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THE RELATIONSHIP BETWEEN THE LEVEL OF KNOWLEDGE AND PERCEPTION OF THE USE OF TRADITIONAL MEDICINE IN THE PEOPLE OF KLATEN CITY IN 2022

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ABSTRACT
The use of traditional medicine in today's society is increasing with labels "back to nature" which is realized through the utilization of Indonesia's natural potential. Based on an incidental survey study in Klaten City, the affecting factor the use of traditional medicine in this region is knowledge and perception. Public knowledge related to the utilization of traditional medicine is assumed to be lacking because of the assumption that traditional medicine is much safer than chemical drugs. There is an assumption based on the side effects of traditional medicine being lower than chemical drugs. This study aims to assess the contribution of perception and knowledge to the use of traditional medicine. The research uses a cross-sectional study and the data collection instruments through questionnaires. The sampling technique used was purposive sampling with a total of 1089 respondents. Data collection used a questionnaire instrument whose results were analyzed using the Chi-Square statistical test. From these results can be concluded that types of knowledge involve definitions, type, efficacy, side effects, how to use, perceptions, convenience, currentness, and policy that can affect the use of traditional medicine. The results of data analysis show that the contribution of knowledge and perception to the use of traditional medicine has a coefficient of determination of 0.742

Keywords: Knowledge; Perception; Traditional medicine; Use

1. INTRODUCTION

Based on Health Law No. 36 of 2009, all Indonesian citizens have equal rights to optimize health levels. To support these efforts, the government is responsible for providing and regulating health services in the form of improving and treating health, preventing and curing disease, as well as restoring the health of families, individuals, groups, or communitie (Departemen Kesehatan, 2009). Traditional medicine is a combination of culture and community knowledge. Ancestral empirical experience integrated with nature encourages the perception that nature has provided medicine for itself and society (Jabbar et al., 2017). Traditional medicine has several benefits that involve relatively few side effects and works synergistically in mixtures with different ingredients to produce several pharmacological effects (Ningsih, 2016).

Traditional medicines are made from materials passed down from generation to generation and used for treatment. Traditional medicinal ingredients can be formed of combinations or made from plant, animal, mineral preparations, and extracts (galenic preparations) (BPOM, 2021) Herbal medicines are well-known as part of Indonesian natural medicine and classified into several groups, herbs, standardized herbal medicines, and phytopharmaka (BPOM RI, 2005). 92% of the people stated that they already knew about traditional medicine, but still did not know about the development of traditional medicines, the majority of people only knew herbal medicine 88.2%, standardized herbal medicines 29.4% and Phytopharmaka by 3% (Pratiwi et al., 2018). Incorrect use of traditional medicines can unknowingly endanger public health and even cause

fatalities (Ariyulinda, 2018). Traditional medicine is used for alternative medicine because the price is less than chemical drugs, drugs scarcity, and there is public confidence about the safety of chemical drugs (Dewoto, 2007). Synthetic drugs are drugs made from chemicals and traditional medicine is drugs made from natural ingredients (Menkes, 2017). The tendency of people to use traditional medicines is because of interest in a more natural lifestyle, which has an impact on increasing the need for medicinal plants (Salim et al., 2017). Awareness about the importance of "back to nature" is generally in products they use daily. Many traditional ingredients have been used for generations for community medicine. The increasing consumption of traditional medicine is indicated by elevating herbal products on the market, the growth of traditional medical facilities, and the elevated traditional medicine advertisements on TV (Kristiana et al., 2013).

Based on an incidental survey study by researchers in Klaten, people's knowledge and perceptions of traditional medicine are two problems faced by the community regarding using herbal medicine. The results of this study indicate that four pharmacists chose knowledge that influences the use of traditional medicine, followed by three pharmacists who chose perception, two pharmacists who chose income, and one pharmacist who chose information media. Only 17 (11.33%) of the 150 respondents chose pharmacists as a source of information on traditional medicines. The results are in line with other studies that state 84 from 150 respondents did not know that using traditional medicine also required adherence to guidelines (Oktaviani et al., 2020). According to BPOM, consumers generally don't understand the risks of traditional medicine, the fact that some chemical drugs contraindicated by people who have certain diseases, or that medicinal ingredients can interact when given together with traditional medicine (Lau et al., 2019).

