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Self-Medication Behavior

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Abstract-In developing countries self-medication behavior is something that is very often found. This happens because self-medication behavior provides a cheaper and easier alternative for the community. Coupled with the ease in purchasing drugs. Self-medication is usually done to overcome complaints and minor illnesses that are often experienced by the community, such as fever, pain, dizziness, cough, influenza, stomach ulcers, intestinal worms, diarrhea, skin diseases and others. Self-medication behavior patterns have a higher prevalence in developing countries compared to developed countries. Based on the 2011 Susenas results, BPS noted that there were 66.82% of sick people in Indonesia who did self-medication. This phenomenon is very common in young people, especially students, and continues to increase along with media exposure and increased drug advertising. This poses a greater threat to the young population. To do self-medication correctly, people need to have clear and reliable information about the drugs they used. If self-medication is not done properly, there is the risk of another side effect due to improper drug use.

Keywords: Self-medication, behavior, OTC drugs.

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1. Introduction

Based on the Law of the Republic of Indonesia Number 36 of 2009 health is a healthy state, both physically, mentally, spiritually and socially that allows everyone to live productively socially and economically. When the healthy condition is disturbed and a person becomes ill, the individual will try to seek healing or self-medication, according to his knowledge or beliefs (BPOM RI, 2014).

According to the World Health Organization (WHO) self-medication interpreted as the selection and use of drugs, including herbal and traditional medicine, by individuals to treat themselves from diseases or symptoms of the disease. Self-medication is a form of self-care practice that is carried out globally and is defined as the use of medicines, herbs or home remedies on its own initiative, or on the advice of others, without consulting a doctor (Alshogran, 2018). Self-medication is usually done to overcome complaints and minor illnesses that are often experienced by the community, such as fever, pain, headache, cough, influenza, stomach ulcers, intestinal parasite, diarrhea, skin diseases and others. Self-medication behavior patterns have a higher prevalence in developing countries compared to developed countries (Shah *et al,* 2014).

In the United States (US), 75% of health problems are treated with non-prescription drugs. The drugs used include opioids as many as 13-18%, followed by stimulants, amphetamines (5%), and sedatives (4%). Results from a 2005 study showed that 82% of women and 71% of men in the US had used self-medication in the past 6 months. The amount is two times greater than the number of doctor visits or prescription drug users. In 2008, the value of sales for self-medication drugs approached US $ 17 billion and increased to US $ 26.5 billion in 2014. About 36 million Americans use pain relievers every day without professional health care advice. About 16,500 deaths and 103,000 hospitalizations are due to self-medication errors with non-steroidal anti-inflammatory drugs (NSAIDS) reported every year in the United States. Whereas in European countries, the use of self-medication is most commonly found in the UK and Germany and low use is found in Croatia and Greece. A study in the United Kingdom and Ireland reported that stimulants were the most commonly used drug (41.5%) followed by vitamin supplements (29.2%). (Al-Ameri et *al.*, 2017).

In developing countries self-medication behavior is something that is very often found. This happens because self-medication provides a cheaper and easier alternative for the community. Add

to this the availability of medicines in the informal sector such as the markets, supermarkets, and inadequate health service facilities increase its incidence (Sado et al., 2017). This phenomenon mainly occurs in young people due to media exposure and increased drug advertising. This poses a greater threat to the younger population (Ayub et al., 2015).

The results of the 2013 Riset Kesehatan Dasar (Riskesdas) shows that 35.2% of households store drugs for self-medication. Of the 35.2% of households that store drugs, 35.7% of them store hard drugs and 27.8% of them 86.1% of these antibiotics are obtained without a prescription. Based on the 2011 Susenas results, BPS noted that there were 66.82% of sick people in Indonesia who did self-medication. This figure is relatively higher than the percentage of people who seek outpatient treatment to a doctor (45.8%) (BPS, 2011).

