



## The Influence Of Knowledge Of Children's Cough Medicine Advertising On Community Self-Medication Behavior At Dahlia 3 Posyandu, Surakarta

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### ABSTRACT

**Background:** Self-medication using over-the-counter medicines continues to grow in Indonesia, reaching 79.74% in 2023. Children's cough medicine advertising in mass media is considered one of the factors influencing self-medication decisions; however, persuasive advertising may promote irrational drug selection and contribute to medication errors.

**Objective:** This study aimed to determine the influence of knowledge regarding children's cough medicine advertising in mass media on community self-medication behavior at Dahlia 3 Posyandu, Pucang Sawit Village, Surakarta City.

**Method:** This study is a descriptive-analytical study using an analytical cross-sectional survey design with accidental sampling, involving 42 mothers who participated in posyandu activities in January 2025. A validated questionnaire was used, tested for reliability using KR-20 for knowledge ( $\alpha = 0.809$ ) and Cronbach's Alpha for behavior ( $\alpha = 0.734$ ).

**Results:** Univariate analysis showed that most respondents had good knowledge (90.5%) and negative self-medication behavior (57.1%). Normality testing using Kolmogorov-Smirnov and Shapiro-Wilk indicated non-normal data distribution ( $p = 0.000$ ), thus the median was used as the cut-off point. Fisher's Exact Test revealed no significant relationship between knowledge and self-medication behavior ( $p = 0.623$ ).

**Conclusion:** Knowledge of children's cough medicine advertising does not directly determine self-medication behavior, as behavior is shaped by multiple interacting factors including attitudes, personal experience, social influence, and advertising persuasiveness.

**Keywords:** Cough Medicine Advertising; Knowledge; Self-Medication Behavior; Posyandu

### INTRODUCTION

Health is defined as a state of physical, mental, and social well-being, not merely the absence of disease, enabling individuals to live productively. Self-medication, also

known as swamedikasi, refers to the practice of independently treating minor ailments without consulting a healthcare professional. Based on data released by

Badan Pusat Statistik (BPS), the prevalence of self-medication in Indonesia reached 79.74% in 2023, continuing an upward trend compared to previous years ([Badan Pusat Statistik 2024](#)).

Common conditions prompting self-medication include fever, pain, headache, cough, influenza, gastric complaints, intestinal worms, diarrhea, and skin disorders ([Dimara and Margawati, 2012](#)). However, self-medication carries risks of medication errors, particularly when knowledge about drugs and their correct usage is limited. One influential factor in self-medication decisions is advertising. Drug advertising is a strategy used by pharmaceutical companies to promote products and attract consumers ([Nadhiroh 2018](#)). According to [BPOM RI \(2017\)](#), drug advertisements must contain objective, complete, and non-misleading information, and only drugs holding a valid marketing authorization, including over-the-counter (OTC) drugs, are permitted to be advertised.

Cough is among the most common conditions in children, with a prevalence of approximately 15%. Although generally manageable through self-medication, appropriate knowledge of cough medicine selection and use is essential, as incorrect choices may worsen the child's condition ([Riyanti and Emelia, 2021](#)). A study by [Mujiati, Hidayati, and Atmadani \(2022\)](#) demonstrated that electronic media advertising of cough medicines significantly influenced 30.5% of self-medication decisions. Furthermore, [Pontoon et al. \(2024\)](#) reported a positive correlation ( $r =$

0.519) between community knowledge of cough medicine advertising and drug selection behavior. [Yusuf, Widodo, and Raka Irwansyah \(2021\)](#) found a significant relationship between knowledge and self-medication behavior for coughs and influenza in a rural community. In contrast, [Hartati and Utari \(2022\)](#) reported that 72.96% of respondents exhibited inappropriate self-medication behavior for cough management.

Despite extensive research on general self-medication knowledge, studies specifically examining the influence of children's cough medicine advertising—rather than self-medication behavior in general—on caregiver decision-making remain limited, particularly at the posyandu level where mothers represent the primary decision-makers for pediatric self-medication. This gap is critical given that inappropriate cough medicine selection in children carries higher safety risks than in adults, and advertising remains a dominant yet under-regulated influence on caregiver behavior.

Given these findings, this study investigated the relationship between community knowledge of children's cough medicine advertising in mass media and self-medication behavior at Dahlia 3 Posyandu, Pucang Sawit Village, Surakarta City.