Many people claim that the consumption of traditional medicines is believed to be safer than chemical drugs (Pratiwi et al., 2018). Belief and suggestion factors can encourage their decision. With powerful beliefs passed down from generation to generation and advice from outsiders, it is possible to convince people of their views on traditional medicine and make them use traditional medicines (Amisim et al., 2020). (Ismiyana et al., 2013) stated that in Klaten, most of the respondents who had taken traditional medicines did not have side effects during the use of traditional medicine. So can be concluded that this traditional medicine is still considered safe because of its relatively few side effects. Many people in Klaten City continue to use traditional medicine even though they have fully recovered because they believe that the composition of traditional medicine made from natural ingredients. Furthermore, according to (Oktaviani et al., 2020), traditional medicine is still not widely known, so research on the relationship between the level of knowledge and perceptions of the use of traditional medicine is crucial to remember that these two points are factors that influence the use of traditional medicine.

2. METHODS

2.1. Research Design

This research is an observational study with a cross-sectional approach and has received approval from the ethics team of the Faculty of Medicine, the University of Muhammadiyah Surakarta with number 4190/B.1/KEPK-FKUMS/IV/2022. Knowledge and perceptions are evaluated on a qualitative scale as follows (Table 1-Table 2).

Table 1. Value category knowledge (Nursalam, 2016)

Category	Value
Good	76-100
Partial	56-75
Poor	< 56

Table 2. Category calculation of perception (Arikunto, 2010)

Category	Formula	Score
Good	X < (Mean - 1 Standard Deviation)	X > 88.3
Partial	(Mean – 1 Standard Deviation) ≤ X ≤ (Mean + 1 Standard Deviation)	71.813<X<88.3
Poor	(X > (Mean + 1 Standard Deviation)	X < 71.8

2.2. Data Collection Method

Data collection in this study compiles by using a questionnaire. A questionnaire is a tool in the form of a list of questions used to collect data regarding knowledge and perceptions from the public (Yunus, 2010). Questionnaire distribution was created by compiling a list of questions related to the research question. The types of questions are closed questions that provide alternative answers to respondents. Respondents will choose the available answers by selecting what is considered appropriate answers. Each question in the questionnaire weighs with the MCQ and Likert scale. This method was carried out by asking respondents to answer several questions through Google Forms.

2.3. Data Analysis

The sampling technique in this study was to collect data through questionnaires by area and using random clusters that determined ten from twenty-six sub-districts. Based on data from the Central Statistics Agency for Klaten Regency in May 2021, the total population in Klaten Regency is 1,260,506. The result of calculating the minimum number of samples is 272 respondents with an error tolerance of 10% based on the Isaac-Michael table. The smaller the error tolerance, the more accurately the sample describes the population. Sampling fraction cluster (Umar, 2000) and sample size per cluster counted with the following Eq. 1 and Eq. 2.

$$Fi = \frac{Ni}{N} \quad (1)$$

$$Ni = Fi\ x\ n \quad (2)$$

Information:

Fi = Sampling fraction cluster
Ni = the number of individuals in the cluster
N = total population size
n = the number of members included in the sample
ni = the number of members included in the sub sample

The number of respondents based on the cluster purposive sampling method is 1089 respondents spread in the north (2 districts), the east (2 districts), the south (3 districts), and the west (3 districts).

3. RESULTS AND DISCUSSION

3.1. Characteristics of Respondent

Table 3 show the contain answers from 1089 respondents who had filled out the questionnaire voluntarily from 10 sub-districts in Klaten City, the demographic data of the respondents involve age and gender. Table 3 shows the characteristics of respondents in the study.

Respondent was dominated by women (54.4%), following the Klaten City Statistics Agency, women slightly dominate compared to men (51%) (Badan Pusat Statistik, 2021). Most respondents are between 26-35 years old (47.6%). It is because the location of data collection is carried out in agencies, offices, and workplaces so that respondents who dominate are of productive age (Merdekawati, 2016).

