

**MOTIVATORS AND BARRIERS FOR ADOPTING RESPONSIBLE PET
OWNERSHIP AS A RABIES PREVENTIVE MEASURE IN DAVAO CITY**

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as a Rabies Preventive Measure in Davao City**

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20 May 2021

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Katrina M. Sanchez
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BIOGRAPHICAL SKETCH

The author, Katrina M. Sanchez, was born in Davao City on June 1, 1994. As a Dabawenya, she obtained her basic education from public institutions in the city, such as the Davao City Special School and Davao City Special National High School. She proceeded to earn a degree in BA Communication Arts, Major in Speech and Corporate Communication at the University of the Philippines Mindanao, and graduated in 2014. Inspired by her undergraduate thesis entitled IEC Strategies on Risk Management and Precautionary Practices of Residents in Barangay Matina Crossing 74-A, she decided to study Master in Development Communication at the University of the Philippines Open University in 2017. She was eager to learn more about how communication as a tool can improve human beings' quality of life. Enrolling in UPOU did not fail her. Her appreciation of the valuable role of communication in human development grew even more.

At present, she is affiliated with Davao Doctors Hospital (DDH) as a Document Control Specialist of the Quality Management and Accreditation Department. In the future, she wants to land a job where she can fully apply her knowledge on Development Communication.

The author loves to sing. She is a proud alumna of the UP Mindanao Koro Kantahanay, and an avid fan of the Philippine Madrigal Singers. It has been her passion ever since she was young. It gives her inspiration and relaxation.

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“When the time is right, I, the Lord, will make it happen.” – Isaiah 60:22

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DEDICATION

Dedicated to:

Mama, Papa, Rosebie, Zenia, Ian,
and to all dog parents in Davao City

ABSTRACT

Several strategies were implemented to address rabies disease as a public health issue, but very few were written about how responsible pet ownership can resolve it. Recognizing responsible pet ownership as a key in eliminating rabies disease in the Philippines, this study determined what influences dog owners in adopting responsible pet ownership as a rabies preventive measure.

Specifically, this study determined how exposure to rabies, knowledge and practices, perceptions on the risk and the benefits of avoiding the risk, self-efficacy, and awareness to CVO's Anti-Rabies Program, are related to dog owners' decision to become responsible pet owners.

Guided by the framework of the Health Belief Model (HBM), this study utilized the convergent mixed method design. Quantitative data were gathered through an online survey which was participated by a total of sixty (60) dog owners. The respondents are residents of the top three barangays with the highest number of rabies cases reported in Davao City in 2018. On the other hand, qualitative data were gathered through a key informant interview with City Veterinarian's Office and Focus Group Discussions (FGDs) with pet owners residing in the mentioned barangays.

Quantitative and qualitative results revealed that the research participants have a high level of knowledge on rabies, high level of perceived threat, high level of perceived susceptibility, high level of perceived benefits, and moderate level of perceived barriers. These factors account for the HBM construct 'readiness to act'. Moreover, based on the results, participants have a very high level of self-efficacy. This means that the respondents are confident in their ability to successfully practice responsible pet ownership.

As to the level of awareness on CVO's Rabies Prevention and Control Program, results show that participants are not very well informed about it, especially on its implementation at the barangay level. The level of awareness on the program is under the HBM construct 'cues to action' which refers to factors that activate that readiness and stimulates action.

Further, results of the correlation analysis revealed that only the level of awareness on the program has a significant relationship with the level of adherence to responsible pet ownership practices. This implies that as the awareness on the CVO's programs increases, the level of adherence to the recommended practices also increases. Therefore, 'cues to action' has a significant influence on respondents' adherence to responsible pet ownership practices as a rabies preventive measure.

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Chapter I

INTRODUCTION

Background

Among all human diseases, rabies is probably the deadliest, as it is almost 100% fatal at the onset of clinical symptoms, states the Food and Agriculture Organization (FAO). Rabies is an infectious viral disease that is passed on to humans when an infected animal's saliva enters the body through bites or scratches (World Health Organization [WHO], 2019).

The 2018 WHO Expert Consultation on Rabies describes suspected victims as “having acute neurological syndrome, dominated by forms of hyperacidity or paralytic syndromes which progresses to coma and death, usually by cardiac or respiratory failure, typically within 7-10 days of the first signs if no intensive care is instituted.”

WHO further states that over 95% of human deaths attributed to rabies occur in Asia and Africa. In the Philippines, around 200 to 300 Filipinos die annually because of rabies (Department of Health [DOH], 2018).

Several efforts and strategies have been implemented and developed to address this public health issue. The World Organization for Animal Health (OIE) and WHO, in collaboration with the FAO and with the support of the Global Alliance for Rabies Control, convened to address rabies as an endemic disease, and formulated a framework that would bring about a multi-faceted and comprehensive approach (WHO & OIE, 2016). These efforts are aimed at ensuring affordable human vaccines

and antibodies, prompt treatment for bite victims, and mass dog vaccination in at-risk areas through increased communication, awareness, and education (DOH, 2019).

In the Philippines, the Republic Act No. 9482, also known as the "Anti-Rabies Act", was enacted in 2007. Through this legislation, the government aims to create a system for the control, prevention, and eventual eradication of human and animal rabies. Also, it establishes the need for responsible pet ownership.

Section 5 of the Anti-Rabies Act of 2007 stipulates the responsibilities of pet owners. These responsibilities include: 1) having pet dogs regularly vaccinated against rabies and maintaining a registration card for documentation of the dog's vaccination records; 2) submitting dogs for mandatory registration; 3) maintaining control over pet dogs by not allowing them to roam any public place without a leash; 4) providing pet dogs proper grooming, adequate food, and clean shelter; 5) reporting any dog-biting incident to the concerned officials for investigation or appropriate action within 24 hours; and 6) assisting dog bite victim and shoulder incurred expenses from getting medical treatment.

Further, in accordance with the Anti-Rabies Act of 2007, the National Rabies Prevention and Control Program (NRPCP) is being implemented by multi-agencies, headed by the Bureau of Animal Industry of the Department of Agriculture. The main objective of NRPCP is to eliminate rabies as a public health problem towards a rabies-free Philippines.

However, a study entitled "The Evaluation of Operating Animal Bite Treatment Centers (ABTCs) in the Philippines from a Health Provider Perspective" by Amparo et.al. (2018) reveals that despite the policies in place, there is an increasing trend in the number of animal bite victims seeking anti-rabies vaccines from ABTCs—from barely 200,000 in 2007 to 1.085 million in 2016. More so, deaths due to rabies has

only fallen slightly from 306 in 2008 to 260 in 2016 despite the substantial increase in the provision of Rabies Post-exposure Prophylaxis (PEP) across the country in recent years (Amparo et.al., 2018).

Moreover, the DOH-Research Institute for Tropical Medicine (RITM) states that the “incidence of rabies in the country is estimated to be six to eight per million populations, one of the highest worldwide.” To add, DOH (2019) reports a 462% increase in the number of documented animal bite cases in the country—from 206,253 cases in 2009 to 1,159,711 in 2018. Positive human rabies cases from the reported animal bites also grew by 13.5%, from 243 cases reported in 2009 to 276 in 2018 (DOH, 2019).

Rationale

Multi-sectoral collaboration and broad-based partnerships are essential in rabies elimination (WHO & OIE, 2016). However, provisions on responsible pet ownership in the Anti-Rabies Act of 2007 emphasize the role of dog owners in achieving a rabies-free country.

The Department of Science and Technology-Philippine Council for Health and Research Development (DOST-PCHRD) identifies stray dogs as a culprit for rabies cases and deaths. Meanwhile, Sarah Vallentine, an expert from the World Society for the Protection of Animals (WSPA), said that the root cause of the problem are irresponsible dog owners. Most dogs go astray and roam around either because the owner allowed them to do so or they were once owned but now abandoned (Vallentine, 2012).

A study entitled “Trends of Canine Rabies Lyssavirus and Impact of the Intensified Rabies Control Program in Davao City, Philippines” by Zython, et al. (2019) also identifies stray dogs as a driver of rabies transmission in Davao City.

The Davao City Veterinarian’s Office (CVO) is mandated to develop plans and strategies on veterinary-related activities, including the control of rabies disease in Davao City. According to Dr. Gay Pallar of Davao CVO, the adherence of dog owners to the preventive measures against rabies is improving, but still falls short of making the city a rabies-free zone. This is despite the communication campaign on the provisions of the anti-rabies program.

A community that is well-educated about the risk factors associated with the control of rabies is a critical component of a successful rabies prevention and control program (Lembo, T. et.al, 2010). Thus, understanding the determinants of community members’ response behavior to this public health risk allows researchers to make effective recommendations on preventive health behavior (Wheeler, 2011).

With Davao City as a case in point, this study aims to discover the factors that influence dog owners in taking responsible pet ownership as a rabies preventive measure. These factors include their exposure to rabies, knowledge on rabies, six constructs of the Health Belief Model, and awareness on CVO's Anti-Rabies Program.

The participants of this study are dog owners in three barangays with the highest number of reported rabies cases in Davao City in the year 2018. In an interview with Sunstar Davao, a local news outlet, Dr. Gay Pallar of the CVO identified these barangays as Catalunan Grande with twenty-seven (27) rabies cases, followed by Tugbok District with eight (8), and Toril with six (6) cases. With

high susceptibility and vulnerability to rabies disease, this population was deemed to have valid inputs that would help the researcher understand the problem at hand.

Guided by the framework of the Health Belief Model (HBM), a mixed methods approach was utilized to find out how exposure to rabies, knowledge and practices, perceptions on the risk and the benefits of avoiding the risk, self-efficacy, and awareness to CVO's anti-rabies program, are related to the dog owners' decision to become responsible pet owners. The researcher gathered quantitative and qualitative accounts from the research participants that helped in identifying the communication gap between CVO and dog owners in adopting responsible pet ownership as a rabies preventive measure.

Research questions

This study finds an opportunity to bring communication at the forefront in raising awareness, inducing action, and encouraging mitigation measures among Filipino dog owners by determining what motivates and hinders them from adopting responsible pet ownership as a rabies preventive measure.

Employing the core concepts of Health Belief Model, the following research questions were formulated to guide the conduct of this study:

1. What are the research participants' level of exposure and knowledge on rabies?
2. What are the research participants' level of perceived susceptibility and level of perceived severity on rabies disease?

3. What are the research participants' level of perceived barriers and level of perceived benefits in doing the recommended action to prevent rabies disease?
4. What are the research participants' level of self-efficacy in performing responsible pet ownership?
5. How is Davao CVO's anti-rabies program communicated to the research participants?
6. How aware are the research participants about the anti-rabies program?
7. What are the research participants' level of adherence to responsible pet ownership practices?
8. What are the factors that affect the research participants' level of adherence to responsible pet ownership practices?

Research Objectives

This study aims to:

1. Identify the research participants' level of exposure and knowledge on rabies;
2. Evaluate the research participants' level of perceived susceptibility and level of perceived severity on rabies disease;
3. Assess the research participants' level of perceived barriers and level of perceived benefits in doing the recommended action to prevent rabies disease;
4. Explore the research participants' level of self-efficacy in becoming responsible pet owners;

5. Describe how the Davao City Veterinarian's Office's anti-rabies program is communicated to the research participants;
6. Determine the research participants' level of awareness on the anti-rabies program;
7. Measure the research participants' level of adherence to responsible pet ownership practices; and
8. Discover what factors affect the research participants to become responsible pet owners.

CHAPTER II

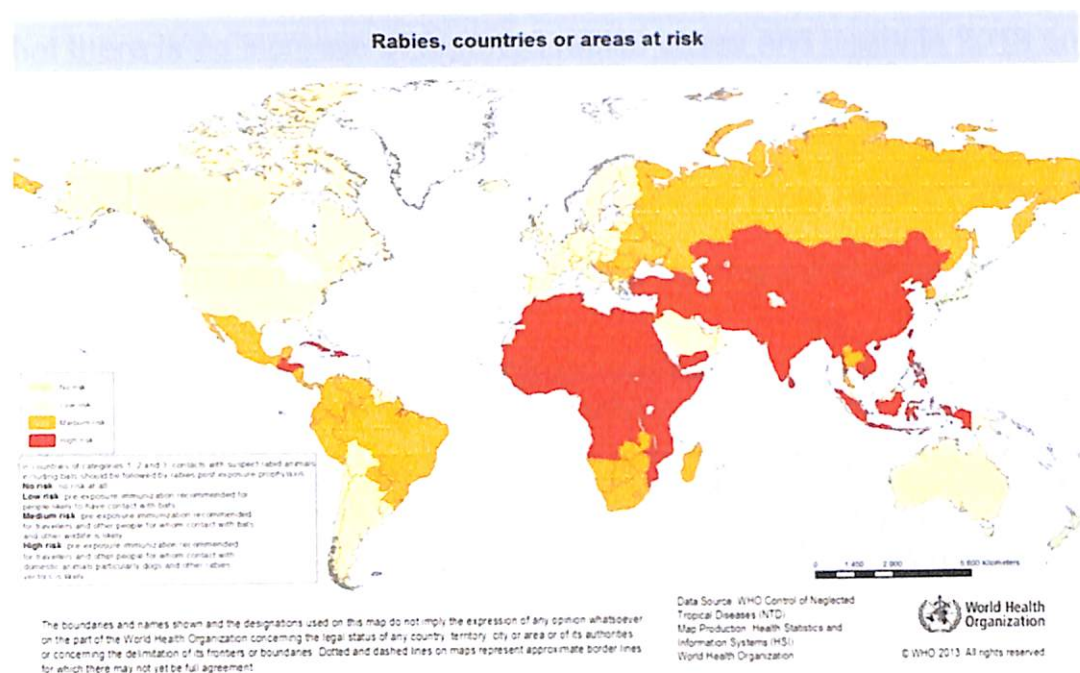
THEORETICAL FRAMEWORK

Review of Related Literature

Rabies is an infectious viral disease that is spread to humans via infiltration of virus-laden saliva from a rabid animal to a human body through bites or scratches (WHO, 2019). It has the highest case of fatality rate of any currently recognized infectious disease (WHO, 2019) as it is almost 100% fatal in the onset of clinical symptoms (FAO, 2013). WHO Expert Consultation on Rabies 2018 describes suspected rabies victims as “having acute neurological syndrome, dominated by forms of hyperacidity or paralytic syndromes which progresses to coma and death, usually by cardiac or respiratory failure, typically within seven to 10 days of the first signs if no intensive care is instituted.” Additionally, people with rabies can manifest both extremes – furious to paralytic manifestations (WHO, 2018).

However, despite the fatality of rabies, it is still considered as a neglected disease. As the WHO report continues, there are 59,000 human deaths due to rabies globally, and the majority of these occur in poor rural communities in Africa and Asia (see Figure 1). The high cost of life-saving Rabies Post-exposure Prophylaxis (PEP) puts the poor population at risk for rabies as it costs an equivalent to 3.87% of gross national income for a person in Asia which translates to 31 days’ wages for the average Asian, and 5.80% for a person in Africa or 51 days’ worth of wages for an average African (WHO, 2012).

