

Overview of Public Knowledge and Attitudes Toward Drug Labeling on Medicine Packaging in Pasan District, Southeast Minahasa Regency

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ABSTRACT

Drug marking on drug packaging can provide complete information about the efficacy, safety, side effects, how to use, and other information included in the drug. Limited knowledge of the public about drugs and their use can cause people to lack understanding of drug information, thus allowing irrational treatment if not balanced with the provision of correct information. The purpose of this study was to determine the level of knowledge and attitudes of the community about the marking on drug packaging. This research method is descriptive with the type of survey and uses instrument in the form of a list of questions (questionnaire), with a cross sectional survey design. The sample in this study were the people of Pasan District as many as 100 samples. The results showed that 61% of respondents had a poor level of knowledge and 100% of respondents had a positive attitude. So it was concluded that the majority of people in Pasan District had a poor level of knowledge and a positive attitude about drug marking on drug packaging.

Keywords: *Knowledge, Attitude, Drug Marking, Drug Packaging*

1. INTRODUCTION

Health is a crucial aspect of human life. One way to maintain health is by consuming medication as needed. Almost everyone has taken medication at some point. Today, medicines are widely available, whether obtained in hospitals or clinics, purchased directly from pharmacies, or even from small shops or stalls. However, not everyone is aware that medicines are categorized into different types, which should be understood to ensure their proper use.

Drug labeling on medicine packaging provides comprehensive information about efficacy, safety, side effects, usage instructions, and other essential details, which are typically included on brochures, labels, and primary or secondary packaging. When using medication, people should pay attention to several aspects, such as the product name, ingredients, drug category, usage instructions, dosage, side effects, and expiration date. However, irrational medication use is still commonly found among the public. Such behavior often stems from a lack of knowledge about medicines and health (Notoatmodjo, 2003).

Limited public knowledge about drugs and their usage can result in a poor understanding of medication information, increasing the risk of irrational drug use when not accompanied by proper information. Additionally, a lack of awareness can lead to medication misuse, potentially causing harm to both individuals and the environment (Hilmarni et al., 2021). A previous study by Siahaan (2017) found that while 31% of respondents were aware that medicine packaging features different logos, only 18% understood their meanings. Many respondents who purchased over-the-counter drugs read the ingredient list, but fewer than 27% read the indications or benefits of the medicine.

A study in Sri Lanka reported that over seven years, 1,621 children experienced poisoning, with 25.3% of cases caused by medication poisoning. A key contributing factor was parents' lack of awareness regarding warnings on drug packaging (Dayasiri et al., 2020). Similarly, research conducted in Padang Utara District, Padang City, found that public knowledge about drug labeling on medicine packaging was generally low, which could lead to suboptimal treatment or even treatment failure. This highlights the continued lack of public awareness in understanding drug labeling (Reslina et al., 2023).

Given these concerns, this study aims to assess the level of public knowledge and attitudes toward drug labeling on medicine packaging. To date, no similar research has been conducted among the residents of Pasan District, Southeast Minahasa Regency, making this study necessary to address existing knowledge gaps.

2. RESEARCH METHOD

This study is qualitative in nature. The research method used is descriptive with a survey approach. The study employs a questionnaire as its primary instrument, utilizing a cross-sectional survey design. Data collected from interviews and questionnaire responses are processed manually and with the assistance of Microsoft Excel, following the stages of editing, coding, scoring, and data entry.

In the knowledge assessment section, responses are scored by assigning 1 point for a "Correct" answer and 0 points for an "Incorrect" answer. Meanwhile, in the attitude assessment section, responses are scored as follows: 4 points for "Strongly Agree," 3 points for "Agree," 2 points for "Disagree," and 1 point for "Strongly Disagree." The formula used to determine the percentage scores for knowledge and attitudes is:

$$\text{Percentage (\%)} = \frac{\text{Respondent's Score}}{\text{Maximum Score}} \times 100\%$$

3. RESULTS AND DISCUSSION

Respondent Characteristics

The respondents in this study are residents of Pasan District, Southeast Minahasa Regency. The selection criteria for respondents include being permanent residents of Pasan District, aged between 15 and 64 years, having experience using medication (over-the-counter drugs, limited over-the-counter drugs, and prescription drugs), possessing reading and writing skills, and having no background in the health sector. The sampling technique used is non-probability sampling with a purposive sampling method.

