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KNOWLEDGE, ATTITUDE, AND PRACTICE OF MOTHERS ON ACUTE RESPIRATORY INFECTION IN CHILDREN UNDER FIVE YEARS

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Abstract

Background: Acute Respiratory Infection (ARI) significantly affects the respiratory tract, contributing to high mortality rates and a decline in quality of life for children under five, with an incidence of 3-5 episodes per child annually. In Indonesia, ARI remains prevalent, with cases increasing in 2015 (63.45%) and reaching 48.56% in Tangerang Regency by 2017. **Knowledge Gap:** Despite these figures, there is limited research on maternal knowledge, attitudes, and practices concerning ARI prevention. **Aims:** This study aims to analyze maternal knowledge, attitudes, and actions in Binong Village regarding ARI prevention among toddlers. **Methods:** A cross-sectional quantitative design was employed, with 50 mothers of toddlers completing a Google Forms questionnaire. Accidental sampling was used, and univariate analysis was applied to assess frequency and percentage distributions of the variables. **Results:** The findings revealed that 74% of mothers exhibited poor knowledge, while 100% had positive attitudes and 84% engaged in good practices toward ARI prevention. **Novelty:** This study highlights the discrepancy between maternal knowledge and attitudes/practices, showing that even with poor understanding, mothers maintain positive attitudes and preventive actions. **Implications:** The results underscore the need for improved educational interventions targeting maternal knowledge on ARI, as current positive attitudes and practices could be enhanced with better information. Future research should explore factors influencing ARI incidence in infants to develop more comprehensive prevention strategies. Ethical approval for the study was granted (085 / KEP-FON / III-2020).

Keywords: acute respiratory infection, infant health prevention, maternal knowledge, parental attitude

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Introduction

Acute Respiratory Infection (ARI) is a common respiratory illness, particularly affecting toddlers caused by bacteria, viruses, and fungi (Hardiyanti, 2009). It is a leading cause of death among toddlers worldwide (WHO, 2017). Countries in Asia with the

highest toddler mortality rates due to ARI include India, Bangladesh, Indonesia, and Myanmar (Krishnan, 2015). In Indonesia, ARI cases among toddlers reached 46.34% (Ministry of Health RI, 2018). Data show that in 2014 there were 625 severe ARI cases, which increased to 63.45% in 2015 (Banten Province Health Profile, 2016). In Tangerang, ARI ranked as the top disease among the ten significant diseases in toddlers in 2017, with an incidence rate of 48.56% (Tangerang Regency Health Profile, 2017). At the Binong Village Health Center, ARI cases in toddlers were recorded at 2,140 in 2017, 2,254 in 2018, and 2,380 in 2019.

Parents, particularly mothers, are crucial in preventing ARI in toddlers (Habeahan, 2009). Many parents have limited knowledge about ARI, including the fact that it can develop into pneumonia, which can be fatal (IDAI, 2015). Often, parents underestimate symptoms like coughs and colds, perceiving them as harmless because they frequently occur in children (IDAI, 2015). Therefore, parental involvement, especially with mothers, is essential in taking preventive measures to protect toddlers from ARI (Habeahan, 2009).

Research by Harianja (2018) at the Saribudolok Health Center in Silimakuta District, involving 71 respondents, found that maternal knowledge about ARI in toddlers was good, and maternal attitudes towards ARI were also quite positive. Similarly, a study by Anggraini and Zubaidah (2015) conducted in the Karangdoro Health Center work area in Semarang City, with 142 respondents, showed that most mothers had good knowledge about ARI and took appropriate preventive actions.

One of the leading causes of decreased quality of life and the main cause of death among toddlers worldwide is recurrent ARI A lack of parental knowledge about ARI can negatively impact toddlers and, in severe cases, lead to death. Many parents underestimate symptoms like coughs and colds, viewing them as harmless and common in children. Therefore, the role of parents, especially mothers, is crucial in preventing ARI in toddlers. This study aimed to analyze the knowledge, attitudes, and actions of mothers in Binong Village regarding URI prevention

Methods

This study employs a cross-sectional design. The sampling technique used was accidental sampling. The research utilized a Google Forms questionnaire to gather data on mothers' knowledge, attitudes, and actions regarding preventing ARI in toddlers. The questionnaire link was shared with the mothers. Those who consented filled out the questionnaire and the completed forms were collected for data processing and analysis.

