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Factors Associated with the Use of Traditional Health Services in Indonesia: A Secondary Analysis of the Indonesian Basic Health Research

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Factors Associated with the Use of Traditional Health Services in Indonesia: A Secondary Analysis of the Indonesian Basic Health Research

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Abstract

Background: Traditional health services in Indonesia have been used increasingly over the past few years because patients nowadays are more proactive in seeking various alternative modes of self-care. This study aimed to analyze factors associated with the use of traditional health services in Indonesia.

Methods: This quantitative study used a cross-sectional research design. The research data were secondary data from the 2018 Indonesian Basic Health Research. The research samples were 163,259 respondents aged >10 years and the statistical test for data analysis was multiple logistic regression.

Results: The percentage of respondents who used traditional health services was 73.8%. The bivariate results in this study indicate that age, gender, employment status, educational level, residence, marital status, and access to health facilities had a significant relationship with the use of traditional health services.

Conclusions: The use of traditional health services was influenced by age, gender, residence, marital status, and distance. The Indonesian government needs to consider these factors when extending the use of traditional health services.

Keywords: Indonesia, risk factors, traditional health services

INTRODUCTION

The number of traditional and complementary medicine (TCM) users is increasing. Traditional medicine or non-conventional medicine in various countries is often referred to alternatively as complementary medicine. The increased use of TCM sees East Asian countries being well-known for the highest number of traditional medicine users.¹ In addition, a significant increase in the use of traditional medicine was reported by several countries such as the United States (42%), Australia (48%), France (49%), Canada (70%), and developing countries such as China (40%), Chile (71%), Colombia (40%), and African countries (up to 80%).² The World Health Organization (WHO) strongly emphasizes the importance of establishing the prevalence and determining factors in the use of TCM. The WHO's Traditional Medicine Strategy 2014–2023 aims to support countries that use TCM for health care. Health care that is patient-centered and promotes the safe and effective use of traditional medicine must be supported by regulating, researching and integrating TCM products, practitioners, and practices in the health system.³

In addition to obstacles to the development of traditional medicine products, the 2018 Indonesian Basic Health Research (RISKESDAS) reported the proportion of utilization of traditional health services in Indonesia is still uneven in every province, where the province of South Kalimantan (54.1%) is the province with the most utilization of traditional health services while the province of West Sulawesi is the province with the least utilization of traditional health services (8.5%).⁴ Because traditional medicine may not meet current safety, efficacy, and quality of health treatment standards, the Indonesian Ministry of Health issued the Regulation of the Indonesian Food and Drug Authority No. 14 of 2021 on the certification of good manufacturing practices for traditional medicine.

Several previous studies have reported the use of traditional medicine. Research conducted by Pearson *et al.* states that traditional medicine is used widely by patients with chronic diseases in Cambodia.⁵ Nearly half of the Cambodian population has used herbal medicine in the last 12 months.⁵ A study in Ethiopia reported the use both conventional physicians and traditional medicine. The use of traditional medicine in Ethiopia has been shown to have increased by 80% for socio-cultural reasons, especially including religious and cultural beliefs, as well as the relatively cheaper cost.⁶ Recently, interest in complementary and alternative medicine (CAM) has been increasing in Korea and around the world. In Western countries, CAM incorporates traditional medicine from

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Eastern countries, such as Korea and China, to complement and compensate for the limitations of conventional medicine.⁷ Moreover, social and environmental factors become health determinants of behavioral, biological, and health service factors. A study in Enugu reported that social and economic factors were found to be associated with the patronage.⁸

Research in Indonesia has frequently explored the use of traditional health services in hospitals and healthcare centers. However, the data have not broadly described the factors that affect the use of these traditional health services. The current study, therefore, addressed the factors associated with the use of traditional medicine by using secondary data from Indonesian Basic Health Research. Information on the use of traditional medicine in Indonesia is important for the government to improve policy-making for TCM production and distribution. This study analyzed factors associated with the use of traditional health services in Indonesia.

METHODS

This study used secondary data from the 2018 Indonesian basic health research and a cross-sectional research design. RISKESDAS is a community-based national health survey whose indicators can describe issues from a national level up to district/city levels.³ Data collection is conducted every five years because that is considered the right interval to assess the development of public health status, risk factors, and health development measures. RISKESDAS survey cohort comprises respondents across 34 provinces of Indonesia.

