



Factors Related to Rabies Prevention Measures in Pondok Batu Village, Sarudik District, Central Tapanuli Regency in 2024

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ABSTRACT

Rabies is an acute infectious disease of the central nervous system transmitted through the bite of Rabies-Transmitting Animals (HPR), especially dogs. This disease has a mortality rate of almost 100% if not treated properly. This study aims to determine factors related to rabies prevention measures in the community in Pondok Batu Village, Sarudik District, Central Tapanuli Regency. The study used an analytical survey design with a quantitative approach and a cross-sectional design. The sample of the study was 70 heads of families selected by simple random sampling. Data were collected through questionnaires and analyzed using the chi-square test. The results showed that the majority of respondents had insufficient knowledge (63.8%) and negative attitudes (66.4%), as well as inadequate preventive measures (77.6%). Statistical tests showed a significant relationship between knowledge ($p = 0.000$; $C = 0.541$) and attitudes ($p = 0.001$; $C = -0.295$) with rabies prevention measures. The conclusion of this study is that community knowledge and attitudes are related to rabies prevention measures. It is recommended that health workers increase education and encourage pet vaccination to minimize the risk of rabies transmission.

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1. Introduction

Rabies is an acute infectious disease of the central nervous system caused by the rabies virus and transmitted through the bite of a Rabies-Transmitting Animal (HPR), especially dogs (Rismayanti, Sundayana, Antariksawan, Marthasari, & Astriani, 2024), (Ndoen et al., 2024) This disease has a case fatality rate (CFR) approaching 100%, making rabies a serious public health problem. According to data from the North Sumatra Provincial Health Office in 2023, there were 3,888 cases of rabies bites recorded in the region, with Central Tapanuli Regency among the areas with the highest number of cases (Tane, 2022), (Napitupulu, Harahap, & Sinaba, 2023).

Rabies prevention efforts are highly dependent on community behavior, especially in initial treatment after a bite, compliance with vaccinations for pets, and awareness to immediately obtain the Anti-Rabies Vaccine (VAR) at health facilities. (Gundisalvus Allesandro Dey Putra & Merintha Suryapuspita, 2024), (Aslam & Ulpah, nd) However, low public knowledge and attitudes toward rabies

remain major obstacles. Many rabies deaths occur due to delayed treatment or indifference to early symptoms.(Maisondra, 2022),(Meilin, 2021).

Previous research shows that knowledge and attitude factors are closely related to rabies prevention measures.(Suryanda & Rustati, 2024),(Wicaksana, 2023)Therefore, this study was conducted to analyze factors related to rabies prevention measures in the community of Pondok Batu Village, Sarudik District, Central Tapanuli Regency. The results are expected to provide a basis for public health interventions, particularly in increasing awareness and behaviors related to rabies prevention at the community level.(Gundisalus Allessandro Dey Putra & Merintha Suryapusita, 2024),(Gundisalus Allessandro Dey Putra & Merintha Suryapusita, 2024).

2. Methods

2.1 Research Design

This research is an analytical survey with a quantitative approach using a cross-sectional study design. This design was chosen to determine the relationship between the independent variables (knowledge and attitudes) and the dependent variable (rabies prevention measures) simultaneously.(Lesnussa, Mulyadi, & Malara, nd),(Girsang, Telaumbanua, Sinaga, & Purba, 2023).

2.2 Population and Sample

The population in this study was all heads of families (KK) who owned pets in Pondok Batu Village, Sarudik District, Central Tapanuli Regency. The population was 70 heads of families. The sampling technique used was simple random sampling. All members of the population who met the inclusion criteria were included, resulting in a total sample of 70 respondents. Inclusion criteria included heads of families owning pets, being willing to be respondents, and being able to communicate well during interviews.(Agustin, 2015),(Kusumawardani, Arkhaesi, & Hardian, 2012).

2.3 Data Collection Techniques and Instrument Development

Data collection was carried out using a structured questionnaire that had been tested for validity and reliability.(Makbul, 2021),(Tugiman, Herman, & Yudhana, 2022)Primary data was obtained through direct interviews with respondents regarding their knowledge, attitudes, and rabies prevention measures. Secondary data was obtained from reports from the Health Office and Community Health Centers regarding the number of bites from Rabies-Transmitting Animals (HPR) in the study area.