The increase in self-medication behavior in younger population especially university students can be proven by research conducted in Jordan in 2018 about the pattern of self-medication among medical and non-medical students. Swamedikasi found 96.8% of 504 respondents consisting of 248 medical students and 256 non-medical students doing independent treatment. The drugs that are often used as self-medication in the past 6 months are anti-pain (77.6%), anti-flu decongestants (54%), throat pain medications (25.9%), cough medicines (24%), and antibiotics (21%). This research shows that self-medication is a very common thing to do and can be compared between medical students and non-medical students (Alshogran, 2018).

To conduct self-medication properly, the public needs to have knowledge and reliable information about the drugs they used. If self-medication is not done correctly and properly, it can add to other problems due to inappropriate use of drugs. Inappropriate self-medication caused by several reasons such as wrong choice of drug, wrong method of use, wrong dosage, and delay in seeking help. In addition, there is also the potential risk of doing self-medication for example the side effects that arise later can be severe, dangerous drug interactions , incorrect dosage, and wrong therapeutic choice (BPOM RI, 2014).

2. Content

Drugs are materials or a combination of materials that are ready to be used to influence or investigate a physiological system or pathological conditions in the context of establishing a diagnosis, prevention, cure, recovery, health improvement and contraception (Undang-Undang Kesehatan No. 23 tahun 1992).

Classification of drugs according to Permenkes No. 917/1993 are: (1) over the counter (OTC) drugs which are drugs that are sold freely in the market and can be purchased without a doctor's prescription. these type of medicine are marked with a green circle with a black border. Examples of these drugs are Paracetamol; (2) Limited over-the-counter medicines are drugs that are actually hard drugs but can still be sold or bought freely without a doctor's prescription, and are accompanied by warning signs. Special markings on the packaging and etiquette of limited OTC drugs are blue circles with black margins such as CTM; (3) Hard drugs are drugs that can only be purchased at a pharmacy by prescription from a doctor. Special markings on packaging and etiquette are the letter K in a red circle with a black outline such as Mefenamic Acid; (4) Psychotropic drugs are hard drugs both natural and synthetic not narcotics, which have psychoactive properties through selective influences on the central nervous system that cause distinctive changes in mental activity and behavior such as Diazepam, Phenobarbital; (5) Narcotic drugs are drugs originating from plants or non-plants both synthetic and synthetic semi-synthetic which can cause a decrease or change in consciousness, loss of taste, reduce to eliminate pain and cause dependence for example Morfin and Petidin (Ministry of Health RI, 2007).

The legal basis for self-medication in Indonesia is contained in Minister of Health Regulation No. 919 Menkes / Per / X / 1993 concerning drug criteria that can be submitted without a prescription. This Permenkes was issued with the aim of increasing the ability of the community to help themselves to overcome health problems, it was felt necessary to be supported by means that could improve self-medication appropriately, safely, and rationally (Permenkes, 1993). Minister of Health Regulation No. 919 Menkes / Per / X / 1993 stipulates that drugs that can be submitted without a prescription must meet the criteria: not contraindicated for use in pregnant women, children under 2 years of age and parents over 65 years; self-medication with the intended drug does not pose a risk for the

continuation of the disease; its use does not require special methods and / or tools to be performed by health workers; Its use is needed for diseases with a high prevalence in Indonesia; The drug in question has a safety efficacy ratio that can be justified for self-medication (RI Minister of Health, 1993).

Based on the results of self-medication research or self-medication by Pratiwi, *et al* (2014) it can be concluded that the practicality factor and the assumption that the disease suffered is still relatively mild and easily treated is the main factor of self-medication behavior in students. In addition to practicality factors, other factors that cause self-medication behavior are the factors of long-distance relationship with parents for migrant students and environmental influences that change or shape students' perceptions in determining the level of health for themselves (Pratiwi *et al*, 2014).