This study utilizes univariate analysis to examine the characteristics of the variables by producing frequency and percentage data for each variable. The analysis includes the percentage distribution of factors such as respondents' age and education and maternal knowledge, attitudes, and actions toward preventing ARI in toddlers. The results are presented in a percentage table. The study has received ethical approval, as indicated by approval number 085 / KEP-FON / III-2020

Results and Discussion

The study, conducted from April to May 2020, examined the knowledge, attitudes, and actions of mothers regarding the prevention of ARI in toddlers, involving 50 respondents from Binong Village. The researcher distributed questionnaires in the form of Google Forms, which respondents voluntarily completed. The questionnaire included informed consent, demographic data, questions on knowledge, statements on attitudes, and statements on actions related to ARI prevention in toddlers.

Table 1. Respondent's Characteristics

Characteristics	Number	Percentage
Age		
22-25	8	16 %
26-45	42	84 %
Total:	50	100 %
Education		
Elementary to Junior High School	6	12 %
Senior High School University	44	88 %
Total:	50	100 %

Based on Table 1, most respondents were aged 25-45 years (84%). The most common level of education among respondents was high school or college (88%).

Table 2. Mothers' Knowledge towards ARI Prevention

Variable	Number	Percentage
Education		
Low	37	74%
Good	13	26%
Total	50	100%

Based on Table 2, most respondents have a low level of knowledge (74%).

Table 3. Mothers' Attitudes towards ARI Prevention

Variable	Number	Percentage
Attitude		
Positive	50	100%
Total	50	100%

Based on Table 3, 50 respondents (100%) have a positive attitude toward preventing ISPA in toddlers.

Table 4. Mothers' Action towards ARI Prevention

Variable	Number	Percentage
Action		
Good	42	84%
Moderately good	8	16%
Total	50	100%

Based on Table 4, most respondents took good action to prevent ISPA in toddlers (84%).

Discussion

Respondent's Characteristics

The results of this study indicate that most respondents are aged between 26-45 years (84%). This age range is generally effective for performing caregiving and nurturing roles. Individuals who are too young or too old may not perform these roles optimally. Age is a significant factor influencing a person's knowledge and behavior (Mubarak, 2009). It impacts how individuals seek information, gain knowledge, and achieve experience and maturity. Additionally, as people age, their ability to absorb information improves, leading to better knowledge and more positive attitudes and actions in preventing ARI in toddlers (Ritonga, 2017).

This study aligns with the research conducted by Mahendra & Ottay (2014), which involved 89 mothers in Purworejo Village, Modayag District, East Bolaang Mongondow Regency. In their study, most respondents were aged between 26-45 years, with 41 individuals (56.1%) in this age range, while the smallest age category had fewer respondents under 26 years, totaling six individuals (6.7%). In contrast, this study differs from the research by Pebrianti & Shalahuddin (2018), which included 20 respondents at the Siliwangi Garut Health Center. In their study, the majority of respondents were aged 21-25 years, with ten individuals (50%), and the smallest number of respondents were those aged over 26 years, totaling three individuals (15%)

The educational level of the respondents shows that the majority (88%), have completed high school or higher education. This suggests that higher educational attainment enables respondents to better understand information related to ARI in toddlers. Higher education levels can influence behavior and contribute to improving one's quality of life.

This finding is consistent with the study by Pebrianti & Shalahuddin (2018), which included 20 mothers at the Siliwangi Garut Health Center. Their study found that most respondents had completed high school or higher education, with 14 individuals (70%) in this category, while those with elementary to junior high school education numbered 6 (30%). However, this study differs from the research conducted by Mahendra & Ottay (2014), which involved 89 mothers in Purworejo Village, Modayag District, East Bolaang Mongondow Regency. Their study revealed that the majority of respondents had an education level of elementary to junior high school, totaling 55 individuals (61.8%), while those with high school or higher education comprised 34 individuals (38.2%).