Figure 1. Countries of Areas at Risk for Rabies



Seven (7) out of ten (10) ASEAN Member States are endemically infected by rabies at present (ASEAN Secretariat, 2016). As reflected on Table 1, Philippines ranked third with the most number of reported human rabies cases based on the 2011 data from Ministries of Health, WHO Southeast Asia Region Office, and OIE World Animal Health Information Database (WAHID).

Table 1. ASEAN Regional human and animal rabies occurrences and status of certain animal disease control measures, 2011

Country	Reported Number of Human Cases	Rate Per Million Population Per Year	Presence of Dog Rabies	Rabies Notifiable to the OIE			General Surveillance and Monitoring	Dog Vaccination Programme
				Dog	Cat	Wildlife		
Brunei	0	0	No	Yes	Yes	Yes	Yes	No
Cambodia	800*	56	Yes	No	No	No	Yes	No
Indonesia	116	0.48	Yes	Yes	Yes	Yes	Yes	Yes
Lao PDR	1	0.16	Yes	Yes	Yes	No	Yes	Yes
Malaysia	0	0	No	Yes	Yes	Yes	Yes	Yes
Myanmar	1000*	21	Yes	Yes	Yes	No	Yes	Yes
The Philippines	219	2	Yes	Yes***	Yes***	Yes***	Yes	Yes
Singapore	0	0	No	Yes	Yes	Yes	Yes*	No
Thailand	8	0.12	Yes	Yes	Yes	Yes	Yes	Yes
Viet Nam	110	1.27	Yes	Yes	No	No	Yes	Yes

* estimate only

** targeted surveillance only

*** Rabies was made notifiable in the Philippines in January 31, 2012

Source: ASEAN Rabies Elimination Strategy 2016

In the latest report of the Epidemiology Bureau of the DOH, it can be noted that there is an increase of reported rabies cases and death in 2018 and 2019. From a total of 219 cases in 2011, it rose to 301 cases in 2018. Moreover, as can be gleaned from Table 2, rabies cases and deaths have reached 255 from January to October 2019 whereas there were only 244 for the same duration in 2018.

Table 2. Department of Health's Reported Rabies Cases and Deaths by Region in the Philippines, January 1, 2018 to October 12, 2019)

Region	Year		
	2018		2019
	January 1-December 31	January 1-October 12	January 1-October 12
01	20	11	14
02	15	12	14
03	66	59	32
04A	39	29	23
04B	11	11	4
05	10	6	18
06	20	14	24
07	25	23	15
08	7	6	9
09	14	10	18
10	8	8	19
11	17	15	16
12	19	17	23
ARMM	3	3	6
CAR	3	3	6
CARAGA	5	2	6
NCR	19	15	8
TOTAL	301	244	255

NOTE: Case counts reported here do NOT represent the final number and are subject to change after inclusion of delayed reports and review of cases. All 2018 data reflects partial data only of all regions, subject to change once annual 2018 data is completed.

Further, as reflected on Table 2, the region with the highest number of reported rabies cases and deaths is Region III with thirty-two (32) cases, followed by Region VI with twenty-four (24), Regions IV-A and XII with twenty-three (23), Region X with nineteen (19), and Regions V and IX with eighteen (18) cases. Region XI, meanwhile, follows with sixteen (16) cases.

Strategies to Eliminate Rabies

In recognition of rabies as a global health concern, the World Organization for Animal Health (OIE) and WHO, in collaboration with the Food and Agriculture Organization of the United Nations (FAO), with the support of the Global Alliance for Rabies Control, convened in 2015 to address rabies as an endemic disease. They came up with a framework that would bring about a multi-faceted and comprehensive approach (WHO & OIE, 2016). Specifically, the global plan is to *ensure affordable human vaccines and antibodies, prompt treatment of bite victims, and mass dog vaccination in at-risk areas* by implementing the five pillars of rabies elimination namely Socio-Cultural, Technical, Organizational, Political, and Resources approaches (STOP-R) in all nations endemically affected by rabies (DOH, 2019). Grounded from these pillars, the ASEAN Rabies Elimination Strategy used a One Health Approach in its attempt of addressing rabies disease by enabling each ASEAN Member State to develop its own strategic plan according to every country's uniqueness, capabilities, and capacities (ASEAN Rabies Elimination Strategy, 2016).

In the Philippines, the Republic Act No. 9482, also known as the "Anti-Rabies Act," was enacted in 2007. It mandates the implementation of a National Rabies Prevention and Control Program (NRPCP) by multi-agencies, chaired by the Bureau of Animal Industry of the Department of Agriculture from the national to local level. According to the NRPCP's manual of operations, the program has the following components:

1. Administration of Pre-Exposure Prophylaxis (PrEP) for high-risk personnel and PEP for victims with exposure to potentially rabid animals;

2. Health Promotion through celebration of Rabies Awareness Month and World Rabies Day, development of IEC materials, massive health information campaign using tri-media, and integration of rabies program into the school curriculum;
3. Dog Vaccination;
4. Dog Population Management which includes impounding of stray dogs, field control and disposal, surgical and non-surgical sterilization, and habitat control;
5. Central Database System, otherwise known as the Philippine Animal Health Information System (PhilAHIS), established to provide data on dog registration, vaccination and reports on canine rabies; and
6. Responsible Pet Ownership.

Focusing on areas such as Governance, Service Delivery, Financing, Regulation, Information, and Human Resource, NRPCP Coordinators from the national, regional, and local level were convened to discuss issues and concerns related to the program, and led to the creation of the NRPCP Strategic Plan (NRPCP Strategic Plan, 2020). With the guidance of the global strategies for rabies elimination, the NRPCP Strategic Plan exhaustively listed the strategic goals and objectives that would help in achieving the ultimate aim of a rabies-free Philippines by 2030.

Among the many rabies-susceptible animals, dogs are the most significant maintenance host and transmitter of rabies to humans, with about 96% documented cases attributed to contact with infected dogs (ASEAN Secretariat, 2016). As the majority of human rabies cases are transmitted by dogs, it is best to control and eliminate rabies at its source (WHO, 2018).

According to DOH (2012), the provision of PEP is the most effective means of preventing rabies among exposed individuals. PEP refers to an anti-rabies treatment administered after an exposure to potentially rabid animals, which includes local wound care and rabies vaccine with or without Rabies Immunoglobulin (RIG) depending on the category of exposure (DOH, 2012). As part of NRPCP's guiding principles, DOH is the responsible office in providing sufficient human rabies vaccines and RIG to all Animal Bite Treatment Centers (ABTCs).

For high-risk personnel such as healthcare workers directly involved in caring for rabies patients, rabies diagnostic laboratories, animal handlers, veterinarians, field workers, and even pet owners and household members, PrEP is recommended (DOH, 2012). Canine rabies continues to occur in over 80 countries and territories, especially in developing countries (DOH, 2012). Control of canine rabies can be done using the following three elements, according to the NRPCP Manual of Operations:

1. Mass Dog Vaccination – of which vaccination is mandated to be done annually, and must cover at least 70% of the dog population in a community;
2. Dog Population Management – includes stray dog management (i.e. impounding, field control and disposal), surgical sterilization, non-surgical sterilization and habitat control, and shall also incorporate education programs on responsible pet ownership; and
3. Dog Movement Control – health certificate, proof of rabies vaccination, and shipping permit are required to all dogs moving cross-border.

As can be reflected on the NRPCP's Manual of Operations, the administration of PEP and PrEP, and dog vaccination are considered the most effective countermeasures of rabies disease in humans.

Other aspects that would help improve the cost-effectiveness of vaccination intervention include dog population management, education, awareness and cooperation among involved stakeholders, but would make it even more effective in the presence of a strong governance of health systems that complies with international standards (FAO, 2013). Moreover, Mata, Prudenciado & Lachica (2018), in their study entitled Analysis of Model for Long-term Rabies Incidence in a Dog Population in the Philippine Setting, concluded that the country can be rabies-free if the annual dog birth rate is small enough (not more than 500,000) and the vaccination rate is large enough (more than 80%). Thinking long-term, the root cause of the continuing rise of rabies cases boils down to the accountability of maintaining dog population control and ensuring regular dog vaccination.

Moreover, WHO also emphasized health education and promotion as one of measures to prevent and control rabies (WHO, 2005). Such measures are also included in the NRPCP, which suggests that the responsibility of implementing the health promotion strategies in the community level lies on the Local Government Units (LGUs) and other concerned organizations and institutions in the grassroots.

A community that is well-educated about the risk factors associated with, and on the control of rabies is a critical component of a successful rabies prevention and control program (Lembo et.al, 2010). Still, understanding the determinants of their response behavior to this public health risk allows researchers to make effective recommendations on preventive health behavior (Wheeler, 2011).

Given the fact that the Philippines belongs to the population at most risk for rabies, rabies awareness in the community is essential in creating effective control measures in the country. However, very little information has been published about this (Barroga, et.al, 2018).

Elimination of dog-mediated rabies is possible because it has been done in North America, Western Europe, Japan and parts of Asia and South America (WHO, 2018). Pan American Foot-and-Mouth Disease Center (2017), as cited by WHO (2018), said that decrease in the number of rabies cases was achieved in Latin America because of vaccination campaigns that utilized central coordination by the public health sector and the involvement of communities in rabies control. Meanwhile, annual dog vaccination campaigns have reduced the number of dog-mediated rabies cases in KwaZulu – Natal by more than 80% (WHO, 2018). To sum up, strategies utilized by these countries include boosting community awareness, engagement, and mobilization to improve turn-out for vaccination campaigns, its cost-effectiveness and sustainability, and the surveillance and management of rabies cases (WHO, 2018).

In the Philippines, through the Ilocos Norte Communities Against Rabies Exposure (CARE) Project, rabies cases in some communities in the Ilocos Norte were successfully reduced to zero in two (2) years through massive rabies prevention campaigns, subsequent dog vaccinations, and extensive surveillance (Valenzuela, et al., 2017).

Responsible Pet Ownership

The DOST-PCHRD identifies stray dogs as a culprit of increasing rabies cases and deaths. Sarah Vallentine, an expert from the WSPA, said that the root cause of the rabies problem is the irresponsibility of dog owners. Most dogs go astray and roam around either because the owner allowed them to do so, or they were once owned but now abandoned (Vallentine, 2012). This was supported by the

study of Lachica, et al. (2019) which identifies stray dogs, such as ownerless and free-roaming dogs, as drivers of rabies transmission in Davao City.

Usually, pet owners are discouraged when they run out of financial capability to provide their pets with dog food and appropriate veterinary treatments, or simply because they no longer have time to take care of their pets anymore (Moran, 2009). Heidi Guzon, Philippine Animal Welfare Society (PAWS) shelter director, expressed that the common reason for such abandonment is the pet owners' failure to recognize pet ownership as a lifetime commitment. Responsibility starts even before owning a pet when one has to consider his or her capacity to take care of a pet in its entire lifetime (PAWS, n.d.).

DOH Secretary Francisco Duque III emphasized that prevention is the key in eliminating rabies disease. He further added that this is achieved by being a responsible pet owner and by regularly vaccinating pets. As part of the national government's rabies elimination strategies, DOH and the Department of Agriculture (DA) initiated a campaign dubbed as "*Makiisa sa barangayan kontra rabies, maging responsableng pet owner*" which aimed at increasing awareness about rabies prevention (Montemayor, 2019).

As mentioned earlier, responsible pet ownership is also one of the provisions of NRPCP. Specifically, Section 5 of the Republic Act No. 9482, also known as the "Anti-Rabies Act of 2007" stipulates the responsibilities of pet owners. These include: 1) having pet dogs get regular vaccination against rabies and maintaining a registration card for documentation of the dog's vaccination records; 2) submitting dogs for mandatory registration; 3) maintaining control over their dogs by not allowing it to roam any public place without a leash; 4) providing their dogs proper grooming, adequate food and clean shelter; 5) reporting any dog biting incident to

the concerned officials for investigation or appropriate action within 24 hours; and 6) assisting dog bite victim and shoulder incurred expenses from getting medical treatment.

Since prevention is identified as the most effective way to eliminate rabies disease, emphasis must be given to the first three inclusions of responsible pet ownership: 1) regular vaccination of pet dogs and maintaining a vaccination record for documentation; 2) submitting dogs for mandatory registration, and 3) maintaining control over with pet dogs when in public.

Despite these provisions, however, the number of animal bite victims seeking anti-rabies vaccines from ABTCs in the Philippines kept increasing (Amparo, et.al., 2018). The same study by Amparo et.al. (2018) found out that the number of deaths due to rabies in the country has only fallen slightly from 306 in 2008 to 260 in 2016. This is despite the substantial increase in the provision of PEP across the Philippines in recent years. The DOH-RITM also states that the incidence of rabies in the country is estimated to be 6-8 per million populations, one of the highest worldwide.

Bridging Communication Gap

Knowing the intended audience is vital in making and evaluating communication efforts. In Development Communication (DevComm), man is the core of communication activities. DevComm uses communication to facilitate changes in people and society so that their full potential will be realized (Velasco, Cadiz & Lumanta, 1999). Simply put, there is a need to understand the intended users of information in order to deliver the appropriate message that would hopefully address the issues at hand.

Dela Cerna (2019), through a survey, found out that residents in the top three barangays in Davao City with highest number of rabies cases have low awareness on rabies prevention and control, low knowledge on dog rabies, and moderate practice on responsible pet ownership. These findings led to the formulation of a communication plan that served as CVO's reference in the implementation of the rabies prevention and control program in Davao City.

The Davao City Government had been intensifying its rabies prevention and control efforts since 2011. According to Dr. Gay Pallar of the CVO, the Intensified Rabies Prevention and Control Program of Davao has four components, namely: 1) Vaccination, 2) Castration, 3) Impounding, and 4) Information, Education and Communication (IEC) Sessions. However, even with the implementation of said program, the City was still met with challenges in rabies prevention hence, a collaborative research program called STOP Rabies was established in 2018.

STOP Rabies Program is a research grant by the Commission on Higher Education (CHED) which aims to have an understanding of the transmission and optimum control of rabies disease by means of using science-based evidence in order to formulate strategies that would help achieve a rabies-free Philippines with Davao City as a case study (STOP Rabies PH, 2019). In a webinar conducted by STOP Rabies PH in November 2020, the research team presented their major findings about the implementation of the Intensified Rabies Prevention and Control Program of Davao. A noteworthy discovery is that out of the four components of the said program, only impounding had a statistical significance with the number of reported cases in the city (Lachica, et al., 2019), which is in contrast with the earlier claims on the best practices for rabies prevention. With this, they were able to support their framework which states that population control of stray dogs plays a

critical role in mitigating the risk of spread of the disease, given that stray dogs contribute mainly to the spread (Lachica, et al., 2019).

This study subscribes to the notions that 'ownerless and free-roaming dogs are the main driver of rabies transmission in Davao City' (Lachica, et al., 2019), and that dog owners play a significant role in making the best practices on rabies prevention work. Therefore, this study intends to understand the problem by determining what motivates and hinders the research participants to be responsible pet owners.

To distinguish this study from the series of research conducted by STOP Rabies Program, the researcher employed a mixed methodology approach in an attempt to bridge the communication gap between the CVO as implementing agency of NRPCP and the dog owners as its intended audience. Quantitative and qualitative accounts were taken into equal consideration in understanding the research problem.