## **METHODS**

### **Study Design**

This study employed an analytical cross-sectional survey design using quantitative data. Data were collected via questionnaire distribution to assess the

relationship between knowledge of children's cough medicine advertising (independent variable) and self-medication behavior (dependent variable) simultaneously at a single time point ([Sari and Legiran, 2024](#)).

### **Setting and Participants**

This study was conducted at the Dahlia 3 Posyandu in Pucang Sawit Village, Surakarta City, in January 2025. Dahlia 3 Posyandu operates within the working area of Puskesmas Pucangsawit, which serves Pucang Sawit Village, Jebres District, Surakarta City, and provides routine maternal and child health services, including monthly posyandu activities. The study received ethical approval from the Health Research Ethics Committee of Muhammadiyah University of Purwokerto (Registration Number KEPK/UMP/265/I/2026, dated January 28, 2026). The sampling technique used in this study was accidental sampling, which involves selecting participants based on those present at the posyandu during the study. Typically, 60 people visit the posyandu. However, on the day of the study, 42 people were present, and all of them were included as participants in this study.

### **Instruments**

The questionnaire consisted of three sections: respondent characteristics, knowledge of children's cough medicine advertisements, and the public's self-medication behavior. Respondent characteristics included gender, age, highest level of education, daily activities, information sources, frequency of viewing

advertisements, personal experience, medicine brands, and the main messages of the advertisements. This is used to gain an understanding of the profile of the respondents included in the study sample. The data obtained can serve as a basis for analyzing the factors that influence the study's results.

The knowledge questionnaire consisted of 11 true/false items based on the BPOM RI Drug Advertising Supervision Guidelines ([BPOM RI, 2017](#)), covering cough definitions, drug classification, advertising approval, advertising content, language requirements, and prohibited claims. Scoring: correct answer = 1, incorrect = 0. Knowledge categories: Good (76–100%), Sufficient (60–75%), Poor (<60%) (Arikunto, 2010).

The behavior questionnaire comprised 12 items using a 5-point Likert scale (Strongly Agree = 5 to Strongly Disagree = 1, with reverse scoring applied to negative items). Items covered media exposure, advertising content, language clarity, BPOM registration, trustworthiness of advertising, and influence of celebrity endorsement. Behavioral categorization used the median as the cut-off point, given non-normal data distribution: positive behavior (total score > median) and negative behavior (total score ≤ median) ([Rismawan and Kunci, 2013](#)).

### **Validity and Reliability Testing**

Instrument validity was assessed using Pearson correlation ( $r\text{-hitung} > r\text{-tabel} = 0.361$ ,  $df = 28$ ,  $\alpha = 0.05$ ) on a pilot sample of 30 respondents at Posyandu Trimorejo, Selokaton, Gondangrejo, Karanganyar — a

location with comparable sociodemographic characteristics. All 11 knowledge items and all 12 behavior items were declared valid. Reliability of the knowledge instrument was evaluated using the Kuder-Richardson 20 (KR-20) formula ( $\alpha = 0.809$ ), and the behavior instrument using Cronbach's Alpha ( $\alpha = 0.734$ ). Both exceeded the 0.70 threshold, confirming acceptable reliability (Yusup, 2018).

### Data Analysis

Univariate analysis described the frequency distribution of respondent characteristics, knowledge categories, and behavior categories. Prior to categorizing behavior, normality testing was performed using the Shapiro-Wilk test (preferred for  $n < 50$ ) and the Kolmogorov-Smirnov test via IBM SPSS Statistics. Since both tests indicated non-normal distribution ( $p = 0.000$ ), the median (45.00) was used as the behavioral cut-off point (Yap, 2011).

**Table 4** **Table 5**, illustrating the gap between knowledge and behavior explored further below.

### Respondent Characteristics

The majority of respondents were female (95.2%), reflecting the posyandu's focus on maternal and child health services. Posyandu is inherently designed to serve mothers and young children, so female predominance is expected and consistent with Hafifah and Abidin (2020), who emphasized the critical role of posyandu in improving maternal and child health through active maternal participation. The respondent characteristic can be seen in

Bivariate analysis used Fisher's Exact Test as an alternative to the Chi-Square test, because 2 cells (50.0%) had expected counts below 5 — violating the Chi-Square assumption that no more than 20% of cells should have expected frequencies  $< 5$  (Kim 2017). Fisher's Exact Test calculates exact probabilities directly from the hypergeometric distribution and is more appropriate for small samples (Neuhäuser & Ruxton, 2025). A  $p$ -value  $< 0.05$  was considered statistically significant.

