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The Community Service on Antibiotics Use at Banjar Pinda Gianyar

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A B S T R A C T

Self-medication with antibiotics elevates the threat of resistance, which increases morbidity and mortality. Antibiotic resistance (AMR) in humans must be avoided and reduced. The objective of this community service was to educate housewives about the crucial role of restricting self-medication with antibiotics in the fight against AMR. On March 14, 2023, the Department of Pharmacy at Bali International University executed this community service. The health education intervention was carried out in Banjar Pinda, Gianyar Regency. At least 79 housewives were attending. The event went well, and participants interacted with the presenters enthusiastically. It is implied that community service in Banjar Pinda-Gianyar imparts knowledge about health and the importance of AMR awareness. This program should be expanded to involve other community groups such as craftsmen, the elderly, and young people.

INTRODUCTION

The world's population is undergoing epidemiology changes, with the number of non-communicable diseases increasing as people's lifestyles change. However, the problem of infectious diseases cannot be solved fully. The spread of communicable diseases, which are highly fatal and have the potential to negatively impact the economy, is one of the most serious risks to world health (WHO, 2021). Antimicrobial resistance (AMR) is an urgent problem worldwide that affects humans, animals, plants, food, and the environment. In 2019, it was predicted that bacterial AMR was responsible for about 5 million deaths, with 1.27 million deaths prompted by this (WHO, 2015).

The global strategy for AMR in human health seeks to mitigate the impact of AMR, develop methods to avoid infection and emergence of resistance, identify and develop novel diagnostics and treatment regimens, and optimize current use (Amann et al., 2019; Tong, 2022). Self-medication with antibiotics impacts the risk of resistance, leading to higher mortality and morbidity rates (Widowati et al., 2021). Communities play an important part in combating and controlling the emergence of antimicrobial resistance. Banjar Pinda-Gianyar has a population of 80% silver and gold craftsmen. The potential and activities of the artistic community in this area represent a cultural heritage that is still well-conserved.

The activity's goal is to influence improvements in individuals, families, and community practices to sustain and enhance health, as well as to take an active role in reaching optimal health through a healthy life, both physically, spiritually, and socially. This activity provides essential antibiotic knowledge and AMR concerns. We understand that a simple intervention in a method of engagement will be beneficial for enhancing community awareness about AMR. Additional information concerning DAGUSIBU for domestic use is also given. The intent is that housewives, as care decision-makers in the family, are aware of the use of self-medication drugs. It likewise protects family health but also prevents an increase in AMR.

METHOD

This community service is a regular activity of the Department of Clinical Pharmacy, Bali International University. The approach utilized is a health education intervention. On March 143, 2023, a total of 80 housewives attended a DAGUSIBU Antibiotics session. The event was held at the Banjar Pinda in Saba Village, Gianyar Regency. Questionnaires were distributed to assess the knowledge of housewives about antibiotics.

The resource person for this activity are:

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2. Dr. apt. I Gusti Ayu Rai Widowati, M.Kes., MH.

Facilitators:

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RESULT AND DISCUSSION

Seventy-nine (79) housewives took part in the activity. The participants' enthusiasm was noticeable through the motivated engagement throughout the program. Participants' characteristics are presented in Table 1. Most participants were 26-45 years old (49; 62.0%) had secondary education (45; 57.0%); were not employed (47; 59.5%); and usually got information from health professionals (76; 96.35).

Table 1. Participants' Characteristics (n=79)

Characteristics	n	%
Age groups		
26-45	49	62.0
46-55	30	38.0
Education		
Primary	29	36.7

Secondary	45	57.0
High	5	6.3
Occupation		
Farmer	10	12.7
Not working	47	59.5
Employee	22	27.8
Sources of information		
Health professional	76	96.3
Family/friend	3	3.7

The results of the investigation of housewives' antibiotic knowledge are shown in Table 2. Most of the participants have fair knowledge (51; 64.6%). As a result, it is particularly pertinent to provide interventions in the form of health education to improve the literacy of housewives.

Table. Knowledge of Participants (n=79)

Categories	n	%
Good	26	32.9
Fair	51	64.6
Poor	2	2.5

A. Antimicrobial Resistance

Antibiotic resistance is a global problem, threatening the treatment of infectious diseases and weakening many other recipients in health and medicine. It is one of the most serious dangers to global health today, and it may impact anyone, of any age, in any nation. It results in longer hospital stays, higher medical costs, and higher mortality rates. Antibiotic resistance occurs unavoidably, however antibiotic abuse in humans and animals accelerates the process (WHO, 2015). The World Health Organisation has made fighting antibiotic resistance the highest priority.

