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## THE RELATIONSHIP BETWEEN LEVEL OF KNOWLEDGE AND COMMUNITY ATTITUDES ABOUT TRADITIONAL MEDICINE IN MAJASEM HAMLET, MADUREJO SUB-DISTRICT, PRAMBANAN SLEMAN SUB-DISTRICT

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**Abstract:** The use of traditional medicine in Indonesia continues to increase. In the Special Region of Yogyakarta, the use of traditional medicines is quite high, reaching 58.1% in 2013. However, the community's knowledge of traditional medicines is still low and limited to herbal medicine. This research is to describe the level of knowledge, attitudes, and the relationship between knowledge and attitudes towards traditional medicines. This research uses an analytic observational design with a cross-sectional technique. The sampling technique used purposive sampling on 70 respondents in Majasem Hamlet, Madurejo Village, Prambanan District, Sleman. The data observed included patient characteristics (age, gender, education, and occupation), level of knowledge, attitudes, and the relationship between the level of knowledge and attitudes towards traditional medicines, using the Kruskal-Wallis statistical test. In this study, there were more female respondents than male respondents, namely 62%. The most age was the age group of 17-25 years (31%). Meanwhile, the highest levels of education and occupation were housewives (34%) and high school (61%). The majority of the community's level of knowledge about traditional medicine was in the sufficient category (50%), the attitude towards the use of traditional medicine was in the majority in the good category (84.2%). The Kruskal-Wallis test results obtained a significance value of  $0.005 < 0.05$ . The level of community knowledge about traditional medicine is in the good (28.5%), intermediate (50%), and poor (21.5%) categories. Attitudes to the use of traditional medicine were in the good (84.2%), intermediate (14.3%), and bad (1.5%) categories, and there was a relationship between the level of knowledge and attitudes towards traditional medicine.

**Keywords:** traditional medicine, level of knowledge, attitude

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## INTRODUCTION

The use of Traditional Medicine in Asia and Indonesia continues to increase every year. The use of traditional medicine in Indonesia in 2010 (15.4%) increased in 2012 (41.7%), while in Yogyakarta Province, the use of traditional medicine was also quite high, reaching 58.1% (RISKESDAS, 2013). Another study also showed that 50% of the Indonesian population consumed herbal medicine, both in liquid and powder form (Andrianti and Wahjudi, 2016). However, this increase in traditional medicine use has not been matched by good knowledge. Previous studies showed that public knowledge about traditional medicine is still low (Heri, 2014). Traditional medicine is categorized into herbal medicine, standardized herbal medicine, and phytopharmaca (BPOM, 2014), but public knowledge is limited to herbal medicine, while standardized herbal medicine and phytopharmaca are still unfamiliar (Wulandari et al, 2021; Khoirurifa et al, 2020).

Research related to traditional medicine has also not been widely conducted. Based on the above background, the researcher conducted a study to determine the level of knowledge, community attitudes



and the relationship between the level of knowledge and community attitudes about traditional medicine in Majasem Hamlet, Madurejo Village, Prambanan Sleman District.

## METHODS

The study used an analytic observational design with a cross-sectional approach.

### Population and sample

The population of this study was the people of Majasem Hamlet, Madurejo, Prambanan, Sleman, totaling 222 respondents. Sampling using purposive sampling technique with consideration of inclusion criteria. Inclusion criteria are respondents aged 17-65 years and willing to be respondents in the study. Calculation of the number of samples using the Slovin formula (Notoatmodjo, 2012), as many as 70 respondents.

### Research instruments

The research instrument used a knowledge level questionnaire and an attitude towards traditional medicine questionnaire with closed questions. The questionnaire was adapted and modified from Puspita's research (2019). The questionnaire was tested for validation and reliability on 30 respondents according to the inclusion criteria. The questionnaire is said to be valid if the value of the  $r$  count is greater than the  $r$  table.  $R$  table with 30 respondents, and  $df$  28 is 0.312 (Sujarweni, 2020). The questionnaire is said to be reliable if Cronbach's alpha value is  $> 0.6$  (Sujarweni, 2015). The validity test results obtained  $r$  count  $< 0.312$  on 5 questions of the knowledge questionnaire and attitude questionnaire so these questions were not used in the study. The reliability test results showed a Cronbach alpha value of  $0.625 > 0.6$  for the knowledge questionnaire, and  $0.790 > 0.6$ , for the attitude towards traditional medicine questionnaire, meaning that the two questionnaires were reliably used as measuring instruments. Based on the results of the validity and reliability tests of the two questionnaires, 10 knowledge questionnaire questions and 10 attitude questions were obtained to be used in the study.

