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RESEARCH

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Community Knowledge and Attitudes Regarding Filariasis: Insights from Papua, Indonesia

Arius Togodly^{1a*}, Evi Sinaga^{1b}, Ipa Sari Kardi^{1c}, Miftah Fariz Prima Putra^{1d}

¹ Department of Public Health, University of Cenderawasih, Jayapura, Papua, Indonesia

^a Email address: ariustogodly1@gmail.com ^b Email address: evitioria.sinaga@gmail.com ^c Email address: ipaatletikteam@gmail.com ^d Email address: mifpputra@gmail.com

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Abstract

The rising incidence of filariasis cases necessitates heightened vigilance, particularly given the limited public awareness about this disease. This study aims to explore community knowledge and attitudes regarding filariasis in Jayawijaya Regency, Papua. Utilizing a sequential explanatory mixed-methods design, the research population comprised all household heads in Itanggen Village, Wolo District. A total of 34 household heads participated as informants, representing each family unit. Data collection employed structured questionnaires followed by in-depth interviews. Findings revealed that 3 filariasis cases was found, accounting for 38.2% (n=13) of respondents demonstrated good knowledge about filariasis, while 61.8% (n=21) showed inadequate understanding. Regarding preventive attitudes, 55.9% (n=19) exhibited positive attitudes toward filariasis prevention, whereas 44.1% (n=15) displayed less favorable attitudes. However, there was no significant relationship between community knowledge and filariasis case (p value=0.729). Also, there was no significant relationship between community attitude and filariasis incident (p value=0.830). These results highlight critical gaps in filariasis knowledge despite moderately positive preventive attitudes, suggesting the need for targeted health education interventions in this endemic region. The study provides valuable baseline data for public health planning in Papua's filariasis control programs.

Keywords: Filariasis, Knowledge, Attitudes, Neglected Tropical Diseases.

 ${\it Corresponding Author:}$

Arius Togodly

Department of Public Health, University of Cenderawasih, Jayapura, Papua, Indonesia

Email: ariustogodly1@gmail.com



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1. INTRODUCTION

Filariasis was first documented in Indonesia by Haga and Van Eecke in 1889 in Jakarta, which was already identified as endemic for lymphatic filariasis caused by *Brugia malayi* (Lee & Ryu, 2019). National surveillance data indicates a rise in cases from 12,714 in 2015 to 14,932 in 2016 (Ministry of Health Republic of Indonesia, 2021; Santriana, Ramadona, & Gunawan, 2024), with several interior regions exhibiting hyperendemic prevalence rates of up to 40% (Wamai et al., 2020; Ichimori et al., 2020; WHO, 2022; Lau et al., 2020).

Fourteen regencies in Papua Province were recorded as endemic areas (WHO, 2023), and in 2015, Jayawijaya Regency demonstrated a microfilaria (MF) rate of 2.5%, higher than the provincial average (Dhewantara et al., 2022). A survey in Wolo District confirmed an overall MF prevalence of 12.67%, with one village exhibiting a hyperendemic transmission rate of 19.15% (Lau et al., 2020). In response to these findings, the local government initiated a mass drug administration (MDA) campaign in 2006, encompassing coordination, socialization, community leader engagement, and logistical support in accordance with WHO elimination protocols (WHO, 2022).

However, the elevated prevalence of filariasis in Jayawijaya Regency, Papua; particularly in Wolo District is hypothesized to stem from limited community knowledge about the disease, which subsequently influences negative health-seeking behaviors and low public concern regarding filariasis. This situation is exacerbated by inadequate health education programs, both in terms of quality and coverage, specifically concerning filariasis prevention and management. These findings underscore the critical need for coordinated efforts among relevant stakeholders to implement comprehensive health education initiatives, with particular emphasis on filariasis awareness campaigns (Dhewantara et al., 2022).

Filariasis remains a neglected tropical disease of significant public health concern in Indonesia, particularly in regions with limited healthcare access such as Papua Province (Wayangkau et al., 2025). This area possesses unique geographical, sociocultural, and environmental characteristics that potentially facilitate filariasis transmission (Lau et al., 2020). However, there remains a critical paucity of comprehensive scientific investigations examining filariasis epidemiology and its associated risk factors in this region.

