

More frequent use of herbal medicine daily in married and divorced women in Indonesia

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Abstrak

Latar belakang: Selama kurun waktu 2000-2006 penggunaan obat tradisional di Indonesia terus meningkat. Analisis data dilakukan untuk mengetahui profil penduduk Indonesia yang menggunakan jamu setiap hari dan faktor-faktor yang berhubungan dengannya.

Metode: Analisis dilakukan dengan menggunakan hasil survei Riset Kesehatan Dasar (Riskesdas). Data mencakup sub-sampel orang 15 tahun atau lebih (179.227 orang) di 33 propinsi di Indonesia. Kriteria inklusi terbatas sub-sampel untuk orang-orang yang menggunakan obat herbal harian (7.847 orang) dan mereka yang tidak pernah menggunakan jamu (81.415 orang). Data tingkat individu termasuk informasi tentang umur, jenis kelamin, status perkawinan, pencapaian pendidikan, pekerjaan, pengeluaran rumah tangga per bulan, tempat tinggal, dan lain-lain. Data dianalisis menggunakan regresi logistik bertahap.

Hasil: Penduduk Indonesia yang menggunakan jamu setiap hari sebesar 4,4% dari total penduduk, proporsinya lebih besar yang menggunakan jamu bukan buatan sendiri, bentuk sediaan cairan, dan merasakan manfaat menggunakan jamu. Subjek yang kawin/cerai dibandingkan dengan yang belum menikah 4,4 kali lipat menggunakan jamu setiap hari [rasio odds suaian (ORa)=4,42; 95% interval kepercayaan (CI)=4,09-4,77]. Jika ditinjau dari daerah tempat tinggal, subjek di pedesaan dibandingkan dengan perkotaan 2.2 kali lipat menggunakan jamu setiap hari (ORa=2,18; 95% CI=2,08-2,29). Sedangkan perempuan dibandingkan lelaki 62% lebih banyak menggunakan jamu setiap hari (ORa=1,62; 9% CI=1,55-1,70).

Kesimpulan: Subjek yang kawin/cerai, perempuan, atau di pedesaan lebih banyak menggunakan jamu setiap hari. (*Health Science Indones 2011;2:3-8*)

Kata kunci: jamu, obat tradisional, perilaku berobat

Abstract

Background: During the period of 2000-2006, the utilization of traditional medicine in Indonesia continued to increase. Data analysis was conducted to determine the profile of Indonesia's population using daily herbal medicine and the related factors.

Methods: Analysis was conducted using the 2010 Basic Health Research Survey (*Riset Kesehatan Dasar/Riskesdas*) data covering a sub sample of people 15 years and older (179,227 people) in 33 provinces of Indonesia. Inclusion criteria limited the sub-sample to those people that use herbal medicine daily (7,847 persons) and those who have never used herbal medicine (81,415 persons). Individual level data included information on age, gender, marital status, educational attainment, employment, household expenditure per month, residence, etc.

Results: Four point four percent (4.4%) of Indonesia's population uses herbal medicine daily. A larger proportion of the population buys traditional medicine products in a liquid dosage form than make herbal medicine at home, and most feel that they benefit from the use of herbal preparation. Married /divorce rather than unmarried subjects were 4.5-fold more likely to use herbal medicine daily [adjusted odds ratio (ORa)=4.42; 9% confidence interval (CI)=4.09-4.77]. In term of residency, rural rather than urban residents were 2.2-fold more likely to use herbal medicine daily (ORa=2.18; CI=2.08-2.29), and female than male were 62% more likely to use herbal medicine daily (ORa=1.62; CI=1.55-1.70).

Conclusion: Married or divorced, female residents were more likely to use herbal medicines daily. (*Health Science Indones 2011;2:3-8*)

Key words: herbal medicine, traditional medicine, health behavior

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In the final model (Table 3), there were 3 dominant factors which increased the daily use of herbal medicine. Females rather than males, married /divorce rather than unmarried subjects were more likely to use herbal medicine daily. In term of residency, rural rather than urban residents were more likely to use herbal medicine daily.