### Research Steps

The research was conducted by submitting a research permit to the head of Majasem hamlet, Madurejo, Prambanan. Furthermore, giving informed consent to respondents. Respondents who were willing to become research subjects were distributed questionnaires for research data collection. In the knowledge questionnaire, data were analyzed based on the score on each question item. The correct answer was given a score of 1, and the wrong answer was given a score of 0. The score was categorized based on the level of knowledge. The good level of knowledge with a score of 76-100%, sufficient knowledge with a score of 56-75%, and less knowledge with a score of 10-55% (Sugiyono, 2010). The attitude questionnaire data used a Likert scale, namely strongly agree, agree, undecided, disagree, and strongly disagree (Budiaji, 2013). The results of the attitude scale are categorized into good (scale 31-50), medium (scale 21-30), and bad (scale 10-20) attitudes (Budiaji, 2013).

Kruskal-Wallis statistical test followed by post hoc Man-Whitney with SPSS ver. 23. Statistical tests to determine whether there are significant differences in attitude scores between groups of knowledge levels. If the significance value is  $> 0.05$ , there is no significant difference, while if the significance value is  $< 0.05$ , there is a significant difference in attitude scores between knowledge level categories, so there is a relationship between knowledge level and attitude about traditional medicine (Dahlan, 2014).

## RESULT AND DISCUSSION

### Characteristics of Respondents

There were more female respondents (62%) than male respondents (38%). This study shows that the willingness and positive response of female respondents to participate in research is higher than that of male respondents. This could be one of the factors that led to the large number of female respondents in this study. Other studies have shown that women are more likely to self-medicate and care more about their health than men. This can be due to the fact that most women have more free time and less work time compared to men (Noviana, 2017).

That the highest age in this study was 17-25 years old (31%). One of the factors that influence knowledge is age (Koetler, 2013). The older a person gets, the more experience and knowledge he gets (Notoadmodjo, 2011). In addition, age can also affect a person's attention span and mindset. The older a person gets, the



more developed his or her attention span and mindset will be, so the knowledge gained will also be better (Budiman and Riyanto, 2013).

**Table I. Characteristics of Respondent**

<b>Characteristics of Respondent</b>	<b>Number of Respondents (%)</b>
<b>Gender</b>	
Male	26(38)
Female	44(62)
<b>Age (Years)</b>	
17-25	22(31)
26-35	14(20)
36-45	13(19)
46-55	17(24)
56-65	4(6)
<b>Education</b>	
University	4(6)
Senior High School	43(61)
Junior High School	5(7)
Elementary School	18(26)
<b>Occupation</b>	
Self-employed	6(9)
Employee	10(14)
Laborer	14(20)
Courier	3(4)
Not working	24(34)
Student	13(19)

Most of the respondents' education level is senior high school (61%). Education is a process and involves a series of activities. A person will gain better knowledge, understanding, expertise, and insight through the education process. So that someone with a higher level of education will have better knowledge than a lower level of education (Notoatmodjo, 2012). Other research states, that the higher the level of education, the easier it is for someone to understand and receive information (Asyikin, 2018). The level of education can also affect a person in receiving information, information about health, disease, treatment, and others. Someone with a high level of education will more easily receive information than someone with a lower level of education. Other research states that the higher a person's level of education, the easier it is to accept understanding related to disease, so the level of knowledge will be better (Cholifatun, 2015). The level of education can also affect the way people think about traditional medicine. Based on research conducted by Puspariki and Suharti (2019), it is concluded that the perceptions and interests of people who do not go to college are higher than those of people who take education in college. This can be caused because people who have never been to college have a way of thinking that is not based on facts, not comprehensive, not rational, not comprehensive due to the lack of learning process so that perceptions of traditional medicine are more positive than people with S1 / S2 / S3 education levels (Puspariki, 2019). The characteristics of respondents obtained based on the results of the study are shown in Table I.