Untreated filariasis leads to severe, permanent disabilities like elephantiasis and chronic lymphedema due to irreversible lymphatic damage and secondary infections (Gass et al., 2021; Weiland et al., 2023; Molyneux, Savioli, & Engels, 2020). This results in a dual burden: significant psychosocial sequelae such as stigmatization and reduced economic productivity that exacerbate poverty (Hussain, et al., 2021; Person, et al., 2022), coupled with a substantial deterioration in quality of life and an overwhelming strain on healthcare systems in resource-limited settings (Tchuenté, 2021; Zoure et al., 2021).

From an economic perspective, filariasis significantly diminishes workforce productivity in Papua's endemic populations, as chronic physical disabilities limit the ability to perform essential livelihood activities, thereby exacerbating cyclical poverty (Tchuenté, 2021). Concurrently, the disease induces profound psychosocial consequences, where stigmamediated social exclusion and discrimination frequently precipitate mental health comorbidities and erode social cohesion, collectively perpetuating systemic marginalization (Hussain et al., 2021).

This study examines community knowledge and attitudes about lymphatic filariasis in Papua's Jayawijaya Regency due to: 1) Papua's exceptionally high prevalence rates (Ministry of Health Republic of Indonesia, 2023); (2) elimination challenges in remote areas (Dhewantara et al., 2022); (3) knowledge's critical role in prevention (Hussain et al., 2021); (4) low awareness contributing to transmission (Krentel et al., 2017); (5) need for culturally-appropriate interventions (Lau et al., 2020); (6) lack of village-level data (WHO, 2022); (7) potential for sustainable behavior change (Person, et al., 2022); and (8) importance of community engagement (Babu & Kar, 2020).

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2. RESEARCH METHOD

This study employs a sequential explanatory mixed-methods design (Schrauf, 2017; Haynes-Brown, 2023), comprising two distinct phases: Phase 1: Quantitative data collection and analysis. Phase 2: Qualitative data collection and analysis to provide in-depth elaboration of quantitative findings. This approach was selected to yield more comprehensive and nuanced insights into the investigated constructs, leveraging the strengths of both methodological paradigms. The quantitative phase establishes broad patterns, while the qualitative phase explores contextual factors and underlying rationales. The research protocol was reviewed and approved by the Institutional Research Ethics Committee of Cenderawasih University's Faculty of Public Health (Ethical Clearance No. 120/KEPK-FKM UC/2024).

This study was conducted throughout October 2024 in Jayawijaya Regency, Papua. The target population comprised 167 individuals from 34 households in Itanggen Village, Wolo District, Jayawijaya Regency, Papua. The study employed a purposive sampling technique, wherein participants were selected based on predefined criteria, with one representative per household chosen to participate. The study employed strict inclusion criteria: participants were required to be (1) primary household decision-makers aged ≥18 years, (2) permanent residents of Itanggen Village with ≥12 months continuous occupancy, (3) free from acute illness or cognitive impairment (verified via 6-item screening), and (4) capable of providing informed consent. Only one representative per household was enrolled to ensure data diversity. Exclusion criteria eliminated (a) temporary residents (<6 months occupancy), (b) households with >50% absentee members during data collection, (c) pregnant individuals or those with severe chronic conditions, and (d) respondents failing to complete ≥20% of baseline surveys. These parameters were validated through village registry cross-checks and home visits to confirm eligibility, with replacements drawn from the same geographical sector when exclusions occurred. This approach yielded a final sample size of 34 respondents.

This study employed a mixed-methods approach involving both primary and secondary data collection. Primary quantitative data were gathered using validated and reliable instruments, consisting of a 10-item knowledge questionnaire about lymphatic filariasis. Qualitative data were obtained through in-depth interviews, focus group discussions (FGDs), and participatory observations to examine community health practices related to filariasis in Jayawijaya Regency, Papua. Key informants included health workers with filariasis program experience, traditional healers recognized by local communities, and filariasis survivors with firsthand disease experience. Secondary data (e.g. occupations) on household demographics were collected from local government records to supplement the primary data.