Table 1. Respondent Characteristics

No.	Variable	Category	Number of Respondents	Percentage (%)
1.	Age	15 - 24 years	22	22
		25 - 34 years	19	19
		35 - 44 years	18	18
		45 - 54 years	36	36
		55 - 64 years	5	5
2.	Gender	Male	39	39
		Female	61	61
3.	Education Level	Elementary School	1	1
		Junior High School	6	6
		Senior High School	79	79
		Higher Education	14	14
4.	Employment Status	Civil Servant	8	8
		Private Employee	5	5
		Entrepreneur	12	12
		Household	56	56
		Others	19	19

Based on the respondent characteristics data, the majority of respondents were aged 45-54 years (36%), female (61%), with a high school education level (79%), and working as homemakers (56%). This is because these respondents were the most commonly encountered in the study location.

Distribution of Frequency of Public Knowledge and Attitude Levels



Table 2. Distribution of Frequency of Knowledge Levels

Pengetahuan	Frekuensi	Persentase (%)
Baik (Total Skor > 50%)	39	39
Kurang Baik (Total Skor ≤ 50%)	61	61

Based on the results presented in the table, 39% of respondents have good knowledge, while 61% have poor knowledge regarding drug labeling on medication packaging. Respondents with good knowledge tend to pay attention to the labels on medication packaging before consumption and seek information about unfamiliar symbols. They acquire this information by consulting healthcare professionals and searching on social media. Research by Alim (2018) indicates that good knowledge can be obtained when the public receives explanations or information about drugs from doctors, pharmacists, or other healthcare professionals. Additionally, a study by Hidayati et al. (2017) found that many respondents use electronic media to obtain information about medications.

On the other hand, respondents with poor knowledge tend to overlook the labels on medication packaging and do not actively seek or receive information from healthcare professionals regarding drug labeling. Some respondents only obtain medications when visiting a doctor and merely follow the doctor's instructions on consumption without paying attention to the labels, apart from the drug name itself. This aligns with the findings of Alim (2018), which suggest that a lack of information and education contributes to poor public knowledge about medications.

Table 3. Distribution of Respondents' Knowledge Questionnaire (n=100)

No	Pernyataan	Jawaban			
		Benar		Salah	
		F	%	F	%
1.	Here are the logos of medicines:  Obat bebas Obat Bebas Terbatas Obat Keras	11	11	89	89
2.	The following are warning labels on limited over-the-counter drugs. 	8	8	92	92
3.	The phrase "HARUS DENGAN RESEP DOKTER" on medication packaging indicates that the drug can only be purchased with a doctor's prescription.	100	100	0	0
4.	The phrase "KOCOK SEBELUM DIPAKAI" on medication packaging indicates that the medicine is a suspension and should be shaken before consumption.	64	64	36	36
5.	The phrase "No. Reg. : DKL 1907807438 A I" on medication packaging indicates that the drug has been registered with BPOM (Badan Pengawas Obat dan Makanan).	50	54	50	46
6.	The phrase "Exp. Date: May 2024" on medication packaging indicates the drug's expiration date, meaning it can be consumed until the specified date.	97	97	3	3
7.	When purchasing medicine directly from a pharmacy or drugstore, the first markings to check on the packaging are the drug name, its uses/indications, and the expiration date.	98	98	2	2
8.	Antibiotic drugs can be identified by the active ingredients listed on the packaging.	26	26	74	74
9.	Antibiotics are also recognized through information provided by pharmacists or doctors, such as the instruction to "take until finished".	77	77	23	23
10.	Limited over-the-counter (OTC) drugs can be identified by the warnings printed on the packaging.	10	10	90	90

Based on the questionnaire distribution table on knowledge, respondents' responses to each statement can be observed. There were six statements where more than 50% of respondents answered correctly, including the need for a doctor's prescription, shaking the medication before use, registration number, expiration date, the first labeling information to check, and antibiotic medication information. However, four other statements had more than 50% of respondents answering incorrectly, particularly regarding drug logos, warnings on limited over-the-counter (OTC) drugs, and the classification of antibiotic medications.

