjo, 2007). The total population of Grogol Village, Grogol District, Kediri Regency is 7980 people. The formula for determining the sample from a known population size uses the Slovin formula and it is known that the minimum sample taken is 98.76 so that it is rounded up to 100 respondents.

Grogol village consists of 7 hamlets, namely Grogol Hamlet, South Bedrek Hamlet, North Bedrek Hamlet, Sembak Hamlet, Sukorejo Hamlet, Gringing Hamlet, and Ringinrejo Hamlet. Therefore, to ensure the representation of each hamlet in this village, the number of respondents required from each hamlet is calculated by the following formula:

$$R = \frac{JD}{N} \times n$$

Information:

n = number of samples

N = total population

JD = number of residents per hamlet

R = number of respondents per hamlet

RESULT AND DISCUSSION

1. Respondent Characteristics Data

Characteristics of respondents are used to determine the variation of respondents based on age, gender, address, last education, occupation, and monthly income, the characteristics of respondents in this study can be seen on the table 1.

Age, gender and address are characteristic data then be compared with the total population so that it can guarantee population representation. Education is needed to be known to because it includes nine determinants that determine or affect health in the Ottawa Charter, in Notoatmodjo: 2014, it is stated that education can combat ignorance, highly educated groups of people tend to know ways to prevent disease.

Occupation can also be associated with the onset of disease, due to factors such as the presence or absence of physical activity, environmental factors, the density of workers, and stress levels. The work environment also influences a person's actions because one can obtain information from co-workers, and work is also one of the determining elements of social class that can affect various aspects of life, including health (Notoatmodjo, 2011).

Income is also included in the questionnaire because it is to determine the distribution of the number because it includes nine determinants that determine or affect health in the Ottawa Charter, and based on Notoatmodjo: 2014 income will be in line with life expectancy, other reasons because income or the economy will affect individuals in meeting their needs including efforts to prevent disease, maintain health, and improve health. Therefore, monthly

income data will help in the process of concluding the results of several indicators in the questionnaire.

Table 1. Data Characteristics of Respondents

Characteristics	Category	Number of samples	Percentage (%)
Age (years)	17-25 years old	25	25
	26-35 years old	17	17
	36-45 years old	19	19
	46-55 years old	22	22
	56-65 years old	17	17
Gender	Male	47	47
	Female	53	53
Address	Ringinrejo	19	19
	Bedrek Utara	17	17
	Bedrek Selatan	15	15
	Sembak	14	14
	Sukorejo	13	13
	Gringging	12	12
	Grogol	10	10
	Last education	Elementary school	34
Junior High School		21	21
Senior High School		40	40
D1/D2/D3		1	1
S1/S2/S3		4	4
Occupation	Housewife	20	20
	Farmers	14	14
	Laborer	11	11
	Employee	11	11
	Student/Student	10	10
	Teacher/Lecturer	1	1
	Etc	33	33
Monthly income	< 1.000.000	51	51
	1.000.000– 2.000.000	45	45
	2.000.000 –3.000.000	3	3
	> 4.000.000	1	1

2. Profile of Traditional Medicine Self-Medication of the Grogol Village Community

In the first part of the questionnaire, asks about the goals and the reasons of respondents for self-medication, the goals and the reasons are asked in different indicators because they have different meanings, the purpose of asking for goals is to find out what the respondents want to aim for in the self-medication, while the reasons are asked to find out what is the basis for respondents to choose self-medication. The purpose of conducting self-medication with traditional medicine by respondents is listed in table 2 below:

2.1 Purpose and Reasons for Self-Medication

Based on the results of respondents' answers, the profile of traditional medicine self-medication during the COVID-19 pandemic is as follows:

Table 2. Respondents' goals in carrying out self-medication during the COVID-19 pandemic

Num	Respondents' Purpose for Self-Medication	Number of samples	Percentage (%)
1.	To increase the body's resistance so as not to infected from a disease	48	48
2.	To reduce the symptoms of the disease	31	31
3.	To treat illness	12	12
4.	To treat the body from diseases that have been / are being suffered	9	9
	Total	100	100

Based on table 2, it is known that as many as 48% of respondents carry out self-medication with the aim of maintaining the body's immune system so as not to contract the disease, this goal is a relevant goal as an effect of the ongoing COVID-19 pandemic. The characteristic of the corona virus which is easy to infect humans and easily spreads to almost all corners of the world (Parwanto, 2013), as of November 2021 it is known that there are 4,252,345 confirmed positive cases of COVID-19 in Indonesia (Satgas COVID-19, 2021) and in the world, namely 256,072.650 people (Our World In Data, 2021).