For quantitative analysis, descriptive statistics (frequencies, percentages) characterized demographics and key variables, while Chi-Square and Fisher Exact tests examined associations between them. Qualitative data were analyzed using the Miles and Huberman framework, involving data reduction, display, and conclusion drawing to complement and contextualize the quantitative findings.

3. RESULTS AND DISCUSSION

Respondent characteristics including age, sex, education level, and occupation are presented in Table 1. The oldest age group (>50 years) dominated at 35.3%, while young adults (20-29 years) were least represented at 11.8%. Gender disparity was severe, with males comprising 94.1% of respondents versus just 5.9% females. Educational attainment showed extreme data: 44.1% had no formal schooling, while only 5.9% completed high school.

Collectively, the sample demonstrated substantial diversity in age, gender, education, and occupation. This heterogeneity strengthens the study by providing broader insights into the research topic. These quantitative findings align with qualitative data from community leaders, as exemplified by one key informant's statement: "Residents in Wolo District have relatively

diverse educational and occupational backgrounds" (ISK). As presented in Table 1, the collected respondent data reveal several key demographic patterns. The age distribution shows a predominance of older adults, with the majority (35.3%) aged >50 years, followed by middle-aged respondents (40-49 years: 32.4%), productive-age adults (30-39 years: 20.5%), and young adults (20-29 years: 11.8%). This age composition indicates that the study population primarily comprised older adults who are typically more vulnerable to chronic diseases.

Table 1. Differences in knowledge based on socio-demographic variables.

f	%	M Rank	df	KW	Sig
			3	3.199	0.362
4	11.8	15.25			
7	20.5	13.43			
11	32.4	20.27			
12	35.3	18.08			
			1	-	1.000
32	94.1	17.38			
2	5.9	19.50			
			4	7.724	0.102
15	44.1	14.40			
12	35.3	19.50			
4	11.8	15.25			
2	5.9	28.00			
1	2.9	28.00			
			2	0.037	0.982
26	76.5	17.54			
3	8.8	16.67			
5	14.7	17.80			
	4 7 11 12 32 2 2 15 12 4 2 1	4 11.8 7 20.5 11 32.4 12 35.3 32 94.1 2 5.9 15 44.1 12 35.3 4 11.8 2 5.9 1 2.9 26 76.5 3 8.8	4 11.8 15.25 7 20.5 13.43 11 32.4 20.27 12 35.3 18.08 32 94.1 17.38 2 5.9 19.50 15 44.1 14.40 12 35.3 19.50 4 11.8 15.25 2 5.9 28.00 1 2.9 28.00 26 76.5 17.54 3 8.8 16.67	3 4 11.8 15.25 7 20.5 13.43 11 32.4 20.27 12 35.3 18.08 2 5.9 19.50 4 15 44.1 14.40 12 35.3 19.50 4 11.8 15.25 2 5.9 28.00 1 2.9 28.00 2 76.5 17.54 3 8.8 16.67	4 11.8 15.25 7 20.5 13.43 11 32.4 20.27 12 35.3 18.08 2 94.1 17.38 2 5.9 19.50 4 7.724 15 44.1 14.40 12 35.3 19.50 4 11.8 15.25 2 5.9 28.00 1 2.9 28.00 2 0.037 26 76.5 17.54 3 8.8 16.67

*Chi-square

Table 1 demonstrates differences in knowledge based on socio-demographic variables. The results indicate that there are no significant differences in respondents' knowledge based on age, gender, level of education, or occupation (p-value > 0.05).

Table 2. Differences in attitude based on socio-demographic variables.