It can be concluded that most respondents lack knowledge about drug logos, warning labels on limited OTC drugs, and the classification of antibiotics. Similar results were found in a study by Suarni (2014), which explained that many respondents still do not understand the special markings on packaging that categorize medications as OTC, limited OTC, or prescription drugs. Consequently, when purchasing medication, they do not pay attention to whether the drug can be consumed freely or requires a doctor's prescription.

Tabel 4. Distribusi Frekuensi Sikap

Sikap	Frekuensi	Persentase (%)
Positif (Total Skor \geq 50%)	100	100
Negatif (Total Skor < 50%)	0	0

Based on the results obtained from the table, it can be seen that 100% of respondents have a positive attitude toward drug labeling on medication packaging. This is because respondents are already aware of the importance of understanding drug labeling. Their vigilance and awareness regarding drug labeling are also factors that contribute to their positive response to this matter.

Tabel 5. Distribusi kuesioner responden bagian sikap (n=100)

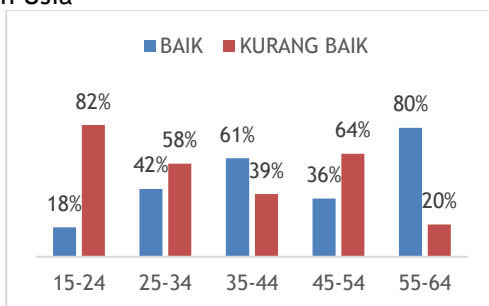
No.	Pernyataan	SS		S		TS		STS	
		4	%	3	%	2	%	1	%
1.	Menurut saya, mengetahui penandaan obat secara baik dapat memberikan dampak baik pada diri dan keluarga.	60	60	40	40	0	0	0	0
2.	Menurut saya, penandaan obat sangat membantu dalam pemilihan obat yang tepat.	53	53	47	47	0	0	0	0
3.	Menurut saya, penting untuk mengetahui penandaan obat pada kemasan obat.	54	54	45	45	1	1	0	0
4.	Menurut saya, jika tidak mengetahui penandaan obat pada kemasan, sebaiknya bertanya pada Apoteker atau Tenaga Teknis Kefarmasian.	47	47	50	50	3	3	0	0
5.	Menurut saya, penandaan obat sangat perlu diajarkan pada saat usia dini.	31	31	67	67	2	2	0	0
6.	Menurut saya, setiap orang harus mengetahui penandaan obat pada kemasan obat secara baik.	42	42	58	58	0	0	0	0
7.	Menurut saya, penandaan obat sangat penting untuk dipelajari agar tidak terjadi penyalahgunaan obat.	49	49	51	51	0	0	0	0
8.	Menurut saya, penandaan obat diperuntukkan untuk segala jenis obat.	36	36	59	59	5	5	0	0
9.	Menurut saya, harga obat tidak dipengaruhi oleh penandaan obat pada kemasan obat.	18	18	62	62	17	17	3	3
10.	Menurut saya, pada setiap kemasan obat harus memiliki penandaan obat yang jelas.	48	48	51	51	1	1	0	0

Based on the respondent attitude questionnaire distribution table, the responses to each statement can be observed. Statements 1 and 2 received the highest positive responses, as indicated by the highest percentages of "Strongly Agree" and "Agree." This shows that respondents have a positive attitude toward understanding drug labeling to select the right medication, benefiting both themselves and their families.

However, for statement 9, which states that drug prices are not influenced by labeling, 20% of respondents gave a negative response. This is related to the public perception that the price of a drug determines its quality, including the labeling on the packaging. This finding aligns with previous research, which indicated that drug prices influence patients' purchasing decisions (Misnawati, 2020).