Other factors that play a role in self-medication actions carried out by the community include: the perception of pain that is one's perception of the severity of the perceived illness can affect one's decision in choosing an alternative treatment that is most suitable for himself. For example, if someone feels the disease is mild then, the patient will choose to rest or buy medicine in the nearest place according to the perceived complaint; the availability of information about drugs can determine drug selection decisions. Sources of information can come from electronic media, health workers, posters and others; availability of drugs in the community allows people to get and use drugs. Drugs that are often used by the community are usually easily available on the free market. Drugs are obtained at stalls, pharmacies, drug stores, and minimart; sources of information on how to use drugs can be obtained from packaging, brochures, and advertisements that accompany the drug. The public can also ask the pharmacy officer or shopkeeper directly (Sasmita, 2018).

Health behavior is a response to a stimulus or object related to health, illness, and factors that affect health-sickness relationship such as the environment, food, drink, and health services. In other words, health behavior is all activities or activities of a person, both observable and unobservable, which are related to the maintenance and improvement of health. This health care includes preventing or protecting oneself from diseases and other health problems, improving health, and seeking healing if sick or affected by health problems (Skinner, 1997).

There are several things that can influence someone's self-medication behavior. One of them is knowledge. Knowledge is something that is known by the person or respondent related to health and illness or health, for example: about the disease (causes, modes of transmission, ways of prevention), nutrition, sanitation, health services, health environment, family planning, and so on. Second, attitude is how the opinion or judgment of a person or respondent in this case is related to health, the concept of healthy sickness and matters related to health risk factors. Campbell (1950) in Notoatmodjo (2014) defines attitude as a syndrome or collection of symptoms in response to stimuli or objects that involve thoughts, feelings, concerns and other psychiatric symptoms (Notoatmodjo, 2014).

Another study by Shah *et al*. in 2014 on self-medication with antibiotics among Karachi medical and non-medical students. It was found that 50.1% of 431 students reported self-medication during the past 6 months and 205 (47.6%) of them self-medicated with antibiotics. Forty-one (10%) students mistakenly recognize other types of drug classes as antibiotics. Anti-pain and anti-allergic drugs are the most commonly identified as antibiotics. Various reasons for students choosing self-medication compared to seeing a doctor include time, cost, the use of previously successful drugs, advices from the family, and the remnants of the previous medication (Shah et al., 2014).

Through research conducted at Mekelle University in Ethiopia in 2011 of 307 health science students, the prevalence of self-medication in this study was 43.24% with the most frequently reported symptoms being headaches (51.56%) followed by coughing and common cold (44.80%). Two main reasons for self-medication behavior were previous experiences (39.10%) and disease relief (37.50%). The drugs that are often used as self-medication are analgesics such as paracetamol and NSAIDs, antibiotics, and cough syrups that come from purchases in pharmacies (40.63%). The most common source of drug information is self-seaching for information (64.00%) and advice from family and friends (31.65%). In this study it was found that the majority of respondents did not support self-medication behavior. (Gutema et al., 2011)

Similar research was carried out at two Purwokerto colleges namely Muhammadiah University

Purwokerto and Jendral Soedirman University on self-medication for non-health health students. The study shows that there are significant differences in the level of knowledge, attitudes, and behaviors between health and non-health students with a p-value of 0,000 where knowledge, attitudes and behavior of health students are better than non-health students (Devi et al., 2013).

3. Conclusions

Self-medication, when done properly and based on knowledge and rationality, is easier, reduce doctor interaction time, reduce treatment costs, and can relieve acute pain. However, it can endanger public health and lead to severe health-related complications when done improperly. For example, doing self-medication using drugs that must be prescribed by a doctor such as the use of antibiotics that are not appropriate can complicate the disease and develope antibiotic resistance. Other serious consequences that might be provoked frequently due to the use of over-the-counter medicines include improper dosage, drug duplication, drug interactions, treatment failure, and delays in getting appropriate treatment management (Alshogran, 2018).

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