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ARTICLE REVIEW: THE SELF-MEDICATION BEHAVIOUR PROFILE FOR GASTRITIS IN SOCIETY

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ABSTRACT

The Indonesian population has a high level of self-medication behaviour. One of the diseases that has become a major problem in global public health is gastritis. Indonesia is one of the countries with the highest incidence of gastritis. Gastritis is considered a trivial thing but is the beginning of a disease that can disrupt a person's quality of life, so many people do self-medication to treat gastritis. The right behaviour in self-medicating gastritis is very important in determining the achievement of treatment goals. So it is necessary to review several articles related to self-medication behaviour to find out how the description of gastritis self-medication behaviour by the community. A literature search using the Google scholar database obtained 12 articles that met the inclusion criteria. Based on the results obtained, it can be concluded that the picture of gastritis self-medication behaviour by the community with a higher level of rational behaviour than irrational ones. However, health promotion is still needed, especially for non-health gastritis patients so that the rationality of gastritis self-medication increases.

Key words: rationale, antacids, pharmacies

INTRODUCTION

The Indonesian population who practised self-medication during 2020, 2021, and 2022 were 72.19%; 84.23%; and 84.34%, respectively. (Central Bureau of Statistics, 2023). This shows the high self-medication behaviour in Indonesia. One of the diseases that is a major problem in global public health is gastritis. The prevalence of gastritis worldwide is estimated to be 1.7 billion people. According to the World Health Organization, the number of gastritis patients in the UK is 22%, China 31%, Japan 14.5%, Canada 35%, and France 29.5%. The incidence of gastritis in Southeast Asia is around 583,635 of the total population each year. The three countries in the world with the highest percentage of gastritis incidence rates include America with a percentage reaching 47%, followed by India with a percentage of 43% and Indonesia with a percentage of 40.8% (World Health Organization, 2020). (World Health Organisation, 2020).

Gastritis is an inflammation of the mucosal lining of the stomach (Rugge et al., 2020). Causes of gastritis include stress, trauma, side effects of drug use and corrosive substances, alcohol abuse, *Helicobacter pylori* infection, poor diet , habit of eating spicy, acidic foods, soda drinks, smoking, and can also be caused by immunity. (Silbernagl & Lang, 2006).. Patients with gastritis will experience complaints of gastric pain, nausea, vomiting, weakness, flatulence, tightness, liver pain, lack of appetite, belching and gastrointestinal bleeding. (Chisholm-Burns & et al, 2008).. Gastritis is considered a trivial thing but is the beginning of a disease that can disrupt a person's quality of life, so many people do self-medication to treat gastritis.

Self-medication is part of the community's efforts to maintain their own health. Self-medication is carried out by the community in addition to practicality factors, there are other factors such as cost, limited time, education, and the environment that shape a person in determining health efforts for themselves. Self-medication must also be carried out rationally, so that the purpose of using drugs is achieved. (Regulation of the Indonesian Minister of Health, 1993). However, in practice, there can be opportunities for drug-related *problems* due to limited knowledge about drugs and their use. (Andayani, 2020). In addition, irrational self-medication can also lead to other diseases due to side effects of drugs, economic impacts due to increased medical costs due to irrational use of drugs. Self-medication can be done correctly if the patient knows information that supports treatment such as being able to recognise the symptoms of the disease well, choose drugs according to indications and consume drugs according to instructions for use, and discuss with pharmacists at the pharmacy. (Ministry of Health, 2011). Appropriate behaviour in gastritis self-medication is very important in determining the achievement of treatment goals.

Inappropriate Antacid use behaviour will have undesirable effects such as co-administration with other drugs can interfere with the absorption of other drugs so that the therapeutic effect is not achieved, antacids can damage enteric coated preparations designed to prevent dissolution of drugs in the stomach which results in the purpose of the dosage form not being achieved, avoided in patients who need to limit input levels of Magnesium or Sodium such as in patients with renal failure, heart disease, and pregnancy because it can worsen the patient's condition. (Badan Pengawas Obat dan Makanan RI, 2014).

Based on this background, it is necessary to review several articles related to self-medication behaviour to find out how the description of gastritis self-medication behaviour by the community.

