

COMPARISON OF PUBLIC'S INTEREST IN SELECTING TRADITIONAL AND MODERN MEDICINE THERAPY

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ABSTRACT

Objective: This study aims to determine the public's interest in selecting traditional medicine or modern medicine and the factors that influence this interest in Loktabat Selatan Village, Banjarbaru City, South Kalimantan Province, Indonesia.

Methods: The research method used a Cross-Sectional approach. The data were collected from 100 respondents of Loktabat Selatan Village people, Banjarbaru City, using an instrument in questionnaire form.

Results: The comparison result of the interest of the therapy choice showed in traditional medicine interest was 58%, and modern medicine was 42%. For the comparison of respondents' interests results based on internal factors were 55.2% which was a decent category, and external factors were 53.4% which was enough category. Data analysis using the Chi-Square test obtained a sig value of 0.814 > 0.05, then H₀ is accepted.

Conclusion: There is a comparison of public interest in selecting of traditional and modern medicine therapy in South Loktabat Village, Banjarbaru City, South Kalimantan Indonesia.

Keywords: Interest, Choice of medicine therapy, Traditional medicine, Modern medicine

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INTRODUCTION

Since ancient times, human health problems have been a concern. This can be seen from the use of plants and animals as a source of traditional medicines which are depicted in temples, books and inscriptions [1]. The use of natural products as medicines must, of course, have presented a tremendous challenge to early humans. It is highly probable that when seeking food, early humans often consumed poisonous plants, which led to vomiting, diarrhea, coma, or other toxic reactions—perhaps even death. However, in this way, early humans were able to develop knowledge about edible materials and natural medicines [2]. Subsequently, humans invented fire, learned how to make alcohol, developed religions, and made technological breakthroughs, and they learned how to develop new drugs [3].

Traditional medicine is a synthesis of culture and community wisdom. The empirical experience of our forefathers who integrated with nature encourages an understanding that nature is a source of medicine for both itself and society [4]. Currently, traditional medicine as an alternative to traditional medicine is becoming more popular, especially with the urge to return to nature. According to some research, African countries, Asia, and even 80 percent of the Latin American population use herbal therapy as a supplement to their primary treatment [5].

Traditional Medicine (TM) has been widely used and of rapidly growing health system and economic importance, especially in developing countries and where TM is used as a result of historical circumstances and cultural beliefs. Traditional Medicine (TM) in Indonesia has been used for centuries. Formerly, TM was prepared by housewives or traditional healers to be used by their own family or village community and was not widely spread out. Some of the traditional healers, known as jamu peddlers, sold the products, usually in the form of concoction, around the village within walking distance. Yet these products are not compulsory for evaluation and registration just like the non-branded dried herbs, which were modestly packed and available at traditional market. Products other than those two types mentioned above are subject to safety evaluation and registration [6].

Traditional medicine is often thought to be safer than contemporary medicine. Things, on the other hand, have changed. Of course, to assure the benefits and safety of traditional medicine, it must be

used correctly [7]. Indonesia has developed a scheme of quality control of TM products through compulsory registration of the product in order to ensure the quality of the TM products. The development of Indonesian Herbal Pharmacopoeia (IHP) is an effort to provide reliable evidence of TM [8].

The rise of modern medicine through the modern healthcare business as part of global society's growth is then thought to have two key ramifications for global health today [9]. First, there's a suspicion that the modern healthcare sector is relying on cutting-edge technology. It is expected that it will degrade the cultural heritage of those who have always known traditional medicine as a model through traditional healers as subjects (actors) and healers. That is to say, with the passage of time and the advancement of contemporary health research and technology, traditional healers' prospects are expected to fade away. Second, traditional healers' faith is eroding since modern society's knowledge has begun to be oriented toward progress and aspects scientists will consider the advancement of science and new health technology as more reliable inpatient health care. These circumstances will, of course, make modern medicine, in this case, doctors and physiotherapists, superior competitors and cultural and economic challenges to traditional healers (people smart, shaman, healer), while also causing traditional healers to lose societal relevance [10]. But there is a trends for rural communities, for example, when they are sick they usually ask for help from traditional healers. If traditional healers are considered incapable do healing, then they go to modern medicine (doctor). Condition we usually find differences in society urban areas, where generally if you are experiencing sick, then the referral is to go to doctor. If modern medicine is considered not can heal or unable to give a health solution that satisfies the patient, then they will ask for help to the healer traditional [11].