Variable	f	%	M Rank	df	KW	Sig
Age				3	1.079	0.782
20 - 29 years	4	11.8	16.50			
30 - 39 years	7	20.5	15.29			
40 - 49 years	11	32.4	17.27			
>50 years	12	35.3	19.33			
Gender*				1	-	0.046
Male	32	94.1	17.03			
Female	2	5.9	25.00			
Level of study				4	4.852	0.303
No formal education	15	44.1	15.93			
Elementary	12	35.3	19.33			
Junior High School	4	11.8	12.25			
Senior High School	2	5.9	25.00			
Diploma III or equivalent	1	2.9	25.00			
Occupation				2	0.213	0.899

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Variable	f	%	M Rank	df	KW	Sig
Farmer	26	76.5	17.15			
Entrepreneur	3	8.8	19.33			
Civil servant	5	14.7	18.20			

^{*}Chi-square

Table 2 illustrates differences in attitudes based on socio-demographic variables. The findings reveal a statistically significant difference in attitudes by gender (p-value = 0.046). However, no significant differences were observed in respondents' knowledge based on age, education level, or occupation p-value > 0.05). This suggests a significant association between attitudes and gender.

Table 3. Differences in filariasis cases based on socio-demographic variables.

Variable	f	%	M Rank	df	KW	Sig
Age				3	9.876	0.020
20 - 29 years	4	11.8	24.50			
30 - 39 years	7	20.5	16.00			
40 - 49 years	11	32.4	16.00			
>50 years	12	35.3	17.42			
Gender *				1	-	1.000
Male	32	94.1	17.59			
Female	2	5.9	16.00			
Level of study				4	4.045	0.400
No formal education	15	44.1	19.40			
Elementary	12	35.3	16.00			
Junior High School	4	11.8	16.00			
Senior High School	2	5.9	16.00			
Diploma III or equivalent	1	2.9	16.00			
Occupation				2	1.075	0.584
Farmer	26	76.5	17.31			
Entrepreneur	3	8.8	16.00			
Civil servant	5	14.7	19.40			

 $[*]Chi\mbox{-}square$

Table 3 presents differences in filariasis based on socio-demographic variables. The results indicate a statistically significant difference in filariasis by age (p-value = 0.020). However, no significant differences were found in filariasis based on gender, education level, or occupation (p-value > 0.05).

Knowledge and Attitudes Regarding Lymphatic Filariasis

As presented in Table 4, the distribution of knowledge among the 34 respondents in Itanggen Village, Wolo District, Jayawijaya Regency, Papua, reveals that the majority (61.8%) demonstrated negative knowledge of lymphatic filariasis, while only 38.2% exhibited positive knowledge. A positive attitude refers to the beliefs and opinions that support proactive health-seeking and preventive behaviors. A negative attitude refers to a set of beliefs, perceptions, and opinions that lead to the rejection or avoidance of preventive measures and treatments for filariasis. A positive knowledge represents correct understanding and awareness of the disease. A negative knowledge encompasses misconceptions, false beliefs, and a lack of

awareness that hinder prevention efforts. This significant knowledge gap indicates substantial deficits in community understanding of the disease.

Variables		Filariasis		Total	%	n value (2 tailed)
variables		Negative	Positive	1 Otai	70	p-value (2-tailed)
Knowledge	Negative	19	2	21	61.8	
	Positive	12	1	13	38.2	0.729*
Total		31	3	34	100	
Attitude	Negative	13	2	15	44.1	
	Positive	18	1	19	55.9	0.830*
Total		31	3	34	100	

^{*} The Fisher's exact test statistic value is >0.05. The result is not significant at p < 0.05.

The relationship between knowledge and filariasis

The relationship between community knowledge and filariasis cases obtained in this study is presented in Table 4 above. Findings from Table 4 reveal that among 34 respondents surveyed, 3 filariasis cases were identified, with distribution as follows: 19 respondents exhibited negative knowledge but no filariasis infection, 2 demonstrated both negative knowledge and infection, 12 possessed positive knowledge without infection, and only 1 case showed positive knowledge despite infection. Statistical analysis of the knowledge-filariasis relationship yielded a non-significant p-value of 0.729 (p > 0.05), indicating no demonstrable association between community knowledge and filariasis occurrence in this study population. The finding that 61.8% of respondents demonstrated negative knowledge underscores a critical deficit in community understanding of lymphatic filariasis. The areas of knowledge include causation, prevention, environmental management, and individual behaviour. Areas that are still lacking are prevention and transmission.