RESEARCH METHODS

This study is a review of several articles related to gastritis self-medication behaviour by the community. Using an online-based literature search instrument. The literature search was conducted using the Google scholar database relevant to the keywords self-medication, gastritis, behaviour. The following is the data search flow:

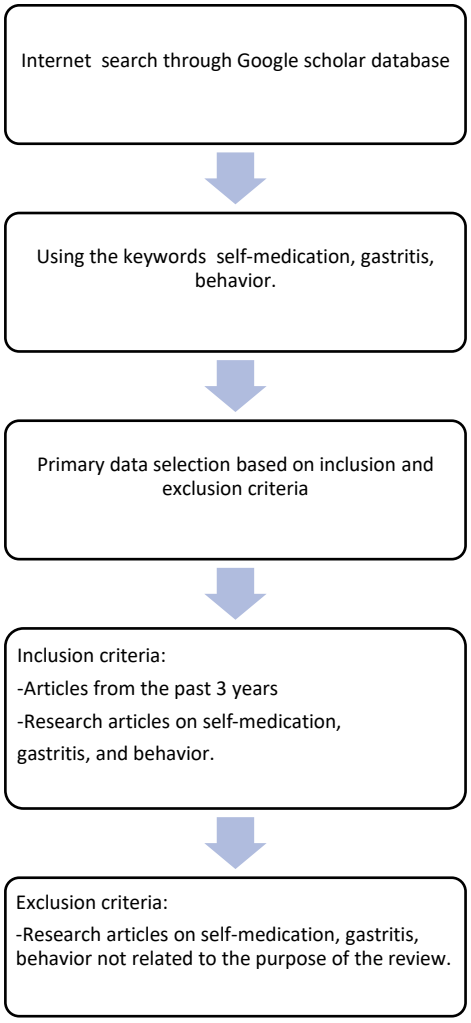

Figure 1. Flow of data search

RESULTS AND DISCUSSION

The following search results related to the description of gastritis self-medication behaviour by the community were obtained as many as 12 articles.

Table 1. Search result articles

No.	Results and Conclusion Behaviour	Source
1	The total respondents were 171 people consisting of 83 people from SMK Abdurrab and 88 people from SMK Taruna Satria. Respondents of SMK Abdurrab did gastritis self-medication 58% in pharmacies and SMK Taruna Satria did gastritis self-medication 59% in pharmacies. SMK Abdurrab respondents used promag 28%, antacid doen 25%, mylanta 16%, while SMK Taruna Satria used promag 36%, antacid doen 19%, mylanta 16%.	(Wardaniati et al., 2024)
2	Respondents are patients who do self-medication in pharmacies in the Bangkinang city sub-district of Riau province. The level of behaviour based on age shows that the highest level of good behaviour is in late adolescence (17 years-25 years) with a percentage of 25%, while poor behaviour is highest in early elderly age (46 years-55 years) with a percentage of 61.5%. The level of good category behaviour in males is higher than females, the percentage of good category behaviour in males is 11.1% while females are 10.8%. The percentage of good category behaviour in working respondents was 18% and in non-working respondents 5%. Another study stated that there was a significant relationship between occupation and knowledge (p=0.041). Gastritis therapy used promag (38.2%), mylanta (35.4%), and polysilane (26.4%). There is a significant difference in knowledge p 0.001 and behaviour 0.046. It can be concluded from this study that the level of knowledge can affect gastritis self-medication behaviour.	(Aryani et al., 2023)
3	Respondents were gastritis patients who self-medicated at the Mendawai village pharmacy in Pangkalan Bun city with a total of 207 people. Based on the results of the study, it is known that the majority of respondents who do self-medication (50%) are based on information from health	(Wibawa et al., 2020)

