

Health Education as a Strategic Approach to Prevent Acute Respiratory Infections (ARI)



Yuyun Tuasikal^a   | Harianti Fajar^a 

^aDepartment of Nursing, High School of Health Science Pasapua Ambon, Indonesia

Abstract: Acute Respiratory Infections (ARI) remain one of the most prevalent diseases in the work area of the Laimu Care Community Health Center. Many people tend to ignore early symptoms, contributing to the increased risk of transmission. Therefore, an effective health education strategy is essential to raise public awareness and promote preventive behaviors. This activity aimed to improve public knowledge and preventive behaviors related to ARI through structured health education in the Laimu Health Center area. The health education strategy was implemented with 20 respondents during working hours at the health center. Preparations included the development of educational media (leaflets), coordination with health center staff, and approval for activity implementation. The educational session consisted of lectures, interactive discussions, and Q&A on ARI symptoms, transmission, and prevention. The findings showed that respondents' knowledge about ARI was generally good. Out of 10 questions, most participants answered correctly on nine items, with only one item (related to transmission sources) showing a lower correct response rate. The education program also reinforced the importance of clean and healthy lifestyle habits. According to health center data, ARI ranks third among the top ten diseases in the area. Health education through lectures and printed media has proven effective in improving public knowledge and awareness of ARI. Continued health promotion is recommended to further reduce the incidence and risk of ARI transmission within the community.

Keywords: ARI, health education, health center, preventive strategy, community health.

1. Introduction

The success of healthcare service delivery depends heavily on community involvement and acceptance of implemented programs (Widjaja, 2023). In community-based nursing, nurses play a vital role in delivering health-focused services for high-risk populations, aiming to achieve optimal health through promotion, disease prevention, treatment, and rehabilitation (Rahmayanti & Ariguntar, 2017). Moreover, nurses are responsible for ensuring the accessibility of healthcare services and involving clients as partners in the planning, implementation, and evaluation of nursing care (Siyen et al., 2020).

One of the main health priorities identified in the Laimu Health Center service area is Acute Respiratory Infection (ARI). According to Fathin and Gunungkidul (2020), ARI refers to contagious infections of the upper or lower respiratory tract. The condition may range from asymptomatic to mild or even severe and potentially fatal cases, depending on the type of pathogen, environmental conditions, and contributing factors (Sutopo & Ratriwardhani, 2022). ARI symptoms typically last no more than 14 days and may include fever, cough, sore throat, nasal congestion, headache, excessive mucus production, and loss of appetite. Unfortunately, due to the mildness of early symptoms, many individuals tend to overlook them—despite the risk of rapid transmission via droplets or direct contact (Martahan, 2020; Triola et al., 2021).

Therefore, health education on ARI should be prioritized as a preventive strategy. Strengthening health promotion is crucial in encouraging community awareness and early action. Although access and service quality at the community health center have shown improvements, as evidenced by the increase in patient visits (Oktavianti et al., 2022), prevention efforts must remain a core focus—particularly through educational outreach to raise awareness about environmental hygiene and healthy living practices.

2. Materials and Methods

The health service strategy through educational outreach on Acute Respiratory Infection (ARI) was conducted at Laimu Care Community Health Center, involving 20 respondents. The activity was carried out during official working hours and centered on a structured health counseling session. Prior to the educational session, preparations included selecting the



location, preparing leaflets, conducting interviews with relevant health center staff, and obtaining formal approval from the Puskesmas. Once preparations were complete, participants received health education through interactive lectures, group discussions, and a question-and-answer session focusing on ARI. This activity aimed to enhance participants’ knowledge and awareness regarding the prevention and control of ARI.

3. Results and Discussion

Table 1. Outbreak data at Laimu Community Health Center.

| No | Jenis Penyakit | Jan | Feb | mar | apr | mei | jun | jul | agu | sep | okt | nov | Des |
|----|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | HT | 160 | 210 | 100 | 100 | 111 | 102 | 120 | 98 | 105 | 119 | 89 | 98 |
| 2 | DM | 130 | 80 | 89 | 87 | 92 | 89 | 100 | 79 | 98 | 160 | 101 | 77 |
| 3 | ISPA | 90 | 98 | 100 | 109 | 88 | 52 | 67 | 77 | 67 | 109 | 100 | 48 |
| 4 | Gastritis | 100 | 22 | 87 | 57 | 19 | 73 | 12 | 77 | 97 | 19 | 19 | 2 |
| 5 | Diare | 102 | 20 | 98 | 77 | 14 | 62 | 79 | 12 | 62 | 34 | 12 | 13 |
| 6 | P.kulitAlergi | 12 | 80 | 11 | 23 | 14 | 78 | 102 | 99 | 12 | 12 | 23 | 10 |
| 7 | Asthma | 14 | 23 | 25 | 18 | 77 | 19 | 23 | 45 | 15 | 34 | 62 | 9 |
| 8 | susp Apendiks | 18 | 22 | 20 | 18 | 34 | 25 | 23 | 19 | 28 | 12 | 10 | 9 |
| 9 | Gangguan Gigi | 23 | 15 | 10 | 16 | 14 | 12 | 13 | 18 | 12 | 20 | 11 | 6 |
| 10 | limphoma | 16 | 14 | 14 | 10 | 9 | 23 | 18 | 19 | 22 | 8 | 12 | 1 |