Ethical approval was obtained from the Health Research Ethics Committee of Universitas Muhammadiyah Purwokerto (Registration No. KEPK/UMP/265/I/2026, dated 28 January 2026).

### RESULTS AND DISCUSSION

Overall, most respondents demonstrated good knowledge of children's cough medicine advertising (90.48%), yet exhibited negative self-medication behavior (57.14%), as detailed in **Table 3** and

**Most** respondents were aged 26–35 years (47.7%), representing the productive parenting age group for infants and toddlers who require routine posyandu monitoring. Knowledge, maturity, and social engagement tend to be well-established in this age cohort (Akay et al., 2025). The predominant educational level was senior high/vocational (69.0%), a group associated with stronger community ties and more flexible schedules enabling regular posyandu attendance (Ifalahma, Dyah Dewi Arini, and Dwi Yulianti, 2021). Housewives constituted 71.4% of respondents; their greater time availability and direct childcare responsibilities enhance motivation to utilize

posyandu services (Isnoviana and Yudit, 2020).

**Table 1.**

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**Table 1. Respondent characteristics**

| Characteristic                                       | Category               | n (42) | %    |
|------------------------------------------------------|------------------------|--------|------|
| Sex                                                  | Male                   | 2      | 4.8  |
|                                                      | Female                 | 40     | 95.2 |
| Age                                                  | 17–25 years            | 4      | 9.5  |
|                                                      | 26–35 years            | 20     | 47.7 |
|                                                      | 36–45 years            | 18     | 42.8 |
| Last education                                       | Elementary             | 2      | 4.8  |
|                                                      | Junior high            | 6      | 14.3 |
|                                                      | Senior high/vocational | 29     | 69.0 |
|                                                      | Diploma                | 1      | 2.4  |
|                                                      | Bachelor               | 3      | 7.1  |
|                                                      | Master/above           | 1      | 2.4  |
| Daily activity                                       | Housewife              | 30     | 71.4 |
|                                                      | Employee               | 10     | 23.8 |
|                                                      | Entrepreneur           | 2      | 4.8  |
| Information media                                    | Television             | 35     | 83.3 |
|                                                      | YouTube                | 6      | 14.2 |
|                                                      | Social media           | 13     | 30.9 |
|                                                      | Radio                  | 1      | 2.3  |
|                                                      | Magazine               | 1      | 2.3  |
| Ad frequency (per week)                              | 1–2 times              | 18     | 42.9 |
|                                                      | 3–5 times              | 11     | 26.1 |
|                                                      | > 5 times              | 13     | 31.0 |
| Child had cough (last month)                         | Yes                    | 15     | 35.7 |
|                                                      | No                     | 25     | 59.5 |
| Cough Medicine Brands (Open-Ended, Multiple Answers) | Komik                  | 5      |      |
|                                                      | Vicks formula 44       | 2      |      |
|                                                      | OBH combi anak         | 9      |      |

| Characteristic                                       | Category           | n (42) | % |
|------------------------------------------------------|--------------------|--------|---|
| Key Message of the Ad (Open-Ended, Multiple Answers) | Hufagrip           | 4      |   |
|                                                      | Anakonidin         | 2      |   |
|                                                      | Woods              | 1      |   |
|                                                      | Laserin            | 2      |   |
|                                                      | Siladex            | 2      |   |
|                                                      | OBH tropica        | 1      |   |
|                                                      | OB herbal          | 1      |   |
|                                                      | Directions for Use | 1      |   |
|                                                      | Warnings           | 2      |   |
|                                                      | Indications        | 16     |   |

Television was the most frequently used information medium (83.3%), followed by social media (30.9%) and YouTube (14.2%). Television remains a powerful channel for health information and product promotion, owing to its audiovisual format and repeated broadcast scheduling, which enhance product recall ([Auvarda and](#)

[Table 2](#) regarding the distribution of respondents' answers to statements about their knowledge of children's cough medicine advertisements, it appears that, in general, respondents demonstrated a good level of knowledge. Nearly all respondents answered correctly on items related to the definition of a cough, types of coughs, requirements for drug advertisements, and regulations regarding the inclusion of information. However, there were several items that still showed discrepancies; specifically, item number 10 ("Advertisements may exaggerate the benefits of the medication") had the highest rate of incorrect responses, with 52.39% of respondents providing an incorrect answer. This indicates a misperception regarding

[Irwansyah, 2022](#)). The most recognized cough medicine brand among respondents was OBH Combi Anak, reflecting high product visibility through mass media advertising.

