



The Use of Antibiotics without a Prescription : a Literature Review

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DOI : 10.33086/iimj.v4i1.3855

ARTICLE INFO

Keywords:
Antibiotics,
behavior, society

Submitted:
February 2nd 2023
Reviewed:
February 4th 2023
Accepted:
February 15th
2023

ABSTRACT

Background : Infectious diseases are treated with antibiotics. Antibiotics are widely used because infectious diseases are so common. Even though antibiotics are purchased at pharmacies with a doctor's prescription, many antibiotics are currently being taken without a prescription. Resistance will develop if antibiotics are consumed without a doctor's prescription and not according to indications for administration.

Objective : This study examines how people use antibiotics without a doctor's prescription.

Methods : The author of this article uses a method related to the article's title by using some relevant literature from database of journals such as Google Scholar. The discussion and findings of this study will assist readers and health professionals in analyzing how people use antibiotics without a prescription.

Result : Based on the findings of the five studies, journals discuss the relationship between knowledge level and attitudes regarding the use of antibiotics without a prescription. This literature review shows that most people of reproductive age consume antibiotics without a doctor's prescription to treat symptoms usually caused by non-bacterial pathogens.

Conclusion : One of the intervention approaches taken to restrict access is government control. Holistic interventions against those who sell antibiotics without a prescription are expected to significantly reduce the irresponsible use of antibiotics in the community.

Introduction

Many antibiotics work differently on bacteria, and antibiotics usually don't kill viruses directly. Antibiotics can be made from natural or synthetic components. Antibiotics are made by bacteria, which are eukaryotic organisms like plants, and are usually made to protect themselves from other bacteria and kill them (Lerner et al, 2003).

So far, taking antibiotics has been very good for you. Antibiotic treatment has a significant effect when prescribed and used correctly. The most common treatment for bacterial infections is antibiotics. However, there has been a shift in the use of antibiotics from year to year. It is not uncommon for individuals to misuse antibiotic treatment because of its immediate effect in treating infections. Using antibiotics without a doctor's

prescription is inappropriate (Abdullah, 2012). Antibiotics for viral coughs, colds, fevers, and acute diarrhea are often purchased over the counter by individuals who have previously received them without explanation (IAI, 2011).

The use of antibiotics without a doctor's prescription can pose potential dangers to users, such as increased antibiotic drug resistance followed by increased pathogenic bacterial infections, adverse drug reactions, decreased treatment efficacy, and increased healthcare costs. One of the most significant hazards that need to be monitored is the development of antibiotic-resistant microorganisms that cause infections. According to Kurniawati's research (2019) on residents of the Glagah sub-district, 73% of the population misuses antibiotics. Residents take antibiotics for pain, cough, and aches. Antibiotics can be purchased without a prescription or with a doctor's prescription for some residents. The majority of the population admits that taking antibiotics quickly improves their health.)

Methods

Using a database of journals such as Google Scholar, a research strategy is carried out that is relevant to the topic "Antibiotics, behavior, and society," the keywords used. Studies that met the criteria were selected through a review of journals

and full-text articles. Five articles that meet the criteria can be found by searching using the keywords above. Afterward, the articles used as samples were identified and presented in the literature review table.

Results and Discussion

The results of the study were obtained from five journals used in this literature review, discussing the factors and behavior of using antibiotics without a prescription. The five studies focused on discussing the use of antibiotics without a prescription. A summary of the five studies used is listed in Table 1.

Based on the research findings of Yarza et al. (2015) regarding the relationship between the level of knowledge and attitudes about using antibiotics without a prescription, it can be concluded that there is no significant effect. Relationship between level of knowledge and use of antibiotics without a prescription; Attitude and use of non-prescription antibiotics are significantly related; The use of antibiotics without a doctor's prescription has nothing to do with insurance ownership significantly.

Lingga et al. (2021) examined antibiotics used by people in the Banjar district area. Based on the findings, people use antibiotics for fever (61.90 percent), stop using antibiotics after recovery (77.78 percent), use antibiotics only as prescribed

(68.25 percent), and give antibiotics to family members (52.38 percent).), storing available antibiotics. According to Djawara et al. in 2018, the findings of this study regarding the analysis of behavior and factors that significantly contribute to the behavior of using antibiotics without a prescription in Surabaya can be used to determine the most effective intervention strategy to overcome the problem of using non-prescription antibiotics in pharmacy. Over-the-counter antibiotics should not be attributed solely to pharmacists, given the complexity of factors contributing to this behavior.