One of the ways to prevent the transmission of COVID-19 is to increase the body's immune, because the cause is a virus, and the body has a mechanism to fight the virus which will work if the immune system is in good condition, therefore one of the efforts that can be done is by traditional medicine because it has been practiced and trusted for its efficacy for centuries in Indonesian society to maintain health (Elfahmi, 2014), this may be the triggering factor that causes the people of Grogol Village as much as 48% to self-medicate to maintain their immune system.

Table 3. Respondents' Reasons for Self-Medication (self-medication) during the COVID-19 Pandemic

Num	Reasons for self-medication during a pandemic	Number of samples	Percentage (%)
1.	Because it saves costs	30	27,78
2.	Because knowing the medicine from the symptoms experienced	26	24,07
3.	Because you want to avoid going to a health facility because it has the potential to be a place for the spread of COVID-19	26	24,07
4.	Because the symptom or disease being treated is a mild symptom	22	20,37
5.	Because it saves time	4	3,7
	Total	108	100

Based on table 3. it is known that as many as 27.78% of respondents have reasons for self-medication because it saves costs, this reason being the highest is possible because of economic factors, based on data on the characteristics of respondents in this study as many as 51% of respondents have an income of < Rp. 1,000,000 ,00 per month, therefore the reason for saving costs is the most reason for the respondents of this study.

2.2 Self-medication using traditional medicine

Utilization of traditional medicine in general in Notoatmodjo: 2011, can be divided into 2, namely those that aim to maintain health and treat disease complaints. The strong tendency to use drugs with natural ingredients or the concept of back to nature is believed to have fewer side effects compared to modern drugs, self-medication using traditional medicines is very widespread and is often used for the treatment of diseases for which there is no cure, or as an effort to treat self-medication (Notoatmodjo, 2011). Therefore, the profile of the use of traditional medicine in this study will be divided into reasons for self-medication with traditional medicine, how the community uses it, including whether the community combines it with modern medicine, frequency of taking medicine, using medicine with medicine from a doctor, the number of types of content consumed, and the number of types of preparations used. The reasons for self-medication with traditional medicines are shown in table 4 and combination with modern medicine shown in table 5.

Based on table 4. it is known the reasons of the respondents in carrying out self-medication using traditional medicine. The highest reason, as many as 31.03% of respondents

answered that they choose the use of traditional medicine as self-medication because it was natural. Natural according to the KBBI has the meaning that is concerned with nature, and natural. In addition, medicinal plants in general can be referred to as plants containing natural chemical compounds that provide important pharmacological effects and bioactivity in the treatment of infectious diseases to degenerative diseases. In addition to natural medicines having pharmacological effects, the driving factor for choosing natural medicines is because the side effects are believed to be smaller (Pangaribuan, 2017).

Table 4. Respondents' Reasons for Self-Medication with Traditional Medicines During the COVID-19 Pandemic

Num	Reasons for self-medication with traditional medicine	Number of samples	Percentage (%)
1.	Natural	36	31,03
2.	Inexpensive	24	20,69
3.	Easy to get	19	16,38
4.	Does not give side effects	17	14,66
5.	Hereditary belief	14	12,07
6.	Treat minor ailments	3	2,59
7.	Proven effect	3	2,59
	Total	116	100

Table 5. Combination with Modern Medicine

Num	Combination	Number of samples	Percentage (%)
1.	No	87	87
2.	Yes	13	13
	Total	100	100

Based on table 5, it is known that the number of respondents who use traditional medicine and combine it with modern medicine is 13%. Based on the information from respondents, it is known that 11% of the respondents combined paracetamol with different traditional medicines, namely steeping turmeric, ginger, and honey, and 2% of respondents combined ultra flu with different traditional medicines, namely steeping turmeric, ginger and curcuma. Some combinations can still be done, but with the approval of a doctor or health worker and with a fairly safe standard, and asking for the right time to drink or pause so that there is no interaction between modern and traditional medicines (BPOM RI, 2007).

