

Introduction

Indonesia has committed to achieving Universal Health Coverage (UHC) and introduced national health insurance (JKN) to meet that commitment. Despite the increasing availability of healthcare services under the JKN scheme, traditional medicine (TM) continues to be a significant part of healthcare for Indonesians. In the context of the UHC system, this study aims to examine the predictors of TM use among urban and rural communities in Indonesia.

What are the factors underlying a person's decision to use TM?

Behavioural model (Aday & Andersen, 2005): *people's use of healthcare is a function of their predisposition to use (predisposing variables), factors that enable or impede use (enabling variables), and their need for care (need variables).*

Methods

Cross-sectional survey

926 households in rural & urban areas in West Java

Semi-structured interviews

Variables	5 Predisposing factors
	<ul style="list-style-type: none"> demographics: gender, age Psychosocial: perception of TM quality, belief system Ethnobotany knowledge of herbal medicine
	3 Need factors
	<ul style="list-style-type: none"> Health problem Problem of healthcare service access satisfaction with healthcare service
	5 Enabling factors
	socio-economic: area of residence, education, income, nature of occupation, NHI status

1. **Bivariate analysis (CSQ):** Significant variables ($p < 0.05$)

2. **Multivariate analysis (binary logistic regression)**

Significant predictors of traditional medicine use

Results&Discussion

Table 1. Characteristic of participants by traditional medicines use status (n = 926).

Category	Sample size (%)			p value
	Non-User TM	User TM	Total	
Predisposing Factors				
<i>Demographic factors</i>				
Gender				
Male	116 (30.4)	266 (69.9)	382 (41.3)	0.943
Female	164 (30.1)	380 (69.9)	544 (58.7)	> .05
Age group (years)				
≤20	32 (40.5)	47 (59.5)	79 (8.5)	
21-39	122 (37.0)	208 (63.0)	330 (35.6)	< .001*
≥40	126 (24.0)	391 (75.6)	517 (55.8)	
<i>Psychosocial factors</i>				
Believe TM efficacy and safety				
No	148 (59.9)	99 (40.1)	247 (26.7)	< .001*
Yes	132 (19.4)	547 (80.6)	679 (73.3)	
Holistic orientation of health				
No	199 (78.7)	54 (21.3)	253 (27.3)	< .001*
Yes	81 (12.0)	592 (88.0)	673 (72.7)	
Ethnomedical knowledge				
No	135 (81.3)	31 (18.7)	166 (17.9)	< .001*
Yes	145 (19.1)	615 (80.9)	760 (82.1)	
Enabling Factors				
<i>Socioeconomic factors</i>				
Residence				
Rural	88 (18.6)	385 (81.4)	473 (51.1)	
Urban	192 (42.4)	261 (57.6)	453 (48.9)	< .001*
Education				
Elementary or lower	103 (23.4)	337 (76.6)	440 (47.5)	
Secondary	86 (39.1)	134 (60.9)	220 (23.8)	< .001*
High school	80 (38.6)	127 (61.4)	207 (22.4)	
College or more	11 (18.6)	48 (81.4)	59 (6.4)	
Occupation				
Informal sector	215 (28.1)	549 (71.9)	764 (82.5)	
Formal sector	24 (36.9)	41 (63.1)	65 (7.0)	0.001*
Student	22 (56.4)	17 (43.6)	39 (4.2)	< .05
Other	19 (32.8)	39 (67.2)	58 (6.3)	
Household income				
IDR 2000K or less	150 (32.0)	319 (68.0)	469 (50.6)	
IDR 2100K-5000K	104 (27.7)	272 (72.3)	376 (40.6)	0.369
More than IDR 5K	26 (32.1)	55 (67.9)	81 (8.7)	> .05
National Health Insurance (JKN)				
No	112 (38.6)	178 (61.4)	290 (31.3)	
Yes	168 (26.4)	468 (73.6)	636 (68.7)	< .001*
Need Factors				
Health problem				
No	63 (46.3)	73 (53.7)	136 (14.7)	
Yes	217 (27.5)	573 (72.5)	790 (85.3)	< .001*
Problem to access healthcare service				
No	166 (22.6)	570 (77.4)	736 (79.5)	
Yes	114 (60.0)	76 (40.0)	190 (20.5)	< .001*
Satisfaction with healthcare service				
Dissatisfied	2 (25.0)	6 (75.0)	8 (0.9)	
Somewhat dissatisfied	29 (33.7)	57 (66.3)	86 (9.3)	0.832
Neither satisfied nor dissatisfied	193 (29.3)	466 (70.7)	659 (71.2)	> .05
Somewhat satisfied	54 (32.7)	111 (67.3)	165 (17.8)	
Satisfied	2 (25.0)	6 (75.0)	8 (0.9)	

