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Research Article

COMMUNITY AWARENESS OF THE ANTI-RABIES ACT OF 2007: IMPLICATIONS FOR PUBLIC SAFETY AND DOG-RELATED INCIDENT PREVENTION

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Abstract

The purpose of this study was to analyze community awareness of the Anti-Rabies Act of 2007 (Republic Act No. 9482) among pet owners in Compostela, Davao de Oro, and to examine its implications for public safety and the prevention of dog-related incidents. Using a descriptive quantitative design, the researchers surveyed 382 pet owners from the five barangays with the highest populations using simple random sampling over a two-week data collection period. Data were collected using a validated, modified questionnaire that examined pet ownership practices, awareness of rabies prevention measures, challenges to compliance, and potential strategies to promote responsible pet ownership. Descriptive statistics, including median and interquartile range (IQR), were used to summarize the responses and assess variability across the sample. The findings suggest that most pet owners are highly aware of preventive actions such as vaccination and leash use; however, knowledge of the law's provisions and its enforcement remained limited. Identified challenges included weak policy enforcement, insufficient signage, and low community involvement. Despite these barriers, respondents expressed a willingness to support educational initiatives and stricter enforcement of the law. The study emphasizes the importance of improved awareness campaigns, stronger enforcement mechanisms, and additional resources to enhance public safety and promote responsible pet ownership.

Keywords: Community Awareness, Anti-Rabies Act of 2007, Responsible Dog Ownership, Public Health Policy, Rabies Prevention

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INTRODUCTION

Responsible pet ownership significantly contributes to public and community health and safety. Proper care, Control, and supervision of domestic pets, especially dogs, help reduce accidents, injuries, and the spread of zoonotic diseases like rabies. It also helps decrease the number of stray or wandering dogs in the community. In many areas, particularly in developing countries where law enforcement and public awareness are limited, there remains a significant risk of being bitten by an animal, especially a dog, despite existing regulations and awareness.

Many studies have found that free-roaming dogs are responsible for a significant share of road accidents worldwide. Seville has many traffic accidents involving dogs, while most of the rest of Europe has many involving wildlife. The rate of occurrence of these incidents is related to traffic levels during times when dogs are most active, namely dawn and dusk (Canal et al., 2018).

Similar patterns have been reported in various regions within Asia. In India, stray animals, particularly dogs, are involved in road traffic accidents; in fact, approximately 69% of all road traffic accidents involving other animals also involve dogs (Mohanty et al., 2021).

The severity of these accidents typically results in significant injury to two-wheeled-vehicle drivers, underscoring the seriousness of the issue. Similarly, stray dogs have caused significant dangers to motorists in the Philippines; for example, in the case of a motorist who died as a result of a stray dog crossing the road in Naval, Biliran (Amazona, 2021). There is an urgent need for stronger enforcement of pet-related laws in developing nations to reduce the number of dogs that become free-roaming and thereby pose a public safety risk.

Dog bites are a significant public health issue worldwide, not only from a traffic safety standpoint but also because they are among the most common animal-related injuries, with tens of millions of cases each year. In high-income countries like the US and UK, dog bite incidents lead to substantial healthcare costs and hospital stays, especially affecting children, who are at the greatest risk (Jakeman et al., 2020). Children are more vulnerable because they often cannot read dogs' signals easily. They frequently get bitten on the head or face, causing serious injuries. Research consistently shows that the most severely injured individuals—those who die or suffer major losses—are attacked by dogs that were poorly trained, unsocialized, or unsupervised. There have also been cases of unprovoked dog bites, in which someone is unexpectedly attacked (Giovannini et al., 2023).

Environmental and social factors also play a big role in dog bites. Studies show most bites happen at home and usually involve dogs the victim knows, not strays. For example, research in Detroit found that neighborhood dogs who got loose from their yards caused most bites, pointing to poor fencing and not watching them closely (Reese & Vertalka, 2020). In addition, there are socio-demographic disparities, wherein lower-income communities experience a disproportionate number of dog bite incidents due to limited information on safe behavior around dogs, inadequate dog training, and inadequate pet management (Tuckel & Milczarski, 2020). Due to the high number of dogs that wander freely and the lack of enforcement of animal control legislation, dog bite incidents are also more common in developing nations. For example, in Karachi, Pakistan, the majority of dog bite incidents occur in public areas and are related to stray dogs. Men and children are the two demographic groups most frequently affected by these incidents, which is consistent with prior research indicating that dog bites impose a greater public health burden in similar settings (Khan et al., 2022).

In many parts of the world, rabies still poses a serious threat to public health and greatly increases the risk of dog bite injuries. Although fatal rabies cases have decreased thanks to national prevention and control efforts, many new cases remain, especially in areas with low vaccination coverage and limited public awareness (Morilla et al., 2023). In the Philippines, children continue to be among the most common victims of dog bites, and their socio-demographic characteristics influence how they learn about rabies and respond to prevention strategies (De Lima & Oruga, 2023). For example, in Davao City, local initiatives, such as school-based education programs, have been implemented to raise awareness of rabies prevention and how to interact safely with dogs (Lachica et al., 2021).