However, this point focuses on self-medication behavior, which means that the self-medication actor does not see the doctor for treatment, therefore asking how to take traditional medicine together with modern medicine can be consulted with a pharmacist.

Table 6. Use of Traditional Medicines with Medicines from Doctors

Num	Use of Medicine from Doctor	Number of samples	Percentage (%)
1.	No	96	96
2.	Yes	4	4
	Total	100	100

The reason for respondents who take traditional medicines together with medicines from doctors is to keep the body healthy or in a stable state, because users of these medicines already have congenital diseases, the preparations taken are a mixture of ginger, turmeric, and curcuma, in FOHAI (2016) mentioned that ginger is good as an antiemetic, treatment of gastritis and arthritis, while turmeric is good for supporting heart and blood vessel disease, while curcuma is useful for the treatment of dyslipidemia and anorexia (Kemenkes RI, 2016).

The chemical drugs mentioned above are for the treatment of nervous and heart disorders, the use of turmeric is quite suitable according to indications, but other ingredients are not appropriate even though they can also provide useful effects, education on the use of other ingredients in FOHAI (2016) such as celery, roselia , and noni which is good for hypertension and ingredients such as meniran as hepatoprotectors from the continued use of chemical drugs, both to be educated to the public, the aim is the treatment that carried out can provide greater benefits.

Table 7. Frequency of Respondents Drinking Traditional Medicines in a Day during the COVID-19 pandemic

Num	Frequency	Number of samples	Percentage (%)
1.	Once a day	67	67
2.	Twice a day	23	23
3.	Three times a day	10	10
	Total	100	100

Based on table 7. it is known the frequency of use of traditional medicine by respondents, as many as 67% of respondents consume traditional medicine once a day. Based on the data obtained in table 14 the most widely used ingredients are ginger, turmeric, honey, and galangal. Based on FROTI (2017) the dose of ginger use is 3 x 0.5 - 1 g rhizome/day, in the form of steeping. The dose of turmeric is 3 x 1-3 g of rhizome/ day, in the form of steeping. The dose of use of galangal 3 x 5 g of rhizome/day, before eating.

The frequency is still quite low, which is only once a day, these materials have to be used 3 times a day with a certain weight of material. Further understanding of how to use and dosage is important to educate the community in Grogol Village, because the highest results are once a day use, and 3 times a day use is still low at 10%. The frequency of taking traditional medicine must be adjusted to what is required based on the drug consumed, the frequency of drinking can refer to the Original Indonesian Herbal Medicine Formulary (2016), or as stated on the packaging if the drug is a packaged drug, the right frequency will guarantee success in treatment , and excessive doses can cause abdominal discomfort, vomiting, anorexia, sedation, nausea, vomiting, allergies, diarrhea, and others (Kemenkes RI, 2016).

Table 8. Number of Types of Ingredients used by Respondents

Num	Amount of preparation content	Number of samples	Percentage (%)
1.	More than 1 type	69	69
2.	Only 1 type	31	31
	Total	100	100

Based on table 8 mostly the respondent using more than one type of ingredient. Based on the Formulary of Indonesian Traditional Medicines (FROTI), several traditional medicinal preparations are said to be combined in the manufacturing process, in FROTI there is no definite mention of interactions between traditional ingredients, the reported interactions are interactions with modern drugs (Kemenkes RI, 2017). Several finished packaged preparations that are already in the form of a combination and have a clear sign or logo on the packaging can be used and utilized according to the stated claims, and still pay attention to how to use them in accordance with the guidelines for the use of traditional medicines. The Pocket Book of Traditional Medicines issued by BPOM in 2020 namely doing a CLICK check and checking the label to ensure indications and how to use it (BPOM, 2020).

Table 9. Number of Types of Preparations Used by Respondents

Num	Number of Preparations	Number of samples	Percentage (%)
1.	Two	72	72
2.	One	28	28
	Total	100	100

This question section (table 9) aims to obtain data on how many types of preparations are used. Respondents had the most answers, namely 2 types, as many as 72% of respondents used 2 types of dosage forms, be it liquid, steeped or capsule form. Meanwhile, it is known that as many as 28% of respondents use 1 type of preparation, the majority of respondents answered that the type is in the form of steeping. Based on these data, it is known that the variation of respondents in the use of dosage forms is still simple, the dosage forms of traditional medicines vary and according to their use, including tablets, gels, creams, and so on according to the distribution of BPOM (BPOM RI, 2019). For this reason, the introduction of other herbal dosage forms is considered necessary, because the appropriate form with the method of use and the target of healing can be maximized if the form is appropriate, and is not monotonous in the preparations that are taken only.