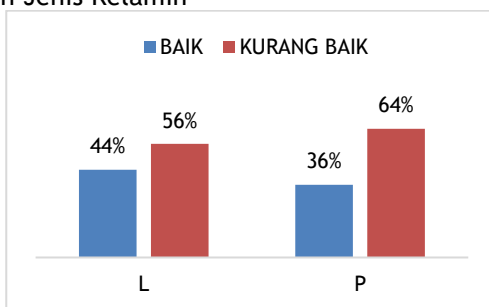
Tabulasi Silang Sosiodemografi Responden

1. Tingkat Pengetahuan dengan Usia



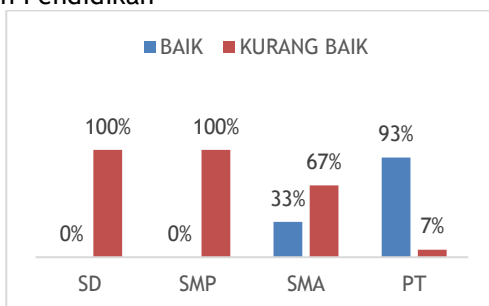
Good knowledge was found among respondents in the 55-65 age group. Older individuals tend to consume more medications, leading to more frequent interactions with healthcare professionals and increased access to drug-related information. This finding aligns with previous research, which states that as a person ages, their physical endurance declines, making them more susceptible to illnesses (Kartikaningrum, 2022).

2. Tingkat Pengetahuan dengan Jenis Kelamin



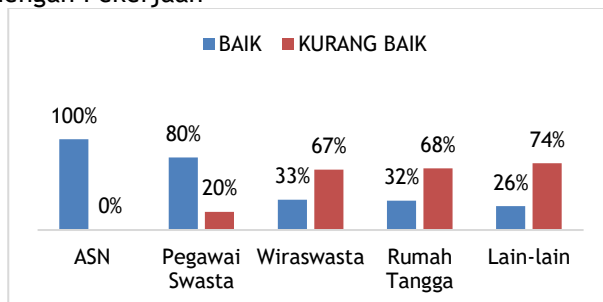
Good knowledge was found among female respondents. Women tend to be more attentive to their health and that of their families. This aligns with research findings stating that women are more active in purchasing medications and more critical in communicating with pharmacy staff. Additionally, the study explains that female respondents are more involved in the treatment of their family members compared to male respondents (Suarni, 2014).

3. Tingkat Pengetahuan dengan Pendidikan



Good knowledge was found among respondents with higher education degrees. Based on this, the higher the level of education, the greater the knowledge. This is in line with research stating that individuals with higher education levels generally have better access to health information, leading to greater knowledge about the medications they consume (Arrang, 2023).

4. Tingkat Pengetahuan dengan Pekerjaan



Good knowledge was found among respondents working as civil servants and private employees. This aligns with previous research, which explains that individuals in the workforce are often exposed to stressful work situations, increasing the risk of illness. As a result, working individuals tend to consume more medication and have better knowledge about drugs (Suarni, 2014).

4. CONCLUSION

The conclusions drawn from this study are:

- The level of public knowledge in Pasan District regarding drug labeling on medication packaging falls into the poor category, with 61% of respondents having inadequate knowledge.
- The attitude of the Pasan District community toward drug labeling on medication packaging is categorized as positive, with 100% of respondents demonstrating a positive attitude, recognizing the benefits of understanding drug labeling on medication packaging.

5. RECOMMENDATIONS

The following are recommendations from this study:

- For future researchers, it is recommended to explore the factors influencing public knowledge and attitudes, allowing for further research that evaluates the public's understanding of drug labeling on medication packaging.
- For pharmacists, it is essential to enhance the provision of information to patients regarding the medications they consume.
- For the government, it is encouraged to implement educational programs for the public about medications, including drug labeling on packaging, to improve public awareness and ensure the rational use of medicines.

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