Dog-related deaths are still rare, but they reflect the devastating result when dogs are allowed to interact with people in an uncontrolled manner. Apart from traumatic injuries, deaths may also occur due to infections from bacteria, potentially leading to sepsis after a person is bitten by a dog (Byard & Langlois, 2020). These findings indicate a need for a comprehensive prevention strategy that includes responsible pet ownership, stronger enforcement of pet ownership regulations, the establishment of vaccination programs, and ongoing public education.

Even though national and local policies are in place, many community members still lack adequate knowledge of the Anti-Rabies Act of 2007 and do not always comply with it, especially in certain areas. While past studies have shown the risks posed by stray dogs, only a few have examined how people's awareness, everyday practices, and the challenges they face affect the actual implementation of these policies in places like Compostela, Davao de Oro. Bridging this gap is crucial to crafting focused, long-term strategies that enhance public safety and reduce dog-related incidents.

This research draws on key ideas from behavioral and social sciences to explain how communities become aware of and act on rabies prevention. Social Norms Theory (Berkowitz, 2004) shows that people tend to follow what they perceive as normal or acceptable in their group. The Theory of Planned Behavior (Ajzen, 1991) explains that our intentions arise from our attitudes, perceived social norms, and perceived Control. The Diffusion of Innovations Theory (Rogers, 1962) examines how new ideas spread through communication and connections, encouraging people to adopt them. Together, these theories help illustrate how awareness of the Anti-Rabies Act of 2007 translates into everyday actions.

This study examines how residents of Compostela, Davao de Oro, understand the Anti-Rabies Act of 2007 and how this awareness shows their everyday behavior. Specifically, it seeks to identify the measures respondents use to prevent their dogs from wandering, assess their awareness of the safety implications, and determine the challenges they encounter in complying with existing regulations. Additionally, the study contributes to the development of initiatives that support responsible pet ownership, especially regarding dog leashes, regular vaccinations, and adherence to responsible ownership regulations.

This study's findings are expected to help improve the implementation of local policies and strengthen community safety. For local government units, the results may also provide practical guidance for improving ordinances and enforcement practices. Animal welfare organizations may use the information to develop more focused programs that encourage responsible pet ownership. For pet owners and the community, the study raises awareness of the dangers associated with roaming dogs and promotes safer practices. It can also be used as a reference for future studies on public safety, animal control, and community health in similar settings.

METHODS

Research Design

This study employed a quantitative descriptive research design to determine the level of community awareness among pet owners in Compostela, Davao de Oro, regarding the Anti-Rabies Act of 2007 and its implications for responsible dog ownership and public safety. A quantitative descriptive approach describes and measures a population's characteristics by collecting numerical data and identifying patterns or trends (Ghanad, 2023). This method is well-suited to the study because it allows us to systematically assess respondents' awareness, practices, and challenges related to responsible pet ownership.

Using a quantitative approach enabled the researchers to collect data that could be measured and analyzed statistically to identify patterns and trends in the target population. This approach promotes objective data collection and provides a strong foundation for determining the community's level of awareness and practices in accordance with the Anti-Rabies Act of 2007.

Research Locale

This research was conducted in several barangays of the Municipality of Compostela, Davao de Oro. Compostela is a first-class municipality in the province of Davao de Oro, Philippines. The municipality consists of 16 barangays: Aurora, Bagongon, Gabi, Lagab, Mangayon, Mapaca, Tamia, Maparat, New Alegria, Ngan, Osmeña, Panansalan, Poblacion, San Jose, San Miguel, and Siocon. As of the 2020 census, the population was 89,884. The top five barangays selected by the researchers, based on the highest population, were Barangay Poblacion (22,193) or about 24.69% of the total population, Barangay Maparat (11,281) or approximately 12.55%, Barangay Ngan (8,982) or about 9.99%, Barangay San Miguel (7,639) or roughly 8.50%, and Barangay Osmeña (5,837) or around 6.49% of the overall population of Compostela, Davao de Oro (PhilAtlas, 2020).

Furthermore, these barangays represented a significant portion of Compostela's population. They were chosen for this study because of their high population density, which increased the chances of dog-related incidents. In densely populated areas, interactions with wandering dogs were more common, making these barangays key focus points for understanding the issue. The surveys conducted in these barangays provided valuable insights into residents' knowledge and actions regarding dog safety. Additionally, these barangays provided a diverse cross-section of the municipality, enabling researchers to collect data to inform targeted interventions addressing dog-related safety concerns.

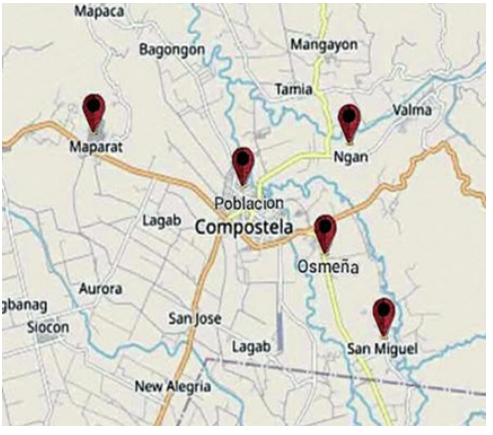

Figure 1. Vicinity Map of the Study

Research Respondents

The researchers employed simple random sampling, a basic probability sampling technique, to ensure that every member of the population had an equal chance of being selected. As a result, this approach promotes objective representation and improves the accuracy of the collected data. The study's respondents included 382 pet owners living in the selected barangays of Compostela, specifically Poblacion, Maparat, Ngan, San Miguel, and Osmeña. Using a 95% confidence level, a 5% margin of error, and assuming that 50% of the population possesses the characteristic of interest, the Raosoft sample size calculator indicated that 382 respondents were necessary. This number ensures the sample is sufficiently large to reflect the population and produce reliable data for accurate analysis.