Theoretical Constructs

This research is guided by the Health Belief Model (HBM), one of the most widely applied theories on health behavior (Glanz & Bishop, 2010). HBM was developed by social psychologists Hochbaum, Rosenstock and Kegels in the 1950s (University of Twente, n.d.) in the attempt to understand why people fail to adopt disease prevention strategies or screening tests for the early detection of disease (LaMorte, 2019). It assumes that a person will take a health-related action if that person 1) feels that a negative health condition can be avoided; 2) has a positive expectation that by taking a recommended action, he/she will avoid a negative health

condition; and 3) believes that he/she can successfully take a recommended health action. Similarly, this study also determined what motivates and hinders dog owners in Davao City to adhere to responsible pet ownership as a rabies preventive measure.

The HBM includes six constructs, namely: 1) perceived susceptibility, 2) perceived severity, 3) perceived benefits, 4) perceived barriers, 5) cues to action, and 6) self-efficacy. The first four concepts account for the people's "readiness to act." The fifth one acts like a stimulus which activates that readiness and stimulates action, while the last concept refers to an individual's confidence in the ability to successfully perform an action. Table 3 describes these concepts in further detail.

Table 3. The Six Constructs of Health Belief Model

	Definition	Application
Perceived Susceptibility	One's opinion of chances of getting a condition	Define population(s) at risk, risk levels; personalize risk based on a person's features or behavior; heighten perceived susceptibility if too low.
Perceived Severity	One's opinion of how serious a condition and its consequences are	Specify consequences of the risk and the condition
Perceived Benefits	One's belief in the efficacy of the advised action to reduce risk or seriousness of impact	Define action to take; how, where, when; clarify the positive effects to be expected
Perceived Barriers	One's opinion of the tangible and psychological costs of the advised action	Identify and reduce barriers through reassurance, incentives, assistance
Cues to Action	Strategies to activate "readiness"	Provide how-to information, promote awareness, reminders
Self-Efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action

Source: Theory at a Glance: A Guide for Health Promotion Practice (1997)

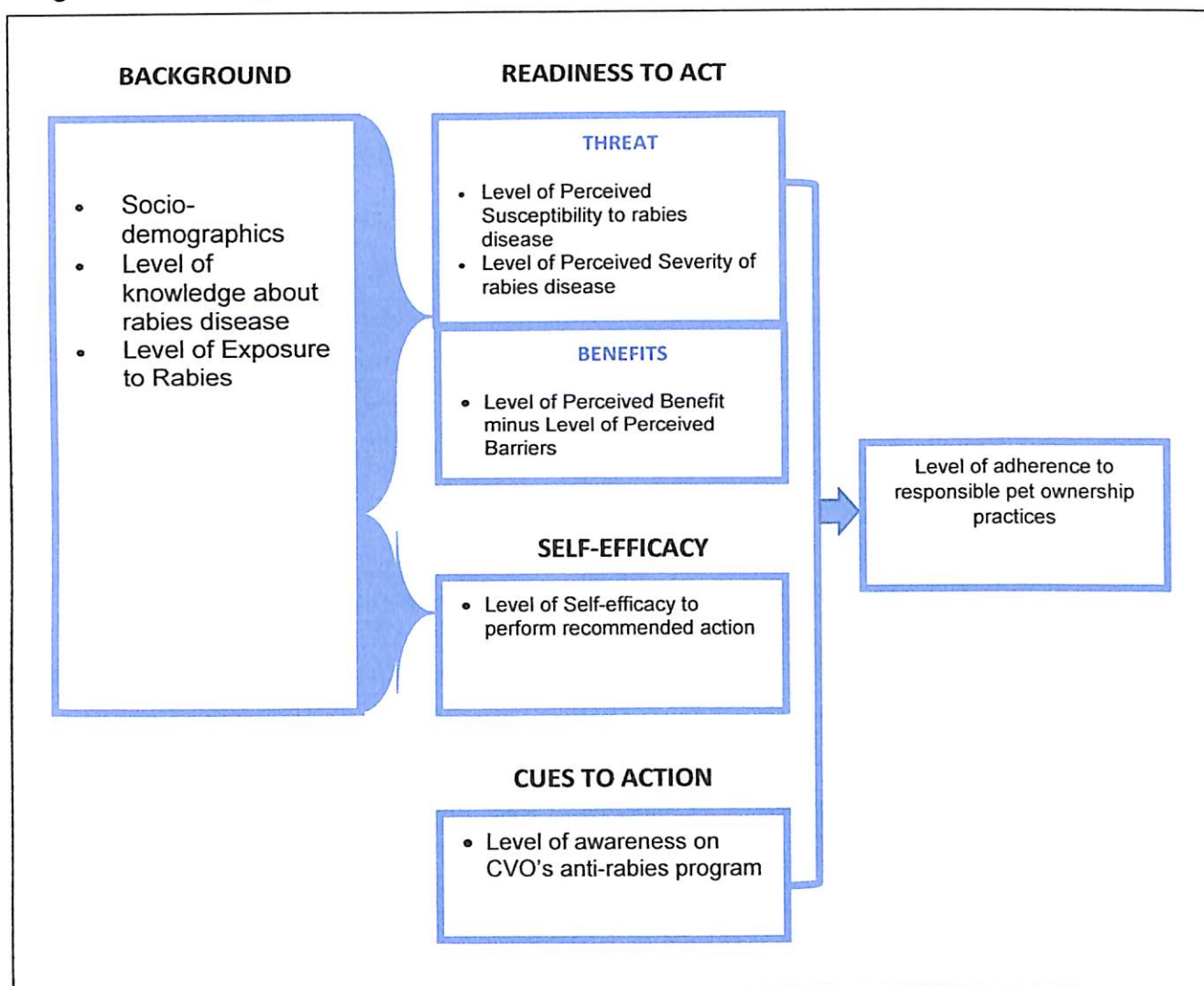
De Zwart et.al. (2007) and Brug et.al. (2004), as cited by Beyene (2018), said that there have been several theories used to study zoonotic disease risk perception and public disease protective behaviors, and HBM is one of the most applied conceptual framework among many others (Beyene et.al., 2018). HBM attempts to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals. It is commonly used as a guiding framework for health behavior interventions (Beyene et.al., 2018). However, Nguyen. et.al. (2021) argues HBM is a useful tool in the field of veterinary medicine because while “it identifies factors associated with pet owners’ behaviors, it also measures the effect of the HBM constructs in the use and design of health promotion campaign, which in turn help raise awareness and encourage people to employ appropriate preventive actions and treatments.”

This study warrants the use of the HBM as it aims to determine the perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy of dog owners in the three barangays with the highest reported rabies cases in Davao City in the year 2018. Further, by determining motivators and barriers, this study identified communication gaps between the CVO as implementing agency and the dog owners as the target audience, in relation to adopting responsible pet ownership as a preventive health behavior against rabies disease.

Conceptual Framework

Using the concepts of the Health Benefit Model (HBM), the researcher found out what affects dog owners in Davao City to adopt responsible pet ownership as a rabies prevention measure using the framework below.

Diagram 1. Conceptual Framework



This framework assumes that an individual's perception about the threats of rabies disease, benefits of adopting responsible pet ownership as rabies preventive measure, and self-efficacy is predominantly influenced by the individual's background such as socio-demographic, socio-economic factors, and knowledge

and exposure to rabies disease. Perceived Threats include the individual's perceived severity of rabies disease and perceived susceptibility of getting the disease. Perceived Benefits, on the other hand, refer to the individual's belief in the efficacy of the advised action to reduce risk or seriousness of impact versus his or her opinion of the costs of the advised action. Further, Self-efficacy pertains to the individual's confidence in doing the advised action. Meanwhile, Cues to Action are the strategies to activate readiness to take the advised action, in this case the level of awareness on Davao CVO's anti-rabies program.

Cues to action, together with an individual's readiness to act and self-efficacy, determine the level of the individual's adherence to responsible pet ownership as a preventive measure.

Variables

This study's independent variables are the respondents' 1) exposure to rabies, 2) knowledge on rabies, 3) level of perceived threat, which is a combination of perceived susceptibility and perceived severity on rabies disease, 4) level of perceived barriers, 5) level of perceived benefits, 6) level of self-efficacy, and 7) level of awareness on CVO's anti-rabies program.

The dependent variable, on the other hand, is the level of adherence to responsible pet ownership practices. The research participants' socio-demographics and socio-economic factors serve as the confounding variable or the intervening factor between the independent and dependent variables.

Operational Definitions

Operational definition is the researcher's definition of the procedures on how to measure a specific variable (Sokolov, 2018). Although there can be various ways of defining the above-mentioned variables, the researcher will use the following definitions for this study.

Independent Variables

Level of Exposure to Rabies

This variable specifically asks about the number of pet dogs the research participant has, as well as his or her known history of dog bites. The goal is to capture how the research participant was exposed to rabies and how he or she is vulnerable to future exposure. The set of questions for this variable are answerable by “yes” or “no”.

Level of Knowledge on Rabies

This variable pertains to the basic knowledge of the research participants on rabies disease. They were asked to answer “true” or “false” about the definition of rabies, its symptoms, main host of the disease, and its mode of

transmission.

Level of Perceived Threat

This refers to the research participants' degree of perceived susceptibility and perceived severity of rabies disease. This was expressed as their level of agreement or disagreement towards WHO's definition of rabies disease, its transmission, clinical symptoms, and the fatality of consequences for those infected using a five-point Likert Scale (1 = strongly disagree to 5 = strongly agree).

Level of Perceived Benefits

This pertains to the research participants' belief in the effectiveness of taking preventive measures to reduce the risk of getting rabies disease vis-a-vis the costs it entails. This was assessed by determining the research participants' agreement or disagreement as to what steps to take in preventing rabies disease, as well as their opinion on the positive effects of doing these preventive measures, using a five-point

Likert Scale (1 = strongly disagree to 5 = strongly agree).

Level of Self-efficacy

Self-efficacy refers to participants' willingness and capacity to successfully execute the advised action to prevent rabies disease according to the guidelines set by WHO and DOH. This is gauged using a five-point Likert Scale (1 = strongly disagree to 5 = strongly agree).

Level of awareness on CVO's anti-rabies program

This variable falls under HBM's Cues to Action construct. It pertains to the research participants' awareness and participation in the intensified rabies prevention and control program in the city. Specifically, this will be measured by asking them if they heard from their respective barangay officials anything related to the program, their attendance to related trainings and seminars, their participation in dog mass vaccination, and awareness of the intensified program that the city government had

been implementing. The set of questions for this variable is answerable by “yes” or “no”.

Dependent Variable

The dependent variable for this study is the participants' level of adherence to responsible pet ownership practices as a preventive health behavior. This was assessed by asking the research participants if they perform the responsibilities of a pet owner as stipulated in the Anti-Rabies Act of 2007. The questions are answerable by “yes” or “no”.

Hypothesis

Rabies disease is a public health issue hence, the need to learn more about how it can be prevented. This study was conducted to understand the factors that may influence pet dog owners in adopting responsible pet ownership as a rabies preventive measure.

The government, both at the national and local levels, had strategized efforts in eliminating the disease in the country. However, the current number of rabies cases show that the goal is still far of reach. Responsible pet ownership had been noted as key in eliminating rabies disease. Therefore, the researcher deemed it necessary to determine how exposure to rabies, knowledge on rabies diseases, sources of information, perceptions, and self-efficacy contribute to the research participants' adherence to responsible pet ownership.

Congruent to the core assumptions of HBM, this study assumes that an individual is likely to adopt a responsible pet ownership behavior if he or she: 1)

knows the risks associated with rabies disease; 2) has a positive expectation that by taking the recommended action, he or she can avoid the negative health condition; and 3) believes he or she can successfully perform the advised action. With these assumptions, this study hypothesizes that the level of adherence to responsible pet ownership is influenced by an individual's 1) readiness to act, 2) self-efficacy, and 3) cues to action.

'Readiness to act' will be determined by identifying the research participants' level of exposure to rabies, level of knowledge on rabies disease, level of perceived susceptibility, level of perceived severity, level of perceived benefit, and level of perceived barriers. Meanwhile, 'self-efficacy' of dog owners will be determined by asking the research participants about their willingness to become responsible pet owners. Further, 'cues to action' will be examined by conducting an interview with a representative of CVO, and by looking at the research participants' level of awareness on the CVO's Anti-Rabies Program.

CHAPTER III

METHODOLOGY

Mixed Methods Design

This research employed a mixed methodology approach, wherein qualitative and quantitative components are combined to expand and strengthen a study's conclusion (Schoonenboom & Johnson, 2017). This integration of data enables researchers to "view a certain phenomenon from different points of view and diverse research lenses" (Shorten & Smith, 2017), which is deemed appropriate given the nature of this study.

Specifically, a concurrent triangulation type of mixed methods design was used. This means that there will only be one data collection phase, wherein quantitative and qualitative data collection and analyses are conducted separately yet concurrently (FoodRisc Research Centre, 2016). Creswell & Plano Clark (2007), as cited in Driscoll et.al. (2007), states that the concurrent data collection strategies are usually employed to validate one form of data with the other form. Simply put, it is best used to cross-validate or corroborate findings (FoodRisc Research Centre, 2016).

Using the mixed methodology approach allowed the researcher to better understand the research problem. The mixed methods design provided different avenues for exploring evidence to answer the research questions.

Quantitative Strands

Quantitative research uses objective measurements to collect data in order to make generalization of groups of people or explain a phenomenon (Babbie, 2010). For this study, a cross-sectional survey was employed to examine the target research population in relation to the study's objectives.

Sample Size

Currently, there is no available data on the population of dog owners in the Philippines. The Philippine Canine Club, Inc. (PCCI) keeps records of registered dogs and kennel owners, but the researcher finds such data inapplicable for this study since registration of dogs to PCCI is not mandatory. Meaning, there is a big chance that PCCI's statistics may not reflect the total number of dog owners in the country. Hence, the researcher decided to use a purposive sampling to determine the respondents for this study. Ninety (90) dog owners responded to the online survey. However, only 60 out of 90 individuals were able to provide complete responses, and were considered as valid samples. The respondents are residents of the top three (3) barangays with the most number of reported rabies cases in Davao City, namely barangays Catalunan Grande, Toril, and Tugbok.

Research Instrument

The HBM guided the formulation of the survey questionnaire. Prior to the survey proper, it was pre-tested to randomly selected dog owners in Davao City, and results were statistically processed using Cronbach's Alpha to measure the internal consistency and reliability of the Likert Scale.

Table 4. Reliability Testing of Likert Scale

Scale	No. of Items	Cronbach's α	Remarks
Perceived Threat/Severity	6	.820	Acceptable
Perceived Susceptibility	4	.819	Acceptable
Perceived Barriers	6	.432	Less than acceptable value. Nevertheless, if item Q37 is deleted, the value of CA will increase to 0.659 which is a little less close to acceptable value. Hence, Q37 was deleted.
Perceived Benefits	4	.743	Acceptable
Self-efficacy	8	.797	Acceptable

The survey questionnaire was administered through an online platform called SurveyMonkey. Respondents were asked to fill out an electronic consent form. If they all agreed to the terms and conditions stipulated therein, the respondents were then redirected to the survey proper. To ensure that respondents were able to understand the statements and set of questions, the consent form and the survey questions were stated in English and translated in Cebuano. The link to the survey questionnaire was disseminated to the offices of Barangay Catalunan Grande, Tugbok, and Toril. It was also promoted in social media by sharing the survey link to Facebook groups of dog owner communities in Davao City.