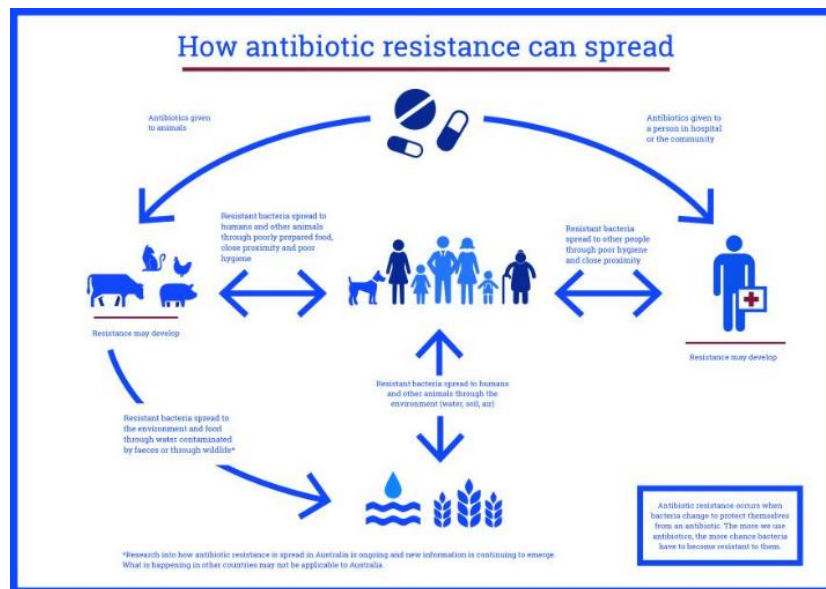


Figure 1. Infographic: How antibiotics resistance can spread

Source: (*How Antibiotic Resistance Can Spread*, n.d.)

The very high rates of misuse of antibiotics in developing countries result from the fact that antibiotics are easily available, given over the counter or without a prescription, and inadequate supply chain regulation (Widowati et al., 2021). Other factors include limited public knowledge, limited diagnostic facilities, and non-human uses, such as animal production (Amann et al., 2019; Chan et al., 2012; Hareru et al., 2022; Setiabudy et al., 2023). Several studies have found that housewives have inadequate knowledge, attitudes, and behaviors about various diseases, and a lack of understanding of the proper administration of antibiotics (Butul & Nishat, 2023; Yunita et al., 2022). Consequently, community service activists must offer sufficient detail and specific counseling for people who not adhering to antibiotic therapy.

B. DAGUSIBU on Antibiotics

DAGUSIBU is stands for Dapatkan (Get), Gunakan (Use), Simpan (Save), and Buang (Dispose). This is intended to increase public awareness about drug use (BPOM, 2015). Some medicines can be purchased freely (without a doctor's prescription) at drugstores and pharmacies, usually kept at home for use if a family member is sick. Common symptoms include cough, runny nose, and fever. However, drugs for certain diseases require a doctor's diagnosis, drugs are purchased based on a prescription, and their use must be according to instructions to fulfill medical therapy. Individual health will improve if the community appreciates the proper and appropriate use of medications.

1. GET. Antibiotics are medications that are given under the guidance of a medical professional. People should ensure that the medication is obtained from a pharmacy, where quality and

consistency are guaranteed. Pharmacists frequently offer information to the general public on how to get antibiotics (Widowati et al., 2023).

2. **USE.** Antibiotics must be used correctly according to the doctor's and pharmacist's instructions. Practicing pharmacists can provide drug information. Several studies have revealed that giving antibiotic counseling to patients improves medication compliance (Widowati et al., 2018, 2022).
3. **SAVE.** The medicine must be properly stored to be used until its expiration date. Store in a dry, non-humid place out of direct sunlight. It is also important to note that the keeping place is out of reach of children. The suggested storage conditions for each drug can be found in most drug packages. To avoid danger, drugs are stored in their original containers and with the lid tightly closed.
4. **DISPOSE.** One of the things that people neglect is the process of disposing of outdated medications. An expired drug has beyond its expiration date and the taste, smell, and color of the drug have changed. Because of



the risk of abuse, expired drugs should not be discarded carelessly. The drug is torn apart, crushed, and then put away.

Figure 2. Photos of Counselling on Antibiotics Use

CONCLUSION

Community service in Banjar Pinda - Gianyar is designed to provide knowledge on health issues and the impact of amr awareness. Social media antimicrobial resistance education campaigns might additionally increase public awareness. To address AMR, a multisectoral and comprehensive strategy known as the One Health approach is required. This activity should be broadened to include additional community groups such as artists, breeders, farmers, the elderly, and youth.

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