Moreover, respondents were chosen from the designated barangays using simple random sampling. Household lists were obtained from barangay officials. Respondents were randomly selected from these lists to give all eligible pet owners an equal chance to participate in the survey. Participation was completely voluntary, and only those who owned dogs or were responsible for their care were included in the sample. People who did not own dogs, were temporary residents, or were not directly involved in pet care were excluded to keep the data relevant. The distribution of respondents across the selected barangays is shown below.

Table 1. Distribution of Respondents

Barangays	Actual Respondent	Percentage
Barangay Poblacion	152	39.79%
Barangay Maparat	77	20.16%
Barangay Ngan	61	15.97%
Barangay San Miguel	52	13.61%
Barangay Osmeña	40	10.47%
TOTAL	**382**	**100%**

Research Instrument

A modified research questionnaire was used to assess the knowledge of Compostela residents regarding the 2007 Anti-Rabies Act. The instrument was adapted from Sison et al. (2021) and revised to align with the objectives of the present study. After being given to the research adviser for revision, the preliminary document was validated by the panel of experts to ensure its validity and reliability.

The researchers used a 4-part survey to collect the primary data for this study. The survey's first part included variables on the practices respondents used to prevent their dogs from wandering. The second part measured the level of awareness of safety with the prohibition of dogs wandering. The third part identified the obstacles respondents faced when prohibiting dogs from wandering, and the last part included possible strategies to strengthen community safety practices in Compostela, including dog leash laws, regular vaccination, and responsible dog ownership.

Data Gathering Procedure

The researchers used the following methods to collect data for this study:

First, they completed preparatory steps before gathering data, including sending a request letter to the criminology department head and obtaining approval from the Research Ethics Committee. After receiving the necessary approvals, they prepared the instruments, including the research-approved questionnaire, for surveying barangay residents. This process was legal and backed by the appropriate documents, enabling the researchers to proceed.

Second, the researchers determined the exact number of respondents. They sent a request letter to the respective barangays to find out how many participants were needed. After reviewing the necessary forms, the Research Ethics Committee (REC) issued a Certificate of Approval.

Third, once approval was granted, the researchers sent the Informed Consent/Assent Form to ask for permission and confirm respondents' availability to participate in the survey.

Fourth, the survey was conducted with the target respondents, following the recommendation and approval of the Research Ethics Committee (REC) of Davao de Oro State College. This also involved submitting an approval request letter to the Barangay Captain for the distribution and collection of the questionnaires.

Finally, the responses were tallied, recorded, and summarized in an Excel spreadsheet. The data were analyzed using SPSS. With the assistance of the researchers' statistician, this study addressed the issues outlined in the problem statement.

Data Analysis

The data were organized and examined to assess respondents' awareness levels. The median was used to represent the typical level of awareness, while the interquartile range (IQR) indicated the variability in responses. These measures were chosen because the data were not normally distributed.

Median. The median was used to identify the center of the respondents' awareness distribution. It shows the value in the middle when responses are ordered from lowest to highest. Unlike the mean, the median is less affected by extreme values. This helps when some responses are unusually

different from the rest. Using the median allowed researchers to determine the most common level of awareness in the community.

Interquartile Range (IQR). The IQR was calculated to understand how spread out the awareness levels were in the community. It provided a measure of response diversity by focusing on the middle 50% of the data. The IQR, the difference between the first quartile (25th percentile) and the third quartile (75th percentile), provided insight into the variability of awareness. A smaller IQR indicated that most respondents had similar awareness levels, while a larger IQR showed a wider spread in responses.

Ethical Considerations

Throughout the study, the researchers ensured participants' rights, privacy, and well-being were fully protected. Participation was entirely voluntary and based on informed consent, without any inducements or pressure. The purpose, procedures, and potential risks were explained in simple language, and respondents were given sufficient time to decide whether to participate. Adult participants signed consent forms written in Filipino or Cebuano, while illiterate individuals provided verbal consent in the presence of a witness. Participants could withdraw at any time without facing consequences. To respect community dynamics, data collection was coordinated with barangay officials to avoid disruption and maintain cooperation.

Privacy and Confidentiality were preserved through anonymous or coded responses, with no personal identifiers collected. Digital files were password-protected and encrypted, accessible only to the researchers. All survey materials were stored in locked cabinets. Data were kept for a limited time and securely destroyed afterward. Since the study involved minimal risk and relied solely on survey data, no physical harm was expected, and any discomfort from sensitive questions was addressed through supportive communication and the option to skip or stop participation. No conflicts of interest were found, and all ethical issues were managed in accordance with national guidelines to ensure integrity, safety, and respect for participants.

RESULTS AND DISCUSSION

Practices Used by Respondents to Prevent Dogs from Wandering

Table 2 presents the level of practices adopted by respondents to prevent their dogs from wandering in the community.

