



EDUCATION ON THE PREVENTION OF ACUTE RESPIRATORY INFECTIONS (ARI) FOR PATIENTS AT THE MATERNAL AND CHILD HEALTH (MCH) CLINIC OF ANDALAS COMMUNITY HEALTH CENTER, PADANG CITY

Putri Nelly Syofiah^{1*}, Gina Muthia², Masni Hayati³, Ainia Siti Fauziah DY⁴, Aisha Putri Maharani⁵, Alya Putri Nanda⁶, Wella Silvi⁷, Monica Zentia⁸

^{1*,2,3,4,5,6,7,8}Universitas Mercubaktijaya, Email : putrinelly8@gmail.com

*email koresponden: putrinelly8@gmail.com

DOI: <https://doi.org/10.62567/jpi.v2i2.3084>

Abstract

Acute respiratory infection (ARI) is a common health problem among children and may cause serious complications when warning signs are not recognized early. This community service activity aimed to improve the knowledge of patients attending the Maternal and Child Health (KIA) clinic at Andalas Public Health Center, Padang. The activity was conducted on April 6, 2026, involving 20 participants. Education was delivered through lectures, discussion, question-and-answer sessions, and demonstrations. Knowledge was assessed using a 20-item questionnaire before and after education. The mean score increased from 14.45 at pretest to 16.10 at posttest, with a mean increase of 1.65 points. The Wilcoxon test showed a significant difference between pretest and posttest scores ($p=0.009$). The activity indicates that structured health education can improve participants' immediate knowledge of ARI prevention and home care. Continued education integrated with KIA services is recommended.

Keywords: Acute Respiratory Infection, Health Education, Maternal and Child Health, Toddlers, Community Service.

Abstrak

Infeksi Saluran Pernapasan Akut (ISPA) merupakan masalah kesehatan yang sering terjadi pada anak dan dapat menimbulkan komplikasi apabila tanda bahaya tidak dikenali sejak dini. Kegiatan pengabdian kepada masyarakat ini bertujuan meningkatkan pengetahuan pasien Poli Kesehatan Ibu dan Anak (KIA) di Puskesmas Andalas Kota Padang. Kegiatan dilaksanakan pada 6 April 2026 dengan melibatkan 20 peserta. Edukasi diberikan melalui ceramah, diskusi, tanya jawab, dan demonstrasi. Pengetahuan diukur menggunakan kuesioner 20 pertanyaan sebelum dan sesudah edukasi. Rata-rata skor meningkat dari 14,45 pada pretest menjadi 16,10 pada posttest, dengan peningkatan rata-rata 1,65 poin. Uji Wilcoxon menunjukkan perbedaan bermakna antara skor pretest dan posttest ($p=0,009$). Kegiatan ini menunjukkan bahwa edukasi kesehatan terstruktur dapat meningkatkan pengetahuan segera peserta mengenai pencegahan dan perawatan awal ISPA. Edukasi berkelanjutan yang terintegrasi dengan pelayanan KIA perlu dikembangkan.

Kata Kunci: Infeksi Saluran Pernapasan Akut, Edukasi Kesehatan, Kesehatan Ibu dan Anak, Balita, Pengabdian Masyarakat.



1. INTRODUCTION

Acute Respiratory Infection (ARI) is an acute infection affecting the respiratory tract—extending from the nose to the alveoli—that can be caused by viruses, bacteria, or other microorganisms (Pujiani & Siwiendrayanti, 2024). In children, ARI may manifest as a cough, runny nose, fever, sore throat, shortness of breath, wheezing, or breathing difficulties. Children under five years of age (toddlers) constitute a vulnerable group because their immune systems are still developing (Fillacano, 2023).

ARI can be transmitted via droplets, aerosols, and contaminated hands. Environmental factors—such as cigarette smoke, poor ventilation, crowded housing, dust, and inadequate hygiene—can increase the risk of transmission and the severity of the infection (Ibrahim, 2024; Mahendrayasa & Rasmika, 2023). Potential complications include otitis media, bronchitis, bronchiolitis, and pneumonia (Kunoli, 2023).

The knowledge held by mothers and caregivers is crucial for recognizing symptoms, providing initial care, preventing transmission, and determining when a child requires medical attention at a healthcare facility. Empowerment programs for mothers of toddlers regarding ARI management have been reported to improve their knowledge and skills in providing home-based care (Cahyaningsih et al., 2021). Educational interventions on ARI prevention for parents of toddlers have also demonstrated an increase in the proportion of those with good knowledge following the sessions (Yuki et al., 2023).

In light of these issues, this activity aims to enhance the knowledge of patients visiting the Maternal and Child Health (MCH) clinic at the Andalas Community Health Center (Puskesmas) in Padang City regarding the prevention and initial management of ARI.

2. METHOD

This activity was a community service initiative employing a health education approach and a one-group pretest-posttest evaluation design. It was conducted on Monday, April 6, 2026, at the Andalas Community Health Center (Puskesmas) in Padang City. The target audience consisted of patients visiting the Maternal and Child Health (KIA) clinic at the center. A total of 20 participants took part in the education session and the evaluation.

The educational material covered the definition and causes of Acute Respiratory Infections (ARI), signs and symptoms, modes of transmission, risk factors, complications, prevention strategies, non-pharmacological home care, and danger signs requiring professional medical attention. The methods employed included lectures, discussions, Q&A sessions, and demonstrations, utilizing leaflets and presentations as educational aids.

Knowledge levels were assessed using a 20-item questionnaire. Correct answers were assigned a score of 1 and incorrect answers a score of 0, resulting in a possible score range of 0–20. A pretest was administered prior to the education session, followed by a posttest afterward. Score differences were analyzed using the Wilcoxon test, given the paired nature of the data and the limited number of participants.

3. RESULT AND DISCUSSION

Knowledge evaluation

Measure	Pretest	Posttest
Participants	20	20
Mean score	14.45	16.1
Median score	15.0	16.5
Standard deviation	1.67	2.17
Mean increase	—	1.65

The mean knowledge score increased from 14.45 before education to 16.10 after education. The Wilcoxon test showed a significant difference between pretest and posttest scores ($p=0.009$). The result indicates an improvement in immediate knowledge after the ISPA education session. Similar community-service programs have reported increased maternal knowledge and skills after education on



ISPA prevention and home management (Cahyaningsih et al., 2021; Yuki et al., 2023; Lannasari et al., 2024).

DISCUSSION

The improvement in knowledge suggests that education delivered through lecture, discussion, question-and-answer, and demonstration can be integrated into primary health-care services. Interactive methods allow participants to clarify misconceptions and connect information with daily childcare practices.

The finding is consistent with community empowerment programs that provide mothers with information and practical skills for managing children with ISPA at home (Cahyaningsih et al., 2021). Education should emphasize prevention, adequate fluids and rest, avoidance of cigarette smoke, hand hygiene, ventilation, and recognition of danger signs.

The result reflects immediate knowledge change and should not be interpreted as proof of long-term behavioral change or reduced ISPA incidence. Follow-up assessment, documentation of preventive practices, and linkage with routine KIA services are needed.

4. CONCLUSION

Education on ISPA prevention at the KIA Clinic of Andalas Public Health Center increased participants' knowledge scores from a mean of 14.45 to 16.10. The Wilcoxon test showed a significant pretest–posttest difference ($p=0.009$). Health education should be continued and integrated with maternal and child health services, particularly counselling on prevention, home care, and danger signs requiring referral.

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