*Statistical significance, $p < .05$

Table 1 shows the results of chi-square (CSQ) analyses of TM use and each of the predisposing, enabling, and need factors. TM use was associated with age (40 years and older), favorable perception of TM safety and efficacy, holistic orientation to health, having ethnomedical knowledge, area of residence (rural), education (low), occupation (informal), health insurance status (enrolled), having experienced health problem during the preceding one year, and access to healthcare service not perceived as a problem. Gender, household income, and satisfaction level with healthcare service were not statistically significant indicators of TM use, thus were not included in the subsequent multivariate analysis.

Table 2. Significant predictors of TM use in the binary logistic regression (n =926).

Variable	Coefficient	p value	Odds Ratio *
Residence	-1.844	< .001	0.158 (0.10–0.26)
Occupation (formal)	-1.26	0.001	0.284 (0.13–0.61)
Education (college or more)	2.436	< .001	11.42 (3.62–36.06)
Believe in TM safety and efficacy	0.839	0.001	2.313 (1.42–3.77)
Health problem	0.758	0.007	2.135 (1.231–3.70)
Holistic orientation to health	2.474	< .001	11.87 (7.2–19.56)
Ethnomedical knowledge	1.87	< .001	6.485 (3.35–12.54)

*95% Confidence Interval

While participants residing in a rural location and being more educated were likely to use TM, those working in the formal sector were less likely to use TM. Participants who perceived TM safety and efficacy to be equal or better than conventional medicine were associated with using TM. Those who reported having experienced health problems in the past year were almost two times more likely to use TM. Participants holding holistic orientation to health and possessing traditional knowledge of herbal medicine had higher odds of using TM.

Although there was a trend in the direction of being more likely to use TM among those who were insured and did not perceive a problem with accessing health services, this variable was not a significant predictor of TM use. Our finding also showed that a negative attitude toward healthcare service was not predictive of TM use. Among those who reported being satisfied with healthcare service (165), 67.3% used TM, while 66.3% of those who reported dissatisfaction (86) were TM users, indicating that TM users were no more dissatisfied with the service than nonusers were. Most of the insured TM users whose responses converged toward a neutral tone (neither dissatisfied nor satisfied), mainly comprised of rural residents, suggesting the possibility of underutilisation of JKN by this segment. This indicates that the health insurance has not effectively increased healthcare service utilization as intended, particularly by the most vulnerable segment, which mainly resided in rural area.

Conclusions

People's experience, personal attributes, and attitude towards TM, rather than dissatisfaction with healthcare service, predicted the likelihood of using TM in the UHC system in Indonesia. This finding also implies the underutilisation of JKN services by the insured TM users living in rural areas. Considering the community's strong preferences for TM, we argue that its inclusion in the JKN system may increase the utilisation of the JKN service.

Full paper

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Table 2 shows multivariate analysis of the significant variables in the CSQ analysis. The test of the full model against a constant only model was statistically significant, indicating that the predictors, as a set, reliably distinguished between TM users and the non-users ($\chi^2 = 510.439, p < .001, df = 11$). The model can explain 42%–60 % the variability in the odds of using TM.