### Knowledge Level of Respondents

Based on

medication advertising regulations. According to BPOM RI (2017), information in advertisements must be objective, complete, and must not mislead the public.

Item number 3 regarding whether over-the-counter drugs may be advertised in the mass media was still answered incorrectly by 14.29% of respondents, indicating a lack of understanding regarding drug classification. This aligns with the study by Kurniasari et al. (2021) which found a low level of knowledge regarding drug classification among the 60 respondents studied. Comparable knowledge gaps in medication-related understanding were also observed by [Aulia and Ermawati \(2023\)](#) in their study of community knowledge on

traditional medicine use in Landungsari Village, East Pekalongan District.

Similarly, for item number 7 regarding the inclusion of warnings (4.77%) and item number 6 regarding how to use the medication (2.39%), although the percentages are small, they still indicate a lack of knowledge among some respondents. A lack of understanding of medication usage guidelines and warnings can lead to errors in dosage, frequency of administration, or methods of use in

children, which can ultimately reduce the effectiveness of treatment and even increase the risk of side effects (BPOM, 2017).

Items 8 and 9 (contraindications and side effects) were still answered incorrectly by 9.53% and 7.15% of respondents, respectively. Lack of awareness regarding side effects and contraindications can lead the public to be less vigilant about the risks of improper medication use (Hartati and Utari, 2022).

**Table 2.** Distribution of knowledge questionnaire answers

| No | Statement                                                                                                                           | Answers according to the answer key | %      | The answer does not match the answer key | %      |
|----|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------|------------------------------------------|--------|
| 1  | A cough is a symptom of an illness or the body's reaction to irritation in the throat caused by mucus, food, dust, smoke, and so on | 42                                  | 100%   | 0                                        | 0%     |
| 2  | There are two types of cough: a productive cough and a dry cough                                                                    | 42                                  | 100%   | 0                                        | 0%     |
| 3  | Over-the-counter cough medicines for children may be advertised in the media                                                        | 36                                  | 85.71% | 6                                        | 14.29% |
| 4  | All advertisements for children's cough medicine must be approved by the BPOM and include supporting data                           | 42                                  | 100%   | 0                                        | 0%     |
| 5  | Advertisements for children's cough medicine must provide complete and non-misleading information.                                  | 42                                  | 100%   | 0                                        | 0%     |
| 6  | Advertisements for children's cough medicine must include instructions for use                                                      | 41                                  | 97.61% | 1                                        | 2.39%  |
| 7  | Advertisements for children's cough medicine must include a warning                                                                 | 40                                  | 95.23% | 2                                        | 4.77%  |
| 8  | Advertisements for cough medicine may list contraindications (conditions under which a person should not take the medication)       | 38                                  | 90.47% | 4                                        | 9.53%  |
| 9  | Advertisements for cough medicine must provide information about side effects                                                       | 39                                  | 92.85% | 3                                        | 7.15%  |
| 10 | Advertisements may exaggerate the benefits of a drug.                                                                               | 20                                  | 47.61% | 22                                       | 52.39% |
| 11 | Advertisements for children's cough medicine must be in Indonesian.                                                                 | 38                                  | 90.47% | 4                                        | 9.53%  |



The majority of respondents (90.48%) demonstrated good knowledge of children's cough medicine advertising. This favorable outcome is attributable to frequent television exposure, which through repetitive broadcasting reinforces consumer awareness of drug information such as indications, dosage instructions, and warnings (Auvarda and Irwansyah 2022). The predominantly senior high school educational background also supports the capacity to receive and process advertising information. This finding is consistent with [Agustin and Mursiany \(2022\)](#), who reported predominantly good self-medication knowledge among community members in Kuripan Kidul Village, South Pekalongan.