No.	Results and Conclusion Behaviour	Source
	workers such as pharmacists and pharmaceutical personnel at pharmacies, while (46%) respondents do self-medication based on personal / family experience. The drug classes used were antacids 87.9%, acid blockers and PPIs 12.1%. In the rational use of drugs 97.6%, while respondents who were irrational in the use of gastritis drugs were 2.4%. There is no effect of the level of knowledge on rationality because the results of the study p value (0.057) > alpha (0.05).	
4	Based on this study, it can be concluded that the level of knowledge of gastritis self-medication in non-health students in Maumere City ≤ 40% is included in the very low category, while the mean gastritis self-medication behaviour ≤ 55% is included in the poor category. Based on the results of the Pearson product moment correlation test, the significance value is 0.000 and the rcount value is 0.593 and the correlation direction results show a positive correlation number. This shows that there is a strong relationship between the level of knowledge and self-medication behaviour with a meaningful unidirectional and positive relationship category. The following gastritis self-medication behaviours had low % correct behaviours: the correct way to take antacid tablets 26.6%, the correct way to use suspense gastritis medicine 40.7%, the storage limit of opened/used suspension gastritis medicine 25.7%, how to dispose of damaged and expired suspension gastritis medicine 15.7%, how to dispose of damaged/expired tablet gastritis medicine 28.2%.	(Godong et al., 2021)
5	The community in Cikole Village, Lembang Subdistrict in self-medicating gastritis tends to use Antacid group drugs (91.1%) with the most widely used dosage form is tablet form preparations (66.6%) The Antacid group drugs are known by the community in tablet form.	(Shifa Fadillah Indreswari

No.	Results and Conclusion Behaviour	Source
	The community of Cikole Village, Lembang Subdistrict in the use of gastritis drugs and their storage has been done well (86.43%)	Puja et al., 2022)
6	Respondents in this study totalled 135 students of the Bhakti Wiyata Institute of Health Sciences. Chi-square test results obtained a significant value of 0.006. Conclusion: there is a relationship between the level of knowledge and behaviour of students in gastritis self-medication at the Bhakti Wiyata Institute of Health Sciences. Sources of information from other people's recommendations (37.1%), advertisements (22.28%) and health workers (9.71%). Respondents chose pharmacies as a means of self-medication in gastritis. In addition, drug information can also be obtained from a pharmacist where a pharmacist can provide drug information correctly, clearly, easily understood, accurate, unbiased, ethical, wise, and up to date.	(Rohmah & Kusumaratni, 2023)
7	There were 113 respondents with gastritis and 73.5% who did self-medication in Gagaan village, Blora district based on experience in using drugs. The age of respondents was mostly in the age range of 18-25 years (48.7%) with a mean of 33.15. + 13.94, gender is more female (56.6%), respondents with a history of gastritis as much as (73.5%), respondents who have worked (66.4%), and the highest level of education in academy / college (42.5%).	(Octasari & Febyana Dewi Shinta, 2022)
8	The number of respondents based on school is SMK Pharmacy with 58 respondents and SMK N 2 Tembilahan with 40 respondents. Respondents know that antacids can be obtained in medicine without a doctor's prescription. Regarding how to drink / rules for using drugs gastritis is also not widely known by students.	(Devia & Oktianti, 2022)
9	Low income levels mean that people in Kelurahan Nunleu, Kota Kupang prefer to self-medicate gastritis because they only have enough income to self-medicate, and it is more beneficial in terms of saving costs. There is a relationship between income level and the behaviour of the people	(Mandala et al., 2022)

No.	Results and Conclusion Behaviour	Source
	of Nunleu Village, Kupang City in self-medicating gastritis and there is a relationship between education level and the behaviour of the people of Nunleu Village, Kupang City in self-medicating gastritis as seen from the results of the statistical test P-value < p alpa (0.000 < 0.05).	
10	The research was conducted at 11 Faculties of Tadulako University, Palu. The population in this study were all active students of Tadulako University with a total of 38,702 people and obtained a sample size based on the calculation of the slovin formula of 396 people. Sources of drug information are predominantly based on experience personal/family as much as 37%, compared to health workers (Pharmacists, Pharmacy Officers) 29%, on the recommendation of others 19% and based on advertisements and print/electronic media 15%. The frequency of promag drugs used by respondents was 144 (35.6%), then antacids 97 (24.0%), Mylanta 73 (18.1%), Polysilane 48 (11.9%), Novamag 20 (5.0%), Plantacid forte 10 (2.5%), Magasida 9 (2.2%) and Hufamag 7 (1.7%).	(Hardani et al., 2022)
11	The results of research on 100 respondents at Pondok Pesantren Raudlatul Ulum 1 Malang obtained drugs from always to rarely used in order, namely promag, decamag, mylanta, hufamag, waisan. Promag is in tablet form, so it is easy to consume and does not taste chalky compared to ulcer drugs in powder and liquid form. The dose of medication used was 79% appropriate and 21% inappropriate. Side effects obtained 79% did not feel side effects, and 21% had side effects. The place of self-medication from always to rarely in order are pharmacies, drug stores, stalls, supermarkets. The place to buy drugs that is often and always visited when doing self-medication is a pharmacy, because pharmacies are in the closest area of the related institutions and respondents trust more information about drugs provided by pharmacists.	(Imam et al., 2022)

