

Health Literacy of Makassar Community on Self Medication

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Abstract

Health literacy is implemented as a degree of individuals who have the capacity to obtain, process and understand information from primary health care and then be required to make decisions affecting the health situation is right even literacy health are closely linked to changes in behavior when you want to decide to do self medication. Indicators of health literacy in this study is to analyze the public's ability to know and understand the terms of aspects of drug use evaluation, analysis, calculation, interpretation, and location. The research objective is to analyze the health literacy of respondents to self-medication. The type of this research is a quantitative research study design with cross sectional study. The used survey method using a questionnaire with the aim of explaining the relationship of variables of evaluation, analysis, calculation, interpretation and location. Linkage of these variables were analyzed as health literacy on the pattern of self-medication people in the city of Makassar. The research location is Pharmacies and Drug Stores distributed into 4 regions the North, East, South and West in the city of Makassar, South Sulawesi, Indonesia. The sampling technique used in this study was multistage random sampling. The sample size in this study = 400. The results showed that the health literacy of respondents who conduct their self medication are mostly located in both categories (<3,48).

Key words: Health Literacy, Self Medication

I. INTRODUCTION

National drug policy (2005) showed that the rational use of drugs is not limited to the use of drugs by health providers, but also in their self medication. Based on 2001 data showed that the proportion of people who do their self medication amounted to 83.88% using the drug. Amounting to 85.04% of the population in urban areas use more of the drug than the rural population (83.02%). Therefore, communication, information, and education is effective on an ongoing basis is a necessity in the context of the rational use of drugs. Ensure people get the treatment that fit their needs for a period of time adequate at an affordable price is required health literacy related health understanding and knowledge of how to use the drugs properly, correctly and safely so that use of the drugs is rational as well as the effects and safety of drugs can guaranteed (Ditjen Binfar dan Alkes, 2011). Health literacy has a function as a measure of basic skills in applying the skills to understand and act on health information. Low health literacy affects more than a billion people around the world, resulting in a crisis of medical information and understanding that can cause problems in dealing with health. Some of the immediate effects that may contribute to health literacy is disease prevention, early detection of disease, health care access and utilization of health services, medication adherence and chronic disease management (Nutbeam, 2006). Health Literacy contributes greatly to a person to make a decision to take action treatment. The health status of the lower estimated prevalence of the health literacy reached 48% and 11% of adults have a high level of health literacy. Health literacy is defined as the cognitive and social skills which determine the incentive and the ability of individuals to obtain, process, and use information to protect and improve the health of individuals (Javadzade, 2012). Based on the results Susenas In 2009, the Central Bureau of Statistics noted that there are 66% of sick people in Indonesia who do the treatment themselves. This rate is relatively higher than the percentage of the population that outpatient treatment to the doctor (44%). Self-medication with drug use can lead to irrational drug use, waste of resources, increase the occurrence of resistance of pathogenic, the drugs of adverse reactions and prolonged suffering. If action is not taken then the risk of drug interactions and side effects may be increased incident. Safety in the treatment itself depends on four factors: the drug itself (the inherent properties of the dose, the drug and duration), formulation, information available and patient compliance (Supardi, 1997). Socio-demographic in Makassar has 14 districts and 143 villages, total population of 1.272.349 inhabitants. Age 20-40 years as many as 491.591 people. Ethnically heterogeneous population, namely Bugis, Makassar, Mandar, Toraja, Chinese, Javanese, and Buton. The level of education is high school graduates 96.48% and 57.56% of them were scholars. The population of Makassar as much as 30% (\pm 400,000) were aged under 40 years and never self medication. The distribution of health facilities to access General OTC products (F), OTC medical with warning labels (W), and prescription medicine (G) for use in self-medication

without consulting a doctor is the pharmacy 556 pieces and drug stores 38 pieces as well as small shops selling the drug, as well as medicinal plants (BPS in Makassar, 2010).

