THE DIFFERENCES IN SELF-MEDICATION FACTORS FOR TODDLER MOTHERS BETWEEN RURAL AND URBAN

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ABSTRACT

Introduction: *Self-medication occurs in many developing countries in the world, including Indonesia, which can cause a variety of global impacts, namely improper use that can lead to irrational use of drugs, late seeking medical advice, increasing side effects and drug interactions. Self-medication is related to the role of mothers in the household. The purpose of this study to find out the differences in factors that influence maternal behavior in self-medication oftoddler including knowledge, attitudes, income levels, and exposure to information sources between rural and urban areas.* ***Methods:*** *The study was conducted in 2 locations in Gemawang (rural) and Campursari (urban), WonosoboDistrict, Central Java Province. The population of quantitative analytic research with cross sectional design was 78 mothers with children in rural and 75 in urban areas. Data analysis used Kolmogorov-Smirnov because in the normality test the data used shapirowilk from the variables of knowledge, attitudes, income levels and information exposure with self-medication behavior, the result was p = 0.00 (<0.05) so the data was not normally distributed. The sampling technique uses purposive sampling.* ***Results:*** *There were differences in knowledge, attitudes, income levels, and exposure to information about mothers oftoddler of self-medication behavior between rural and urban with a value of p=0,000.* ***Conclusions:*** *The behavior of mothers in self-medication of toddler between rural and urban areas has a significant difference with knowledge, behavior, attitudes, income level, and information exposure.*

Keywords: *Self-medication, Toddler, Rural, Urban*

INTRODUCTION

Self-medication or what is known as self-medication in many developing countries is a common practice that occurs because of concerns about quality related to the health care system and skepticism about the benefits of professional health compared to traditional medicine(Hussain S et al, 2010).The WHO estimates that more than half of all drugs in the world are prescribed, given and sold in an improper way and half of patients use drugs inappropriately. Practically, the use of drugs is said to be rational if it meets the criteria for good use of drugs which must meet the right five, that is, appropriate according to clinical or diagnosis, right dosage, timely, accurate information, and exact price (Kemenkes RI, 2011).

Based on the results Riskesdas on 2013, there were 103,860 or 35.2 percent of 294,959 households in Indonesia storing drugs for self-medication with the highest proportion of households (RT) in DKI Jakarta (56.4%) and the lowest in East Nusa Tenggara (17.2%) The average drug dosage stored is almost 3 kinds. Of the 35.2 percent of RTs who store drugs, the proportion of RTs that store drugs is 35.7 percent and antibiotics are 27.8 percent. The presence of hard drugs and antibiotics for self-medication indicates irrational use of drugs (Kemenkes RI, 2013). The results Riskesdas on 2018 also showed that 12.9% of households made their own efforts when suffering from illness (Kemenkes RI, 2018)

The results of the 2013 Riskesdas also showed that pharmacies and drugstores/stalls were the main sources of obtaining household medicine with a proportion of 41.1 percent and 37.2 percent respectively. Based on the place of residence, the proportion of households that obtain drugs at the pharmacy is higher in urban areas, while the proportion of households that obtain drugs at drugstores/stallsis higher in rural areas. However, 23.4 percent of households obtain drugs directly

from health workers, the highest proportion in rural areas (31.5%). The higher the ownership quintile index, the lower the drug from the health sources. The proportion of households that get drugs from formal health services (puskesmas, hospitals, clinics) does not differ between urban (16.9%) and rural areas (16.6%) (Kemenkes RI, 2013).

The percentage of Indonesians who self-administered in 2014 was as much as 90.54% doing modern medicine, 20.99% doing traditional self-medication and as many as 4.06% doing medication using other methods. Whereas in Central Java Province the people who self-administered in 2014 were as much as 90.50% doing modern self-medication, 17% doing traditional self-medication and as many as 5.5% doing self-medication in other ways (BadanPusatStatistik, 2016). Self-medication prevalence in DI Yogyakarta in 2005 amounting to 87.73%. Self-medication behavior may be influenced by gender, age, education level, employment status, income level, as well as knowledge and attitudes about self-medication (Kristina dkk, 2016). Recent studies show that self-medication is very common in less-economical communities. In many developing countries, health care facilities do not meet benchmark standards and are even quite expensive, making self-medication an easy and necessary medical choice. Another factor that contributes to the promotion of self-medication in developing countries is the availability of prescription drugs as over-the-counter drugs and can be purchased easily from any drug store. In addition, weak medical regulations are also the cause (Bennadi, D, 2014).