Within Indonesia traditional medicine is defined as medicine produced using raw materials or ingredients from plants, animals, minerals, extracts, or mixtures of these which have been traditionally used for treatment, and are acceptable to the norms prevailing in community.¹ The use of traditional medicines are mentioned within National Health System (*Sistem Kesehatan Nasional/SKN*) which promotes the development and improvement of traditional medicine to insure high quality, safety, and insure that its properties have been scientifically tested so that they can be widely used, both for self-medication as well as within in the formal health system.² The National Traditional Medicine Policy (*Kebijakan Obat Tradisional Nasional/KOTRANAS*), was established as guidelines for the use of traditional medicine in Indonesia, to encourage the use of natural resources and traditional medicinal raw material in a sustainable (sustainable use) in the national effort to improve health services.³

There are three categories of traditional medicine depending on their use in therapy, known as i) herbal medicine, ii) standardized herbal medicine and iii) phytopharmaca. Herbal medicine is traditional medicine that has proven efficacy claims based on empirical data. Standardized herbal is traditional medicine that meets the criteria of stability and has data to demonstrate its efficacy claims and preclinical trials have been carried out in the standardization of formulation using raw materials in the finished product. Phytopharmaca is traditional medicines that meet the criteria established and has proven efficacy claims based on rigorous clinical trials and has a standardized formulation of raw materials that are used in the finished products.⁴

Based on its site of production traditional medicine is classified as home-made herbal medicine, herbal medicine made by a peddler, and traditional medicines produced as an industrial product.⁵ The government supports home-made herbal medicine with the Family

Medicine Garden program (*Taman Obat Keluarga*) so that communities are able to provide raw material and herbal formulation that can be used for the treatment of mild pain in the family.⁶ The herbalist make and sell their herbal medicine as herbal peddlers. Industrially produced traditional medicine are usually marketed in the form of pills, powders, decoctions, pellets, tablets, capsules, syrups, beverages, and as sugars.⁵

The National Socio Economic Survey (*Survei Sosio-ekonomi Nasional/SUSENAS*) of Indonesia's population in 2007 showed that of the 30.9% from respondents who complain of illness, the largest proportion (65.01%) choose self-medication using medicine and/ or traditional medicine.⁷ The use of traditional medicine in self-medication increased from 15.2% to 38.3% from the year 2000 to 2006.⁸ Traditional medicine is widely used to maintain health, and for treatment of diarrhea and rheumatic complaints.⁹ Most of the traditional medicine used is produced industrially and is more commonly used than home-made herbal medicine or that sold by herbal peddlers.¹⁰

Results of *Riskesdas* 2010 show there were 4.4% of population using herbal medicine every day, 45.0% use herbs occasionally, 9.7% had ever used herbal medicine, and 40.9% never use herbal medicine.¹¹ The research question is what is the profile of population who use herbal medicine daily and factors related to the use of herbal medicine every day. The purpose of this study was to determine the profile of Indonesia's population that use herbal medicine daily and the factors that could predict utilization of traditional medicine. The expected benefit of this analysis is information for community empowerment in the use of herbal medicine.

METHODS

Analysis was conducted using the Basic Health Research Survey data of 2010. The population of the respondents was 179,227 residents aged

15 years and over. Samples of this survey include all 33 provinces of Indonesia. The data utilized in this analysis included age group, gender, marital status, education, job, household expenditure per month, residence of the population who use herbal medicine daily (7847 persons) and who have never used herbal medicine (81,415 people). Household interviews were done using a household questionnaire and individual questionnaires for household members. Data processing was done by separating the people who use herbal medicine every day and those who have never used herbal medicine. Finally data were analyzed by weighting, calculating proportions, and regression logistic test.¹²

The definitions of the various research variables are as follows:¹² age was calculated in years by age at the last birthday based on the Gregorian calendar, and categorized as adults (age less than 40 years) and older adults (aged 40 years and over); marital status was determined by the enumerator, and categorized as unmarried and married (including divorced or divorced dead); educational attainment was judged on the highest level of formal education achieved, and categorized as low education (secondary school

not completed), and high education (graduated secondary school or above).

Employment was an activity that uses the most time of the respondent or that provides the most revenue for the family. Two categories were created: non farmer and farmer. Expenditure per month per capita is the household expenditure for food consumption and non food in a month divided by the number of family members. Two categories were created: low income (quintile 1-3) and high income (quintile 4-5). Residence contained two categories: urban and rural.

The use of herbal medicine is the behavior of the respondents in utilization of herbal medicine. Two categories were generated: daily and never used.

RESULTS

There were 7,847 (4.4%) subjects using traditional medicine daily.

These subjects used non home-made traditional medicine (76.7%), as liquid preparation (59.7%), and most of them perceive the benefits (96.9%).

Table 1. Utilization of herbal medicine daily by product, preparation and perceived benefits

	n	%
Herbal medicine product		
Self-made herbal medicine	1,826	23.3
Non self-made herbal medicine	6,021	76.7
Herbal medicine preparation		
Capsules/pills/tablets		
Yes	1,020	13.0
No	1,821	87.0
Powder		
Yes	2,919	37.2
No	4,928	62.8
Liquid		
Yes	4,685	59.7
No	3,162	40.3
Decoction		
Yes	1,973	25.1
No	5,874	74.9
Perceived benefits of using herbal medicine		
Feel the benefit	7,599	96.9
Not feel the benefit	248	3.1

Those who used and who never used herbal medicine daily were similarly distributed with respect to their employment. Subjects with

higher education and lower income were more likely to use daily herbal medicine compared to the reference groups.