No.	Results and Conclusion Behaviour	Source
12	This study used 200 health and non-health education respondents in Indonesia. The health group gained knowledge and experience about gastritis self-medication based on knowledge gained in course learning while the non-health group tended to perform gastritis self-medication based on experience or reference sources from others. Self-medication is closely related to health science, therefore students in the health sector will tend to get more lessons on how and how to use drugs when doing self-medication. Meanwhile, non-health students are not focused on studying self-medication because they do not get health science so that the non-health field tends to get information on self-medication based on advertisements, articles and other information media that have not been guaranteed the truth, such as advertisements that tend to be promotive. The results of this study are useful to provide an overview of how swamedication behaviour among students, from the results of this study can be the basis for improving health promotion.	(Nasution, Dianingati, Annisaa', 2022)

Drivers of self-medication

The respondents' self-medication behaviour was caused by factors such as education, environment, experience, time efficiency, the income they have is only enough to do self-medication and is more profitable in terms of saving costs, and practicality.

Sources of information

In self-medication, respondents get information related to gastritis treatment from pharmacists, pharmaceutical personnel, other health workers, experience, family, recommendations from others, advertisements, articles.

Characteristics

The highest characteristic based on the data of respondents who did self-medication was the age of late adolescence (17 years-25 years). Women were more likely to self-medicate, but the level of good category behaviour in men was higher than women. The level of self-medication behaviour

in the good category was highest among respondents who worked. The results of this study also illustrate that good self-medication behaviour is highest in health students compared to non-health students, from the results of this study can be the basis for improving health promotion.

Place of self-medication

The place of self-medication in gastritis patients from always to rarely visited in order are pharmacies, drug stores, stalls, supermarkets. It can be seen that most respondents know that self-medication should be done at pharmacies because there are pharmaceutical personnel who can educate on the use of antigastritis drugs by providing drug information that is correct, clear, easy to understand, accurate, unbiased, ethical, wise, and up-to-date.

Drug class

The highest drug classes used in gastritis patients in self-medication in order are antacids and then acid secretion suppressants. Tablet-shaped preparations are more desirable, because they are easy to consume and do not taste chalky compared to powder and liquid drug preparations. This encourages the need for education that liquid preparations, powders will have a faster therapeutic effect. There are also some liquid and powder preparations that are flavoured to mask the unpleasant taste of the active substance.

How to use, store, dispose

In the self-medication use of gastritis drugs, it was found that the treatment had been carried out by respondents rationally with a high percentage, but there were still respondents who were irrational in their use. Regarding the rules of use of gastritis drugs, respondents were also not widely known by respondents. There are still patients who get side effects from this self-medication. In addition, there are still respondents who do not know how to store, how long to use the preparation after opening the primary packaging, and how to dispose of it properly.

There are 3 factors that influence the formation of a person's behaviour, namely predisposing factors, enabling factors, and reinforcing factors. Predisposing factors relate to the level of knowledge, beliefs, beliefs and values lived by individuals. Enabling factors relate to the physical environment and existing infrastructure, while reinforcing factors relate to community behaviour. Therefore, even a high level of knowledge does not guarantee a good level of behaviour.

CONCLUSIONS

Based on the results obtained, it can be concluded that the picture of gastritis self-medication behaviour by the community with a rational level of behaviour is higher than those that are not rational. However, health promotion is still needed, especially for non-health gastritis patients so that the rationality of gastritis self-medication increases.

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