Table 2. Level of Practice to Prevent Dogs from Wandering

Item	Statement	Median	IQR	Descriptive Level
1	I regularly ensure my pets are vaccinated against rabies.	5	1	Very high
2	I am aware of the risk of rabies transmission through dog bites or scratches.	5	1	High
3	I am aware of the fines and penalties under RA 9482 for non-compliance.	4	2	High
4	I am aware of the local ordinances regarding responsible pet ownership.	4	1	High
5	I make sure my pets are supervised when they are outside my home.	4	1	High
6	I do not let my pets walk alone on the roads.	4	1	High
7	I installed fences and enclosures to prevent my pets from going outside.	4	2	High
8	I ensure my pets do not become a public nuisance.	4	2	High
9	I use a leash whenever I walk my pets.	5	1	Very high
10	I keep my pet inside the cage.	4	2	High

The results show that many respondents regularly practice responsible pet ownership. Vaccinating pets against rabies had a median score of 5 and an interquartile range (IQR) of 1, indicating consistent compliance. Similarly, awareness of rabies transmission risks through dog bites

or scratches was reported, with a median of 5 and an IQR of 1, indicating strong knowledge of rabies-related health dangers.

Practices related to pet control and supervision also demonstrated high compliance. Using a leash when walking dogs had a median of 5 and an IQR of 1, suggesting widespread practice among respondents. Additionally, supervising pets outside the home, preventing dogs from roaming on roads, and being aware of local ordinances all had median scores of 4 with relatively low variability, indicating general adherence to basic control measures.

However, practices needing physical infrastructure and confinement were less consistently followed. Installing fences or enclosures and keeping dogs in cages both had median values of 4 with higher IQRs of 2, reflecting variability in responses. This suggests that while respondents understand the importance of restricting dog movement, some may face difficulties in fully implementing these measures.

These findings align with Brookes et al. (2020), who emphasized that local norms, cultural contexts, and available resources often influence dog management practices. Their study highlighted that effective dog control strategies should be community-based and culturally sensitive, as external standards that ignore local realities may limit compliance. This supports the current results, which show that high awareness does not always lead to uniform practice, especially for resource-dependent measures such as fencing and confinement.

Similarly, Rand et al. (2023) reported that although many dog owners support pet confinement, many animals still roam freely due to environmental and logistical challenges. This gap between attitudes and actual practices is reflected in the current study, where respondents show strong support for responsible ownership but vary in their implementation of certain control measures.

Further evidence comes from Forrest et al. (2023), who found that while pet owners generally value their animals and recognize responsible practices, behaviors such as allowing pets to roam are still common and pose public safety risks. Their findings stress the need for accessible veterinary services and ongoing education to reinforce responsible pet ownership, especially in communities with limited resources.

Additionally, Bouaddi et al. (2020) identified knowledge and practice gaps regarding rabies prevention in Morocco, particularly regarding transmission and control measures. These findings indicate that awareness alone is not enough, and socioeconomic factors and access to information greatly influence responsible pet ownership.

Overall, the results show that while respondents in Compostela are aware of and support vaccination and supervision, challenges persist in consistently enforcing confinement measures. This emphasizes the need for coordinated efforts in community education, resource support, and culturally appropriate interventions to promote responsible pet ownership and reduce risks posed by wandering dogs.

Level of Awareness of Safety on the Prohibition of Dog Wandering

Table 3 shows respondents' level of awareness regarding safety related to the prohibition on dogs wandering in the community.

Table 3. Level of Awareness on Dog Wandering Prohibition

Item	Statement	Median	IQR	Descriptive Level
1	I regularly ensure my pets are vaccinated against rabies.	5	1	Very high
2	I am aware of the risk of rabies transmission through dog bites or scratches.	5	0	Very high
3	I am aware of the fines and penalties under RA 9482 for non-compliance.	4	2	High
4	I am aware of the local ordinances regarding responsible			

	pet ownership.	4	1	High
5	I make sure my pets are supervised when they are outside my home.	4	1	High
6	I do not let my pets walk alone on the roads.	4	2	High
7	I installed fences and enclosures to prevent my pets from going outside.	4	2	High
8	I ensure my pets do not become a public nuisance.	4	2	High
9	I use a leash whenever I walk my pets.	5	1	Very high
10	I keep my pet inside the cage.	4	2	High

The results indicate that respondents demonstrate very high awareness of rabies prevention and pet safety practices. Ensuring pets are vaccinated against rabies was reported by a median of 5, with an interquartile range (IQR) of 1. In contrast, awareness of rabies transmission through dog bites or scratches was reported by a median of 5 (IQR: 0), indicating strong consensus among respondents regarding the importance of rabies prevention.

Similarly, awareness of responsible dog handling practices is evident. The use of a leash when walking dogs was reported at a median of 5 and an IQR of 1, suggesting that respondents clearly recognize the role of proper restraint in reducing risks associated with dog bites, road accidents, and public safety hazards. These findings indicate that respondents possess a strong understanding of preventive measures that contribute to both human safety and animal welfare.

However, awareness related to legal and regulatory aspects of responsible pet ownership is comparatively lower. Awareness of fines and penalties under the Anti-Rabies Act of 2007 was 4 (IQR 2), while awareness of local ordinances was 4 (IQR 1). Although these values still fall within the “high” category, the greater variability suggests that not all respondents have comprehensive knowledge of legal responsibilities and enforcement mechanisms.