However responsible self-medication is not free from risk, can increase the burden and expenditure of out of pocket because it can cause adverse health effects that require medical intervention. This improper use can lead to irrational drug use, late seeking medical advice, increasing side effects and drug interactions (Asam FS, 2007). Self-medication behavior is closely related to the role of the mother. The role of care and maintenance of family health is very close to the role of mother. Mothers are considered responsible for preventive and curative efforts, therefore the role of mothers is the reproductive role that is in the household domain.

There may be some positive aspects of self-medication if done according to rational criteria. However, in developing countries, self-medication usually causes inadequate drug use patterns and is very worrying if it involves specific diseases (such as diarrhea or the common cold) or prescription drugs such as antibiotics. Implementation of patterns of health care requires proper planning and is important for understanding the health seeking behavior of the population. The purpose of this study was to analyze the behavior of self-medication by members of rural and urban areas in Wonosobo District, Central Java Province. The result must be able to provide input to policy makers in the government, especially the health office and other relevant agencies in an effort to increase public awareness about the adverse effects of irrational self-medication practicesthat occur in the community in order to reduce health risks associated with self-medication.

METHODS

Table 1. Demographic Carasteristics in Rural and Urban

Variable	Rural		Urban	
	N=78	(%)	N=75	(%)
Age				
< 39	73	93,59	48	64,00
>= 39	5	6,41	27	36,00
Education				
Low (graduated from junior high school and below)	77	98,72	8	10.67
Height (graduated from senior high school and above)	1	1,28	67	89,33
Work				
Civil Servant	0	0.00	17	22.67
Private Employe	0	0.00	11	14.67
Entrepreneur	8	10.25	32	42.67
Farmer	25	32.05	0	0.00
Laborer	1	1.29	0	0.00
Housewife	44	56.41	15	20.00
Income level				
< 1.457.100 IDR	68	85.90	7	9.33
>= 1.457.100 IDR	10	14.10	68	90.67

Source: Primary Data

Table 2. Knowledge about self-medication between rural and urban

Knowledge	Categori	Value		Mean
		Minimum	Maximum	
	Rural	17	100	69,82
	Urban	33	100	90,77

The type of research used in this study was observational analytic with a *cross sectional studydesign*. This study wanted to see differences in the factors that influence the behavior of mothers in self-medication in toddlers between rural and urban in Wonosobo District, Central Java Province. The dependent variables studied were maternal knowledge, attitudes, economic level, and information sources, while for the independent variable, the behavior of mothers in self-medication for toddlers. For the determination of the Rural-Urban area in this study using the assessment table from the Regulation of the Head of the Central Bureau of Statistics No. 37 of 2010 concerning Classification of Urban and Rural Areas in Indonesia. The result is that Gemawang is included in the rural criteria while Kampung Campursari is included in the Urban criteria to represent WonosoboDistrict. The population in this study were all mothers who had toddlers which were as many as 92 mothers inGemawang (rural) and 97 mothers in Kampung Campursari (Urban). The sample size calculation using the formula from Slovin is obtained, results for 78 mothers in Gemawang and 75 mothers of toddler in Kampung Campursari. The research will be carried out using

Table 3. Attitude about self-medication between rural and urban

	Categori	Value		Mean
		Minimum	Maximum	
Attitude	Rural	40	100	66,92
	Urban	40	96,67	72.06

Table 4. Behaviour about self-medication between rural and urban

	Categori	Value		Mean
		Minimum	Maximum	
Behaviour	Rural	37,5	100	72,92
	Urban	25	100	88,00

Table 5. Exposure to information sources between rural and urban

Exposure to information sources	Categori	Value				Total	%
		Yes	%	No	%		
	Rural	36	23,5	42	27,5	78	51,0
	Urban	65	42,5	10	6,5	75	49,0
	Total	101	66.0	52	34.0	153	100.0

Table 6 Level income between rural and urban

Level income	Categori	Value				Total	%
		Low (under UMK)	%	High (above UMK)	%		
	Rural	68	44,4	10	6,5	78	51,0
	Urban	7	4,6	68	44,4	75	49,0
	Total	75	49,0	52	51,0	153	100,0

purposive sampling, namely the method of selecting samples based on specific goals and objectives determined by the researcher, one can be used as a sample because researchers have the information needed for research (Dharma, 2011), including mothers who have toddlers who live in these two locations and during the last 3 months self-medication. This study has been approved by committee ethic with the approval number FIKES/PL/IV/2017.

RESULTS

The characteristics of the respondents included the age of most of the less than 39 years in rural (93.59%) while in urban (64.00%), the education in rural was lower (graduated from junior high school and lower) which was 98.72% while in urban there were more those who were highly educated (graduated high school and above) were 89.33%, the work in rural was mostly housewife (56.41%) while the urban were mostly self-employed 42.67%, and the income in rural was mostly less than UMK as much as 85.90% while urban are mostly more than UMK 90.67% (Table 1).