The survey questionnaire was used to assess the participants':

1. Socio-demographics and Socio-economic background;
2. Exposure to rabies;
3. Knowledge on rabies;
4. Sources of information and awareness to the city's intensified rabies prevention and control program;
5. Responsible pet ownership practices;
6. Perceived susceptibility and perceived severity of rabies disease;
7. Perceived barriers and benefits in doing the advised action to prevent rabies disease; and
8. Self-efficacy in performing responsible pet ownership.

Data Analysis

The quantitative data were first analyzed using descriptive statistics such as frequency, median, and mode. Then, the researcher used the Pearson Product Moment Correlation (PPMC), better known as Pearson Correlation Coefficient, to measure the association between all variables. It specifically measures the strength of a linear association between two variables (Laerd Statistics, n.d.) which further gives information about its degree of correlation (Statistics Solutions, n.d.), making it an appropriate statistical test given the objectives of this study.

As the rule of this statistical test states, a correlation exists between variables if the coefficient or r value is near ± 1 . To interpret the strength of correlation, the guidelines reflected on Table 5 were used as reference:

Table 5. Interpretation of the Strength of Correlation

Strength of Correlation	Coefficient, <i>r</i>	
	Positive	Negative
High degree	0.50 to 1	-0.50 to -1
Moderate degree	0.30 to 0.49	-0.30 to -0.49
Low degree	0.29 and below	-0.29 and below

Source: Statistics Solution

Moreover, Univariate Analysis of Variance (ANOVA) and Independent Samples t Test were used for categorical variables such as socio-demographics and socio-economic background, and questions under Exposure to Rabies. One-way ANOVA was used to gain information about the relationship between independent and dependent variables with three or more groups of data (Investopedia, n.d.) such as barangay and monthly income. Meanwhile, Independent Samples t Test applied for those with only two categories like Gender, and other questions answerable by “yes” or “no” under Exposure to Rabies. The Independent Samples t Test assumes that “a difference in the mean score of the dependent variable is found because of the influence of the independent variable that distinguishes the two groups” (Kent State University, 2021) which aligns to the objectives of this study.

Table 6 illustrates how each variable from the survey responses was treated.

Table 6. Analysis of Variables

Variables	Data	Analysis
Socio-demographics; Socio-economic background	<ul style="list-style-type: none"> • Age • Gender • Educational Background • Number of household members • Number of pet dogs • Level of income 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation • ANOVA • Independent t-test

Variables	Data	Analysis
Level of exposure to rabies	<ul style="list-style-type: none"> • Number of pet dog/s • Experience with dog bites (answerable by “yes” or “no”) 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation • ANOVA • Independent t-test
Level of knowledge on rabies disease	<p>True or false answer to the following:</p> <ul style="list-style-type: none"> • Definition of rabies disease, • Its transmission, and • Clinical symptoms 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of perceived threat	<p>Five-point Likert Scale to determine the level of agreement towards WHO and DOH’s definition of the fatality or consequences for those infected with rabies</p>	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of perceived barriers	<p>Five-point Likert Scale to determine the level of agreement towards</p> <ul style="list-style-type: none"> • the costs (both material and psychological) of adhering to the recommended actions 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of perceived benefits	<p>Five-point Likert Scale to determine the level of agreement towards WHO and DOH’s</p> <ul style="list-style-type: none"> • recommended steps to take in preventing rabies disease • positive effects of doing these preventive measures 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of self-efficacy	<p>Five-point Likert Scale to determine the level of agreement towards</p> <ul style="list-style-type: none"> • willingness and capacity to successfully execute the advised action to prevent rabies disease 	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of awareness on CVO’s anti-rabies program	<p>Yes or no answer to the awareness of the Barangay and City Government of Davao’s rabies prevention and control program</p>	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation
Level of adherence to responsible pet ownership practices	<p>Yes or no answer to their actual practice of the stipulated responsibilities of a pet dog owner in the Anti-Rabies Act of 2007</p>	<ul style="list-style-type: none"> • Descriptive • Pearson Correlation

Qualitative Strands

Qualitative research methods enable researchers to explore beliefs, values, and motives that explain why behaviors occur (Castleberry & Nolen, 2018). Since this study explores a specific population's motivations and barriers to adherence of a practice, qualitative methods will allow the researcher to contextualize data in order to understand and interpret more local meanings (Braun & Clark, 2013). This is achieved by studying things in their natural settings, thereby attempting to make sense of, or interpret, phenomena in terms of meanings people bring to them (Denzin & Lincoln, 2011). Yin (2011), as cited in Braun & Clarke (2013), said that the value of doing a qualitative approach is the richer, deeper understanding of meanings that people place on actions, events, and relationships.

Key informant Interview

A representative from Davao City Veterinarian's Office, the implementing agency of the Intensified Rabies Prevention and Control Program, was interviewed. Specific communication strategies used to communicate the national program at the local level were given emphasis during the interview. Personal experiences and other comments relevant to the government's communication efforts on promoting responsible pet ownership as rabies prevention measures were also accounted for. The goal is to get first-hand information on how the intensified program is being implemented in Davao City.

Focus Group Discussions (FGD)

The main objective of conducting the FGD is to capture how the intended audience of the Anti-Rabies Program received the program's key messages. In particular, FGD participants were asked about how familiar they were with the program, their perception on how it is being implemented, and finally, their comments and recommendations on how the program and its implementation could be improved. Basically, what was considered here were the participants' accounts on the implementation of the city government's rabies prevention initiatives.

The health protocols currently in place due to the Coronavirus 19 (COVID-19) pandemic prohibit physical gathering hence, the researcher opted to conduct online FGDs.

The researcher conducted three sessions of online FGDs participated by dog owners from barangays Catalunan Grande, Tugbok District, and Toril.

Prior to the actual discussion, invited participants were asked to fill up an electronic consent form. They were also given a chance to choose which online platform would best work for them. Participants unanimously decided on Facebook Messenger Video Call. Therefore, the FGDs were conducted via Facebook Messenger.

Sample Size

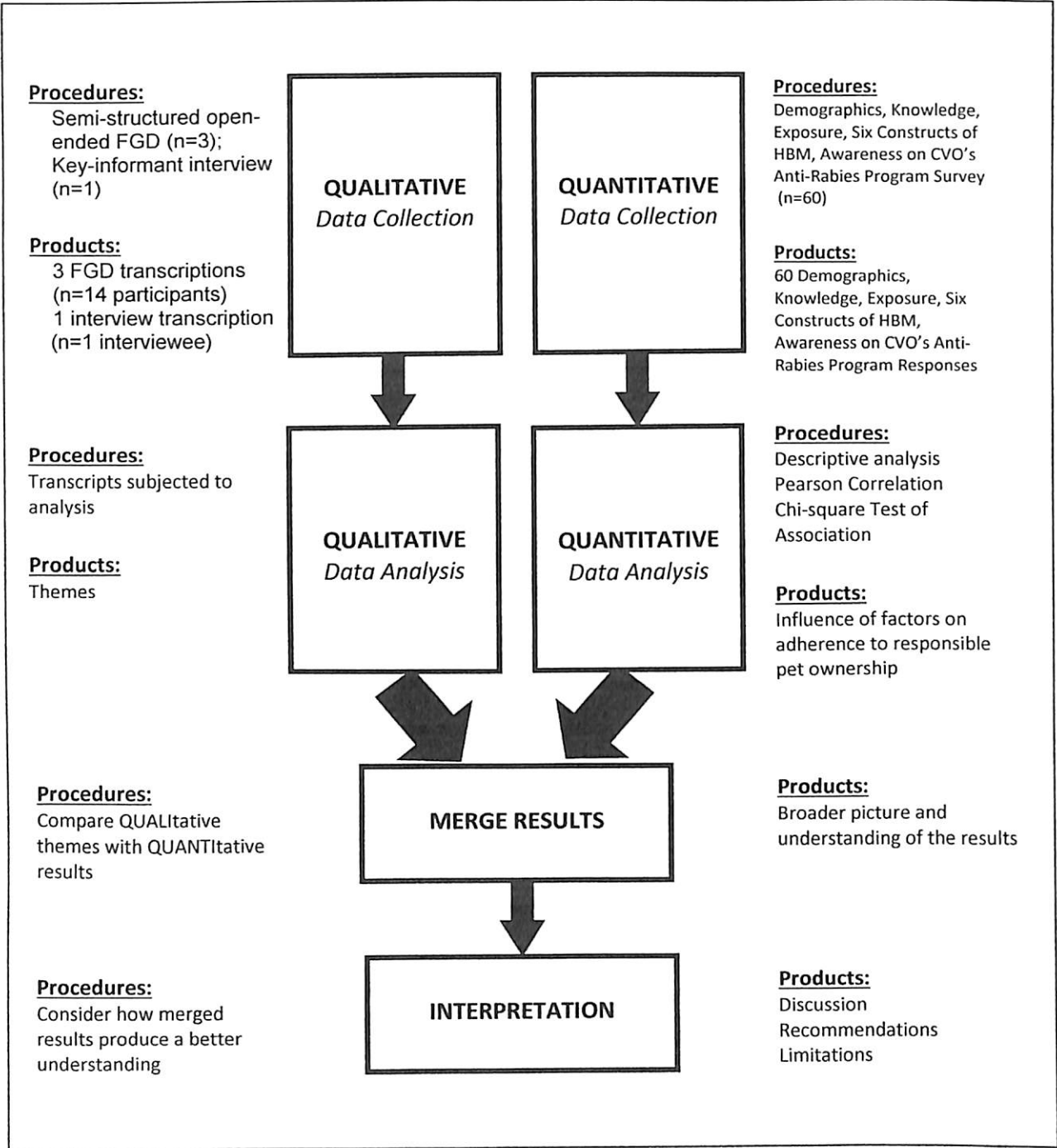
Sample size in qualitative research is often a contentious and debated topic (Terry et.al., 2017), but as adapted from Braun & Clarke (2013), the SAGE Handbook of Qualitative Research in Psychology recommends Masters or Professional Doctorate Projects to have three (3) to six (6) sessions for FGDs with four to six participants per discussion.

The first two sessions of FGDs were held on September 12, 2020. Four (4) dog owners from Barangay Catalunan Grande and five (5) from Barangay Tugbok participated in the said discussions. Moreover, five (5) dog owners from Barangay Toril joined the final session on September 19, 2020.

Data collected from the key informant interview and FGDs were summarized. The summary was then cross-validated against the quantitative results. The comparative results were considered for interpretation in order to come up with research conclusions and recommendations.

To better understand the phases of data collection, analysis, and interpretation, the researcher utilized the Convergent Mixed Method Design of Creswell & Plano Clark (2011). It served as a reference for the process flow and organization of data analysis procedures.

Diagram 2. Convergent Mixed Method Design by Creswell & Plano Clark (2011)



CHAPTER IV

RESULTS AND DISCUSSION

This chapter is divided into two main parts. The first part presents the quantitative data gathered through the online survey, while the second part discusses the qualitative data from the FGDs and key-informant interview. Subsequently, the quantitative and qualitative data were merged and discussed in order to provide a better understanding of the communication problem at hand.

Quantitative Data

A survey questionnaire was administered through an online platform called SurveyMonkey from June 23, 2020 to August 18, 2020. Basically, the survey was composed of four sub-topics, namely: 1) Socio-Demographics and Economic Profile; 2) Exposure to Rabies; 3) Knowledge, Practices, and Awareness on the City's Anti-Rabies Program; and 4) Risk Perception on Dog Rabies. The link to the survey questionnaire was disseminated to the offices of Barangay Catalunan Grande, Tugbok, and Toril. It was also posted and promoted on social media by sharing the survey link to the Facebook groups of dog owner communities.

The survey was closed when it reached the target number of respondents, which was 90. However, upon examining the data, the researcher only found 60 samples with complete responses. Hence, only 60 samples were subjected to statistical tests.

Respondents' Background: Socio-Demographic and Socio-Economic Profile

For the socio-demographics, they were asked to input their age, choose their gender, educational attainment, and identify the number of their household members. Classification of monthly income was based on Philippine Institute for Development Studies' (PIDS) calculations in reference to the Philippine Statistics Authority (PSA)'s Family Income and Expenditure Surveys in 2015 and 2017.

Table 7. Socio Demographic and Economic Profile

Profile	Category	n	%	Mean	Sig.
Age	Young Adults	42	70%	4.71	0.647
	Middle-Aged Adults	9	15%	5.33	
	Old Adults	9	15%	4.78	
Gender	Female	42	70%	4.76	0.628
	Male	18	30%	4.94	
Educational Attainment	College Graduate	55	92%	4.40	0.466
	High School Graduate	5	8%	4.85	
# of Household Members	Average= 4 mem, Min= 1 mem, Max= 8 mem				0.890
	Poor	9	15%	4.22	0.256
Monthly Income	Low-income class, but not poor	22	37%	5.00	
	Lower Middle-Income Class	20	33%	4.65	
	Middle middle-income class	4	7%	4.75	
Barangay	Upper middle-income class	5	8%	5.80	0.201
	Catalunan Grande	28	47%	4.64	
	Toril	19	32%	5.26	
	Tugbok	13	22%	4.54	

As seen in Table 7, seven out of ten of the respondents were female and young adults (70%). Almost all of them were college graduates (92%). The highest number of household member was eight, and one as lowest, with an average of four members. Further, more than half of respondents belong to low income (between 10,481Php to 20,962Php) and lower middle-income class (between 20,962 to 41,924Php). Lastly, almost half of the participants live in Barangay Catalunan Grande.

This study assumes that socio-demographic and economic factors affect how an individual processes and responds to a certain call for action. In this case, call for action meant exercising responsible pet ownership as a rabies preventive measure. However, as can be gleaned on Table 7, results show that these factors did not have a significant relationship with the participants' level of adherence of responsible pet ownership practices (Age, $p=0.647$), (Gender, $p=0.628$), (Educational Attainment, $p=0.466$), (No. of Household Members, $p=0.890$), (Monthly income, $p=0.256$), and Barangay, $p=0.201$).

Respondents' Background: *Exposure to Rabies*

Exposure to rabies examined the vulnerability of the research participants to rabies disease. Questions included the number of dogs owned, experience with dog bites, as well as their known severity of rabies disease. In reference to this study's conceptual framework, this section, together with the Socio-Demographics and Knowledge about Rabies Disease, forms part of the research participants' individual background.

Table 8. Exposure to Rabies

Question	Answer	n	%	Mean	Sig.
How many pet dogs do you or your family have?	Ave= 3 dogs, Min= 0 dog, Max=16 dogs				0.101
Have you ever been bitten by a dog?	Yes	23	38%	4.81	0.966
	No	37	62%	4.83	
Do you know someone who was bitten by a dog?	Yes	49	82%	4.91	
	No	11	18%	4.79	
If yes, who are they?	Family and/or relative	13	27%		0.800
	Both Family and Relative	20	41%		
	Other than a family member	16	33%		
Did the person feel severe effect/s from dog bites?	Yes	4	8%		
	No	45	92%		
Do you know someone who died from rabies disease?	Yes	12	20%	4.65	0.044
	No	48	80%	5.50	

Table 8 shows that respondents own an average of three dogs. Further, 62% have never been bitten by a dog, but 82% of the respondents know someone who was bitten by one. Most of them were family and/or relative, but almost all of them did not feel severe effect/s from dog bite (92%). Lastly, only 20% of the participants know someone who died from rabies disease.