Based on table 10 as many as 57.84% of respondents know that a traditional medicine is beneficial from parents or from generation to generation, as much as. Hereditary is a form of interaction between the community and the environment. Increasing age and experience in the use of medicinal plants does make a person improve his knowledge and believe that medicinal plants can treat disease. Hereditary is also based on trust, because the information obtained comes from the closest people, for example biological parents (Pangaribuan, 2017). Other respondents know from relatives (16.67%), according to the KBBI are close or family ties, meaning that relatives are also the closest people, so it is easy for someone to trust relatives, as well as health information (KBBI, 2021), because The information from relatives is the second highest information.

Table 10. Sources of Information

Num	Resources	Number of samples	Percentage (%)
1.	Parents/hereditary	59	57,84
2.	Relatives	17	16,67
3.	Advertising on TV, print media, radio	12	11,76

4.	Internet (eg: health blog)	8	7,84
5.	Health workers	4	3,92
6.	Based on personal experience	2	1,96
	Total	102	100

Table 11. Respondents' Ways of Obtaining Traditional Medicines

Num	Ways to Get Traditional Medicine	Number of samples	Percentage (%)
1.	Make your own	73	62,39
2.	Buy at the pharmacy	27	23,07
3.	Relatives	12	10,25
4.	Buy at the shop	3	2,56
5.	Buy in online shop	1	0,85
6.	Given by a relative or relative	1	0,85
	Total	117	100

Based on table 11 it is explained that 62.39% of respondents get traditional medicine by making their own, 23.07% get it from pharmacies, 10.25% get traditional medicine from stalls, 2.5% buy from online stores, 0.85% of respondents given by their relatives, and 0.85% bought from a jamu carrying seller. Based on the results of Purnamasari : 2019 research, the highest method of obtaining traditional medicine is also in making it yourself, which is 31.36%, pharmacies by 16.96%, from shops by 6.51% and from stalls by 0.987%. The factor that causes making yourself is the highest because making your own is considered easier and cheaper than buying directly (Purnamasari, 2019).

Table 11.1. Types of Pots Used When Making Your Own Traditional Medicine

Num	Type of Pot Used	Number of samples	Percentage (%)
1.	Ordinary pot	70	95,89
2.	Stainless steel pot	2	2,73
3.	Earthenware container / jug	1	1,36
	Total	73	100

Based on table 11.1 as many as 95.89% of respondents from 62.39% of respondents who make their own, make their own traditional medicine preparations using ordinary pans, 2.73% of respondents use stainless steel pans, and 1.36% use jugs. According to FROTI, the simplicia boiling utensil must not use metal, except stainless steel. Simplicia boiling tools should be made of glass, ceramic, or porcelain (Kemenkes RI, 2017). However, from

the results seen, 95.89% of respondents still use ordinary pans, for that there needs to be an improvement in behavior because it can affect the content of traditional medicines that are made, for example if the material is made of metal over time it can peel and contaminate the preparations made, so that when consumed causes heavy metal poisoning.

Table 12. Symptoms that Respondents Treat with Traditional Medicine Self-Medication during the COVID-19 Pandemic

Num	Symptoms Treated with Traditional Medicine	Number of samples	Percentage (%)
1.	Have a cold	49	36,84
2.	Cough	23	17,29
3.	Fever	13	9,77
4.	Flu	13	9,77
5.	Muscle ache	6	4,51
6.	Dizzy	5	3,75
7.	Weak immune system	4	3,00
8.	Body aches	4	3,00
9.	Bloated	2	1,50
10.	Feel dizzy	2	1,50
11.	Limp body	2	1,50
12.	Stomach ache	2	1,50
13.	I am not feeling well	1	0,75
14.	Out of breath	1	0,75
15.	Hypertension	1	0,75
16.	Lack of appetite	1	0,75
17.	Kidney stones	1	0,75
	Total	133	100