II. RESEARCH METHOD

The type of research is a quantitative research study with cross sectional study. This study uses a questionnaire survey with the aim of explaining the relationship of health literacy variables, among respondents who do their self medication. The linkage of these variables and then generates a category of health literacy. The research was conducted in the city of Makassar in 14 subdistricts were distributed into four regions, North, East, South and West. The study was conducted in Desember 2015 to April 2016. The population in this study is the Makassar people who have done their self medication using General OTC products (F), OTC medical with warning labels (W) and prescriptionine (W) obtained from pharmacies and drug stores spread across the city of Makassar. Makassar community is domiciled in Makassar spread over 14 districts. The sample size in this study using the parameter estimates $n= 384$ (400) respondents. Sampling technique in this study conducted by multistage random sampling, the selecting respondents who came to the pharmacies or drugstore corresponding region of residence to buy drugs to be used orally for the purposes of self-medication in accordance with established criteria.

- Population pharmacies in Makassar = 556, the number of pharmacies sampled = 84
- Population drugstores in Makassar = 38, the number of drugstores sampled = 28
- Respondents who visited the pharmacies = 306
- Respondents who visited drugstores = 94
- Total pharmacies every region = 21
- Total drugstore every region = 7

III. RESULTS

Health literacy is the ability of respondents to obtain, process and understand basic health information and services needed to make a decision then the health situation is right even health literacy is closely associated with behavioral changes when it wants decide for treatment. In this study, there are five categories that relate to health literacy are intrinsically respondents chose the option whether yes (agree or know) or not (agree or know) about the statement if it is associated with self-medication. Five categories related to knowledge is literacy in the case of drug use when doing their self medication.

- Evaluation, an evaluation related to the quality and credibility of the drug.
- Analysis, analyzing the associated benefits and risks of the drug.
- Calculate, calculating the related cost of drugs to be purchased.
- Interpretation, interpretation (understanding / knowledge) related to the drug to be used.
- Location, locate or find the location where the drug was obtained. In the study there were 15 statement distributed to five categories of health literacy and consists of three statements for each category of health literacy.

Table 1. Health literacy of Makassar community in the conducting self medication in Makassar 2016

Statement		Pharmacy n=306 (%)	Drugstore n=94 (%)	Total n=400 (%)
Evaluation				
1	Rules of use and warnings listed on medicine labels should be read before use	96,1	88,3	94,3
2	Medicine widely advertised always effective if used	33,7	44,7	36,3
3	Drugs purchased by the experience more effective than the drugs given by doctors	60,1	62,8	60,8
Analysis				

	Statement	Pharmacy n=306 (%)	Drugstore n=94 (%)	Total n=400 (%)
1	The Medicine is said to be efficacious if given effect to reduce or eliminate complaints	92,5	98,9	94,0
2	To avoid counterfeit medicine then you should use the medication prescribed by the doctor	72,9	68,1	71,8
3	Medicine that do not provide healing should not continue to use	91,8	90,4	91,5
Calculate				
1	The use of expensive medicine always provide faster healing effect	38,2	33,0	37,0
2	Medicine purchased alone in a pharmacy or drug store more cost effective compared with drugs that are prescribed by a doctor	82,7	87,2	83,8
3	Medicine prescribed by the doctor of higher quality compared with its own drugs purchased in pharmacies or drugstores	48,4	44,7	47,5
Interpretation				
1	General OTC products (F), OTC medical with warning labels (W) is a drug that is safe if used as directed.	88,2	84,0	87,3
2	Prescription medicine (G) is a drug that can not be bought without a prescription	69,9	64,9	68,8
3	General OTC products (F), OTC medical with warning labels (W) can be obtained without a prescription	80,7	85,1	81,8
Location				
1	If the drug is difficult to find, even though the drug has been used and efficacious, should be replaced with another drug	70,6	73,4	71,3
2	Although the drug to be purchased in pharmacies and drug stores but if the drug is sold in the shop then you should buy in the shop	46,1	59,6	49,3
3	Medicine purchased in addition to the local pharmacy or drugstore is unknown drugs circulation or false	46,1	48,9	46,8