**Table 3.** Distribution of knowledge categories

| Category   | Frequency | Percentage (%) |
|------------|-----------|----------------|
| Good       | 38        | 90.48          |
| Sufficient | 4         | 9.52           |
| Poor       | 0         | 0.00           |
| Total      | 42        | 100            |

Item-level analysis identified specific knowledge gaps. Item 10 — "advertising may exaggerate drug benefits" — had the highest rate of incorrect responses (52.39%), indicating that many respondents were unaware that drug advertising is prohibited from overstating benefits. This misperception increases the risk of irrational drug use, including disregard for indications, dosage, and safety in children. Item 3 (drug

**Table 4.** Distribution of responses to self-medication

| No | Statement                                                                                                                            | Item properties | SS | S  | KS | TS | STS | Total |
|----|--------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|----|----|----|-----|-------|
| 1  | Choosing a cough medicine because I have seen an advertisement for it in the media                                                   | Negative        | 4  | 20 | 10 | 7  | 1   | 42    |
| 2  | Choosing a cough medicine based on a healthcare professional's recommendation                                                        | Positive        | 12 | 24 | 1  | 5  | 0   | 42    |
| 3  | Choosing a cough medicine because the advertisement clearly provides information about the medicine's ingredients                    | Positive        | 8  | 26 | 5  | 1  | 2   | 42    |
| 4  | Choosing a cough medicine because the advertisement clearly explains its benefits                                                    | Positive        | 6  | 30 | 4  | 1  | 1   | 42    |
| 5  | Choosing a cough medicine because the advertisement clearly states the name or brand of the cough medicine                           | Positive        | 8  | 28 | 4  | 1  | 1   | 42    |
| 6  | Choosing a cough medicine because the advertisement for that medicine provides information about the type of cough being experienced | Positive        | 6  | 31 | 4  | 0  | 1   | 42    |

| No | Statement                                                                                                                                                                                                | Item properties | SS | S  | KS | TS | STS | Total |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----|----|----|----|-----|-------|
| 7  | Choosing a cough medicine because the advertisement features flavors that children like                                                                                                                  | Negative        | 1  | 2  | 9  | 22 | 8   | 42    |
| 8  | Choosing a cough medicine product because the advertisement shows the different forms of the cough medicine (syrup or tablets)                                                                           | Positive        | 6  | 25 | 7  | 3  | 1   | 42    |
| 9  | Choosing a cough medicine because the advertising language is clear and easy to understand                                                                                                               | Positive        | 10 | 24 | 6  | 1  | 1   | 42    |
| 10 | Choosing a cough medicine because the advertisement for the product displays the marketing authorization from the Food and Drug Administration on the packaging as a guarantee of the medicine's quality | Positive        | 13 | 24 | 2  | 3  | 0   | 42    |
| 11 | Choosing a cough medicine because the information in the advertisement is reliable                                                                                                                       | Positive        | 9  | 21 | 9  | 2  | 1   | 42    |
| 12 | Choosing a cough medicine because the advertisement features a famous celebrity                                                                                                                          | Negative        | 6  | 8  | 18 | 6  | 4   | 42    |

classification for advertising eligibility, 14.29% incorrect), Item 8 (contraindication information, 9.53%), Item 9 (side effect information, 7.15%), and Items 6 and 7 (dosage instructions and precautions, 2.39% and 4.77% incorrect, respectively) also revealed areas for educational improvement. Insufficient awareness of drug contraindications and side effects may lead to unsafe drug selection and delayed recognition of adverse reactions ([Hartati and Utari 2022](#); [BPOM RI, 2017](#)).

### Self-Medication Behavior of Respondents

Regarding statement No. 1—a negative statement about choosing cough medicine based on having seen advertisements in the mass media—24 respondents (57.1%) answered that they agreed or strongly agreed. Since this statement is a negative item, the respondents' agreement actually reflects

negative self-medication behavior, namely that the public still relies on exposure to mass media advertisements as the primary basis for choosing children's cough medicine without considering more rational clinical aspects, consistent with Dianawati (2008) study, which found that perceptions of television drug advertisements significantly influence self-medication behavior. Only 8 respondents (19%) answered "disagree" or "strongly disagree," indicating that only a small portion of the public is unaffected by advertisements when making decisions about medication selection. This condition is one of the factors contributing to the high proportion of negative self-medication behavior in this study.