Based on table 12 symptoms of the disease that are most often treated with traditional medicine are colds (36.84%), in medical terms or medically there is no term colds, colds are a combination of symptoms such as body heat, cold, flatulence, and aches and pains (Triatnawati, 2011). Colds are the main symptom treated by respondents because if people feel any accumulation or some of the symptoms mentioned above, then people will assume what they are experiencing is a cold, even though the accumulation of these symptoms could be a sign of a disease which in medical terms is referred to as the common cold. Symptoms of the common cold itself include sore throat, nasal congestion, sneezing, chills, body feeling unwell, muscle aches, and fever (Tietze, 2002), which of these symptoms are similar to symptoms that are considered by the community as colds, but Due to people's thoughts and understandings that have been ingrained since time immemorial and are used to calling it a cold (Triatnawati, 2011), this term is quite often used and even some

traditional medicine manufacturers make several preparations specifically intended for the treatment of colds.

Table 13. Types of Traditional Medicines Frequently Used by Respondents During the COVID-19 Pandemic

Num	Types of Traditional Medicine	Number of samples	Percentage (%)
1.	Jamu	94	67,14
2.	Standardized herbal medicine	46	32,85
3.	Phytopharmaceuticals (Fitofarmaka)	0	0
	Total	140	100

Based on table 13 as many as 67.14% of respondents use herbal medicine in self-medication with traditional medicine, herbal medicine being the most likely answer due to several factors such as prices that tend to be cheaper than other types, public trust, knowledge, and experience of using herbal medicine, and herbal preparations can be made by themselves with several ingredients that are already available in the kitchen or garden, this convenience is probably the reason why respondents use herbal medicine more. These results are also in line with table 15 regarding the most widely used dosage forms, namely 52.94% of respondents answered that they mostly used steeping preparations, which were preparations made by themselves with simplicia, as well as fresh rhizomes.

Table 14. Traditional Medicines (herbs) that Respondents Often Use During the COVID-19 Pandemic

Num	Herbal preparations	Number of samples	Percentage (%)
1.	Ginger	61	22,67
2.	Turmeric	51	18,95
3.	Honey	49	18,21
4.	Aromatic ginger	42	15,61
5.	Curcuma	27	10,03
6.	Lemongrass	11	4,08
7.	Palm sugar	5	1,85
8.	Habbatusauda	4	1,48
9.	Plow wood	3	1,11
10.	Lemon	2	0,74
11.	Tamarind	2	0,74
12.	Papaya leaf	2	0,74
13.	Wedang uwuh	2	0,74
14.	Lime	2	0,74
15.	Packaged brewed herbs	2	0,74
16.	Moringa	1	0,37

17.	Gula jawa	1	0,37
18.	Bay leaf	1	0,37
19.	Belalai gajah leaf	1	0,37
	Total	269	100

Based on table 14 above, it is known that the most widely used ingredients are ginger (22.67%), turmeric (18.95%), honey (18.21%), galangal (15.61%), and curcuma (10.03%). While the results from Purnamasari [20], the majority of respondents chose honey (25.78%), lime (17.51%), ginger (17.03%), turmeric (13.79%), and galangal (7.67%). So the results from this study are not much different about the traditional medicinal ingredients used by the respondents, in this study ginger was chosen the most because it was in line with the previous question that the symptom that was most commonly treated was colds (36.84%) because of its body-warming properties. According to FROTI, ginger is useful in the treatment of colds, colds, stomach ulcers, and anti-nausea – vomiting (Kemenkes RI, 2016). Then some respondents answered galangal in the choice of medicine, galangal also has an indication as an analgesic - antipyretic according to FOHAI (2016), and this result is in line with previous data regarding the symptoms being treated, namely fever which is the third highest answer, which is 9.77% (Kemenkes RI, 2016).