Table 1 pertaining to health literacy in the category of drug use evaluation showed that most respondents who self-medication in pharmacies, drugstores and the total respondents were respondents agreed that if the first read the rules of use and warnings listed on the drug label before using drugs. The category of drug use analysis shows that most respondents chose the statement that the drug is said to be efficacious if given effect to reduce or eliminate pain complaints, as did the majority of respondents agreed that if the drugs do not provide healing should not continue used. The calculations related categories their medical costs showed that most respondents who buy medicine in pharmacies, drugstores and the total respondents agree that drugs purchased alone in a pharmacy or drug store more cost-effective compared with drugs that are prescribed by a doctor. Respondents disagree if cures and medicine prescribed by doctors always provide faster therapeutic effect and quality. Category interpretations indicate that most respondents who buy medicine in pharmacies, drugstores and the total respondents know and understand drug General OTC products (F), OTC medical with warning labels (W) is a safe drug when used as directed, and they also know that a General OTC products (F), OTC medical with warning labels (W) can be obtained without a prescription. Category location self-medication showed that most respondents who buy medicine in pharmacies, drugstores and the total respondents know and understand if the drugs are difficult to find, even though the medicine has been used and efficacious, should be replaced by other

drugs. Results of confirmatory factor analysis (CFA) showed that of the five categories of health literacy, all of them significant $p < 0.001$ and reliable as well as the interpretation and analysis of the values obtained $\lambda > 0.5$. Evaluation of the use of the drug, costing, and the location of the treatment itself $\lambda < 0.5$ which indicates that respondents still lack health literacy understanding and relating to the evaluation, calculation, and the location of drug services. Based on the analysis and the formula obtained were calculated score for each indicator of health literacy and health literacy index score obtained average literacy score of 3.97 ± 0.83 the lowest and the highest 0.73 5.22. Table 2 shows that the category of health literacy of respondents to self-medication in pharmacies and drugstore are located in both categories. The fifth indicator of health literacy can be known and understood by respondents when they are going to self medication to deal with complaints of pain experienced.

Table 2. Category health literacy of Makassar community in the conducting self medication in Makassar 2016

Literacy category	Points of drug services		Total
	Pharmacies	Drugstore	
Less (<1,74)	9 (2,9%)	3 (3,2%)	12 (3,0%)
Fair (1,74 - <3,28)	59 (19,3%)	25 (26,6%)	84 (21,0%)
Safe ($\geq 3,48$)	238 (77,8%)	66 (70,2%)	304 (76,0%)
Total	306 (100,0%)	94 (100,0%)	400 (100,0%)

IV. DISCUSSION

Health literacy was defined as a degree of individuals who have the capacity to obtain, process and understand information from health care and then be required to make decisions affecting the health situation is right even literacy health are closely linked to changes in behavior when it wants decide for treatment (Benjamin, 2010). There are five indicators of health literacy in this study 1.Evaluation, 2.Analysis, 3.Calculation, 4. Interpretation, and 5.Location. Categories of evaluation showed that most respondents agreed that if the first read the rules of use and warnings listed on the drugs label before use. There is the effect of having read the rules of use and warnings listed on the drug label use of the drug before use. Respondents disagree with drugs that are heavily advertised always efficacious when used. The misuse of drugs, improper and irrational can be a danger to society due to the influence of promotion through advertising. In advertising the drug, the problem is relatively complex because the aspects taken into consideration not only the criteria for ethical advertising, but regarding benefit-risk to health and safety. Health literacy with indicator analysis, of the three statements submitted to reseponden, most respondents agreed that if the drug is said to be effective if it can reduce or cure pains and drugs that do not provide healing should not continue its use. Statistical analysis showed the value of the indicator analysis $p < 0.001$, where it means no influence on the effective medicine, prescription drugs, and drugs that do not provide a healing effect for use in self-medication. Treatment should be carried out in accordance with the illness suffered. Its implementation may need to meet the criteria of rational use of medicines, among others, the accuracy of drug selection, dosage accuracy drugs, no side effects, no contraindications, no drug interactions, and the absence of polypharmacy (Kristina 2008). Health literacy for indicator calculations of three statements most respondents agree that drugs purchased alone in a pharmacy or drugstore more cost-effective compared with drugs that are prescribed by a doctor.