### **Level of Knowledge about Traditional Medicines**

Based on Table II, it can be seen that the community already knows about the definition of traditional medicine, the rules of use, and the logo of standardized herbal medicines. This can be seen from the high percentage of correct answers. The distribution of knowledge questionnaire answers is shown in Table II. A total of 74.2% of respondents answered correctly about the statement that traditional medicines should not be consumed together with chemical drugs without a time gap. If you want to consume traditional medicine and chemical drugs, it should not be consumed at the same time, it must be given a time interval (Zahrotunnisa, 2021).

As many as 57.2% answered correctly about the statement that traditional medicines are only sold in traditional medicine stores. This proves that some people already understand that traditional medicine is not only sold in traditional medicine stores but can be sold in pharmacies, online stores, traditional markets, jamu gendong sellers and stalls. Most respondents already knew how to store traditional medicine, and 81% of respondents answered correctly. The storage of traditional medicine in a closed container to prevent damage is in accordance with the Regulation of the Head of BPOM of the Republic of Indonesia Number



12 of 2014 concerning quality requirements for traditional medicines (BPOM, 2014). The distribution of answers to the questionnaire on the level of knowledge about traditional medicine is shown in Table II.

**Table II. Distribution of Traditional Medicine Knowledge Level Answers**


Question	Number of Respondent (%)	
	Correct Answer	False Answer
Obat tradisional adalah bahan atau ramuan bahan yang berasal dari tumbuhan dan digunakan khusus untuk pengobatan?	52 (74,2)	18 (25,8)
Obat tradisional lebih diutamakan untuk penyakit yang memerlukan pengobatan lama?	19 (27,2)	51 (72,8)
Obat tradisional dapat dibeli tanpa resep dokter?	51 (72,8)	19 (27,2)
Obat tradisional dapat diminum bersamaan dengan obat kimia untuk meningkatkan efektivitas obat?	52 (74,2)	18 (25,8)
Obat tradisional hanya dijual di toko obat tradisional?	40 (57,2)	30 (42,8)
Obat tradisional harus disimpan dalam wadah tertutup?	50 (71,5)	20 (28,5)
Obat tradisional dapat diminum setiap hari?	57 (81)	18 (19)
Semua obat tradisional aman dikonsumsi kapan saja?	44 (62,8)	26 (37,2)
Logo ini merupakan logo Obat Herbal Terstandar (OHT)	55 (78,5)	15 (21,5)
		
Efek obat tradisional terhadap tubuh terjadi secara cepat?	41 (58,5)	29 (41,5)

Table III shows that respondents who have good knowledge (28.5%), sufficient of knowledge (50%) and less of knowledge (21.5%). The number of respondents who had sufficient knowledge was greater than the number of respondents who had good knowledge about traditional medicine. The results of this study are almost the same as some previous studies. Puspita's research (2019) stated that 17.5% had good knowledge, 43.3% had sufficient knowledge and 39.2% had less knowledge about traditional medicine. Merdekawati's research (2016) states that more than 50% of the community has sufficient knowledge about traditional medicine. Research by Khoirurifa et al (2020) states that respondents who have knowledge of traditional medicine in the good category amounted to (35%), the sufficient category (48.5%) and the less category amounted to (16.5%).

**Table III. Categories of Respondents' Knowledge Level about Traditional Medicine**

Knowledge Category	Number of Respondents (%)
Good	20(28,5)
Sufficient	35(50)
Less	15(21,5)

Knowledge is important for the formation of a person's new behavior or character is a complex process and requires a relatively long time (Notoadmodjo, 2012). Differences in knowledge levels can occur due to differences in educational background, environmental conditions, and respondent experience. In addition,



sufficient knowledge about traditional medicine may be due to respondents having personal experience that has been carried out for generations and more often socializing among others in the environment so that any information can be received easily.

Table IV shows that most people (50%) agree that traditional medicine is used as the first choice of treatment when sick. In addition, 34.3% of respondents agreed with statements related to people's decisions to continue using traditional medicine even though they felt side effects, as long as the side effects were not harmful. According to Merdekawati's research (2021), traditional medicine can be used as an alternative treatment, but the therapeutic effect of traditional medicine is not as fast as chemical drugs and takes time. The use of traditional medicine must be in accordance with the composition and routinely used to achieve therapeutic effects.