Table 15. Forms of Traditional Medicines that you often use during the COVID-19 pandemic

Num	Preparation Form	Number of samples	Percentage (%)
1.	Steep	90	52,94
2.	Liquid	74	43,52
3.	Powder	4	2,35
4.	Capsule	2	1,17
	Total	170	100

Based on table 15, the dosage forms used by the respondents include steeping (52.94%), the most widely used steeping dosage form is because of the easy and inexpensive manufacturing factor. Steep forms tend to be easier to make because the process is simple. This form was probably chosen because of the availability of materials that already exist in the kitchen and garden, in the KBBI *seduh* means to flush or mix something with hot water, while in the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.07/MENKES/187/2017, *Seduh* is to use boiling water that is poured into in

simplicia, closed and allowed to stand 5-10 minutes. However, in practice, making steeping must pay attention to the time, the tools used, the cleanliness of the simplicia, and the right dose according to the FROTI (2017) instructions. Therefore, counseling related to how to make and prepare traditional medicines is also important so that the desired benefits can be achieved.

Based on table 16 as many as 45.63% of respondents claimed that their body felt healthier after using traditional medicine, 24.27% of other respondents stated that the symptoms of the disease were reduced after using traditional medicine, as many as 21.35% of respondents admitted that the body felt more fit after using traditional medicine. Based on the results of Maryani's research (Maryani, 2016), the benefits of traditional medicine include the efficacy or efficacy of traditional medicine (26.7%) this benefit is in line with the results of the respondents' answers, namely the symptoms of the disease are reduced and the body feels more fit and healthy.

The result of the highest beneficial effect felt by respondents in this study was that the body felt more fit and healthy in line with the respondent's goal at the point of self-medication during the pandemic, namely to increase body resistance so as not to contract the disease by 48%. Based on these results, it can be seen that the good use of traditional medicine can have a good effect, especially in the midst of a pandemic that requires people to increase their immune system.

Table 16. Benefits Experienced by Respondents

Num	Benefits Ever Feel	Number of samples	Percentage (%)
1.	Body feels healthier	47	45,63
2.	Reduced disease symptoms	25	24,27
3.	Body feels more fit	22	21,35
4.	Become more confident that you can be protected from contracting / getting sick	9	8,73
	Total	103	100

Table 17. Respondents Experienced Side Effects

Num	Side Effects Ever Feel	Number of samples	Percentage (%)
1.	Nothing	72	72
2.	Increased frequency of urination	21	21
3.	Diarrhea	5	5
4.	Drowsiness	2	2
	Total	100	100

Based on table 17 as many as 28% of respondents experienced side effects in the form of increased frequency of urination, drowsiness and diarrhea. Meanwhile, 72% of respondents said they did not feel any side effects after using traditional medicine. These results are in line with the results of Purnamasari: 2019 research that 48.21% of respondents did not feel any side effects, 22.59% were sleepy, 10.19% urinated frequently, and 0.83% had diarrhea. Meanwhile, data on the relationship between the use of traditional medicinal ingredients and the side effects that occur can be seen in table 17.1.

Based on the table 17.1, it is known that the highest use of ginger can cause the frequency of urination to increase. The mechanism of action of the active substance in ginger is to inhibit prostaglandin biosynthesis through inhibition of COX-1 and COX-2. In vitro also inhibits T cell proliferation, IL-1 α production, macrophage activity and synthesis so that ginger can be used as an anti-inflammatory. Although it does not directly provide a diuretic effect, the factor that causes these side effects to occur is due to the processing of ginger itself which is brewed using water, and then drunk so as to increase the water intake of the user of the preparation. Meanwhile, Sholehuddin: 2018 research that the use of boiled red ginger and white turmeric resulted in each sample experiencing an increase in the intensity of urine output. Red ginger gingerol compounds and curcumin from turmeric can vasodilate blood vessels, are also anti-coagulant, causing the sample to increase urine output (Sholehuddin, 2018).

Table 17.1. Comparison of Materials Used with Side Effects Experienced by Respondents

Num	Materials used	Side effects		
		Increased frequency of urination	Drowsiness	Diarrhea
1.	Ginger	16	1	2
2.	Honey	14	1	2
3.	Turmeric	12	1	-
4.	Curcuma	10	2	1
5.	Aromatic ginger	8	1	1
6.	Palm sugar	5	-	-
7.	Pirate Wood	3	-	-
8.	Lemongrass	3	-	-
9.	Bay leaf	1	-	-
10.	Belalai gajah leaf	1	-	-
11.	Lemon	1	-	-
12.	Cinnamon	1	-	-
13.	Lime	1	-	-
14.	Package herbs	-	2	-
15.	Betel	-	1	-
	Total	76	9	6