The samples consisted of 163,260 respondents aged >10 years selected based on inclusion and exclusion criteria. The inclusion criterion of the respondents was being able to answer the questionnaire about the use of traditional health services in Indonesia; the exclusion criterion was missing data. This study used traditional health service use as a dependent variable. It refers to the respondents who took advantage of the traditional health services in the past year either by use of herbal potions, skilled therapy (traditional massage, hypnotherapy and energy transfer), or practice (by themselves or a traditional health service provider). The answers to the questions on the use of traditional health services were simply yes or no. For the independent variables, the research included age, gender, level of education, occupational status, marital status, residence, the type of traditional health service accessed, assistance from a traditional health worker, and time spent at a health facility. Age was grouped into productive ages (15–64 years) and unproductive (> 65 years). Gender was divided into women and men. The level of education was classified as primary education (not finishing elementary school), secondary education (junior and senior high school), and higher education (graduating from college). Occupational status was divided into not working and

working. Marital status was divided into single (unmarried) and married or divorced. Residence was divided into urban and rural areas. The types of traditional health services were grouped into herbal and skilled therapy. The skilled treatment divided into traditional massage, hypnotherapy and energy transfer. Questions related to assistance from traditional health workers had yes and no options. Time spent at health facilities was the average time spent at health facilities (hospitals, primary healthcare centers, or doctor clinics).

The current study used univariate, bivariate, and multivariate data analyses. Variables were first summarized in descriptive statistics. Then, bivariate analysis was performed using the chi-square test to derive the relationship between independent and dependent variables. The analysis used for categorical variables (age, gender, marital status, level of education, occupational status, residence, and travel time to health facility) used a 95% confidence interval and a degree of significance (α) of 0.05.

For the multivariate analysis, a multiple logistic regression model was performed. Variables whose p-values were more than 0.05 were excluded from the multivariate model. Variables with p-values of more than 0.05 were excluded from the one-unit model starting with the variable with the largest value. Our final model was employed to adjust the determinants of the use of traditional health services. This study passed an ethics review from the Center for Ethical Studies of the Faculty of Public Health, Sriwijaya University with the approval letter No. 030/UN9. FKM/2021.

RESULTS

The characteristics of the respondents and the use of traditional health services in Indonesia are presented in Table 1. The results show that 73.8% of respondents used traditional health services, and 56% used skilled therapy. Most of the respondents were in the age group of > 65 years (93.8%) and females (53.2%). A low educational level was found to be dominant (48.5%). The majority of the respondents worked (62.5%) and were married (70.6%). More than half of the respondents lived in rural areas (57.7%). Respondents who used traditional health services mostly visited traditional health workers (98.8%). Respondents mostly took <30 minutes to travel to health facilities (99.8%).

Table 2 shows the bivariate analysis results using a chi-square test. Gender, age, educational level, employment status, region, marital status, assistance from traditional health workers, and time to travel to health facilities had a significant relationship with the use of traditional health services ($p < 0.05$). The multiple logistic regression model shown in Table 3 shows that gender, age, residence, marital status, and travel time to health facilities have a significant association with the use of the health service and the most

associated variable is gender. Male respondents were 1.11 times more likely to use health traditional health services than female respondents.

TABLE 1. Characteristics of respondents (N = 163,259)

Variable	N	%
Use of traditional health services		
Yes	120,479	73.8
No	42,789	26.2
Age (years)		
15–64	10,066	6.2
> 65	153,193	93.8
Gender		
Male	76,406	46.8
Female	86,853	53.2
Level of education		
Primary education	79,214	48.5
Secondary education	72,208	44.2
College	11,836	7.3
Occupational status		
Not working	61,292	37.5
Working	101,967	62.5
Marital status		
Single	47,944	29.4
Married	115,315	70.6
Residence		
Rural	94,266	57.7
Urban	68,993	42.3
Use of traditional health workers		
Yes	161,308	98.8
No	1,951	1.2
Types of traditional health services		
Herbal	71,892	44.0
Skilled therapy	91,367	56.0
Travel time to a health facility		
> 30 minutes	320	0.2
< 30 minutes	162,939	99.8

DISCUSSION

This study aimed to analyze factors associated with the use of traditional health services in Indonesia. The results show that 73.8% of all respondents had used traditional health services. Residence have associated with the use of traditional health services. In this case, respondents who live in rural had a 1.1 times higher likelihood of using traditional health services than respondents in urban. Gender have associated with the use of traditional health services. In this case, male respondents had a 1.11 times higher likelihood of using traditional health services than female respondents. Previous study reported that proportion of men prefer to use traditional higher than women.⁹ Another study found that male respondents used many types of traditional health services such as acupuncture.¹⁰ The findings are supported by previous

research that found that the use of CAM in women is somewhat lower than was found in recent studies in Europe, the US, and Australia. In conclusion, men have a higher probability of using traditional health services.¹¹ Hence, treatment safety must be a priority in traditional health services. Some variables are considered predictors of the use of TCM/CAM at the individual level. These include gender, educational level, monthly income, perceived health, experience with Western medical care, and the cost, effect, and satisfaction with treatment.¹²

Another factor associated with the use of traditional health services is age.¹³ This study revealed that respondents aged 15–64 years were 0.961 times less likely to use traditional health services. Older age groups were found to use traditional health services more because they believe that traditional health services will improve physical endurance.¹³ Younger age and higher income are often associated with the use of CAM in women but it is not significant.¹⁴ A study mentioned that processed herbs were used most widely by the older age group because they believe that herbs derived from medicinal plants are effective in addressing health problems. Cultural beliefs may affect some groups' perceptions of traditional health services.¹⁰