2.4 Analysis Techniques

This research data analysis uses:

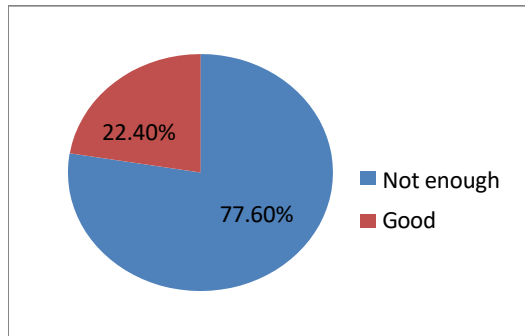
a. Univariate Analysis

Used to describe the frequency distribution of respondent characteristics and research variables, including knowledge, attitudes, and rabies prevention practices. The analysis results are presented in tables and percentages.

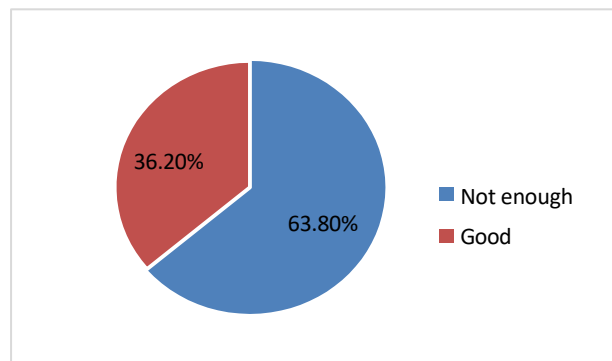
b. Bivariate Analysis

This study was conducted to determine the relationship between the independent variables (knowledge and attitudes) and the dependent variable (rabies prevention measures). The statistical test used was the Chi-Square test with a 95% significance level ($\alpha = 0.05$). Test results were considered significant if the p-value was <0.05 .

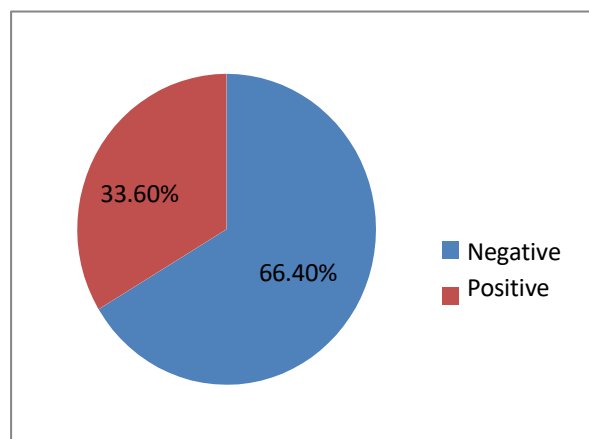
3. Results and Discussion



Based on the table above, it can be seen that of the 70 respondents, the majority, 54 respondents (77.6%), had inadequate rabies prevention measures. Meanwhile, only 16 respondents (22.4%) had adequate rabies prevention measures. This data indicates that rabies prevention measures in Pondok Batu Village are still relatively low..



Based on the table above, it can be seen that of the 70 respondents, the majority, 45 (63.8%), had poor knowledge. Meanwhile, 25 (36.2%) had good knowledge. This indicates that respondents' knowledge of rabies is still relatively low.



Based on the table above, it can be seen that of the 70 respondents, 47 (66.4%) had a negative attitude, while 23 (33.6%) had a positive attitude. This indicates that respondents' knowledge of rabies is still relatively low.

4. Conclusion

The study showed that most respondents had insufficient knowledge, negative attitudes, and low levels of rabies prevention. The analysis revealed a significant relationship between knowledge and attitudes and rabies prevention. Knowledge had a moderate relationship, while attitude had a low relationship. These findings underscore the importance of public health education, increased access to rabies vaccination for pets, and the active role of health workers in providing ongoing education. It is recommended that the public increase awareness of the dangers of rabies, health workers expand outreach and vaccination programs, and future researchers examine other factors related to rabies prevention.

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