The first step is to test the validity and reliability of each item in the questionnaire statement using the person product moment correlation, if the correlation value is greater than the r table value (0.361) declared valid or the

Table 7. Differences in Knowledge, Attitudes, Behavior, Exposure to Information, dan Income Level in Self-medication for Toddler Between Rural and Urban

Variable	Value Table	*PValue*
Knowledge	0,05	0,000
Attitudes	0,05	0,000
Behaviour	0,05	0,000
Exposure to Information	0,05	0,000
Income Level	0,05	0,000

Source: Primary Data

results of the test are meaningful, significant in this case means the items are stated valid. The test was carried out inCangkringan, Sleman in 30 respondents (Riwidikdo, 2012). The results are 9 items that are invalid questions from 21 question items.

Based on the knowledge variable, the rural has a minimum value that is lower than the urban minimum value with a difference of 24 points, the maximum value between rural and urban has a similarity of 100 points with a lower mean value in the rural of 69.82% than the urban mean of 90.77%. (Tabel 2).

For attitudes in the rural and urban category, they have the same minimum value of 40 with a mean greater urban that is 72.06 compared to the rural 66.92 (Table 3).

For behavior in the rural category the minimum value is 37.5 while the urban is 25. The maximum value of the two rural and urban categories has an equation where the maximum value of the two places is 100. The mean in the rural category is 72.92, while in the urban category is 88,00 (Table 4).

The second step is to test the normality of the data by using *Shapiro wilk*, the results are $p = 0,00$(< 0,05)so it can be said that the data is not normally distributed. And than for bivariate analysis used in this study was a *Kruskal Wallis* test. The kruskalwallis test was used because the data scale was not normally distributed after being tested with *Kolmogorov-Smirnov*.

It can be seen that from all respondents, 153 respondents, who were exposed to information sources in urban category, which were 65 (42.5%) more than rural 36 (23.5%). (table 5).

The income level of respondents according to the answers to the questionnaires given between rural and urban was obtained by all respondents of 153 respondents, the majority of which had a level of income above UMK in urban category, which was 68 (44.4%) more than rural 10 (6.5 %). (table 6).

The results of data analysis using the *Kruskal Wallis* test in this study were there differences in the influence of knowledge, attitudes, behaviour, information exposure and level of income of mothers in self-medication in toddler between rural and urban with *p-value* 0,00 (< 0,05). In this table, the analysis of *Kruskal Wallis test* is used to see differences in knowledge, attitudes and behavior of mothers who have toddlers in self-medication (Table 7).

DISCUSSIONS

Overall, the variables of knowledge, attitudes, behavior, information exposure and income levels in urban have higher average values

than rural. And in this study, it was found that there were differences in knowledge, attitudes, behavior, information exposure, and the level of income of toddler mothers between rural and urban. Study about self-medication among the rural population of Meghalaya found prevalence of practice self-medication as 55% (Marak et al, 2016). Similar community-based, cross-sectional study in rural areas by Ahmed et al. had found that 50% of respondents practiced self-medication.The results of this study are in accordance with the study (Kristina et al., 2008) about rational self-medication behaviour in the community of DepokSubdistrict and CangkringanDistristSleman with a high level of knowledge and attitude is related to self-medication behaviour.

Families, friends, neighbors, the pharmacist, previous prescribed drug, or suggestions from an advertisement in newspapers or popular magazines are common sources of self‐medications (Bennadi, D., 2014). Trust in local culture often makes rural people choose to treat themselves, stay at home and consult traditional medicine (Nyamongo IK, 2002). Besides the trust factor, exposure to health information from information media can also influence preventive behaviour. The more health information a person gets will provide a permanent behaviour change. Individuals can obtain information through the closest person or through media, both print and electronic (GielendanMc Donald, 2008).

The result of this study for the income level are different from the research from Marak et al (2016) that with chi-square test revealed that practice of self-medication was not significantly associated with gender (p = 0.917), age of the respondent (p = 0.68) educational status (p = 0.18), and socioeconomic status (p = 0.64). but in a research done by Jose in 2006, it was found that self-medication in Mexico significantly was associated with socio-economic status and lack of access to health care professionals (Jose, 2006 *cit*Ezzatabadi et al, 2016). And other studies in SlemanDistrici in Yogyakarta also state that income levels are related to self-medication behavior.

The need for increased knowledge through counseling by health workers about rational, good and right self-medication behavior, especially for mothers in rural to make self-medication appropriate to their needs. Further research is expected to be more specific to self-medication of certain diseases and is expected to directly observe self-medication related to drug identification carried out at the household level.

CONCLUSIONS

The behavior of mothers in self-medication at toddler between rural and urban has a significant difference with knowledge, behavior, attitudes, income levels, and information exposure.

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