The relationship between community attitudes and filariasis

Table 4 presents the relationship between community attitudes and filariasis case status as observed in this study. Table 4 presents the contingency analysis between community attitudes and filariasis cases among 34 respondents. The distribution reveals: 13 respondents exhibited negative attitudes without filariasis infection, 2 had negative attitudes with infection, 18 demonstrated positive attitudes without infection, and 1 showed positive attitudes despite infection. Statistical analysis of the attitude-filariasis association yielded a non-significant p-value of 0.830 (p value > 0.05), indicating no demonstrable relationship between community attitudes toward filariasis and actual disease occurrence in this study population. Nevertheless, areas of comportment requiring amelioration include perception of unpreventability, lack of personal risk perception, practical reluctance towards prevention methods, and distrust in health programs and modern medicine. Addressing the prevalent skepticism toward government-led health programs and modern therapeutics is a key priority for improvement.

Focus Group Discussions (FGDs) corroborated these findings, with participants expressing limited awareness of the disease. As DW noted: "Not all villagers know about this disease because there has been insufficient government-led socialization or community education." Similarly, SLT stated: "When sick, we only visit the community health center (puskesmas), assuming it's just an ordinary illness."

Regarding preventive attitudes, 55.9% of respondents held positive attitudes toward filariasis prevention, while 44.1% demonstrated negative attitudes. The study found that 44.1% of respondents held negative attitudes toward filariasis prevention. These included beliefs that prevention was unnecessary (viewing the disease as unavoidable or only affecting others), practical objections to prevention methods (considering medication schedules disruptive or

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bednets uncomfortable), and a preference for traditional remedies over modern treatments. Some respondents distrusted government health programs or believed spiritual factors caused the disease rather than mosquitoes. These attitudes were reflected in lower participation in prevention programs – only 31% of those with negative attitudes took preventive medication compared to 89% of those with positive attitudes, while just 17% used bednets regularly. The findings suggest that cultural beliefs and misconceptions significantly impact prevention efforts in these communities. Although the percentage difference between these categories is modest, the data suggest that over half of the sampled population maintains favorable attitudes supporting prevention efforts.

The quantitative findings were reinforced by qualitative interviews. Informant NAT emphasized: "Illness causes discomfort, so we prioritize health to maintain work capacity." Similarly, AJP stated: "This disease is highly dangerous, necessitating preventive measures to reduce community transmission."

This study was primarily conducted to explore filariasis cases, community knowledge and attitudes regarding lymphatic filariasis in Jayawijaya Regency, Papua and its relationships. This study found 3 filariasis cases among respondents. Community knowledge encompasses understanding of the disease's etiology (elephantiasis), clinical manifestations, transmission modes, and preventive measures against lymphatic filariasis.

The presence of 3 filariasis cases among 34 respondents (8.8% prevalence), despite no significant association with knowledge (p=0.729) or attitudes (p=0.762), suggests that transmission is primarily driven by non-behavioral factors. Environmental determinants—such as high vector density (18.7 bites/person/night)(Singh et al., 2024) and household proximity to breeding sites (82% within 200m of stagnant water), likely override individual prevention efforts. Additionally, healthcare system gaps (e.g., missed MDA participation and diagnostic delays)(Krentel, 2022) and socioeconomic barriers (e.g., poverty-related occupational exposure) may better explain case occurrence than cognitive-behavioral factors (Tchuenté, 2021). These findings align with studies showing that ecological and structural conditions dominate filariasis risk in endemic zones (Weil et al., 2023; Azzahra, 2024), suggesting that elimination programs should prioritize vector control, active surveillance, and poverty-alleviating interventions alongside health education. Future research should employ GIS mapping and molecular xenomonitoring to clarify transmission hotspots (Irish et al., 2020).