Table 18. What to do if in 3 days the symptoms have not reduced

Num	Things to do	Number of samples	Percentage (%)
1.	Check with a doctor/health center/hospital	60	60
2.	Continue treatment until healed	16	16
3.	Replace with modern medicine	15	15
4.	Substituting with other traditional medicine	6	6
5.	Silence until it heals by itself	2	2
6.	Discontinued	1	1
	Total	100	100

Based on table 18. as many as 40% of respondents have not shown good behavior in self-medication if symptoms in 3 days have not been completed. In FROTI it is explained that the use of traditional medicine if complaints have not been resolved or other complaints arise, the public should still consult medical personnel (doctors) (Kemenkes RI, 2017). In addition, KepMenKes NUMBER HK.01.07/MENKES/382/2020 also provides recommendations for checking yourself to a health service facility if symptoms, especially those included in the symptoms of COVID-19, such as symptoms of fever, cough, runny

nose, sore throat, and/or shortness of breath. experienced continues. This behavior is possible due to factors such as income and education in Grogol Village, where as many as 51% of the people earn less than Rp. 1000,000.00 and the most education is only up to Senior High School as much as 40%, the economy is less able to influence the community in acting, especially in treatment, because going to a doctor also costs money and the level of education also affects a person in thinking and determining actions (Notoatmodjo, 2014). However, the public should receive education that they must continue to do what must be done, namely to check themselves at health facilities, especially during the COVID-19 pandemic, so that the illness they suffer can be immediately identified and treated.

CONCLUSION

Based on the research that has been done, it can be concluded that the profile of the use of traditional medicines is as follows the most common goals for self-medication are maintaining endurance (48%) and the reason being to save costs (27.78%), the most common type of traditional medicine is herbal medicine (67.14%), the most traditional medicine dosage forms are in the form of steeping (52.94%), the most benefit from self-medication with traditional medicine is that the body feels healthier (47%). Based on the results of the research obtained, it can be suggested that further research is needed, such as research on the level of behavior and rationality of using traditional medicine, because this research is still limited to what respondents do, not how respondents do self-medication. It is necessary to provide counseling for the villagers, regarding how to manufacture according to the FROTI (Indonesian Traditional Medicines Formulatorium) guidelines, especially on the tools used, combination actions, and actions taken if treatment has not been successful, because some respondents still gave inaccurate answers.

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REFERENCES

- [BPOM RI] Badan Pengawas Obat dan Makanan Republik Indonesia. (2007). *Acuan Sediaan Herbal Volume Ketiga Edisi Pertama (I)*. Jakarta : Badan Pengawas POM RI.
- [BPOM RI] Badan Pengawas Obat dan Makanan Republik Indonesia. (2019). *Peraturan Badan Pengawas Obat dan Makanan. Nomor 32 Tahun 2019 Tentang Persyaratan Keamanan dan Mutu Obat Tradisional*. Jakarta : Badan Pengawas POM RI.
- [BPOM RI] Badan Pengawas Obat dan Makanan Republik Indonesia. (2020). *Pedoman Penggunaan Herbal dan Suplemen Kesehatan dalam Menghadapi COVID-19 di Indonesia*. Jakarta : Badan Pengawas POM RI.
- [BPS] Badan Pusat Statistik. (2014). *Survei Sosial Ekonomi Nasional (Susenas) Tahun 2014*: Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- [BPS] Badan Pusat Statistik. (2020). *Survei Sosial Ekonomi Nasional (Susenas) Tahun 2020*: Jakarta: Badan Penelitian dan Pengembangan Kesehatan.
- [Kemenkes RI] Kementerian Kesehatan Republik Indonesia. (2016). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 6 Tahun 2016 Tentang Formularium Obat Herbal Asli Indonesia*. Jakarta: Kementerian Kesehatan Republik Indonesia.
- [Kemenkes RI] Kementerian Kesehatan Republik Indonesia. (2017). *Keputusan Menteri Kesehatan Republik Indonesia Nomor Hk.01.07/Menkes/187/2017 Tentang Formularium Ramuan Obat Tradisional Indonesia*. Jakarta: Kementerian Kesehatan Republik Indonesia.
- [Satgas COVID-19] Satuan Tugas Penanganan COVID-19. (2021). <https://covid19.go.id/peta-sebaran>. (Accessed 19 November 2021).
- Elfahmi, Herman J. Woerdenbag, Oliver Kayser. (2014). Jamu: Indonesian traditional herbal medicine towards rational phytopharmacological use. *Journal of Herbal Medicine*. Volume 4, Nomor 2:51-73. DOI: [10.1016/j.hermed.2014.01.002](https://doi.org/10.1016/j.hermed.2014.01.002)
- KBBI. (2021). *Kamus Besar Bahasa Indonesia (KBBI)*. [Online] Available at: <http://kbbi.web.id/pusat>, (Accessed 16 November 2021).