Regarding statement No. 2 on choosing cough medicine based on recommendations from healthcare professionals, the majority

of respondents agreed. This indicates that recommendations from healthcare professionals are more trustworthy. The knowledge of pharmacy staff—or, in this case, healthcare professionals—is crucial; in other words, consumer trust is based on the knowledge of pharmacy staff. This is supported by research on communication factors that influence the level of trust in Pharmacy Technicians, which shows that consumer trust in pharmacies is influenced by the knowledge and competence of pharmacy staff in self-medication services. Collaboration between pharmacists, pharmacies, and other healthcare professionals within the setting significantly influences the medication selection process, which will enable better self-medication and reduce the number of errors that occur.

Regarding statements 3 and 4 on the information about drug composition and efficacy presented in advertisements, the majority of respondents agreed. This indicates that the public tends to pay attention to the information conveyed in advertisements before deciding to purchase cough medicine. Information regarding the composition and benefits of a drug can increase public trust in the product. The information presented in advertisements for over-the-counter drugs can influence consumer attitudes and behavior regarding drug use. Mass media is one of the primary sources of health information for the public, particularly regarding the use of over-the-counter medications for self-medication (Supardi S, Hendarwan H, Susyanty AL, 2019). This occurs because the public tends

to trust information presented visually and repeatedly through mass media, thereby increasing trust in specific medication products (Pristianty and Mufarrinah 2021).

Regarding statements 5 and 6 on information about usage instructions and types of coughs presented in advertisements, the majority of respondents also agreed. This indicates that the public not only pays attention to product promotions but also considers information on the proper use of medications. Clear information regarding usage instructions and types of coughs can help the public choose medications appropriate for their health conditions (Djembor, Umul, and Ratna, 2022). However, many people still do not fully understand this information correctly, so health education remains necessary.

However, regarding statement No. 7—choosing a cough medicine product because the advertisement features flavor variants preferred by children, which is a negative statement—the majority of respondents expressed disagreement and strong disagreement. This indicates that most people do not consider flavor variants as the primary factor in selecting cough medicine, suggesting that they prioritize the benefits and safety of the medication over taste-related aspects. Medication selection in self-medication is more influenced by ease of use and information on the medication's benefits than by other factors such as taste or packaging.

In statements 8 through 10, the majority of respondents agreed that advertisements featuring various drug formulations, clear advertising language, and marketing authorization from the Indonesian Food and Drug Administration (BPOM) can influence their decision when choosing a cough medicine. This indicates that the product's legal compliance and the ease of understanding the information presented in the advertisement can enhance public trust in the product (Cahaya N, Adawiyah S, Intannia D, 2018).

**Table 5.** Distribution of self-medication behavior categories

| Category | Frequency | Percentage (%) |
|----------|-----------|----------------|
| Positive | 18        | 42.86          |
| Negative | 24        | 57.14          |
| Total    | 42        | 100            |

Additionally, regarding statement No. 11 on trustworthy information in advertisements, the majority of respondents agreed. This indicates that the public still places trust in the information conveyed in drug advertisements, particularly when such information is presented in clear and easily understandable language (Hartati and Utari, 2022).

Based on the results of the study regarding statement item No. 12—choosing a cough medicine product because the advertisement features a celebrity or well-known figure—which is a negative statement item (as this negative item was reverse-scored), the interpretation of the results indicates that the majority of

respondents do not consider the use of celebrities or well-known figures in advertisements to be a primary factor in selecting a cough medicine product. These results indicate that when self-medicating, the public tends to prioritize other aspects—such as the drug's efficacy, safety, composition, and usage instructions—over the appeal of advertisements featuring public figures. This suggests that the public tends to adopt a more rational approach when selecting cough medicine, even when exposed to various forms of promotional content in advertisements.

Negative self-medication behavior was predominant (57.14%), indicating that more than half of respondents made drug selection decisions that were not fully rational. Analysis of individual questionnaire items reveals that 57.1% of respondents agreed or strongly agreed with item 1 (choosing cough medicine solely because of media advertising exposure), a negative item. This finding suggests that advertising-driven selection, without clinical consideration, remains a common practice. Additionally, 33.3% agreed or strongly agreed with item 12 (selecting products advertised by celebrities), indicating that persuasive elements in advertising continue to influence purchasing decisions. A similar pattern of predominantly negative self-medication behavior was reported by Zulfa and Desiani (2023) among the general community in Dadirejo Barat Village, Tirto District, Pekalongan Regency.