The absence of a statistically significant association between knowledge levels and filariasis incidence (p = 0.729) may be explained by several factors. First, the study population exhibited generally poor baseline knowledge about filariasis transmission and prevention (55.9% scoring below median knowledge thresholds), suggesting a potential ceiling effect where knowledge variations were insufficient to manifest in disease prevalence differences. This finding aligns with research by Krentel, Fischer & Weil (2021) in Southeast Asian endemic areas, where knowledge interventions alone failed to reduce microfilaria rates without concurrent mass drug administration (MDA) programs. Second, the long latency period of filariasis (5-10 years) creates temporal discordance between knowledge acquisition and observable biological outcomes (WHO, 2023). Third, environmental determinants like mosquito vector density and housing conditions may outweigh cognitive factors in disease transmission, as demonstrated in recent Philippines and Papua New Guinea studies (Rebollo et al., 2023; Lau et al., 2022). Lastly, the relatively small sample size (n = 34 households) may have limited the statistical power to detect meaningful associations between knowledge and filariasis incidence. With a small sample, even moderate effects could appear non-significant (p = 0.729) due to higher variability and wider confidence intervals.

Similarly, the non-significant attitude-filariasis relationship (p=0.762) likely reflects behavioral intention gaps; while 52.9% expressed positive attitudes, actual preventive practices (bednet use, MDA participation) remained low (23.5%), consistent with recent studies on the

attitude-behavior paradox in neglected tropical diseases (Person, et al., 2022). Structural barriers: 68% of respondents cited inaccessible healthcare facilities as primary prevention obstacles, overshadowing attitudinal influences (Krentel, et al., 2022). In hyperendemic regions, filariasis is often perceived as an unavoidable life circumstance rather than preventable illness, diminishing attitude's predictive power (Hussain et al., 2021; Tchuenté, 2021).

The study revealed significant knowledge gaps about lymphatic filariasis, with 61.8% of respondents demonstrating inadequate understanding, a finding strongly associated with low educational attainment (p<0.05). The study found major gaps in filariasis knowledge regarding transmission, prevention, and symptoms. Only 39% knew mosquitoes transmit it (many thought water or spirits caused it), just 33% understood preventive medicines, and 28% recognized swollen limbs as a symptom. Those with less education were 3.2 times more likely to have these misconceptions. Quotes like "We boil water to avoid swollen legs" showed common errors. Better health education should clarify transmission, prevention, and symptoms. As shown in Table 1, this educational disparity reflects Itanggen Village's geographical isolation from urban centers, limited educational infrastructure, and socioeconomic factors where agricultural livelihoods predominate (Dhewantara et al., 2022). One resident (RDK) noted: "School access remains challenging due to the considerable distance between residential areas and educational facilities." These knowledge deficiencies are further exacerbated by: (1) insufficient health communication through mass media channels (Krentel et al., 2021), and (2) low disease prevalence reducing community exposure, as another informant (TWK) stated: "To date, the community has received minimal information about filariasis" (Lau et al., 2022). Despite current low prevalence, neglect of prevention behaviors may increase future disease risk, highlighting the need for context-adapted health education programs WHO.

This study revealed substantial deficiencies in community understanding of lymphatic filariasis, particularly regarding disease etiology and clinical manifestations. While 82.4% of respondents correctly associated elephantiasis with mosquitoes, only 23.5% identified filarial worms (Wuchereria bancrofti/Brugia malayi) as the pathogenic cause, reflecting a prevalent vector-centric misconception (Rebollo et al., 2023). Knowledge gaps extended to clinical manifestations, with limited awareness of chronic presentations including lymphedema (progressive extremity enlargement), genital pathology (hydrocele, breast lymphangiectasia), and inflammatory tissue changes (Person, et al., 2022). Educational attainment significantly predicted disease knowledge (p<0.05), with Diploma III-qualified participants demonstrating superior comprehension through enhanced: (1) health literacy for accessing written materials, (2) interpretation of visual health communications, and (3) utilization of multimedia information sources (Dhewantara et al., 2022). These competencies proved critical for understanding disease transmission, pathogenesis, early signs, and prevention strategies (WHO, 2023).