Statistical analysis showed that the indicator value calculation $p < 0.001$ affect the purchasing power of their own treatment. More respondents believe themselves to buy drugs at pharmacies or drugstores with complaints of pain experienced. Similarly, respondents felt more cost effective if you buy the drug itself. However, respondents do not agree if expensive drugs or medicines prescribed by the doctor is always a healing effect more quickly. Treatment itself contributes to the financing access treatment because it does not use medical services and prescription medication costs, so the cost can be minimized, but the risk of undesirable as excessive use of drugs, duration of treatment, dose of the drug is not appropriate, and the effect of unwanted drug can happen. Strategy is important in this case is to maximize the benefits and minimize the risks (Hughes, 2001; Siponen, 2014).

Drugs purchased without a prescription respondents for the purpose of self-medication is a drug that is believed to contribute to the healing of pains experienced. Drugs purchased without a prescription by the public is a drug

that has been used and has been known to use, good dosage, storage, and information related to the drugs (Abel, 2012). Health literacy indicators for the interpretation of three statements most respondents understand that General OTC products (F), OTC medical with warning labels (W) is a safe drug when used as directed and General OTC products (F), OTC medical with warning labels (W) is limited can be obtained without a prescription. Statistical analysis showed that the value of the indicator interpretation affect the understanding and knowledge of the community with regard to labeling and classification of drugs as well as drugs purchased without a prescription. The level of knowledge and understanding is a means for insight into someone about something. Someone better educated will have broader knowledge than someone who is a lower level of education. Yetti research results (2013) showed that the public's knowledge about the disease and the drug in the treatment itself was 85.07%. Knowledge is a very important factor in shaping a person's actions. The high one's knowledge of the treatment itself likely to be motivated to take medication against her. The higher the person's knowledge or understanding of the treatment itself, then the public can understand and address the health problems facing (Husnawati, 2015)

Health literacy for its own location indicator treatment, of 3 questions most respondents agreed with the statement 1 that if the drug is hard to find, even though the drug has been used and efficacious, should be replaced by other drugs. Statistical analysis showed that the location indicator affect the search location self-medication. Respondents seek drugs are easy to find and close to tourist attractions as well as to agree on the distribution of legal drugs. Data Research and Development in 1997 showed that the number of drugs circulating in Indonesia in 1993, comprising about 9622 kinds 6300 trade name drugs and generic drugs 3322 and every year tends to rise (Sriyani, 1997). With many drugs circulating, allowing the public can choose and find drugs that are distributed to the appropriate pharmaceutical care facility complaining of pain experienced by considering the cost, efficacy, and safety of the drug to be used.

Respondents disagree if you buy medicine in a place that does not match its distribution. But in a statement 3, there were respondents who buy drugs in a stall consideration of the location or point of these stalls are in the neighborhood, so that people do not need the additional costs of transport to get the drug (Husnawati, 2015). But the majority of respondents disagreed with the statement that stalls become the preferred means to buy the drug if it would treat yourself. This is because respondents are not convinced of the distribution of drugs in a stall. Respondents were more confident and believe buying medicine at a pharmacy or drug store because that pharmacy or drug store is the official means of distributing pharmaceuticals. Respondents were able to obtain information relating to the use of drugs in accordance with standard pharmaceutical services. Respondents served by technical personnel of pharmacy or pharmacy personnel in accordance legislation in force (PP 51, 2009).

Results of confirmatory factor analysis showed that the 5 indicators of health literacy have a significant influence on the understanding and knowledge of the respondent when conducting their own treatment. However, respondents still need to be given the strengthening of education and understanding related to the effects of a drug that is informed through advertising. Then respondents were also given an understanding of the perspective assessing drug prices. The price of expensive drugs or no impact on the cost of treatment, but these medicines are appropriate pains provide optimal treatment results. Likewise, drug distribution was not a service that should be is to use a pharmacy or drug store for medicine and legal distribution. Health literacy index of respondents who conduct their own treatment are in good category ($\square 3,48$). Respondents have utilized with good implementation of the treatment itself. The index results show that respondents trust and confidence if the treatment itself can be implemented properly to deal with complaints of pain experienced.

V. CONCLUSION

From the results of research and discussion can be concluded that the health literacy of respondents who conduct their own treatment are mostly located in both categories ($\geq 3,48$).

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