Based on the results of the statistical analysis, there was no significant relationship found between participants' Exposure to Rabies and their Level of Adherence to Responsible Pet Ownership Practices. However, the results on the question "*Do you know someone who died from rabies disease?*" question and level of adherence to responsible pet ownership practices of participants showed a significant correlation ($p=0.44$). Hence, participants who have known someone who died from rabies disease had lower level of practice compared to participants who didn't. This may suggest that poor adherence to responsible pet ownership practices may put the dog owners at higher risk for rabies which could further lead to rabies-associated death.

Respondents' Background: *Level of Knowledge on Rabies*

The questions on participants' knowledge on rabies basically measured how much the respondents know about rabies disease and its mode of transmission. Participants were asked about the definition of rabies, its symptoms, main host of the disease, and its mode of transmission using a "true or false" format. Determining participants' knowledge of the disease is important as it may influence their decision-making on taking preventive measures against it. In reference to this study's

conceptual framework, this section, together with the Socio-Demographics and Exposure on Rabies, forms part of the research participants' individual background.

Table 9. Level of Knowledge on Rabies ($r=-0.132$, $p=0.314$)

Question	Answer	n	%
Rabies is a viral disease that infects the human central nervous system	TRUE	59	98%
	FALSE	1	2%
Symptoms of rabies include fever, severe muscle spasms, hydrophobia (fear of water), abnormal behavior, and sometimes aerophobia (fear of fresh air).	TRUE	59	98%
	FALSE	1	2%
Dogs are the main source of human rabies.	TRUE	43	72%
	FALSE	17	28%
How can rabies be transmitted from dogs to humans?	Bites	8	13%
	Licking of open cut or wound	1	2%
	All of the Above	51	85%
Overall		88%	

Level of knowledge on rabies was measured based on the number of correct answers over the number of total questions.

Interpretation: 1-20=Very Low, 21-40=Low, 41-60=Moderate, 61-80= High, 81-100= Very High

In general, the respondents had a very high (88%) knowledge on what rabies disease is, its symptoms, and transmission.

Yet, only 72% of the participants were able to identify dogs as the main source of human rabies. In the Philippine-setting, rabies is found in animals such as cats, goats, pigs, carabaos, buffalo, monkeys, and horses. However, 96% of rabies positive cases reported in 2018 are from dogs (DOH, 2019). The results imply a low disregard on dogs as a major host in rabies transmission to humans, which suggests an opportunity to strengthen awareness of this information to the dog owners.

Results of the Pearson Correlation Test show that there is no significant relationship between the Level of Knowledge on Rabies and Level of Adherence to Responsible Pet Ownership Practices ($r=-0.132$, $p=0.314$).

Readiness to Act: Perceived Threat/Severity

This section refers to the research participants' perceived susceptibility and perceived severity of rabies disease, which was expressed through their level of agreement towards WHO's definition of rabies disease, its transmission, clinical symptoms, and the fatality of consequences for those infected. A five-point Likert Scale with five (5) as strongly agree and one (1) as strongly disagree was utilized to measure this factor. In reference to this study's conceptual framework and hypothesis, Perceived Threat/Severity is one of the determinants of the research participants' adherence to responsible pet ownership under the category/construct 'readiness to act'.

Table 10. Level of Perceived Threat/Severity

Statement	Mean
Rabies can lead to human death if not treated immediately.	4.80
There is no effective treatment to rabies once symptoms appear.	3.45
Rabies can also result in a dog's death	4.60
Rabies causes tens of thousands of deaths every year, mainly in Asia and Africa.	3.90
Rabies has the highest case fatality rate of any known infectious disease.	3.50
Dog bites in the face and neck allow rabies to travel more quickly to the brain.	4.27
Overall	4.09

Level of perceived threat/severity on rabies was measured based on the total average of the research participants' agreement to the statements.

Responses were coded as: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Interpretation: 1.-1.8=Very Low, 1.9-2.6=Low, 2.7-3.4=Moderate, 3.5-4.2=High, 4.3-5= Very High

As shown in Table 10, the respondents had a high level of perceived threat/severity. Among all the statements, statement no. 1 "Rabies can lead to human death if not treated immediately" yielded the most number of agreement. However, it can also be noted that the statements with less agreements from the

respondents pertain to the fatality of rabies “*There is no effective treatment to rabies once symptoms appear*” (M=3.45), “*Rabies has the highest case fatality rate of any known infectious disease*” (M=3.50), and “*Rabies causes tens of thousands of deaths every year, mainly in Asia and Africa*” (M=3.90). This may suggest that the respondents are not fully aware of the fatality rate of rabies and how vastly it affects the poor populations in Asia and Africa which are endemically infected countries.

Further, based on the results of the Pearson Correlation Test, there was no significant association between the participants’ Level of Perceived Threat/Severity and their Level of Adherence to Responsible Pet Ownership Practices ($r=0.074$, $p=0.576$).

Readiness to Act: Level of Perceived Susceptibility

The set of statements for this section is basically about how the research participants find themselves at risk of getting rabies disease. In particular, participants were asked about how and under what circumstances they can contract the disease through their level of agreement to the presented statements.

A five-point Likert Scale with five (5) as strongly agree and one (1) as strongly disagree was utilized to measure the survey responses. In reference to this study’s conceptual framework and hypothesis, Perceived Susceptibility is one of the determinants of the research participants’ adherence to responsible pet ownership under the category ‘readiness to act’.

Table 11. Level of Perceived Susceptibility ($r=0.035$, $p=0.791$)

Statement	Mean
I might get rabies from bites or deep scratches from my pet dog/s that are left unvaccinated.	4.42
Children might get bitten by an unvaccinated dog and will most likely not report the bite incident to their parents.	4.23
My pet dog/s might bite a stranger if I let it roam around the street and other public places without a leash.	4.13
My pet dog/s might get infected by rabies even if I am providing them food, shelter and proper grooming.	3.78
Overall	4.14

Level of perceived susceptibility on rabies was measured based on the total average of the research participants' agreement to the statements.

Responses were coded as: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Interpretation: 1.-1.8=Very Low, 1.9-2.6=Low, 2.7-3.4=Moderate, 3.5-4.2=High, 4.3-5= Very High

As can be seen in Table 11, the respondents had a high level of perceived susceptibility ($M=4.14$). However, results of the Pearson Correlation Test suggest that there is no significant relationship between the participants' Level of Perceived Susceptibility and their Level of Adherence to Responsible Pet Ownership Practices ($r=0.035$, $p=0.791$).

Readiness to Act: Level of Perceived Barriers

This section examined the research participants' perception on the costs of doing responsible pet ownership as a rabies preventive measure. These costs include bringing their dogs to the veterinary clinic on a regular basis, providing adequate food, clean shelter and proper grooming, having time to attend to their pet/s' needs, and ensuring their dog/s' annual vaccination. Another barrier identified

was the lack of rabies prevention and control ordinance in their respective barangays.

A five-point Likert Scale with five (5) as strongly agree and one (1) as strongly disagree was utilized to measure the survey responses. In reference to this study's conceptual framework and hypothesis, Perceived Barriers is one of the determinants of the research participants' adherence to responsible pet ownership under the category 'readiness to act'.

Table 12. Perceived Barriers ($r=-0.199$, $p=0.127$)

Statement	Mean
It is costly to take my pet dog/s to Veterinarian's Clinic for regular check-up.	4.13
It is also expensive to provide adequate food, clean shelter, and proper grooming to my pet dog/s.	3.57
I have no time to take care of my pet dog/s.	1.72
We do not have free dog vaccination in our barangay.	2.42
We do not have rabies prevention and control ordinance in our barangay.	2.45
Overall	2.86

Level of perceived barriers was measured based on the total average of the research participants' agreement to the statements.

Responses were coded as: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Interpretation: 1.-1.8=Very Low, 1.9-2.6=Low, 2.7-3.4=Moderate, 3.5-4.2=High, 4.3-5= Very High

On average, respondents have a moderate level of perceived barriers (M=2.86). This implies that participants may or may not agree that the factors (cost of pet's basic necessities and vaccines, time, and policies) are barriers for them to do the recommended action. Or, the participants might consider these as barriers but do not agree to the statements because these are still manageable, such as statement No. 3 "I have no time to take care of my pet dog/s" which yielded a very low agreement from the respondents (M=1.72).

Further, Table 12 shows that the respondents are aware of the free dog vaccinations since they do not agree ($M=2.42$) to the statement "*We do not have free dog vaccination in our barangay*". They are also aware that a rabies prevention and control ordinance exists in their respective barangays since they do not agree ($M=2.45$) to the statement "*We do not have rabies prevention and control ordinance in our barangay*". Furthermore, results show that respondents agree that the cost incurred from veterinary services ($M=4.13$), and the cost of providing pets with adequate food, clean shelter, and proper grooming ($M=3.57$) are barriers.

The results of the Pearson Correlation Test show that Perceived Barriers had no significant relationship with the Level of Adherence to Responsible Pet Ownership Practices ($r=-0.199$, $p=0.127$).

Readiness to Act: Level of Perceived Benefits

Statements for Perceived Benefits listed the paybacks of practicing responsible pet ownership, as well as the cues to action that helped the participants perform this practice.

A five-point Likert Scale with five (5) as strongly agree and one (1) as strongly disagree was utilized to measure the survey responses. In reference to this study's conceptual framework and hypothesis, Perceived Benefits is one of the determinants of the research participants' adherence to responsible pet ownership under the category 'readiness to act'.

Table 13. Perceived Benefits ($r=0.052$, $p=0.695$)

Statement	Mean
Rabies is 100% fatal, but 100% preventable.	4.57
Rabies can be prevented by giving my pet dog/s vaccine and yearly booster thereafter	4.62
Providing my pet dog/s with its basic needs will help reduce the number of stray dogs.	4.55
Davao City LGU provides free dog vaccination thru the City Veterinarian's Office.	4.13
Davao City LGU has an intensified Rabies Prevention and Control Program.	4.10
Overall	4.39

Level of perceived benefits was measured based on the total average of the research participants' agreement to the statements.

Responses were coded as: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Interpretation: 1.-1.8=Very Low, 1.9-2.6=Low, 2.7-3.4=Moderate, 3.5-4.2=High, 4.3-5= Very High

On average, the participants had a very high level of perceived benefits ($M=4.39$). Hence, it can be inferred that the participants are well aware of the benefits of practicing responsible pet ownership. The top three statements that participants strongly agree on are: 1) rabies as a preventable disease ($M=4.57$); 2) vaccination as prevention against rabies ($M=4.62$); and 3) provision of proper care to reduce stray dog population ($M=4.55$). Meanwhile, the statements with the lowest agreement were those pertaining to the intensified rabies prevention and control program of Davao City.

Results of the Pearson Correlation Test for this factor show that there is no significant relationship between participants' Level of Perceived Benefits and Level of Adherence to Responsible Pet Ownership Practices ($r=0.052$, $p=0.695$).

Readiness to Act: Level of Self-Efficacy

The set of statements under Self-Efficacy is about the research participants' willingness to perform responsible pet ownership as a rabies preventive measure. A five-point Likert Scale with five (5) as strongly agree and one (1) as strongly disagree was utilized to measure the survey responses. In reference to this study's conceptual framework and hypothesis, Self-Efficacy is one of the determinants of the research participants' adherence to responsible pet ownership.

Table 14. Self-Efficacy ($r=0.227$ $p=0.081$)

Statement	Mean
I am willing to take the recommended actions to protect myself, my family and other people from acquiring rabies disease.	4.72
I will have my pet dog/s vaccinated.	4.75
I will provide my pet dog/s with adequate food, clean shelter, and proper grooming.	4.83
I will allot time to properly take care of my pet dog/s.	4.75
I will not let my pet dog/s wander the streets or other public places without a leash.	4.65
I will not let my children play with unvaccinated dogs.	4.52
I will not let my pet dog/s lick my open cut or wound.	4.67
I will abide with the rabies prevention and control program of the Davao City LGU.	4.68
Overall	4.70

Level of perceived self-efficacy was measured based on the total average of the research participants' agreement to the statements.

Responses were coded as: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Interpretation: 1.-1.8=Very Low, 1.9-2.6=Low, 2.7-3.4=Moderate, 3.5-4.2=High, 4.3-5= Very High

As can be seen in Table 14, the respondents had a very high level of self-efficacy (M=4.70). It can then be inferred that pet owners are willing to carry out responsible pet owner practices. However, results of the Pearson Correlation Test show that the respondents' level of Self-efficacy has no significant relationship with their Level of Adherence to Responsible Pet Ownership Practices ($r=0.227$ $p=0.081$).

Cues to Action: Level of Awareness on CVO's Anti-Rabies Program

The 'sources of information' section of the survey questionnaire gauges the research participants' awareness on the anti-rabies program implementation both in barangay and city levels. Specifically, participants were asked if they heard about the anti-rabies program from their barangay officials, have attended any related training and seminars, have availed mass dog vaccination, and if they are aware of Davao City's intensified anti-rabies program.

Table 15. Level of Awareness on CVO's Anti-Rabies Program ($r=0.333$ $p=0.009$)

Question	Answer	n	%
During the past year, has any of the barangay health worker/officer/leader mentioned to you about dog rabies?	Yes	29	48%
	No	31	52%
During the past year, have you ever attended any seminars/trainings about dog rabies and its prevention and control?	Yes	7	12%
	No	53	88%
During the past year, have you ever brought your pet dog/s to the Local Government Unit (LGU) of Davao City's mass dog vaccination?	Yes	26	43%
	No	34	57%
Are you aware that the Local Government Unit (LGU) of Davao City has an intensified Rabies Prevention and Control Program?	Yes	46	77%
	No	14	23%
Overall			62%

Level of awareness on CVO's anti-rabies program was measured based on the number of correct answers over the number of total questions.

Interpretation: 1-20=Very Low, 21-40=Low, 41-60=Moderate, 61-80= High, 81-100= Very High

Results revealed that the respondents have high awareness on CVO's intensified rabies and prevention control (62%). Although, it can be noted that only 29 out of 60 participants (48%) have heard about rabies program from their barangay officials; only seven of them (12%) have attended related seminars/trainings; and barely half (43%) brought their pets to the city's mass dog vaccination.

Based on the results of the Pearson Correlation Test, the Level of Awareness on CVO's Anti-Rabies Program has a significant relationship with the Level of Adherence to Responsible Pet Ownership Practices ($p=0.009$). In particular, the correlation was moderate ($r=0.333$) and is directly proportional. Meaning, participants with a many sources of information are likely to have better practices.

As shown in Table 14, it can be noted that 77% of respondents were aware that an intensified rabies prevention and control program exists in Davao City. However, only few were able to hear about it from their respective barangays. This may imply that there is a need to strengthen the city's Intensified Rabies Prevention and Control Program in the barangay level. The participants are aware of the program but did not engage in its activities.