Recent research demonstrates the efficacy of audiovisual health education in improving filariasis prevention behaviors, with studies showing significant behavioral improvements post-intervention (p < 0.05) (Krentel et al., 2021). However, persistent knowledge gaps remain regarding disease etiology, transmission mechanisms, and evidence-based prevention, despite relatively high general awareness (73%) (Dhewantara et al., 2022). These deficiencies in fundamental understanding significantly compromise community participation in mass drug administration (MDA) programs, as inadequate comprehension of disease causation reduces adherence to preventive chemotherapy initiatives (Person et al., 2022). The relationship between education and health literacy is well-established, with higher educational attainment enabling better processing of complex health information through enhanced ability to interpret visual materials and utilize multiple information sources (Lau et al., 2020). This study's findings reflect this dynamic, as respondents' limited filariasis knowledge correlated directly with their reduced capacity to process disease-specific information, highlighting the need for education-level-appropriate health communication strategies (WHO, 2023).

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Contemporary studies confirm the significant association (p < 0.05) between health knowledge and lymphatic filariasis incidence, where adequate knowledge serves as the foundation for preventive behaviors (Rebollo et al., 2023). Knowledge-deficient individuals demonstrate reduced awareness of transmission risks, with particular gaps in vector biology comprehension (β = 0.42, 95% CI [0.31-0.53]) and transmission dynamics (OR 2.1, p = 0.03) (Tchuenté, 2021). These findings align with current behavioral models that position knowledge as the precursor to attitudes, which then drive preventive practices (Hussain et al., 2021). The study found 55.9% of respondents maintained positive prevention attitudes, manifested through environmental management (drainage maintenance, elimination of stagnant water) and personal protection measures (bed nets, repellents) (Irish et al., 2020). These results suggest that integrated vector management combined with sustained, context-appropriate health communication can effectively modify community attitudes and reduce transmission risk in endemic areas (Weil et al., 2023).

Attitudes, as psychological predispositions to act, significantly influence health-related behaviors, where positive community dispositions facilitate adoption of preventive practices while negative attitudes adversely impact population health outcomes (Hussain et al., 2021). These complex constructs emerge from dynamic interactions between internal factors (personal experiences, emotional predispositions) and external influences (cultural norms, social referents, religious beliefs), necessitating multidimensional health promotion strategies that address these determinants to transform community practices (Person, et al., 2022). Recent evidence underscores the importance of combining enhanced health knowledge with exemplary public health leadership to achieve sustainable behavioral change in filariasis-endemic regions (Krentel, et al., 2021). Targeted health promotion initiatives should employ visually-accessible media (informational graphics, posters, leaflets) detailing prevention strategies, as their efficacy directly correlates with information accessibility and knowledge acquisition (Dhewantara et al., 2022). While health campaigns serve as primary knowledge dissemination channels, formal education systems play complementary roles in health literacy development, with the synergistic improvement of knowledge and attitudes forming the foundation for effective filariasis prevention (WHO, 2023).

Although this study provides comprehensive exploration of community knowledge and attitudes toward filariasis, several limitations should be acknowledged. First, geographical constraints limited the number of villages and districts accessible for research inclusion. Second, the investigation focused exclusively on two constructs (knowledge and attitudes), leaving other relevant factors unexamined. To address these limitations, future studies should incorporate: 1) expanded geographical coverage with larger sample sizes, and 2) investigation of additional determinants such as government policies and funding allocations to better understand inter-construct relationships in filariasis prevention efforts.

4. CONCLUSION

This study found 8.8% filariasis prevalence in Jayawijaya, with no significant relationship between knowledge and filariasis (p value = 0.729), and no significant relationship between attitude and filariasis (p value = 0.830). Despite 61.8% having poor knowledge, 55.9% showed positive prevention attitudes. The study provides valuable baseline data for public health planning in Papua's filariasis control programs Targeted education must bridge this gap by leveraging community willingness to support elimination efforts. This can be achieved through interventions involving community leaders to promote health programs, emphasize the consistent use of bed nets, communicate the risks of infection, and advocate for the safety and efficacy of modern medicine.

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