The implementation of health education on Acute Respiratory Infections (ARI) at the Laimu Care Community Health Center began with a comprehensive and systematic data collection process involving the local community. The aim of this data collection was to identify health problems faced by individuals, families, and groups in the area. Through interviews and a structured question-and-answer session involving 20 respondents, it was found that the community’s knowledge regarding ARI was generally good.

Respondents were asked 10 questions, and the correct response rates were as follows: 90% answered question 1 correctly, 80% for question 2, 30% for question 3, 100% for question 4, 90% for question 5, 40% for question 7, and 100% each for questions 8 and 9. Question 10 had an 80% correct response rate. However, question 6 had the lowest score, indicating a lack of understanding specifically, a misconception that ARI cannot be transmitted by just anyone.

This finding aligns with the study by Roslin et al. (2022), which showed that most mothers had limited knowledge about ARI, yet displayed relatively good preventive behaviors. The study further confirmed a positive correlation between knowledge levels and preventive behavior regarding ARI in children.

During the implementation phase, health education was delivered through public outreach activities using educational media such as leaflets. The materials focused on promoting clean and healthy living behaviors (PHBS) to prevent ARI. Key messages included the importance of using clean water, washing hands with soap, avoiding smoking indoors, and consuming vegetables and fruits daily.

Table 2. Results of the question and answer activity about ISPA.

| NO | PERTANYAAN | JAWABAN | | PERSENTASE |
|----|---|---------|-------|------------|
| | | BENAR | SALAH | |
| 1 | Kepanjangan ISPA adalah Infeksi saluran pernafasan akut | 18 | 2 | 90% |
| 2 | ISPA disebabkan oleh bakteri dan virus | 16 | 4 | 80% |
| 3 | ISPA disebabkan oleh asap rokok | 6 | 14 | 30% |
| 4 | Batuk dan Pilek adalah gejala ISPA | 20 | 0 | 100% |
| 5 | Air tidak bersih merupakan salah 1 faktor terjadinya ISPA | 18 | 2 | 90% |
| 6 | ISPA ditularkan melalui batuk dan bersin | 20 | 0 | 100% |
| 7 | ISPA ditularkan balita ke orang tua | 8 | 12 | 40% |
| 8 | Pencegahan ISPA dilakukan dengan memakai masker | 20 | 0 | 100% |
| 9 | Cara mencegah ISPA dengan menutup tempat penampungan air | 20 | 0 | 100% |
| 10 | Makanan tidak sehat merupakan faktor resiko terjadinya ISPA | 16 | 4 | 80% |



According to the 2024 data from Laimu Health Center, ARI ranked third among the top ten diseases recorded, indicating that it remains a major public health concern. The combination of nurse-led independent actions (e.g., health talks) and collaborative actions (e.g., referrals and consultations) proved effective in improving community awareness and behavior.

The evaluation results showed that most community health issues were successfully addressed through these interventions. However, challenges remain in managing individual and community health, especially due to limited exposure to accurate information. Therefore, it is essential to conduct further interventions, including assessing readiness to receive information, identifying motivating factors, selecting appropriate educational media, and continuously reinforcing positive health behaviors (Aristatia & Samino, 2021).



Figure 1. distribution of leaflets and ISPA counseling

4. Conclusions

The implementation of health education strategies at the Laimu Care Community Health Center proved to be effective in improving public knowledge and awareness regarding Acute Respiratory Infections (ARI). The majority of respondents demonstrated a good understanding of ARI prevention, although some misconceptions remain and require further clarification through continuous education.

The use of educational media such as leaflets and direct communication approaches like lectures and discussions significantly contributed to enhancing community engagement and promoting clean and healthy living behaviors. The program also highlighted the importance of collaborative action between health workers and the community in addressing preventable diseases like ARI.

Given that ARI remains one of the top health issues in the region, sustained efforts in education, early detection, and preventive action are crucial. Ongoing promotion of healthy lifestyle practices and access to accurate information will be key to reducing the incidence and transmission of ARI within the community.

Conflict of Interest

No conflicts of interest

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