WHO takes into account that a large number of people in the world still depend on TM for health care [12]. The current status of TM differs in different countries. In 2012, the total value of the TCM industry was equivalent to around one-third of the total for China's pharmaceutical industry [13]. It has been determined that 80% of the population in Africa makes use of TM—either alone or in conjunction with conventional medicine [14]. By contrast, traditional Aboriginal medicine in Australia is in danger of vanishing owing to the prevalence of conventional medicine [15]. In the case of

Israel with its ethnic diversity, modern medicine is prevailing, and TM is declining [16]. The global prevalence of usage of traditional medicine use is increasing up to 80%, the proportion which varies among countries due to different socio-economic and cultural backgrounds [17]. The study performed by [18] also reported that the prevalence of TM usage is within WHO estimation (50-80%), particularly in the use of herb-based therapies and is lower than that in the study conducted in Japan and Singapore.

Since ancient times the Indonesian people have known and used plants as a treatment to overcome health problems. The use of natural ingredients as traditional medicine in Indonesia has been carried out for thousands of years before modern medicine was discovered and marketed [19, 20] said there are about 7.000 types of plants used as raw materials for medicine.

Research data from the Ministry of Health of the Republic of Indonesia [21] shows that people of all ages in Indonesia utilize traditional health efforts, including ready-made ingredients by 48%, homemade ingredients by 31.8%. According to the World Health Organization (WHO), most of the population in developing countries still uses traditional medicine to meet their health needs. About 80% of people in WHO member countries use traditional medicine. Several African countries conduct traditional medicine training for pharmacists, doctors, and medics. Likewise, the use of traditional medicine in developed countries continues to increase despite the availability and circulation of modern medicines/chemical entities.

Along with the times when modern medicine or Western medicine began to be known widely as medicine in Indonesia, people are familiar with two methods of medication, namely modern medicine, and traditional medicine. Basic Health Research Data [22] a national-scale health study organized by the Ministry of Health Research and Development Agency (Balitbangkes), shows that there are some people who use traditional medicine for self-medicine although not as much as modern medicine. Culture, beliefs, traditions also influence on determining treatment options mostly people who have a strong culture will tend to prefer traditional medicine [23, 24] revealed that public knowledge about herbal medicines is higher than synthetic (modern) medicines. Several factors influence people's interest in the choice of treatment, one of which is public knowledge. Education and work influence a person in the act of choosing medication.

The selected South Loktabat sub-district based on the field observations and from the Banjarmasin Post article [25] South Loktabat sub-district has 6 RW (citizens association) and 29 RT (neighborhood association), one of which is used as a "Kampung Pejabat" (Jamu Processing Village). The village's name is an idea and initiative of the residents, the majority of whom work as processors and sellers of herbal medicine (jamu). The area also has many rows of medicinal plants and spices neatly arranged in each resident's yard and owns a strategic location which is one of the centers of trade, offices, and data collection for each resident to represent Banjarbaru.

MATERIALS AND METHODS

Ethical approval

This research has received ethical approval from the Health Research Ethics Committee, Faculty of Medicine, University of Lambung Mangkurat Banjarmasin Indonesia No: 022/KEPK-FK UNLAM/EC/1/2020 in January 2020. The research methodology used was descriptive research with a Cross-Sectional Approach.

Data collection

The data collection used was a self-made questionnaire to measure public interest level regarding medical therapy choice on two variables (V). V-1 is the interest in traditional medicine variable, and V-2 is the interest in modern medicine variable. The first step in collecting data is to test the validity and reliability of the questionnaire as an instrument in the study. For each variable, there are 15 question items. Public interest in the selection of medical therapy showed from the characteristics of the respondents, including age, gender, education, occupation, marital status, and economic status.

Data analysis

The questionnaire is declared valid if the significance validation test of the correlation coefficient is the value of $r_{count} > r_{table}$ at a significance level of 0.05 ($\alpha = 5\%$), for the reliability test, if the significant value of Cronbach's Alpha > 0.60 is reliable or consistent [26]. To compare public interest in the choice of traditional medicine and modern medicine therapy was analyzed using the chi-square test, with a 0.05% error rate. There is a statistically significant comparison if $*P > 0.05$.

RESULTS AND DISCUSSION

The questionnaire validity was tested on 30 respondents using the Pearson Correlation technique. The validity test showed that each question item has a superior r_{count} value than the r_{table} , so it can be sum up that all question items are valid. The reliability test result obtained that the Cronbach alpha value (R alpha) is superior to 0.60, so it can be sum up that the research instrument used is reliable.

A total of 100 respondents in this study were people who live in the South Loktabat Village, Banjarbaru City. Each respondent in this study has met the inclusion and exclusion criteria set. Following are the results of public interest in traditional and modern medicine:

Table 1: Public interest in traditional medicine and modern medicine

Interest	Number of respondents (N)	Percentage (%)
Traditional Medicine	58	58
Modern Medicine	42	42
Total	100	100

These results indicate that most people in the South Loktabat area are more interested in traditional medicine than modern medicine.