Table 3. Distribution of research respondent's characteristics on knowledge and perception

Characteristics of respondents	Group	Size (n)	Frequency (%)
Sex	Male	497	45.6%
	Female	592	54.4%
Age	17-25	389	35.7%
	26-35	518	47.6%
	36-45	123	11.3%
	46-55	53	4.9%
	56-65	6	0.5%
	>65	0	0%

3.2. Respondent's Perception

Table 4 shows the several people use traditional medicines based on different types of perceptions involving trustworthiness perceptions, convenience perceptions, point of view perceptions, usability perceptions, side effects and safety perceptions of traditional medicines. The data shows that the public's perception of trust in traditional medicine is in the partial category (62.3%) because respondents are still neutral toward traditional medicine. For the perception of convenience, 16.1% of respondents disagree that natural ingredients were easier to process for treatment. For current perceptions, 8.25% of the respondents disagree with the innovation of herbal drops, and 10.2% of the respondents still have a good perception of this innovation because they are curious and assume it is unique.

Table 4. Respondent's perception in Klaten City 2022

Perception	Category	Male		Female		Average
		n	%	n	%	%
Trustworthiness Perception	Poor	78	15.7	116	19.6	17.65
	Partial	326	65.6	349	59	62.3
	Good	93	18.7	127	21.5	20.1
Convenience Perception	Poor	99	19.9	115	19.4	19.65
	Partial	307	61.8	395	66.7	64.25
	Good	91	18.3	82	13.9	16.1
Point of view Perception	Poor	36	7.2	55	9.3	8.25
	Partial	395	79.5	491	82.9	81.2
	Good	66	13.3	46	7.8	10.55
Usability Perception	Poor	76	15.3	91	15.4	15.35
	Partial	348	70	430	72.6	71.3
	Good	73	14.7	71	12	13.35
Side Effect and safety Perception	Poor	67	13.5	91	15.4	14.45
	Partial	344	69.2	449	75.8	72.5
	Good	86	17.3	52	8.8	14.05

Based on the data, stated that the perception of the usefulness of respondents can differ in three categories involve partial 71.3%, bad 15.35%, and good 13.35%. Several respondents disagree that traditional medicine using to prevent complications. These results were obtained from 72.5% of respondents who stated that they were neutral about the side effects of traditional medicine, 14.45 respondents considered traditional medicine has side effects, and 14.05% considered traditional medicine to have no side effects.

3.3. Respondent's Knowledge

The average value of knowledge from respondents is 49, health promotion programs such as counseling how to use traditional medicine need to be increased because traditional medicine is used in a large community. Based on Table 5, the majority of the respondent can answer the

question correctly in the knowledge category. However, for the side effects and safety category, the majority of the respondent doesn't understand about side effects and safety of traditional medicine that can be harmful. To increase the knowledge of the respondent, we can give respondents counseling or seminars to enhance their pieces of knowledge concerning the side effect and safety of traditional medicines (Pratiwi et al., 2018).

Table 5. Respondent's Knowledge in Klaten City 2022

Knowledge	Score	n	%
Definition	True	855	78.5%
	False	234	21.5%
Type	True	656	60.2%
	False	433	39.8%
Efficacy	True	622	57.1%
	False	467	42.9%
Side Effect and safety	True	539	49.5%
	False	550	50.5%
How to use	True	714	65.6%
	False	375	34.4%

3.4. Relationship Between Level Knowledge and Use of Traditional Medicine

Based Table 6, shows the chi-square analysis between of level of knowledge and the use of traditional medicine indicates that it has a significant relationship with a p-value of 0.000. The respondents who have ever been consuming traditional medicine own better knowledge (61.3%) than respondent who has never used traditional medicine (0.8%). These results could be due to a lack of knowledge about the efficacy and how to use traditional medicine involving terms and duration of use and side effects. Information regarding traditional medicine sometimes just be obtained from the surrounding environment, so not all of the information is true and raises doubts (Marwati & Amidi, 2019).