These results align with the research conducted by Jose et al. (2019), which reported that while pet owners are generally aware of rabies prevention practices, their knowledge of the specific provisions and penalties under Republic Act 9482 remains limited. According to the study, many respondents were unaware of key legal requirements, including dog registration, vaccination compliance, and leash laws, indicating gaps in legal literacy among pet owners.

Further support is provided by Thichumpa et al. (2024), who emphasized the need for pet-safety education and rabies awareness to promote responsible pet ownership. Their study demonstrated that school-based interventions, such as School-Based Pet Responsibility (SBPR) programs, significantly enhanced participants’ understanding of dog care, vaccination, and safety practices. However, they also identified challenges, including limited engagement, inadequate integration into formal education systems, and insufficient media coverage, which contribute to persistent gaps in awareness.

The findings also suggest that awareness is influenced by access to education and by the dissemination of information. Thichumpa et al. (2024) highlighted that low awareness is often associated with inadequate health education and limited public information campaigns. This reinforces the need for continuous and targeted educational initiatives that extend beyond schools and reach broader community populations.

The results indicate that while respondents have strong awareness of health-related aspects of proper pet ownership, especially regarding safety precautions and rabies prevention, there is a need to strengthen legal awareness and understanding of policies. Enhancing public education programs, improving communication strategies, and increasing community engagement are crucial to bridging these gaps and promoting full compliance with dog control regulations.

Obstacles in Preventing Dogs from Wandering

Table 4 presents the obstacles respondents encountered in preventing their dogs from wandering.

Table 4. Level of Challenges in Preventing Dog Wandering

Item	Statement	Median	IQR	Descriptive Level
1	I am not a responsible pet owner.	1	1	Very low
2	I find the enforcement of policies prohibiting dog wandering lenient.	4	1	High
3	I notice a lack of local ordinances that prohibit dog wandering.	4	1	High
4	The penalties for animal wandering violators are too light.	3	2	Moderate
5	I observe that no convictions are made for violators of the dog wandering ordinance.	3	2	Moderate
6	I disregard the risk of the dog wandering.	2	1	Low
7	I see a lack of resources, like signage or warning signs, to prevent dog wandering.	4	2	High
8	I am not familiar with the policies on dog wandering.	2.5	1	Low
9	I do not see enough concerned citizens reporting stray dogs on the road.	4	1.75	High
10	I struggle with a lack of space in my premises, which is why my dog stays outside.	3	2	Moderate

The results indicate that the most prominent obstacles are related to policy enforcement and community-level systems rather than personal irresponsibility. Respondents perceived the enforcement of policies prohibiting dog wandering as relatively weak, with a median of 4 and an interquartile range (IQR) of 1, suggesting a high level of concern about inconsistent enforcement. Similarly, the perceived lack of local ordinances and insufficient infrastructure, such as signage or warning materials, both had median values of 4, with IQRs ranging from 1 to 2, suggesting that institutional support mechanisms may be inadequate for addressing dog wandering effectively.

Community participation also emerged as a significant concern. The perceived lack of citizen reporting of stray dogs recorded a median of 4 and an IQR of 1.75, indicating that although residents recognize the presence of wandering dogs, active community involvement in monitoring and reporting remains limited. This suggests that collective action and shared responsibility in addressing dog wandering may still be underdeveloped.

Moderate obstacles were observed regarding enforcement outcomes and environmental constraints. The perception that penalties for violators are too light and the belief that convictions are rarely made both recorded median values of 3 with IQRs of 2, indicating moderate uncertainty or mixed perceptions regarding enforcement effectiveness. Likewise, limited space within household premises was also identified as a moderate constraint, suggesting that environmental or housing conditions may contribute to the difficulty of confining dogs.

In contrast, statements about personal responsibility received low agreement. The item “I am not a responsible pet owner” obtained a median of 1 and an IQR of 1, indicating very low agreement among respondents. Similarly, despite the risks of dog wandering and limited knowledge of relevant policies, both received low median scores, suggesting that respondents generally acknowledge their responsibilities and are aware of the associated risks.

These findings imply that obstacles to preventing dog wandering are largely shaped by systemic, structural, and community-level factors, rather than individual attitudes alone. Shih et al. (2023) observed similar results, highlighting that weak enforcement mechanisms and inconsistent responses to animal-related concerns often influence gaps between policy awareness and behavioral compliance. Their study highlights that even when owners recognize appropriate behaviors, compliance may remain low if regulatory systems are not effectively implemented.

Further support is provided by Tiwari et al. (2019), who noted that although communities may favor humane and organized dog population control initiatives such as Animal Birth Control (ABC), the sustainability of these interventions is often constrained by limited funding, logistical challenges, and resource constraints. These structural limitations mirror the current findings, which identify infrastructure and enforcement-related concerns as major barriers.

Additional insight is provided by McManus et al. (2021), who highlighted that social systems and public understanding significantly influence human–animal interactions. Their study showed that limited public awareness of proper animal management practices and behavioral expectations can contribute to misunderstandings and ineffective control measures. This supports the present findings, which indicate that community participation and awareness of reporting mechanisms are insufficient to address dog-wandering issues fully.

Moreover, studies on rabies-related knowledge and misconceptions further reinforce the importance of addressing informational gaps in community settings. Dizon et al. (2022) found that although awareness of rabies is generally high, Misconceptions about transmission and prevention persist, demonstrating that information alone does not necessarily lead to effective preventive action. This underscores the need for comprehensive, targeted education campaigns to strengthen both awareness and practical compliance.