Traditional medicine is an ancient form of the medical system that plays a vital role in maintaining health and combating against different life-threatening physical and mental diseases [27]. Traditional medicine is also known as complementary, alternative or ethnic medicine that includes broad range of practices [28]. Traditional and modern systems of medicine have distinctive doctrines with distinctive civilizing backgrounds. The view of health, diseases and causes of diseases are in their own contrasting ways, which leads to a difference in their approaches towards health and disease [29].

In research conducted by [30], modern medicine is preferred as the first choice of treatment by the participants when compared to traditional medicine because of the quick and efficient cure. The other reason may be the therapeutic effects of traditional medicine is not clear, which lack research-based evidence and need to be further enlightened which can be made possible by conducting basic research [31].

Based on the results in table 2, it is showed that adult respondents have a greater interest in traditional medicine than modern medicine. In that situation, they usually suffered a degenerative disease and tended to take traditional medicine therapy [32]. Respondents with the old age and the elderly also have a high interest in traditional medicine compared to modern medicine. According to Super and Crites in [33] age is a factor that influences a person in determining interests age differences, meaning that the ages of children, adolescents, adults, and parents will have different interests in an item, activity and a person's choice in determining interest. Based on research conducted by [34] they stated that no significant relationship between the use of herbal medicines and the patient's age.

The female gender has a greater interest in traditional medicine than modern medicine. According to [35], the highest percentage who use traditional medicine are women. It is because female respondents stayed at home longer than men. Women are more self-medicating and more concerned about health than men. Women have a higher awareness of health than men and tend to have better knowledge.

Table 2: Comparison of public Interests in traditional medicine and modern medicine based on the characteristics of respondents

Characteristics	Respondents (N)		Percentage (%)	
	Traditional	Modern	Traditional	Modern
Age				
Teens	11	17	19	40.5
Adult	26	11	44.8	26.2
Eldery	17	11	29.3	26.2
Seniors	4	3	6.9	7.1
Gender				
Man	21	18	36.2	42.9
Woman	37	24	63.8	57.1
Educational				
Basic/low	17	5	29.3	11.9
Intermediate	7	5	12.1	11.9
Higher	34	32	58.6	76.2
Jobs				
Housewife	16	15	27.6	37.7
Civil Servants	5	5	8.6	11.9
Self-employed	5	0	8.6	0
Private sector	19	11	32.8	26.2
Retirement	1	1	1.7	2.4
Students	4	6	6.9	14.3
Other Service Providers	8	4	13.8	9.5
Marital Status				
Not Married	12	14	20.7	33.3
Married status	46	28	79.3	66.7
Economic Status				
Low	21	12	36.2	28.6
Medium	25	16	43.1	38.1
High	12	14	20.7	33.3
Total	100	100	100	100

The educational status of respondents who have higher education is more interested in traditional medicine than modern medicine. Educational background will make different perceptions of self-medication, a higher education level will provide better knowledge about self-medication, and a person who has higher awareness can be more careful in using the medicine for self-medication [36]. According to [37], research shows that the level of education has no significant effect on respondents' interest in using traditional medicine. It is due to other factors that have a powerful influence, such as ancestral traditions, family habits, and information on advice from neighbors, friends/relatives, sellers of herbal medicine/traditional medicines directly.

Respondents who have jobs have a greater interest in traditional medicine than modern medicine. However, based on the research [38], a job does not influence the use of herbal medicine reason in patients.

Respondents with married status prefer traditional medicine rather than modern medicine. The results of this study are in line with previous research by [39] regarding the comparison of public perceptions of traditional medicine and modern medicine at the Sei

Agul Health Center, Karang Berombak Village, with the number of respondents who were married 89.4% more than those who were not married 10.6%. In [40], marital status is related to the treatment-seeking behavior, where advice from a husband or wife is a strong incentive for someone to decide example, whether it will be in the form of self-care or referral/consultation to other parties.

Respondents with medium and low economic status prefer traditional medicine over modern medicine. Based on [41], those who have a high interest in the use of traditional medicine are those who have an income of Rp. 500.000.00–Rp. 1.000.000.00 is the same as [42] research, whose income is less than Rp. 1.000.000.00 has a high interest in traditional medicine use because they tend to use it as an alternative to modern medicine. A person's economic level is related to various health problems. According to [43], the financial condition of the family or income received influences decisions in the utilization of health care facilities either traditionally or modernly. In a high economics situation, people will be more easily receiving information, and they will have more knowledge that affects their health attention and their families. The higher a person's economic status, the more capable of fulfilling their life needs include choosing a quality health service form [44].