Level of Adherence to Responsible Pet Ownership

This section enumerated the duties and responsibilities of a responsible pet owner, based on DOH's NRPCP Manual of Operations. Participants were asked to answer "Yes" if they adhere to the practice, or "No" if they do not.

As can be seen on Table 16, three out of six enumerated practices showed positive responses, particularly providing pets with proper grooming, adequate food, and clean shelter (100%), giving their dog/s an anti-rabies vaccine (93%), and not allowing their pets to roam around the streets or any public place without a leash (85%).

Results also showed that although pet owners take their pet/s for an anti-rabies vaccine, only 68% said they get yearly boosters after having their pets vaccinated. Also, 75% of the respondents said they keep the vaccination cards of

their pet/s, while 60% declared that their pet/s are not registered. Overall, the respondents had a very high level of adherence to responsible pet ownership practices (80%).

Table 16. Level of Adherence to Responsible Pet Ownership Practices

Question	Answer	n	%
Do you keep a registration card for documentation of your dog/s vaccination?	Yes	45	75%
	No	15	25%
Is/are your dog/s registered?	Yes	36	60%
	No	24	40%
Did you have your dog/s vaccinated with anti-rabies?	Yes	56	93%
	No	4	7%
Did you have your dog/s get yearly booster after getting vaccinated?	Yes	41	68%
	No	19	32%
Do you allow your dog/s to roam the streets or any public place without a leash?	Yes	9	15%
	No	51	85%
Do you ensure that your dog/s is/are cared for by providing them proper grooming, adequate food and clean shelter?	Yes	60	100%
	No	0	0%
Overall			80%

Level of adherence to responsible pet ownership practices was measured based on the number of correct answers over the number of total questions.

Interpretation: 1-20=Very Low, 21-40=Low, 41-60=Moderate, 61-80= High, 81-100= Very High

Summary of Statistical Test Results

Table 17 summarizes the list of independent variables statistically processed with the dependent variable which is the level of adherence to responsible pet ownership practices. As shown, among all the independent variables identified in the conceptual framework, only Cues to Action or the Awareness on CVO's Anti-Rabies Program had a significant relationship with the dependent variable ($r=.333, p=.009$).

Table 17. Pearson Correlation Test Results between Independent and Dependent Variables

Independent versus Dependent	Pearson Correlation (<i>r-value</i>)	Sig. (2-tailed) (<i>p-value</i>)
No. of Household Members (Exposure to Rabies) & Adherence to Responsible Pet Ownership Practices	-0.018	.890
No. of Dogs Owned (Exposure to Rabies) & Adherence to Responsible Pet Ownership Practices	.214	.101
Knowledge on Rabies Disease & Adherence to Responsible Pet Ownership Practices	-.132	.314
Awareness on CVO's Anti-Rabies Program & Adherence to Responsible Pet Ownership Practices	.333	.009*
Perceived Threat & Adherence to Responsible Pet Ownership Practices	0.74	.576
Perceived Susceptibility & Adherence to Responsible Pet Ownership Practices	0.35	.791
Perceived Barriers & Adherence to Responsible Pet Ownership Practices	-.199	.127
Perceived Benefits & Adherence to Responsible Pet Ownership Practices	.052	.695
Self-efficacy & Adherence to Responsible Pet Ownership Practices	.227	.081

Meanwhile, the researcher also examined how the independent variables are interrelated with each other. Table 18 shows the correlation test results between independent variables.

Table 18. Correlation Test Results between Independent Variables

Between Independent Variables	Pearson Correlation (<i>r-value</i>)	Sig. (2-tailed) (<i>p-value</i>)
Knowledge on rabies & Perceived Threat	.253	.051
Knowledge on rabies & Perceived Susceptibility	.245	.059
Knowledge on rabies & Perceived Barriers	-.055	.677
Knowledge on rabies & Perceived Benefits	.191	.144
Knowledge on rabies & Self-efficacy	-.028	.834

Between Independent Variables	Pearson Correlation (<i>r</i>-value)	Sig. (2-tailed) (<i>p</i>-value)
Perceived threat & Perceived Susceptibility	.546	.000*
Perceived threat & Perceived Barriers	.079	.549
Perceived threat & Perceived Benefits	.489	.000*
Perceived threat & Self-efficacy	.307	.017*
Perceived Susceptibility & Perceived Barriers	.009	.946
Perceived Susceptibility & Perceived Benefits	.369	.004*
Perceived Susceptibility & Self-efficacy	.431	.001*
Perceived Barriers & Perceived Benefits	-.035	.792
Perceived Barriers & Self-efficacy	-.019	.883
Awareness on CVO's anti-rabies program & Knowledge on rabies	.109	.406
Awareness on CVO's anti-rabies program & Perceived threat	.303	.019*
Awareness on CVO's anti-rabies program & Perceived Susceptibility	.016	.906
Awareness on CVO's anti-rabies program & Perceived Barriers	-.224	.086
Awareness on CVO's anti-rabies program & Perceived Benefits	.269	.038*
Awareness on CVO's anti-rabies program & Self-efficacy	.022	.868

As shown in Table 18, the variables under the category Readiness to Act had a significant relationship with each other. The variables with the highest significance value are the Perceived Threat and Perceived Susceptibility ($r=.546$, $p=.000$), and Perceived Threat and Perceived benefits ($r=.489$, $p=.000$). Further, the variables with significant relationship under Readiness to Act are: 1) Perceived Threat and Self-Efficacy ($r=.307$, $p=.017$); 2) Perceived Susceptibility and Perceived Benefits ($r=.369$, $p=.004$); and 3) Perceived Susceptibility and Self-efficacy ($r=.431$, $p=.001$). Meanwhile, the Cues to Action Awareness on CVO's Anti-Rabies Program was also found to have a significant relationship with Perceived Threat ($r=.303$, $p=.019$), and Perceived Benefits ($r=.269$, $p=.038$).

The participants' socio-demographic and socio-economic profiles were identified as the confounding factors for this study. To see how these could possibly modify the research participants' responses, it was also statistically processed against all other variables using Pearson Correlation, Univariate Analysis of Variance (ANOVA), and Independent Samples t-test. Table 19 shows the summary of results.

Table 19. Correlation Test Results between Socio-demographic and Socio-economic Profile, and other Variables

Socio-demo and economic profile versus independent variables	Pearson Correlation (r-value)	Sig. (2-tailed) (p-value)
Age & Knowledge on Rabies	-.030	.822
Age & Perceived Threats	.091	.490
Age & Perceived Susceptibility	-.096	.467
Age & Perceived Barriers	.011	.936
Age & Perceived Benefits	-.018	.889
Age & Self-efficacy	-.030	.819
Age & Awareness on CVO's Anti-Rabies Program	.085	.519
Age & Adherence to Responsible Pet Ownership Practices	.060	.647
No. Household Members & Knowledge on Rabies	-.090	.494
No. Household Members & Perceived Threats	.227	.081
No. Household Members & Perceived Susceptibility	.030	.818
No. Household Members & Perceived Barriers	-.018	.892
No. Household Members & Perceived Benefits	.208	.110
No. Household Members & Self-efficacy	-.038	.772
No. Household Members & Awareness on CVO's Anti-Rabies Program	-.018	.890
No. Household Members & Adherence to Responsible Pet Ownership Practices	.150	.254

Table 19 shows that age and number of household members bear no significant relationship with any of the variables.

Table 20. Tests of Between-Subject Effects: Barangay and Adherence to Responsible Pet Ownership Practices

	df	Mean Square	F	Sig.
Barangay	2	2.820	1.651	.201

Table 21. Tests of Between-Subject Effects: Monthly Income and Adherence to Responsible Pet Ownership Practices

	df	Mean Square	F	Sig.
Monthly Income	4	2.332	1.369	.256

As can be seen in Table 20 and Table 21, Barangay and Monthly Income were processed using the ANOVA to test its statistical relationship with the dependent variable 'Adherence to Responsible Pet Ownership Practices'. Results show that both had no statistical relationship with the dependent variable.

Table 22. Independent Samples Test:
Gender (Male / Female) and Adherence to Responsible Pet Ownership Practices

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Equal variances assumed	.126	.724	-.487	58	.628
Equal variances not assumed			-.466	29.266	.645

Table 23. Independent Samples Test:
Educational Attainment (High School Graduate and College Graduate) and Adherence to Responsible Pet Ownership Practices

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Equal variances assumed	.055	.815	-.734	58	.466
Equal variances not assumed			-.649	4.561	.548

Table 24. Independent Samples Test:
History of dog bites (Bitten by dog and not bitten by dog) and Adherence to Responsible Pet Ownership Practices

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Equal variances assumed	1.132	.292	-.043	58	.966
Equal variances not assumed			-.042	41.055	.967

Table 25. Independent Samples Test:
 Known dog bites (Known dog bites and No known dog bites) and Adherence to Responsible
 Pet Ownership Practices

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Equal variances assumed	1.076	.304	.255	58	.800
Equal variances not assumed			.325	21.222	.748

Table 26. Independent Samples Test:
 Known rabies-associated death (Known and No Known rabies-associated death) and
 Adherence to Responsible Pet Ownership Practices

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	Df	Sig. (2-tailed)
Equal variances assumed	5.690	0.20	-2.057	58	.044
Equal variances not assumed			-3.054	37.059	.004

Tables 22, 23, 24, and 25 show results of Independent Samples Test on the following factors: gender, educational attainment, history of dog bites, known dog bites, and known rabies-associated death. Among these factors, only the known rabies-associated death had a significant difference in mean of the dependent variable (adherence to responsible pet ownership practices) between those with known and without known rabies-associated death ($t = -2.057, p < .05$).

Qualitative Data

To recapitulate, this research employed a mixed methods approach. Specifically, a concurrent triangulation type was used so that one form of data may be validated with another form of data. With this, the researcher was able to view the research problem from different research lenses, thereby cross validating all the findings.

Focus Group Discussions (FGD)

The main objective of conducting the FGD is to capture how the intended audience of the intensified program receive its key messages. In particular, FGD participants were asked about their Perceived Threats and Perceived Benefits, and how these affect their take on the Cues to Action which refers to the Intensified Rabies Prevention and Control of the City Veterinarian's Office. Unlike the survey, this methodology attempts to get narratives in order to understand the communication problem.

An FGD was held per barangay via Messenger Video Call. A total of 14 dog owners from different barangays joined the sessions—four from Barangay Catalunan Grande, five from Barangay Tugbok, and another five from Barangay Toril, respectively. Participants' age ranges from 20 to 49 years old. Ten out of 14, or approximately 71% of them were female.

Participants Profile

The researcher started the FGD by asking the participants to share about what made them decide to keep pet dogs at home. Most of them said they do so because they got used to it ever since they were young, while others got their pet/s as gift/s. They decided to raise the dogs because they make good companions—their pets are approachable, loyal, and gives joy and a sense of responsibility to its owners. They are good guards of the house too, since these pets are trainable.

Readiness to Act

Perceived Threats

Having pet dogs at home is not merely about relieving stress and strengthening security. There are risks that come with it as well. The participants knew this as they were able to name quite a lot when asked to identify perceived risks. Most of them identified rabies disease as the most dangerous risk associated with dogs, basically because of its fatality. They are well aware that a bite of an unvaccinated dog could lead to the victim's death. This coincides with the survey results which showed that the respondents had high level of perceived threats, with the highest agreement on the statement *"Rabies can lead to human death if not treated immediately."*

To prevent this, most of the participants affirmed that having their dogs vaccinated annually would help lessen the spread of rabies disease. This is consistent with the survey results where they strongly agree that vaccination can prevent rabies disease. Most of them ensure that they do so annually. There are others, however, who cannot assure that their dogs are regularly vaccinated because they merely rely on community visits by the City Veterinarian's Office. If the

CVO vaccination team could not reach their area, they would opt to wait until they get visited next time.

Another preventive measure that the participants mentioned was supervision over their dogs, especially when these are outside their homes. Some said they use a leash, while others allow their pets to roam the streets without a leash for as long as the dogs are within their sight.

They also mentioned dog lice infestation, stinky environment, and unruly behavior of dogs as consequences for not giving them proper care and hygiene. These can even go as far as disturbing the well-being and quality of life of the pet owners' neighbors. Thus, the participants said they ensure that their pet/s receive adequate food, clean shelter, and proper grooming.

Affording dogs with companionship and training also help them discipline their pets. A participant also shared that the mental well-being of dogs is important as this can affect how they act. For example, a hungry dog may lose its senses and may attack its owner if not given food. Therefore, respondents agreed that it is a must to give pets their needs to take care of the dogs' mental health.

In relation to the provision of needs, the financial aspect becomes a risk when raising pet dogs, too. Giving pet dogs their needs entails cost, therefore, those who plan to raise dogs must be financially prepared. This was highlighted in the survey results which also showed financial aspect as the mostly agreed barrier from adherence to responsible pet ownership practices. A participant also added that every breed requires a different type of care. Hence, it is essential for a pet owner to know what these are in order to keep the dogs safe and healthy.

Perceived Benefits

Most of the respondents agree that responsible pet ownership can help fight rabies as it is within the control of dog owners to do preventive measures such as annual dog vaccination, provision of adequate food, shelter and proper grooming, as well as not allowing their dogs to roam the streets without supervision.

Further, they are aware that dogs might get the disease from dirty environments and interaction with infected dogs. Also, they believe that the situation will surely be aggravated if the dogs are not regularly vaccinated. They know that unvaccinated dogs can spread rabies to humans through bites, and that bites can happen if stray dogs remain present in the streets. What even makes it worse is the financial cost of the bite victim's treatment that must be shouldered by the dog owner.

In addition, some of the respondents also expressed that all these preventive measures are dog owners' responsibilities. All participants agreed that having pets at home is a responsibility; that these pets are kept not just for leisure and security. Dogs become strays because they are not well taken care of - either not provided with enough food, shelter, or were allowed to go out without leash or supervision. As one of the participants said, people should be conscious of the responsibilities attached to pet ownership because having a pet is their choice in the first place.

Further, a few respondents raised the concern on the lack of more effective ordinances on dog population control, such as strengthened monitoring of dog ownership in order to establish accountability of dog keepers.

Cues to Action

Among the four components of the Rabies Prevention and Control Program of the City Veterinarian's Office, the participants are most familiar with the mass vaccination as they were able to avail of this service. Most of them knew that the vaccination is usually conducted on a basis of rotating community visits, which they find convenient. However, since most community visits are done during weekdays (Monday to Friday), some dog owners who work during these days were not able to avail of the vaccine for their pets.

Further, one participant shared that in Barangay Tugbok, dogs are usually brought to the barangay veterinary office for walk-in anti-rabies vaccination; other participants did not know about this. According to the same participant, she is well-informed of these things because she lives in close proximity to the venue where Barangay Tugbok is conducting their Rabies Prevention and Control Program activities.

A participant also noted that CVO's issuance of vaccination cards to vaccinated dogs is a good practice. The cards are said to be useful as it bears their dog/s' vaccination dates.

The second most familiar component to the participants is the impounding. However, some participants who have seen the impounding facility raised concerns on how dogs are treated in the area. A participant described it as inhumane because the facility looks like a slaughterhouse rather than an impounding site. The same concern was already noted by the City Veterinarian's Office. During the interview with Dr. Pallar, she said that this is the exact reason that the city government is planning to establish a rehabilitation facility. They deem it necessary to expand because of the growing number of impounded dogs.