Table 6. Level knowledge and use of traditional medicine

Knowledge Category	Use of Traditional Medicine			P- Value
	Ever	Never	Total	
Good	300 (61.3%)	5 (0.8%)	305 (62.1%)	**0.00**
Partial	166 (33.9%)	33 (5.5%)	169 (39.4%)	
Poor	23 (4.7%)	562 (93.7%)	585 (98.4%)	

Knowledge is the main factor to determine a person's behavior. Behavior based on knowledge and awareness has longer sustainability than behavior not based on it. In other words, respondents with poor knowledge will affect their adherence. As is well known, traditional medicine has weak and slow pharmacological effects than chemical drugs. Some respondents assume that traditional medicine can have an immediate effect and tend to stop using it (Marwati & Amidi, 2019). Knowledge can enhance awareness and enable a person to do something according to their knowledge (Notoatmodjo, 2011). (Kendarti et al., 2009) stated that knowledge is critical in the development person's activities. Respondents with a good level of knowledge will know how to use, information and indication of traditional medicine. Respondents know that traditional medicine has a weak and slow pharmacological effect than chemical drugs, on the other hand, traditional medicine has fewer side effects than chemical drugs. This result is achieved because the level of knowledge will influence their behavior. One of the most important things in behavior development is knowledge. Having specific information also gives strength to act as a consequence of discovering a pattern, such as a pattern of the use traditional medicine. The consumer did not know the risk of traditional medicine and worried about potential interactions or contraindications in certain patients because of their lack of information (Lau et al., 2019). Behavior based on knowledge and awareness has longer sustainability than behavior not based

on it. In this case, people who have good knowledge will influence their behavior to use drugs (Notoatmodjo, 2003).

3.5. Relationship Between Perception and Use of Traditional Medicine

Based on the data from Table 7, there are three categories of perception involve good, partial, and poor. Several respondents have a good perception of traditional medicine involved 2.3% having used traditional medicine and 12.1% respondent never used traditional medicine. Respondents with poor perception involve 10.4% of respondents who had used traditional medicine and 3.4% who had never used traditional medicine. There are 32.1% of respondents had used traditional medicine and 39.7% had never used traditional medicine with partial category. The results of the analysis relationship between perception and the use of traditional medicine have a significance level of 0.005. Most of the respondents have a positive perception of traditional medicine, but also many respondents had used traditional medicine but think negatively about that (Kurniawati, 2019) stated perception has an impact on the willingness of the patient to consume a product. This finding indicated that perception influence the use of traditional medicine. Recovery can be affected by poor perceptions of traditional medicine. The healing process will affect patient satisfaction with health services and will impact patient motivation to use traditional medicine. Bad experiences can affect how they use traditional medicine.

Table 7. Perception and use of traditional medicine

Knowledge Category	Use of traditional medicine			P-Value
	Ever	Ever	Ever	
Good	25 (2.3%)	132 (12.1%)	157 (14.4%)	**0.05**
Partial	350 (32.1%)	432 (39.7%)	782 (71.8%)	
Poor	113 (10.4%)	37 (3.4%)	150 (13.4%)	

3.6. Analysis of The Coefficient Determination

Analysis of the coefficient determination aims to determine the proportion of the influence independent on the dependent variable. The results show that there is a contribution to knowledge and perception with the use of traditional medicine (coefficient determination 0.742).

4. CONCLUSION

Based on the research, we can conclude that most respondents who have used traditional medicine have a good level of knowledge, and those who have never used traditional medicine, have a poor level of knowledge. Respondents with a good perception have a 2.3% presentation with 12.1% of respondents who had never used traditional medicine. Respondents with poor perception of traditional medicine are divided into two groups 10.4% of respondents have used traditional medicine, and 3,4% of respondents have never used traditional medicine. To increase public awareness of the use of traditional medicine, we can suggest utilizing technology such as television, radio, internet, and traditional medicine counseling in the community. There is a relationship between the level of knowledge and perception with the use of traditional medicine in Klaten City in 2022 (significance <0.05). The results analysis shows that there is a contribution of knowledge and perception with the use of traditional medicine (determination coefficient 0.742).

5. CONFLICT OF INTEREST

There is no conflict of interest in this research.

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