Mother's knowledge of ARI prevention

Most mothers had poor knowledge regarding preventing ARI in toddlers (74%). Several factors may contribute to the lack of knowledge among respondents, including varying levels of information absorption and insufficient efforts to seek out information about ARI (Silaban, 2015). Other influencing factors include age, social, cultural, economic, educational, environmental, and experiential aspects. In this study, most respondents had a high school or higher education level (88%). Higher education is typically associated with broader knowledge. Additionally, most respondents were aged between 26-45 years, comprising 42 individuals (84%).

According to Amin and Juniati (2017), mothers aged 26-45 are in the adult age range, characterized by adjustments to new life patterns, social expectations, and ways of life. This study aligns with the research by Sriwati (2010), which involved 147 mothers in Patalassang Village, East Sinjai District, Sinjai Regency. Sriwati's study found that 99 respondents (67.45%) had poor knowledge regarding ARI in toddlers, while 48 respondents (32.65%) had good knowledge. In contrast, this study differs from the research conducted by Nuraeni & Saptawati (2015), which included 79 mothers in Kalipancur Village, Semarang. Their study reported that most respondents had good knowledge, with 47 individuals (59.5%) falling into this category, while 17 respondents (21.5%) had poor knowledge.

Mother's attitude of ARI prevention

Research conducted in Binong Village revealed that all respondents (100%) had a positive attitude toward preventing ARI in toddlers. This positive attitude among mothers is likely due to their view of children as a top priority, which motivates them to ensure their children's health and prevent illness. Additionally, their good experiences caring for toddlers with ARI contribute to maintaining a positive attitude toward prevention efforts (Nuraeni & Saptawati, 2015).

This study aligns with the research conducted by Nuraeni (2015), which involved 79 respondents in Kalipancur Village, Semarang. Nuraeni's study found that 61 respondents (77.2%) had a positive attitude toward preventing ARI in toddlers, while 18 respondents (22.8%) had a negative attitude. In contrast, this study differs from the research by Sari and Fitriyani (2015), which included 92 respondents. Their analysis revealed that 50 respondents (54.3%) had a negative attitude toward ARI prevention in toddlers, while 42 respondents (45.7%) had a positive attitude.

Mother's action of ARI prevention

Based on data from 50 respondents, most respondents (84%) took practical actions to prevent ARI in toddlers. These positive actions are influenced by several enabling factors, including access to health facilities such as health centers, integrated health posts, hospitals, and practicing healthcare professionals like doctors and midwives. Additionally, prior experience plays a significant role in fostering practical actions related to ARI prevention in toddlers.

This study aligns with the research by Nuraeni & Saptawati (2015), which involved 79 respondents in Kalipancur Village, Semarang. Their study found that 50 respondents (63.3%) engaged in practical actions to prevent ARI in toddlers. In contrast, this study differs from the research conducted by Kusuma (2014), which included 51 respondents at the Piyungan Health Center, Bantul. Kusuma's analysis revealed that 28 respondents (54.9%) exhibited sufficient actions for preventing ARI in toddlers

Conclusion

Conclusion: This study highlights that most respondents (84%) were aged 26-45 years, with 88% having completed high school or higher education, indicating that this demographic is well-positioned to perform caregiving roles. However, despite a high educational level, 74% of mothers exhibited poor knowledge regarding ARI prevention. Interestingly, all respondents displayed positive attitudes (100%) and the majority took practical actions (84%) to prevent ARI in toddlers. **Implication:** The findings suggest that positive attitudes and actions toward ARI prevention can exist despite limited knowledge, emphasizing the need for targeted educational programs to improve maternal understanding of ARI. **Limitation:** The study's limitation lies in its use of a small, geographically specific sample, limiting generalizability**. Further Research:** Future studies should explore the broader factors influencing ARI incidence and preventive practices, considering larger and more diverse populations to enhance intervention strategies.

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