Meanwhile, about half of the participants are aware of the castration program, but all agreed that this is rarely scheduled and promoted in their respective barangays. In fact, none of them was able to avail of this program to date.

Finally, the most unfamiliar among all the components is the Information, Education, and Communication (IEC) initiative. It is evident that there is a need to strengthen the CVO's information drive. Recalling the survey results, there was also a low degree of awareness on the anti-rabies program, especially on the barangay level. In addition, some of the FGD participants know the CVO's social media account, and only a few receive updates on CVO activities through their respective barangays.

Hence, several suggestions for improvement came up during the FGD. First, it was agreed that IEC campaign should be intensified on social media, since a lot of people use this platform. However, the access of the target audience should also be considered. For instance, in areas where social media is inaccessible, the district or barangay officers should keep the constituents abreast with the CVO's programs and services. In terms of content, participants suggested that CVO should emphasize on topics specific on the risks and benefits of rabies. Further, participants suggest the conduct of public consultation among dog owners.

Key informant Interview

The researcher interviewed a representative from Davao City Veterinarian's Office, the implementing agency of the Intensified Rabies Prevention and Control Program. Specific communication strategies used to communicate the national program at the local level were given emphasis during the interview. Personal experiences and other comments relevant to the government's communication

efforts on promoting responsible pet ownership as a rabies prevention measure were also accounted for. Through the interview, the researcher obtained first-hand information on how the intensified program is being implemented in Davao City.

Key Informant Profile

Davao City Veterinarian's Office (CVO) was established in line with the City Council's Resolution No. 459, series of 1947. Its primary focus then was to handle meat inspection in the slaughterhouses and operate the city pound in order to control stray animals in the City.

In 1991, its functions were expanded through the enactment of Republic Act 7160, otherwise known as the Local Government Code of 1991, which mandated the CVO to develop plans and strategies on veterinary-related activities. Dr. Gay Z. Pallar, a Doctor of Veterinary Medicine (DVM), heads the Animal Disease Control Section of CVO. As such, she handles the monitoring and implementation of the city's animal disease control initiatives, including the control of rabies disease. The researcher was able to personally interview Dr. Pallar to gather first-hand information on how the NRPCP is implemented in Davao City.

City Veterinarian's Office Rabies Prevention and Control Initiatives

According to Pallar, they have four activities in relation to rabies prevention and control, to wit: 1) mass dog vaccination; 2) impounding; 3) castration, and 4) Information and Education Campaign.

1. Mass Dog Vaccination

As for mass dog vaccination, the office makes sure that at least one mass dog vaccination is conducted in each of the City's 182 barangays

annually. There are designated CVO employees and technicians promoting these vaccination programs.

Davao is the largest city in the country, and the demands for local dog vaccination is very high. With this, the LGU created an Anti-Rabies Vaccination Team which focuses on the actual visits in the barangays to conduct vaccination.

Mass dog vaccination is usually held on weekdays. However, it is also conducted on Saturdays and/or Sundays to cater dog owners in some subdivisions. However, mass dog vaccination proved to be more challenging in the time of COVID-19 pandemic, according to Dr. Pallar. The Anti-Rabies Vaccination Team is making extra efforts to adjust the vaccination schedule in every barangay in order to adhere to the basic health protocols like physical distancing. This is why CVO is working closely with the Barangay Offices to coordinate the scheduling. Pallar added that it is strategic to always communicate with the barangay officials/workers as they know their constituents better. It is more efficient for them to implement and oversee the basic health protocols during the actual mass vaccination. Ever since, CVO had been coordinating with the barangays. Yet, according to Pallar, some barangay governments claim to have busy schedules and are not receptive to their communication efforts. However, when barangay governments have seen the disadvantages of not initiating vaccination activities, they gradually gave way to the conduct of these activities in their areas.

2. Impounding

Aside from the mass dog vaccination program, Pallar emphasized that the CVO conducts impounding activities as well. Impounding is now held

twice a day—once during daytime, and another during the night. This is in accordance to the City Mayor’s mandate on intensifying the rabies prevention and control in Davao City.

3. *Castration*

Another strategy that intends to address the issue on dog population control is castration. Right now, the CVO encourages neutering or castration over spay because of its cost-effectiveness. As Pallar explained, one vial for spaying can only be used for up to five female pets, while when neutering, a vial such as anesthetic, can already cover 10 to 15 male pets. Hence, CVO is currently focusing its efforts in promoting and conducting neutering or castration activities because they can accommodate more pet dogs compared to spaying.

4. *Information, Education, and Communication Campaign*

Furthermore, Pallar added that the Information and Education Campaign is also one of CVO’s strategies in relation to rabies prevention and control. They use social media, specifically Facebook, as their main communication channel. During mass vaccinations, flyers are also distributed to dog owners. Meanwhile, consultation with the veterinarians presents an opportunity for them to educate the dog owners. They used to conduct seminars and training on the general topics related to animal disease control, but because of the COVID-19 Pandemic, this has been temporarily stopped in order to adhere to the advisory on no mass gatherings.

Pallar affirmed that responsible pet ownership is key in eliminating rabies disease. She adds that the reason why there are stray dogs roaming in the streets are irresponsible pet owners. According to Pallar, people usually want to own a dog only for security purposes. Most often than not, dog owners disregard their responsibilities such as having their dogs vaccinated regularly, providing it with adequate food, and ensuring that it would not roam around the streets without supervision.

Further, Pallar says that the common reason for this behavior, especially in the slum areas, is poverty. Pallar would often hear words like *"What would we provide to our dogs when we cannot even provide food on our table."* Some of these dog owners even go as far as selling the meat of their dogs to those who are fond of eating dog meat.

When asked specifically about the status of Davaoeños' adherence to responsible pet ownership, Pallar estimated a 60% compliance because it cannot be denied that there are still many stray dogs in the city. However, Pallar also pointed out that Davao City is now becoming a Dog Lover Community. Their office has been receiving requests for more castration activities. Also, there are now more people who rescue stray dogs from the streets, and there is a growing number of clubs or organizations of different dog breed owners in the city.

However, many dog owners are still neglecting their responsibilities. Pallar points out that such negligence commonly happens in the slum areas or in low-income households. During the conduct of a vaccination activity, Pallar had an experience when the dog owner tossed his dog after knowing that there is a minimal fee of thirty pesos for the dog's vaccine, and said *"Seriously? Thirty pesos? I can*

already buy one kilo of rice for that amount!" That was the time when dog owners were still charged for their pets' vaccination.

However, Pallar expressed that she is not generalizing the behavior of low-income households towards their pets. She says that there are dog owners who are poor or with low income that still strive to be responsible.

Due to complaints, the CVO made amendments to offer the vaccines free of charge. At present, Davaoefños can have their dogs vaccinated in the CVO without paying any fee.

Rabies Prevention and Control Program Monitoring and Evaluation

Pallar said that dog owners are most receptive to mass dog vaccination. The dog vaccination turnout in 2020 was higher compared to the previous year, despite the pandemic. In Pallar's opinion, dog owners may have realized now the importance of their pets, especially with the time they spend at home during lockdowns. Pallar said it is like how gardening is trending now. People were not fond of tending plants until the pandemic hit.

Furthermore, Pallar added that castration comes next to mass dog vaccination. The demand is so high that at times, they can no longer accommodate all requests.

The CVO also conducts castration activities in barangays. However, according to Pallar, some barangays prefer to cater their constituents or residents. She cited the castration activity held in the Communal Area as an example. It was supposed to be held for two days, but since dog owners from other barangays also flocked in, Barangay Communal decided to cancel the second day. Pallar further said that this is understandable, especially during the pandemic. Limiting participants

to those who belong in their own barangay will lessen the risk of transmission of COVID-19.

To avoid situations such as this, Pallar pointed out that every barangay should sponsor their own castration activities. However, as evident in the example given, not all barangays have the initiative to organize such activities. Budget allocation or constraints may be one of the reasons.

Pallar clarified that the budget for castration activities come requesting barangay. The CVO team will be mobilized only when the barangay has filed a request for such. In other words, it is the responsibility of the barangay to organize the event, book a schedule, and ensure that its constituents are informed about the scheduled activity. In this time of pandemic, barangay officials/workers are also responsible in ensuring that necessary protocols are followed, such as physical distancing and wearing of masks and face shields. On the other hand, the CVO is more focused on the actual castration.

Pallar also shared that in the barangay level, it is often the dog owners who initiate the request for castration activities. The barangay just has to ensure that there are at least 20 dogs for castration. According to Pallar, this is the minimum number of dogs for the CVO to grant the request. Also, Pallar affirmed that the barangay governments are well-informed about these. They just have to secure the request, and the CVO team is willing to grant it if their logistics permit.

In terms of monitoring and evaluation, Pallar said that they are consolidating their accomplishment reports on a monthly basis. The indicators serve as basis for their performance tasks. These then form part of their performance evaluation. Table 27 shows the CVO – Rabies Prevention and Control Program Accomplishment Report for the year 2019.

Table 27. CVO Rabies Prevention and Control Accomplishment Report (page 1 of 2)

Republic of the Philippines
City of Davao
OFFICE OF THE CITY VETERINARIAN

**RABIES PREVENTION AND CONTROL PROGRAM
ACCOMPLISHMENT REPORT
For the Month of January 2019- December 2019**

DISTRICT	Estimated Dog Pop.	70% Vaccination target	TOTAL VACCINATED									Surveillance			
			2016		2017		2018		2019			Animal Cases			
			No. of Hds.	Clients Served	No. of Hds.	Clients Served	No. of Hds.	Clients Served	No. of Hds.	% Accomplishment	Clients Served	2016	2017	2018	2019
Poblacion/Agdao	23,101	16,171	13,447	8,355	12,312	7,942	12,302	7,951	13,920	60.26%	8,498	1	1	3	3
Talomo	41,039	28,727	24,006	15,493	24,539	14,562	39,825	24,001	27,218	66.32%	14,830	4	5	28	11
Tortil	14,312	10,018	13,530	8,338	7,758	4,791	12,081	7,301	14,432	100.84%	8,128			4	1
Tugbok	9,165	6,416	9,068	5,521	5,859	3,502	10,301	6,596	8,994	98.13%	4,749	2	3	8	2
Calinan	8,777	6,144	8,945	4,894	6,476	3,707	7,726	4,161	10,020	114.16%	5,112	1	3	1	2
Marilog	4,840	3,388	3,905	2,122	3,136	1,520	2,757	1,457	3,051	63.04%	1,668		1		
Buhangin	27,558	19,290	16,509	9,791	21,099	12,409	19,247	10,910	23,491	85.24%	12,850	2	2	8	8
Bunawan	14,125	9,888	12,304	6,683	9,997	5,362	14,123	7,888	10,156	71.90%	5,482	5		3	
Paquibato	4,258	2,981	3,436	1,936	2,234	1,333	1,726	916	1,856	43.59%	1,039				
Baguio	3,259	2,281	2,690	1,573	2,209	1,400	2,251	1,513	1,257	38.57%	822				
Clinic/Citywide	0	0	2,963	2,210	6,074	4,574	5,540	4,284	5,431	0.00%	3,514				
City Pound									404		351				
TOTAL	150,434	105,304	110,803	66,431	101,693	61,102	127,879	76,978	120,230	79.92%	67,043	15	15	55	27

Table 27. CVO Rabies Prevention and Control Accomplishment Report (page 2 of 2)

Republic of the Philippines
City of Davao
OFFICE OF THE CITY VETERINARIAN

RABIES PREVENTION AND CONTROL PROGRAM
ACCOMPLISHMENT REPORT
For the Month of January 2019-December 2019

DISTRICT	Dog Control Measures								Brochures Distributed			Information Education Campaign (Rabies/RPO)							
	Impounded				Spayed/Neutered				2017	2018	2019	2016		2017		2018		2019	
	2016	2017	2018	2019	2016	2017	2018	2019				Session	Pax	Session	Pax	Session	Pax	Session	Pax
Poblacion/Agdao					47	70	57	181	7,942	7,951	8,498	24	693	62	2,729	64	2,546	89	4,501
Talomo					27	20	34	164	14,562	24,001	14,830	47	1,252	115	2,644	54	1,845	57	2,304
Toril					69	60	88	155	4,791	7,301	8,128	249	3,183	96	2,060	112	3,204	80	6,572
Tugbok					37	8	20	111	3,502	6,596	4,749	63	1,124	43	1,159	27	924	68	2,305
Calinan					73	19	28	62	3,707	4,161	5,112	91	1,292	62	1,314	70	1,642	27	920
Marilog								27	1,520	1,457	1,668	15	356	62	1,337	54	958	70	1,713
Buhangin					66	91	48	266	12,409	10,910	12,850	58	1,206	152	4,484	174	4,155	274	7,744
Bunawan					3	10	11	134	5,362	7,888	5,482	47	857	97	2,235	88	2,415	75	1,855
Paquibato						3		32	1,333	916	1,039	13	220	41	744	39	1,296	22	664
Baguio							21	72	1,400	1,513	822	3	128	23	1,024	17	1,246	30	1,365
Clinic /Citywide							802	5	4,574	4,284	3,514	40	774	14	301	2	74	99	10,203
City Pound											351					12	222	11	215
TOTAL	5,308	3,225	3,588	6,089	322	281	1,109	1,209	61,102	76,978	67,043	650	11,085	767	20,031	713	20,527	902	37,781

Prepared by:

Chief, Animal Disease

As can be seen in Table 27, the accomplishment report is divided into five (5) sections, namely: 1) estimated dog population vis-à-vis the number of total dogs vaccinated; 2) surveillance on animal rabies cases; 3) dog control measures which includes total number of impounded dogs, and total number of spayed/neutered; 4) brochures distributed, and 5) number of IEC sessions and participants.

It is noteworthy to mention that the CVO sets target for its vaccination activities. However, such target falls short of Mata, Prudenciado & Lachica's (2018) recommendation of more than 80% vaccination coverage as one of the possible countermeasure against rabies. The rest of the measures are focused on process objectives. According to Center Disease Control and Prevention (n.d.), process objectives describe the activities/services/strategies that will be delivered as part of implementing a program. Simply put, the basis for its accomplishment is leaning more towards the number of activities/services/strategies done. Unlike process objectives, outcome objectives examine the intended effect of the program and focus on the impact of the activities/services/strategies implemented (CDC, n.d.).

Looking at the reports of the Davao CVO, it is evident that only process objectives are monitored and evaluated; there is a lack of outcome objectives.

The NRPCP Strategic Plan for 2020-2025, however, stipulates more detailed goals and objectives in line with the global framework for elimination of dog-mediated human rabies. The framework includes the five pillars, namely Socio-Cultural, Technical, Organization, Political, and Resources. Intensification of rabies education and communication campaigns, as well as the promotion of responsible pet ownership falls under the Socio-Cultural dimension, which means there are available guidelines to follow in implementing these initiatives.