**Table IV. Distribution of Answers to Community Attitudes about Traditional Medicine**

Question	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Saya juga mengonsumsi obat tradisional sebagai pilihan pengobatan ketika sakit.	20(28,5)	35(50)	10(14,2)	5(7,3)	0(0)
Saya juga mengonsumsi obat tradisional meskipun saya telah mengonsumsi obat modern.	10(14)	40(57)	30(32)	0(0)	0(0)
M menurut saya, obat tradisional lebih murah dibandingkan harga obat modern.	12(18)	48(68)	10(14)	0(0)	0(0)
Menurut saya, obat tradisional lebih efektif (manjur) dibandingkan obat modern.	5(6)	25(36)	26(39)	10(14)	4(5)
Menurut saya, semua obat tradisional tidak memiliki efek samping.	21(30)	42(60)	7(10)	0(0)	0(0)
Menurut saya, semua obat tradisional aman dikonsumsi dibandingkan obat modern.	33(47,1)	31(44,2)	4(5,7)	2(2,8)	0(0)
Meskipun saya merasakan efek samping dari obat tradisional, saya tetap akan menggunakan lagi selama efek sampingnya tidak membahayakan.	24(34,3)	34(48,6)	11(15,7)	0(0)	1(1,4)
Saya lebih senang mengonsumsi obat tradisional dari penjual jamu gendong dibandingkan di toko/warung obat tradisional.	26(37,2)	40(57,14)	4(5,7)	0(0)	0(0)
Menurut saya obat tradisional aman	13(18,6)	47(67,14)	7(10)	1(1,4)	2(2,8)

Most respondents agreed that traditional medicine is cheaper than chemical drugs (68%), although some respondents thought that many traditional medicines were sold more expensive than chemical drugs. As many as 39% of respondents disagreed that traditional medicine is more effective than modern medicine. This result is in accordance with previous research, which states that most people consider traditional medicine to be cheaper, but not more effective than chemical drugs (Puspita, 2019). In the statement about all traditional medicine having no side effects, most respondents answered agree (60%). These results are



similar to Ismiyana's (2013) research in Jimus Village, Klaten, which showed that most respondents after using traditional medicine had no harmful side effects.

Based on Table V, it is known that the attitude towards traditional medicine in Majasem Hamlet, Madurejo Village, Prambanan District, Sleman is good (84.2%), moderate (14.3%), and low (1.5%). This study is different from Puspita's research (2019), where the attitude towards the use of traditional medicine in Mlati District is mostly moderate (51.7%).

**Table V. Categories of Respondents' Attitudes about Traditional Medicine**

Attitude Category	Number of Respondents (%)
Good	59 (84,2)
Moderate	10(14,3)
Low	1(1,5)

### **Relationship between knowledge level and attitude about traditional medicine**

The Kruskal-Wallis statistical test was conducted to determine whether there were differences in attitudes between categories of knowledge levels. The results of the Kruskal-Wallis test obtained a significance value of  $0.005 < 0.05$ , meaning that there is a significant difference in people's attitudes towards traditional medicine in the good, moderate, and less knowledge categories. Furthermore, the post hoc follow-up test was carried out with Mann-Whitney.

The results of statistical tests show that there is a relationship between the level of knowledge and people's attitudes about traditional medicine, in the category of good knowledge level with moderate attitude and good knowledge category with less attitude. According to Notoatmodjo (2012), behavior is influenced by three factors, namely predisposing factors, enabling factors, and reinforcing factors. Knowledge is a predisposing factor that influences traditional medicine use behavior. Knowledge related to this drug is very useful, because in addition to drugs being used to cure a disease, drugs can also potentially cause new diseases if not used properly (Sari, 2016).

## **CONCLUSION**

The level of community knowledge about traditional medicine was in the good (28.5%), sufficient (50%), and less (21.5%) categories. Attitudes about traditional medicine were in the good (84.2%), moderate (14.3%), and less (1.5%) categories. There is a relationship between the level of knowledge and the attitude of the community about traditional medicine.

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