- Maryani, Herti, Lusi Kristiana, dan Weny Lestari. (2016). Faktor Dalam Pengambilan Keputusan Pembelian Jamu Sainifik. *Buletin Penelitian Sistem Kesehatan* .Volume 19, Nomor 3: 200-210. DOI: [10.22435/hsr.v19i3.6327.200-210](https://doi.org/10.22435/hsr.v19i3.6327.200-210)
- Matias, T., Dominski, F.H., Marks, D.F., (2020). Human needs in COVID-19 isolation. *J. Health Psychol.* Volume 25 Nomor 7: 871-882. DOI: [10.1177/1359105320925149](https://doi.org/10.1177/1359105320925149)
- Notoatmodjo, S. (2007). *Promosi Kesehatan dan Ilmu Perilaku*. Jakarta: Rineka Cipta.
- Notoatmodjo, s. (2011). *Kesehatan Masyarakat Ilmu dan Seni*. Jakarta : PT Rineka Cipta.
- Notoatmodjo, s. (2014). *Promosi kesehatan teori dan Aplikasi*. Jakarta : PT Rineka Cipta.
- Notoatmodjo, S. (2010). *Metodologi Penelitian Kesehatan*. Jakarta : Rineka Cipta
- Our World In Data. (2021). <https://ourworldindata.org/covid-cases>. (Accessed 19 November 2021).
- Pangaribuan, Nurmala, dkk. (2017). *Optimalisasi Peran Sains dan Teknologi untuk Mewujudkan Smart City*. Tangerang Selatan: Universitas Terbuka.
- Parwanto. (2013). *Herbal dan Keperawatan Komplementer*. Yogyakarta: Medikal Book.
- Purnamasari, Desi, Suwendar, dan Fetri Lestari. (2019). Studi Gambaran Swamedikasi Obat Tradisional pada Mahasiswa Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Islam Bandung. *Prosiding Farmasi*. Volume 5, Nomor 2: 764-772. DOI: <http://dx.doi.org/10.29313/v0i0.18186>
- Sadio, Arnold J, *et al.* (2021). Assessment of self-medication practices in the context of the COVID-19 outbreak in Togo. *BMC Public Health*. Volume 21, Nomor 38: 1-9. DOI: [10.1186/s12889-020-10145-1](https://doi.org/10.1186/s12889-020-10145-1)
- Sholehuddin ,Moh., Hari Santoso, dan Ahmad Syauqi. (2018). Rebusan Jahe Merah (*Zingiber officinale* Rosc. var *Rubrum*) – Kunyit Putih (*Curcuma zedoaria* Rosc.) sebagai Jamu Peluruh Urin. *e-Jurnal Ilmiah Sains Alami (Known Nature)*. Volume 1 Nomor 1: 57-64. DOI:[10.33474/j.sa.v1i1.1421](https://doi.org/10.33474/j.sa.v1i1.1421)

Tietze, K J. (2002). *Disorders Related to Cold and Allergy, Handbook of Nonprescription Drugs, 13th Edition*. Washington DC : American Pharmaceutical Association.

Triatnawati, Atik. (2011). Masuk Angin dalam Konteks Kosmologi Jawa. *Humaniora*. Volume 23, Nomor 3: 326-335. DOI: <https://doi.org/10.22146/jh.1033>

NOMENCLATURE

FOHAI : Formularium Obat Herbal Asli Indonesia (Original Indonesian Herbal Medicine Formulary)

FROTI : Formularium Ramuan Obat Tradisional Indonesia (Indonesian Traditional Medicinal Formulary)