The findings suggest that the barriers to preventing dog wandering in the community are primarily rooted in weak enforcement systems, limited infrastructure, and insufficient community engagement, rather than a lack of personal responsibility among pet owners. Addressing these challenges may require strengthened policy implementation, improved local infrastructure, and sustained community-based education and participation initiatives to promote safe pet ownership and reduce dog-wandering incidents.

Strategies to Strengthen Responsible Dog Ownership Practices

Table 5 presents the strategies identified by respondents to strengthen responsible dog ownership practices in the community.

Table 5. Level of Strategies to Strengthen Responsible Dog Ownership

Item	Statement	Median	IQR	Descriptive Level
Dog Leash				
1	Strict enforcement of dog leash laws in public areas.	5	1	Very high
2	Awareness campaigns about the importance of leash use for dogs.	4	1	High
3	Penalizing dog owners who fail to use a leash in public spaces.	4	2	High
	Composite	**5**	**1**	**Very high**
Regular Vaccination				
4	Encouraging pet owners to register vaccinated dogs with the LGU.	5	1	Very high
5	Educating the public about the importance of dog vaccinations.	5	1	Very high
6	Displaying vaccination reminders in community centers.	5	1	Very high
	Composite	**5**	**1**	**Very high**
Responsible Dog Ownership				
7	Establishing a barangay-wide dog registration and monitoring system.	5	2	High
8	Community workshops or seminars on responsible pet ownership.	4	1	High
9	Installing signage in public spaces with tips on responsible dog care.	5	1	Very high
	Composite	**5**	**1**	**Very high**

The recommended measures are primarily based on Republic Act 9482 (Anti-Rabies Act of 2007), which declares the State's policy to protect public health by controlling and eliminating rabies. The law defines stray dogs as those that leave the owner's premises and are not under effective Control, and it mandates penalties, including impoundment, for violations. It also highlights the importance of keeping pets under Control and forbids letting dogs run loose in public areas without a leash. Likewise, it assigns local government units the responsibility to enforce dog control measures, including impounding and monitoring activities, to ensure compliance with rabies prevention policies (RA 9482, Sec. 2, Sec. 5, Sec. 7).

For dog leash practices, the results show strong community support for regulatory and preventive measures. Strict enforcement of dog leash laws in public areas obtained a median of 5 with an interquartile range (IQR) of 1, indicating very high agreement among respondents. Awareness campaigns on the importance of leash use and penalties for non-compliance both recorded median values of 4, with IQRs ranging from 1 to 2, reflecting strong support for both educational and enforcement-based approaches.

These findings align with RA 9482, which clearly mandates that pet owners must maintain Control of their dogs at all times and prevent them from roaming in public places (Sec. 5). The strong support for enforcement reflects community recognition that regulatory compliance is essential in reducing dog wandering and ensuring public safety. Similar findings in the literature emphasize that effective dog control requires both enforcement mechanisms and sustained public education to ensure behavioral compliance and long-term impact.

All strategies related to regular vaccination received very high ratings from respondents, each obtaining a median of 5 and an IQR of 1. These include promoting pet registration with the local government unit (LGU), raising awareness of the value of vaccinations, and posting vaccination reminders in community centers. These results indicate a strong community commitment to rabies prevention and disease control.

This is consistent with the provisions of RA 9482, which require dog vaccination as a primary responsibility of pet owners to prevent rabies transmission. The high level of support suggests that respondents recognize vaccination not only as a legal obligation but also as a critical public health intervention. Prior studies on rabies prevention emphasize that sustained vaccination coverage, combined with community education, is among the most effective strategies for eliminating rabies at the local level.

For responsible dog ownership, establishing a barangay-wide dog registration and monitoring system and installing signage in public spaces both obtained median values of 5 with an IQR of 1, indicating very strong support among respondents. Community workshops on responsible pet ownership recorded a median of 4 (IQR 1), suggesting high but comparatively lower support.

These strategies directly reflect the implementation mechanisms outlined in RA 9482, particularly the role of local government units in enforcing dog registration, confinement, and impounding policies (Sec. 7). The strong support for registration systems and public information signage indicates that respondents value structured governance and continuous information dissemination as tools for promoting responsible ownership. Meanwhile, the slightly lower rating for workshops may suggest varying levels of community participation or engagement in formal educational activities.

Overall, the composite medians for all three categories, dog leash, regular vaccination, and responsible dog ownership were 5 with an IQR of 1, highlighting very high community support for measures that enhance responsible pet ownership and public safety. These findings suggest that interventions combining regulatory enforcement, public education, and community engagement are likely to be effective in sustaining safe dog management practices.

CONCLUSION

This study found that the community of Compostela generally demonstrates a high level of understanding and dedication to proper pet ownership, especially regarding Republic Act No. 9482, the Anti-Rabies Act of 2007. Pet owners frequently take precautions, including using leashes, getting regular vaccinations, and staying informed about rabies risks. However, practices requiring physical confinement, such as fences or enclosures, are less consistently implemented, likely due to resource and infrastructural constraints.

In terms of awareness of safety and prohibition, the community demonstrates a high level of awareness of health and safety measures related to dog wandering, particularly regarding rabies prevention and leash use. Awareness of legal provisions under the Anti-Rabies Act of 2007 and related local ordinances is moderately high but less consistent, suggesting the need for stronger educational efforts regarding legal responsibilities.