The findings of Nur Jumaisah Kurniawati's research (2019) regarding consumers' descriptions of antibiotics purchased without a doctor's prescription at Pharmacy X in the Probolinggo area show that consumers have an adequate level of knowledge.

According to Eka Dipta, Mutawalli Syahid Latief, and Nurul Farida (2022), Serang concluded that the results of his research showed that the level of public knowledge in using antibiotics showed poor

results; this was influenced by public knowledge of the level of use of antibiotics without a doctor's prescription. Based on the level of antibiotic use in the community, 53.75 percent of respondents used antibiotics prescribed by a doctor, while 46.25 percent used antibiotics without a prescription. Meanwhile, the demographics of respondents revealed that women accounted for 33.50% of non-prescription antibiotic users, and people between the ages of 20 and 35 used antibiotics the most. Private employees make up 21.75 percent of the respondents who take antibiotics without a prescription, and primary school graduates have the highest level of education (17.5%).

Based on the findings of the five studies, journals that discuss the relationship between knowledge level and attitudes regarding the use of antibiotics without a prescription (Hasnal Laily Yarza, Yanwirasti, and Lili Irawati, 2015) have a high chance of success if further research is carried out on the topic of using antibiotics without a doctor's prescription.

Table 1. Literature Review Results

No	Title	Design	Sample	Variable	Instrument	Analysis	Result
1	Hubungan tingkat pengetahuan dan sikap dengan penggunaan antibiotic tanpa resep Peneliti: Yarza H, dkk. (2015)	Simple Random sampling	152 people	Dependent: Level of knowledge and attitude Independent : Use of antibiotics without a prescription	Questionnaire	Analysis between variables using chi square with SPSS software	Antibiotics taken without a prescription have a significant relationship with attitudes and behavior. Attitudes significantly impact health behavior, as do some other individual factors, including knowledge, beliefs, and values.
2	Perilaku penggunaan antibiotik pada masyarakat di Wilayah kabupaten Banjar Peneliti: Lingga HN, dkk. (2021)	Descriptive method	400 people	Dependent: behavior Independent :Use of antibiotics	Interview about the use of antibiotics	data analysis of each patient's answer	Based on the research findings, it is known that public awareness of the use of antibiotics is still low (56 percent).
3	Analisa Perilaku dan faktor penyebab perilaku penggunaan antibiotic tanpa resep di Surabaya Peneliti : Djawara, dkk. (2018)	Cross-sectional design	128 people	Dependent: Behavior, causal factors independent: use of antibiotics without a prescription	Questionnaire	Factor analysis with orthogonal rotation	In Surabaya, most of the productive age population consumes antibiotics without a doctor's prescription to treat common symptoms caused by non-bacterial pathogens.
4	Gambaran penggunaan antibiotic tanpa resep dokter oleh konsumen di apotik X wilayah Probolinggo Peneliti: Nur Jumaisah kurniawati (2019)	descriptive with accidentl sampling	Apotik X in the Probolinggo area and will be held in April 2019	Independent : Use of antibiotics without a prescription	Questionnaire		As many as 75 respondents in this study used antibiotics without a doctor's prescription, and their knowledge of antibiotics was 56.94 percent which was in the moderate category
5	Pengaruh pengetahuan masyarakat terhadap tingkat penggunaan antibiotic tanpa resep dokter pada cipocok jaya, Serang Peneliti: Dipta, dkk. (2022)	Descriptive method	400 people	Dependent: Community knowledge Independent : The use of antibiotics without a prescription	Interview about the use of antibiotics	Frequency analysis of ten questions that measure a person's level of antibiotic knowledge is used to calculate data analysis, with one correct answer being worth one and zero being wrong	Based on the research findings, it is known that public awareness of the use of antibiotics is still low (56 percent).

Conclusion

This literature review shows that most people of reproductive age consume antibiotics without a doctor's prescription to treat symptoms usually caused by non-bacterial pathogens. In this literature review, the ease of obtaining antibiotics from pharmacies is the most influential factor in people's decisions to buy antibiotics without a doctor's prescription. One of the intervention approaches anticipated to limit access to antibiotics without a doctor's prescription, which is so widespread in Indonesia, is government control in the form of tighter regulations. However, changes in the behavior of health workers are not accompanied by an assertive approach that involves making policies related to public access to purchasing antibiotics. In that case, the results will not be optimal. It is necessary to conduct additional research on the factors influencing pharmacists' actions in selling antibiotics without a doctor's prescription. Holistic interventions against those who sell antibiotics without a prescription are expected to reduce the irresponsible use of antibiotics in society significantly.

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