Table 2. Demographic, social and economics predictors of daily use of herbal medicine

	The use herbal medicine		Crude odds ratio	95% confidence interval.	P
	never (n=81,415) %	Every day (n = 7,847) %			
Age group					
15-39 years old	87.1	82.1	1.00	Reference	
40-97 years old	12.9	17.9	1.47	1.38 - 1.56	0.001
Education (secondary school)					
Low education	48.4	53.0	1.00	Reference	
High education	51.6	47.0	1.20	1.14 - 1.26	0.000
Employment group					
Not farmer	36.6	36.0	1.00	Reference	
Farmer	63.4	64.0	1.03	0.97 - 1.08	0.305
Economic status (income)					
Quintile 4-5	35.6	47.3	1.00	Reference	
Quintile 1-3	64.4	52.7	1.62	1.55 - 1.70	0.000

In the final model (Table 3), there were 3 dominant factors which increased the daily use of herbal medicine. Females rather than males, married/divorce rather than unmarried subjects

were more likely to use herbal medicine daily. In term of residency, rural rather than urban residents were more likely to use herbal medicine daily.

Table 3. The relationship between gender, marital status, residence and the use of herbal medicine every day

	Use of herbal medicine		Adjusted odds ratio*	95% confidence interval	P
	Never (n=81,415) %	Every day (n = 7,847) %			
Gender					
Male	51.0	36.7	1.00	reference	
Female	49.0	63.3	1.62	1.55-1.70	0.000
Marital status					
Not married	32.0	9.8	1.00	reference	
Married/divorce	68.0	90.2	4.41	4.09-4.77	0.000
Residence					
Urban	45.6	62.4	1.00	reference	
Rural	54.4	37.6	2.18	2.08-2.29	0.000

*Adjusted to each other among variables listed on this Table

DISCUSSION

One of the strengths of this study is that the research covered the entire country with data including 179,227 Indonesians from 33 provinces. The weakness of this study is that the

purpose for the daily use of herbal medicine was not asked.

In the daily use of herbal medicine, medicine was primarily purchased and not home-made, most consumers preferred a preparation in

liquid form, and reported that they perceived the benefits of daily use. These results were consistent with the daily use of traditional medicine in a study done in South Lampung, which showed that most respondents used traditional medicines bought from herbal peddlers, to maintain health and to feel good.⁹

Three factors found to be related to daily use of herbal medicine were gender, marital status, and residence. These results were in line with the results of the *SUSENAS* 2001 data, which indicated that the daily use of traditional medicine was higher in older subjects, lower educated (have not graduated primary school), and living in rural areas.¹³ These results were also similar with the results of the *SUSENAS* 2007 data, which showed higher daily use of traditional medicine in elderly population, among women who were married/divorced, of low educational attainment, and rural residence.⁸ A study in Malaysia also showed that the prevalence of herbal medicines use is high and the major predictors in the use of herbal medicine were the female gender [odds ratio (OR) 1.80, confidence interval (CI) 1.40-2.31] and being married [OR 1.97, CI 1.44-2.71].¹⁴ Traditional medicine was also popular among the Chinese population in Taiwan, which included the use of Chinese herbal remedies, acupuncture and traumatology manipulative therapy.¹⁵ Chinese herbal remedies (85.9%) were the most common modality used by this population.¹⁵ Among users, female was higher than male (female: male = 1.13:1), and the age distribution displayed a peak at around the 30s, followed by the 20s and 40s.¹⁵ In Laos, 77% of households surveyed used traditional medicine, which included herbal medicines, sauna, massage, and acupuncture and the main reason given was perceived efficacy.¹⁶ In Australia, complementary and alternative medicine use was also popular and covered 68.9% of those interviewed.¹⁷

Further analysis of *Riskesdas* 2010 showed that the use of home-made herbal medicine was higher in the old age group, residents of rural areas, farmers, and married group.¹¹

Analysis of factors related to behavior of the use of traditional medicine showed there was no

significant correlation between age and knowledge, between education and knowledge, between work and knowledge, between income and knowledge, and between the availability and use of traditional medicine. There was significant correlation between knowledge and attitude, and between attitudes to the use of traditional drugs.¹⁸

In conclusion, a larger proportion of whom bought their traditional medicine preparations rather than making themselves. Consumers preferred traditional medicine in a liquid form, and felt that they benefit from using it. Married, female rural residents are the most likely to use herbal medicines daily.

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