Furthermore, the study also identified several obstacles to prohibiting dog wandering. These challenges are largely systemic, including weak enforcement of policies, unclear local ordinances, insufficient signage, and limited community reporting of stray dogs. These findings highlight a gap between awareness and practical implementation, indicating the importance of stronger institutional support and improved community engagement.

In addition, respondents viewed various strategies, such as stricter enforcement of leash laws, awareness campaigns, vaccination drives, dog registration programs, and community education on responsible ownership, positively. These actions support the objectives of the Anti-Rabies Act of 2007 and may support improved public safety when consistently implemented.

However, this study has several limitations. The data were collected only from selected barangays in Compostela. This might restrict how far the results can be applied. In addition, the self-reported survey results used in the study might be affected by response bias. The descriptive research approach also makes it difficult to demonstrate causal links between awareness and reductions in dog-related occurrences.

Future research may expand the scope to include more barangays or other municipalities, incorporate qualitative methods to explore community perspectives in greater depth, and examine the effectiveness of specific intervention programs or policy implementations for preventing rabies and responsibly keeping pets.

Overall, the study indicates that although community knowledge of responsible dog ownership and safety precautions is typically high, strengthening legal awareness, improving policy enforcement, and fostering collaboration between local authorities and residents remain essential for promoting public health and minimizing dog-related risks.

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Conflict of Interest

The researchers state that there is no conflict of interest in publishing this study.

Ethical Statement

This study followed the proper ethical guidelines for research involving human participants. The Davao de Oro State College Research Ethics Committee (DDOSC-REC) assessed and approved it in accordance with the REC Protocol Code: 710-03-2025 and Control No. DDOSC8372025. The study was evaluated under an Expedited Review and was authorized for implementation from April 03, 2025, to September 02, 2025. The research was conducted in accordance with the National

Ethical Guidelines for Research Involving Human Participants (2022) and other internationally recognized ethical standards. All respondents provided informed consent before participation, and Confidentiality, voluntary involvement, and the ability to withdraw were strictly adhered to.

REFERENCES

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Amazona, R. (2021, February 18). *Stray dog causes fatal road accident in Biliran town*. Philippine News Agency. https://www.pna.gov.ph/articles/1131035

Berkowitz, A. D. & Independent Consultant. (2004). *The social norms approach: Theory, research, and annotated bibliography*. http://www.alanberkowitz.com/articles/social_norms.pdf

Bouaddi, K., Bitar, A., Bouslikhane, M., Ferssiwi, A., Fitani, A., & Mshelbwala, P. P. (2020). Knowledge, attitudes, and practices regarding rabies in the El Jadida region, Morocco. *Veterinary Sciences*, *7*(1), 29. https://doi.org/10.3390/vetsci7010029

Brookes, V. J., Ward, M. P., Rock, M., & Degeling, C. (2020). One health promotion and the politics of dog management in remote, northern Australian communities. *Scientific Reports*, *10*(1), 12451. https://doi.org/10.1038/s41598-020-69316-0

Byard, R. W., & Langlois, N. E. (2020). Variable mechanisms of dog-related deaths. *American Journal of Forensic Medicine & Pathology*, *41*(4), 287–290. https://doi.org/10.1097/paf.0000000000000578

Canal, D., Martín, B., de Lucas, M., & Ferrer, M. (2018b). Dogs are the main species involved in animal-vehicle collisions in southern Spain: Daily, seasonal, and spatial analyses. *PLoS ONE*, *13*(9), e0203693. https://doi.org/ 10.1371/journal.pone.0203693

De Lima, S. S., & Oruga, M. D. (2020). *Relationship of socio-demographic profiles to the knowledge on rabies and practices on rabies control program of selected animal bite victims in Laguna, Philippines*. https://jmds.upou.edu.ph/index.php/journal/article/view/36

Dizon, T. J. R., Saito, N., Inobaya, M., Tan, A., Reñosa, M. D. C., Bravo, T. A., Endoma, V., Silvestre, C., Salunga, M. A. O., Lacanilao, P. M. T., Guevarra, J. R., Kamiya, Y., Lagayan, M. G. O., Kimitsuki, K., Nishizono, A., & Quiambao, B. P. (2022). Household survey on owned dog population and rabies knowledge in selected municipalities in Bulacan, Philippines: A cross-sectional study. *PLOS Neglected Tropical Diseases*, *16*(1), e0009948. https://doi.org/10.1371/journal.pntd.0009948

Forrest, R., Awawdeh, L., Pearson, M., & Waran, N. (2023). Pet ownership in Aotearoa New Zealand: A national survey of cat and dog owner practices. *Animals*, *13*(4), 631. https://doi.org/10.3390/ani13040631

Ghanad, A. (2023). An overview of quantitative research methods. *International Journal of Multidisciplinary Research and Analysis*, *6*(8). https://doi.org/10.47191/ijmra/v6-i8-52

Giovannini, E., Roccaro, M., Peli, A., Bianchini, S., Bini, C., Pelotti, S., & Fais, P. (2023). Medico-legal implications of dog bite injuries: A systematic review. *Forensic Science International*, *352*, 111849. https://doi.org/10.1016/j.forsciint.2023.111849