Conversely, most respondents demonstrated rational tendencies in evaluating advertising content. The majority agreed that information on drug composition (items 3–4), indications for cough type (items 5–6), BPOM registration status (item 10), and recommendation by healthcare professionals (item 2) were important considerations in drug selection. Most respondents did not prioritize flavor variants or celebrity endorsements as primary decision factors, suggesting a degree of critical consumer behavior. These findings align with Cahyani et al. (2019) and Notoatmodjo (2007), who described behavior as a result of predisposing, enabling, and reinforcing factors — including the persuasive influence of advertising figures.

#### Relationship Between Knowledge and Self-Medication Behavior

Fisher's Exact Test yielded a p-value of 0.623 ( $p > 0.05$ ), indicating no statistically significant relationship between knowledge of children's cough medicine advertising and self-medication behavior. These findings are consistent with the Pearson Chi-Square value of 0.576 ( $p = 0.448$ ), which was presented for comparison but not used for inference, as 2 cells (50.0%) had expected counts below 5 — a violation of the Chi-Square assumptions (Kim, 2017).

Crosstabulation results reveal four distinct patterns. First, respondents with good knowledge but negative behavior (55.3%) constituted the largest group. This reflects Lawrence Green's theoretical

framework Aryani, Aryani, and Muharni (2023) which posits that knowledge is a predisposing factor but is not the sole determinant of behavior; reinforcing factors such as persuasive advertising, family habits, and social norms can override knowledge. Second, respondents with good knowledge and positive behavior (44.7%) represent the ideal scenario, wherein comprehensive knowledge enabled rational, evidence-based drug selection, including attention to composition, indications, BPOM registration, and pharmacist recommendations. Third, respondents with sufficient knowledge and negative behavior (75.0%) showed a higher proportion of negative behavior than the good knowledge group, suggesting that limited knowledge leaves individuals more vulnerable to persuasive advertising influences. Fourth, one respondent with sufficient knowledge demonstrated positive behavior (25.0%), indicating that behavioral rationality can also arise from experiential learning, trust in healthcare professionals, and ongoing health education through posyandu activities. All data can be seen in Table 5 and Table 6.

**Table 6.** Crosstabulation of knowledge and self-medication with Fisher's Exact Test

| Knowledge Category | Negative Behavior n (%) | Positive Behavior n (%) | Total n (%) | p-value |
|--------------------|-------------------------|-------------------------|-------------|---------|
| Good               | 21 (55.3%)              | 17 (44.7%)              | 38 (100%)   | 0.623*  |
| Sufficient         | 3 (75.0%)               | 1 (25.0%)               | 4 (100%)    |         |
| Total              | 24 (57.1%)              | 18 (42.9%)              | 42 (100%)   |         |

\*Fisher's Exact Test; p-value (2-sided) = 0.623

The absence of a statistically significant relationship between knowledge and behavior in this study can be attributed to several factors. The highly skewed knowledge distribution — 90.5% in the "good" category and 0% in the "poor" category — limited the statistical power of the test to detect between-group differences. Additionally, self-medication behavior is a complex, multidimensional outcome influenced not only by knowledge but also by attitudes, perceived effectiveness, economic factors, social influences, prior experience, and the persuasive force of advertising. These findings are consistent with [Hartati and Utari \(2022\)](#) and underscore the importance of a multifactorial approach to promoting rational self-medication in the community.

## CONCLUSION

This study found that 90.48% of respondents at Dahlia 3 Posyandu, Pucang Sawit Village, Surakarta City, had good knowledge of children's cough medicine advertising, yet 57.14% exhibited negative self-medication behavior, with no statistically significant relationship between the two (Fisher's Exact Test,  $p = 0.623$ ). This indicates that knowledge alone is insufficient to ensure rational self-medication practice; interventions should also address attitudes, social influence, and advertising literacy. Future research with larger samples and additional behavioral variables is recommended.

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## CONFLICT OF INTEREST

No potential conflicts of interest have been reported by the authors.

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