The current study showed that unmarried respondents were 0.939 times less likely to use traditional health services than married people. There is a significant relationship between marital status and the use of traditional health services.¹⁵ Previous research stated that married women had a 2.56 times greater propensity to use herbal medicine than unmarried women. Previous study found that 82% of married couples used CAM or herbal remedies to overcome fertility problems and given this trend, healthcare providers need to provide counseling to patients.¹⁶

Our findings also showed that rural areas had a higher likelihood of using traditional services than urban areas. It is contrary with previous study in In Indonesia that residence in urban area was associated with practitioner.¹³ The use of traditional Korean medicine is more common among people in urban residential areas compared to rural areas, because urban areas provide easier access to medicines.⁷ Previous research in Ghana and India shows that lower socioeconomic status, unemployment, residence in rural areas, and low health status lead people to use traditional healers who provide cheaper treatment.¹⁷ The use of traditional health services in urban and rural areas still poses some constraints. Providing complementary traditional health facilities where people can access acupuncture, acupressure, and herbal products is one of the ways to improve accessibility. Traditional health workers should be given the education so that they can provide accurate and examined information and practices of traditional health treatments.¹⁸

TABLE 2. Association between the independent variables and the use of traditional health services

Variable	Yes		No		p	OR (95% CI)
	N	%	N	%		
Age						
15–64 years	7,159	71.0	2,907	28.0	< 0.001	0.961 (0.945-0.978)
> 65 years	113,311	74.0	39,881	26.0		
Gender						
Male	57,172	74.0	19,233	25.0	< 0.001	1.027 (1.019-1.035)
Female	63,297	72.0	23,556	27.0		
Educational level						
Primary education	57,863	73.0	21,351	27.0	< 0.001	0.909 (0.845-0.977)
Secondary education	53,742	74.0	18,455	25.0	< 0.001	0.976 (0.911-1.045)
College	88,644	74.0	2,799	25.0		
Occupational status						
Not working	44,641	72.8	16,650	27.2	< 0.001	0.979 (0.970-0.988)
Working	75,829	74.4	26,138	25.6		
Marital status						
Single	34,850	72.7	13,093	27.3	< 0.001	0.979 (0.970-0.988)
Married	85,620	74.2	29,695	25.8		
Residence						
Rural	70,288	74.6	23,977	25.4	< 0.001	1.025 (1.010-1.041)
Urban	50,181	72.7	18,812	27.3		
Travel time to a health facility						
> 30 minutes	194	60.8	125	39.2	< 0.001	0.823 (0.737-0.919)
< 30 minutes	120,275	73.8	42,663	26.2		

TABLE 3. Multiple logistic regression model

Variable	p	OR (95% CI)
Age		
15–64 years	0.001	0.904 (0.845-0.967)
> 65 years ^{Ref}		
Gender		
Male	0.001	1.111 (1.077-1.146)
Female ^{Ref}		
Marital status		
Single	0.001	0.939 (0.903-0.976)
Married or divorced ^{Ref}		
Residence		
Rural	0.001	1.105 (1.043-1.171)
Urban ^{Ref}		
Travel time to a health facility		
> 30 minutes	0.001	0.559 (0.422-0.741)
< 30 minutes ^{Ref}		

Travel time to health facilities is also known to be a factor associated with the use of traditional health services. The participating respondents who reached health facilities in > 30 minutes had 0.559 times fewer chances of using traditional health services than those spending < 30 minutes. Another research mentioned that there is a significant relationship between the distance to a health facility and the frequency of visiting traditional health services.^{19,20} Health facilities close to home were usually

used widely by most respondents. A shorter distance to the treatment area allows a much higher probability of people choosing treatment there because of easy access and low cost. Difficulties accessing healthcare systems are mostly found in rural areas. Therefore, the National Center for Complementary and Alternative Medicine recommends that healthcare providers combine conventional health services and traditional medicine or CAM for an overall better quality of health service.²¹

In terms of limitations, secondary data in this study were not enough to give a general conclusion on associated factors of traditional medicine use. The analysis was not aimed at finding the causes and effects of the factors since this study was a cross-sectional study. It only covered limited variables such as age, gender, educational level, employment status, marital status, residence, and access to health facilities. Several variables (economic status and socio-cultural reasons, especially including religious and cultural beliefs) were not included in this study due to limited data.

We found that the use of traditional health services was influenced by age, gender, residence, marital status, and distance. This study implies that these factors should be considered for expanding the use of traditional medicine and that the government should promote traditional medicine. Future studies should explore other variables associated with traditional medicine use such as the role

of economic status and socio-cultural reasons, especially religious and cultural beliefs.

CONCLUSIONS

Most respondents in this study used traditional health services. Age, gender, residence, marital status, and distance to health facilities were associated with the use of traditional health services. The Indonesian government needs to consider these factors when expanding the use of traditional health services.

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CONFLICT OF INTEREST

The authors stated that there are no conflicts of interest in this article.

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