Jakeman, M., Oxley, J. A., Owczarczak-Garstecka, S. C., & Westgarth, C. (2020). Pet dog bites in children: Management and prevention. *BMJ Pediatrics Open*, *4*(1), e000726. https://doi.org/10.1136/bmjpo-2020-000726

Jose, R. S., Magsino, P. J., & Bundalian, R. (2019). Pet owners' awareness of RA 9482 (Anti-Rabies Act of 2007) in Magalang, Pampanga, Philippines. *Heliyon*, *5*(5), e01759. https://doi.org/10.1016/j.heliyon.2019.e01759

Khan, U. R., Soomar, S. M., Ghazi, S. M., Naeem, R., Kerai, S., & Jamali, S. (2023). Epidemiological pattern and management of dog bite injuries in Karachi, Pakistan: A cross-sectional study. *Injury*, *54*, 110473. https://doi.org/10.1016/j.injury.2022.11.016

Lachica, Z. P. T., Ang, J. D. G., Dy, P. D. L., Arrieta, C. Y. T., Ong, A. R., Mata, M. A. E., Alviola, P. A., IV, Davao Christian High School V. Mapa Campus, Department of Mathematics, Physics, and Computer Science, College of Science and Mathematics, University of the Philippines Mindanao, & School of Management, University of the Philippines Mindanao. (2021). School-based information and education campaign (IEC) program and students' knowledge gain about rabies in a private school in Davao City, Philippines. *In Philippine Journal of Science* (Vols. 150–5, pp. 887–899) [Journal-article]. https://tinyurl.com/2zzvmj29

McManus, B., Good, G., & Yeung, P. (2021). Interactions between the public and assistance dog handlers and trainers. *Animals*, *11*(12), 3359. https://doi.org/10.3390/ani11123359

Mohanty, C. R., Radhakrishnan, R. V., Jain, M., Sasmal, P. K., Hansda, U., Vuppala, S. K., & Doki, S. K. (2021). A study of the pattern of injuries sustained from road traffic accidents caused by impact with stray animals. *Journal of Emergencies, Trauma and Shock*, *14*(1), 23. https://doi.org/10.4103/jets.jets_29_20

Morilla, R. B. G., Cabanlit, K. L., Luga, A. M. F., Demayo, C. J., Sidic, J. B., & Demayo, C. G. (2022). Assessing six decades of rabies in the Philippines. *International Journal of Public Health Science (IJPHS)*, *12*(1), 1. https://doi.org/10.11591/ijphs.v12i1.21956

PhilAtlas. (2020). *Compostela, Davao de Oro profile*. https://www.philatlas.com/mindanao/r11/davao-de-oro/compostela.html

R.A. 9482. (n.d.). https://lawphil.net/statutes/repacts/ra2007/ra_9482_2007.html

Rand, J., Ahmadabadi, Z., Norris, J., & Franklin, M. (2023). Attitudes and beliefs of a sample of australian dog and cat owners towards pet confinement. *Animals*, *13*(6), 1067. https://doi.org/10.3390/ani13061067

Reese, L. A., & Vertalka, J. J. (2020). Preventing Dog Bites: It is not only about the dog. *Animals*, *10*(4), 666. https://doi.org/10.3390/ani10040666

Rogers, E.M. (1962). *Diffusion of innovations. Free Press, New York. - References - Scientific Research Publishing*. (n.d.). https://www.scirp.org/reference/referencespapers?referenceid=2008938

Shih, H., Chang, Y., Descovich, K., Liang, W., Chou, C., & Lin, Y. (2023). Perceptions of Taiwanese owners and behavior veterinarians on behavioral problems in dogs and preferred training approaches. *Applied Animal Behavior Science*, *266*, 106026. https://doi.org/10.1016/j.applanim.2023.106026

Sison, G. C., Bulatao, D. K. S., Boquerin, G. I., Dumulot, A. G., Mamaril, D. P., Rosal, C. G., & Lopez, S. B. (2021). Group 18: Enforcing prohibition on animal wandering: Road safety in Barangay Warey, Malasiqui, Pangasinan (Chapters 1–3). *PDFCoffee*. https://pdfcoffee.com/group-18-sison-et-al-chapter-1-3-pdf-free.html

Thichumpa, W., Wiratsudakul, A., Suwanpakdee, S., Sararat, C., Modchang, C., Pan-Ngum, S., Prompoon, N., Sagarasaeranee, O., Premashthira, S., Thanapongtharm, W., Chumkaeo, A., & Pan-Ngum, W. (2024). Study of dog population dynamics and rabies awareness in

Thailand using a school-based participatory research approach. *Scientific Reports*, *14*(1), 20477. https://doi.org/10.1038/s41598-024-71207-7

Tiwari, H. K., O'Dea, M., Robertson, I. D., & Vanak, A. T. (2019). Knowledge, attitudes, and practices (KAP) towards rabies and free-roaming dogs (FRD) in Shirsuphal village in western India: A community-based cross-sectional study. *PLoS Neglected Tropical Diseases*, *13*(1), e0007120. https://doi.org/10.1371/journal.pntd.0007120

Tuckel, P. S., & Milczarski, W. (2020). The changing epidemiology of dog bite injuries in the United States, 2005–2018. *Injury Epidemiology*, *7*(1), 57. https://doi.org/10.1186/s40621-020-00281-y