Table 3: Comparison of information sources on interest in traditional medicine and modern medicine

Informed sources	Interest in medicine (N)		Percentage (%)	
	Traditional	Modern	Traditional	Modern
Printed media (newspapers, magazines, books, flyer)	7	2	12.1	4.8
Electronic media (tv, computer, radio, cellphone)	6	9	10.3	21.4
Family and brothers	32	10	55.2	23.8
Friends and neighbors	8	7	13.8	16.7
doctors, nurses and other medical technicians	5	14	8.6	33.3
Seminars, Symposiums, workshops, conferences	0	0	0	0
Total	58	42	100	100

Based on the results in table 3, it is showed that the sources of information on respondents who have an interest in traditional medicine are mostly from family and relatives as many as 32 people (55.2%) and the most sources of information on interest in modern medicine are doctors, nurses, other health practitioners, namely 14 people (42%).

Another study result regarding the information sources of respondents who have a traditional medicine interest mostly come from family and relatives, the same as a study conducted by [41] are 84%. These results indicate that people know traditional medicine from generation to generation. According to [45], family, friends, and

neighbors are the most effective instrument in finding information about traditional medicine treatment services.

A similar study result by [41] stated that 84% of people know traditional medicine from their families. It shows that people know traditional medicine from generation to generation. According to

[45], family, friends, and neighbors are the most effective instrument in finding information about traditional medicine treatment services [35] stated that; there is a meaningful relationship between family knowledge and the use of traditional medicine. Family is the closest party to respondents, so it is from this family that respondents obtain information about traditional medicine [46].

Table 4: Comparison of diseases treated complaints using traditional medicine and modern medicine

Disease/respondent's complaint	Interest in medicine (N)		Percentage (%)	
	Traditional	Modern	Traditional	Modern
Fever	12	9	20.7	21.4
Toothache	4	1	6.9	2.4
Gastrointestinal disease	19	4	32.8	9.5
Respiratory tract disease	6	3	10.3	7.1
Cardiovascular disease	7	10	12.1	23.8
Metabolic Disorders	8	13	13.8	3.1
Other diseases	2	2	3.4	4.8
Total	58	42	100	100

Based on the results of the study in table 4, it showed that respondents with gastrointestinal diseases were more interested in traditional medicine are 19 people (32.8%) followed by fever are 12

people (20.7%), and for metabolic disorder, respondents were more interested in modern medicine are 13 people (3.1%) followed by cardiovascular disease are 10 (ten) people (23.8%).

Table 5: Comparison of public interests in traditional medicine and modern medicine based on internal factors

Internal factors Category	Interest in medicine (N)		Percentage (%)	
	Traditional	Modern	Traditional	Modern
Less	1	2	1.7	4.8
Enough	25	21	43.1	50.0
Good	32	19	55.2	45.2
Total	58	42	100	100

Based on the study result in table 5, the comparison of public interest based on internal factors is more interested in traditional medicine with 55.2% good than modern medicine with 50% enough category. Internal factors include curiosity, self-motivation, knowledge, beliefs, and attitudes. The results of this study are in line [41] that concluded that respondents' perceptions of the use of traditional medicines obtained good results.

A similar study stated that the perception that many people in Simpang Baru Village, Tampan District, Pekanbaru City had regarding traditional medicine was 82.7% and believed its efficacy was safer because it was from natural ingredients. The side effects are 81.0%. The further perception that arose in the community regarding its use is to believe in the efficacy of traditional medicine. Research by [47] there are still many people who believe the perception of traditional

medicine efficacy is safer because it is from natural ingredients when consumed for a long time does not cause side effects.

Based on the study result in table 6, the comparison of public interest based on external factors is more interested in traditional medicine in 53.4% enough category compared to modern medicine in 54.8%. External factors include encouragement from outside (family, co-workers, etc.), facilities and infrastructure, environmental conditions, roles, and status. The results of this study are in line with [48] research: where the factors that influence families in the use of traditional medicine, one of which is the distance to health facilities. Statistical test results obtained p-value = 0.008 with an alpha value of 0.05 ($p < \alpha$), which indicates a relationship between the distance of health facilities and the use of traditional medicines as self-medication.

Table 6: Comparison of public interests in traditional medicine and modern medicine based on external factors

External factors Category	Interest in medicine (N)		Percentage (%)	
	Traditional	Modern	Traditional	Modern
Less	0	0	0	0
Enough	31	23	53.4	54.8
Good	27	19	46.6	45.2
Total	58	42	100	100

Hypothesis test

The hypothesis test used is comparative, with a nominal and unpaired measurement scale using the Chi-Square test. If probability > 0.05 , then H_0 is accepted. If probability < 0.05 , then H_0 is rejected. The results were obtained a 0.415 sig value which means the probability value > 0.05 , then H_0 was allowed.

CONCLUSION

There is a comparison of public interest in selecting traditional medicine therapy and modern medicine in South Loktabat Village, Banjarbaru City, South Kalimantan, Indonesia.

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AUTHORS CONTRIBUTIONS

All the authors have contributed equally.

CONFLICT OF INTERESTS

Declared none

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