Motivators and Barriers for Responsible Pet Ownership

The survey results revealed that the Readiness to Act of the participants was high. In particular, they had high level of Perceived Threat and Severity; high level of Perceived Susceptibility; very high level of Perceived Benefits; and very high Self-Efficacy. The factor Perceived Barriers yielded a moderate level of agreement. After doing Pearson Correlation Test, the only factor that had a significant relationship with the dependent variable Adherence to Responsible Pet Ownership is the factor Awareness on CVO's Rabies Prevention and Control Program. Particularly, the association was directly proportional. Meaning, participants who have high awareness are likely to have better Responsible Pet Ownership Practice.

Similarly, this major finding in the survey also reflected in the FGDs conducted. The FGD participants also had High Perceived Threat and Severity, High Perceived Benefits, and High Self-Efficacy, but lacked reinforcement on their Cues to Action, which is CVO's Rabies Prevention and Control Program. Participants were most satisfied with the dog vaccination and castration. However, according to them, these activities were not communicated properly in their respective barangays, which suggests a room for improvement in the CVO's conduct of IECs in the barangays.

The FGD participants suggested strategies that they believe would help improve the anti-rabies information campaign. These include audience segmentation, public consultation, and maximizing the use of social media platforms. The need for audience segmentation was suggested mainly because different barangays have different access to communication channels. Most of the participants, for instance, were College Graduates and belonged to the middle class, which likely granted them access to technologies. What may be working through social media, however, might not reach those who do not have the access to it.

Public consultation might help in creating the contents of the communication campaign, especially in raising awareness on dogs as the main transmitter of rabies disease to humans. Finally, since social media is widely used nowadays, the FGD participants find it best to maximize this platform in keeping the dog owners abreast with CVO's activities and other pertinent announcements.

In an interview with Dr. Gay Z. Pallar, she shared that Davaoeños are becoming more aware and adherent to responsible pet ownership. There is a consistent high anti-rabies vaccination turn-out, a growing number of requests for castration, lots of new dog groups established, and many people volunteer to be dog rescuers.

However, it was found out that CVO's monitoring and evaluation tools for the Rabies Prevention and Control Program were based on output objectives only. Meaning, the office focuses more on the number of activities implemented, leaving its impact objectives unmonitored. Simply put, the impact of the activities, especially IECs, were not measured or evaluated. There are, however, available guidelines and more detailed goals and objectives found in the NRPCP Strategic Plan for 2020-2025.

In addition to the existing published guidelines and strategic plan, this study's quantitative findings on inter-independent variables, and socio-demographics and socio-economic factors may also be used as additional considerations in crafting a communication plan for the Rabies Prevention and Control Program. Through this study, we have found out that there is an inversely proportional relationship between question under exposure to rabies *"Do you know someone who died from rabies"* to the level of adherence to responsible pet ownership practices. Meaning, participants who have known someone who died from rabies disease had lower level of

responsible pet ownership practices. Also, we have determined the interrelation of variables under Readiness to Act, such as: Perceived Threat and Perceived Susceptibility; Perceived Threat and Perceived Benefits; Perceived Threat and Self-Efficacy; Perceived Susceptibility and Perceived Benefits; and Perceived Susceptibility and Self-efficacy. To add, Awareness on CVO's Anti-Rabies Program under Cues to Action was also found to have a significant relationship with Perceived Threat and Perceived Benefits. Hence, reinforcement on the threat and benefit perceptions may encourage dog owners to adhere to responsible pet ownership as a preventive behavior against rabies.

Overall, both quantitative and qualitative results revealed that among the three factors identified to possibly influence dog owners to become responsible pet owners, Readiness to Act and Self-Efficacy were high. However, Cues to Action, particularly its communication aspect, failed to activate the dog owners' readiness and willingness to act.

CHAPTER V

SUMMARY

The DOST-PCHRD identified stray dogs as a culprit for rabies cases and deaths. This is evidenced by Lachia, et.al.'s (2019) study which concluded that ownerless and free-roaming dogs are the main driver of rabies transmission in Davao City. Recognizing responsible pet ownership as a key in eliminating rabies disease in the Philippines, the researcher utilized a mixed methodology approach to discover what influences dog owners in taking on responsible pet ownership as a rabies preventive measure.

Guided with the Health Belief Model or HBM, this study hypothesized that Adherence to Responsible Pet Ownership is influenced by an individual's (1) Readiness to Act, (2) Cues to Action, and (3) Self-Efficacy. To test this hypothesis, the researcher utilized the convergent mixed method design, in which Survey Questionnaire, Key-Informant Interview, and Focus Group Discussions (FGDs) were conducted to the top three barangays with the highest number of rabies cases reported in 2018, concurrently yet separately. The independent variables are factors such as exposure to rabies disease, knowledge and practices, perceptions on the risk and benefits of avoiding the risk, self-efficacy, and awareness of CVO's Rabies Prevention and Control Program. On the other hand, Adherence to Responsible Pet Ownership is the dependent variable.

The online survey generated valid responses from sixty (60) individuals. Data gathered were then statistically processed. Most of the respondents were of middle-

age, college degree as their highest educational attainment, and most of them also belonged to the middle class.

Further, the survey results revealed that respondents' Readiness to Act was high. In particular, they had high level of Perceived Threat and Severity, high level of Perceived Susceptibility, very high level of Perceived Benefits, and very high Self-Efficacy. More so, the survey respondents had moderate Awareness on CVO's Rabies Prevention and Control program.

Among all the independent variables, Awareness on CVO's Rabies Prevention and Control Program was the only factor that had a significant relationship with the dependent variable. The correlation was directly proportional hence, participants who have high awareness are likely to have better Responsible Pet Ownership Practice.

Similarly, the FGD showed the same results as the survey. The FGD participants also had High Perceived Threat and Severity, High Perceived Benefits, and High Self-Efficacy, but lacked reinforcement on their Cues to Action. Of the four components of the program, the FGD participants were most satisfied with the anti-rabies vaccination, followed by castration. Then again, the schedule of these activities were not communicated properly in their respective barangays. The participants were also not familiar with CVO's IECs, making the lack of reinforcement of Cues to Action more evident.

The researcher also conducted a key informant interview with Dr. Gay Z. Pallar, the Section Head of Animal Disease Control Section of CVO. She shared that the Intensified Rabies Prevention and Control Program is being implemented. Also, she testified that Davao City is slowly becoming a responsible pet owner community. However, the success of the implementation highly requires the cooperation of the

barangay governments. At present, it is the responsibility of the barangays to initiate the scheduling of activities such as anti-rabies vaccination and castration, before the CVO actually visits the area. This signifies the need for Barangay Offices to be proactive, and also for the CVO to devise ways that will ensure full compliance of all barangays in the city.

This study also examined the CVO's accomplishment report which serves as the Office's monitoring and evaluation tool. The indicators found in the accomplishment report focused more on the number of activities and strategies conducted, or the output objectives. Impact objectives or the effect of the activities conducted or program components, especially the IECs, were not measured nor determined. CVO's IECs needed improvement, according to the participants of this study.

CONCLUSION

Quantitative and qualitative results unanimously revealed that the research participants had high knowledge on rabies, high level of perceived threat, high level of perceived susceptibility, high level of perceived benefits, moderate level of perceived barriers, and a very high level of self-efficacy. The Cues to Action or the CVO's Rabies Prevention and Control Program, however, was not high, especially in the barangay level implementation. According to the key informant of this study, Dr. Gay Pallar of the CVO, the program has four components, namely: 1) anti-rabies vaccination; 2) impounding; 3) castration; and 4) IECs. These components/activities highly require coordination with the barangay offices. This is where the

communication gap arises since not all barangays are actively participating in the CVO's program.

Despite this, both quantitative and qualitative results demonstrated that dog owners practice responsible pet ownership as a rabies preventive measure. Pallar added that Davaoeños are gradually becoming responsible pet owners indicated by the growing number of requests for castration, growing number of dog organizations, as well as dog rescuers. Finally, the survey results revealed that only Cues to Action had a significant relationship with the Level of Adherence to Responsible Pet Ownership Practices. This implies that as the awareness to the CVO's programs increases, the level of adherence to recommended practices also increases. Therefore, 'cues to action' has a significant influence on respondents' adherence to responsible pet ownership practices as a rabies preventive measure.

RECOMMENDATIONS

This study determined the motivators and barriers for adopting responsible pet ownership as a rabies preventive measure in Davao City.

Based on the findings, it is recommended that the CVO craft a detailed communication plan for its Rabies Prevention and Control Program, most especially on its Information, Education, and Communication (IEC) campaign. For a communication campaign to be successful, it is imperative to understand the needs and perceptions of its intended audience (U.S. Department of Health and Human Services, n.d.). Using the NRPCP Manual of Operations and Strategic Plan for 2020-2025, the CVO should assess its information campaign's goals and objectives, study its intended audience, create messages that would cater the needs of the audience,

and most importantly, monitor and evaluate their implementation. Doing so may help the CVO figure out how to activate the dog owners' Readiness to Act and Self-efficacy in being responsible pet owners.

Another recommendation for the CVO is to create a feedback mechanism for the barangay officials/governments. Also, since there are barangays that do not implement the Rabies Prevention and Control Program, the CVO should strategize efforts that will encourage them to participate in this initiative. Since the barangay officials spearhead the conduct of CVO's activities in their respective areas, it is important to devise ways on how to ensure their full compliance to the rabies prevention program.

Finally, this study attempted to explain and predict behavior by determining the perceptions, attitudes and beliefs of the Davao Rabies Prevention and Control Program's target audience. Future studies may consider examining the communication dynamics of the implementing agencies, such as CVO and the barangays in Davao City. This study found out that there seems to be a communication gap between these two parties, but failed to deepen the data collection from the barangays' end due to the restrictions brought by the pandemic. Looking at the sources of information might help in streamlining communication processes that would hopefully translate into a well-informed dog owner community.

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ANNEXES

Annex 1: Electronic Consent Form for the Online Survey

ENGLISH

Hello! I am Katrina M. Sanchez, a Master of Development Communication student of the UP Open University.

I'm currently conducting an academic research about Motivators and Barriers for Responsible Pet Ownership in Davao City. The goal is to help improve the city's adherence to responsible pet ownership as rabies preventive measure. Target respondents for this online survey would be pet dog owners from Barangays Catalunan Grande, Toril, and Tugbok. The survey should only take about 10-15 minutes, and all responses are completely anonymous.

The information you will share with me in this survey will be kept completely confidential, and will be used for the sole purpose of this academic research alone. All responses will be collected thru SurveyMonkey. For more information on how the collected personal data will be processed by this online platform, please see link to the SurveyMonkey Privacy Policy.

Do you agree to the above terms? By clicking Yes, you consent that you are willing to answer the questions in this survey.

CEBUANO

Maayong adlaw!

Ako si Katrina M. Sanchez, usa ka Master of Development Communication student sa UP Open University.

Aduna ako'y research mahitungod sa mga nagpadasig ug mga nagbabag sa Responsible Pet Ownership sa Davao City. Ang tumong niini mao ang pagtabang sa pagpalambo sa responsible pet ownership isip pamaagi batok rabies. Nahiuyon niini, nagkinahanglan ako ug mga dog owners gikan sa mga Barangay Catalunan Grande, Toril, og Tugbok, nga mutubag sa online survey. Ang maong survey mahuman ra sa 10-15 ka minuto, ug ang inyong mga tubag tratuhon isip anonymous.

Ang tanang impormasyon na inyong ipahibalo kanako pinaagi niining survey magpabilin na confidential, ug gamiton aron lamang sa katuyoan sa research. Kolektahon ang tanan tubag gamit ang SurveyMonkey, nga usa ka online platform.

Alang sa dugang kasayuran mahitungod sa Privacy Policy sa SurveyMonkey, palihog click sa link: <https://www.surveymonkey.com/mp/legal/privacy-policy/>

Uyon ka ba niining mga termino? Sa imong pag-click ug Yes, tugot ikaw na mutubag sa mga pangutana niining survey.

Annex 2-A: Survey Questionnaire

(English)

I. SOCIO-DEMOGRAPHICS & SOCIO-ECONOMIC BACKGROUND

Barangay: _____

Gender: [] Male [] Female

Age: _____

Educational Background

- None
 Elementary (Grade Level)
 High School (Year Level)
 College (Year Level)

Number of Household Members: _____

Monthly Income (Classification based on Philippine Institute for Development Studies)

- Less than PHP10,481 (poor)
 Between PHP10,481 and PHP20,962 (low-income class, but not poor)
 Between PHP 20,962 and PHP 41,924 (lower middle-income class)
 Between PHP 41,924 and PHP 73,367 (middle middle-income class)
 Between PHP 73,367 and PHP 125,772 (upper middle-income class)
 Between PHP 125,772 and PHP 209,620 (upper-income class, but not rich)
 PHP 209,620 and above (rich)

II. EXPOSURE TO RABIES

1. How many pet dogs do you or your family have? _____

2. Have you ever been bitten by a dog?
 Yes No

3. Do you know someone who was bitten by a dog?
 Yes No

3a. If yes, who are they? (Please check all that apply)
 Family and/or relative
 Other than a family member

4. Did the person feel severe effect/s from dog bites?
 Yes No

5. Do you know someone who died from rabies disease?
 Yes No

III-A. KNOWLEDGE

1. Rabies is a viral disease that infects the human central nervous system
 True False

2. Symptoms of rabies include fever, severe muscle spasms, hydrophobia (fear of water), abnormal behavior, and sometimes aerophobia (fear of fresh air).

True False

3. Dogs are the main source of human rabies.

True False

4. How can rabies be transmitted from dogs to humans?

Bites

Licking of open cut or wound

Scratch from infected wet saliva

Consumption of raw or improperly cooked infected animal brain

III-B. PRACTICES

1. Do you keep a registration card for documentation of your dog/s vaccination?

Yes No

2. Is/are your dog/s registered?

Yes No

3. Did you have your dog/s vaccinated with anti-rabies?

Yes No

4. Did you have your dog/s get yearly booster after getting vaccinated?

Yes No

5. Do you allow your dog/s to roam the streets or any public place without a leash?

Yes No

6. Do you ensure that your dog/s is/are cared for by providing them proper grooming, adequate food and clean shelter?

Yes No

III-C. SOURCES OF INFORMATION

1. During the past year, has any of the barangay health worker/officer/leader mentioned to you about dog rabies?

Yes No

2. During the past year, have you ever attended any seminars/trainings about dog rabies and its prevention and control?

Yes No

3. During the past year, have you ever brought your pet dog/s to the Local Government Unit (LGU) of Davao City's mass dog vaccination?

Yes No

4. Are you aware that the Local Government Unit (LGU) of Davao City has an intensified Rabies Prevention and Control Program?

Yes No

IV. RISK PERCEPTION ON DOG RABIES

IV-A. Perceived Threat/Severity

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Rabies can lead to human death if not treated immediately.					
2. There is no effective treatment to rabies once symptoms appear.					
3. Rabies can also result in a dog's death.					
4. Rabies causes tens of thousands of deaths every year, mainly in Asia and Africa.					
5. Rabies has the highest case fatality rate of any known infectious disease.					
6. Dog bites in the face and neck allow rabies to travel more quickly to the brain.					

IV-B. Perceived Susceptibility

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I might get rabies from bites or deep scratches from my pet dog/s that are left unvaccinated.					
2. Children might get bitten by an unvaccinated dog and will most likely not report the bite incident to their parents.					
3. My pet dog/s might bite a stranger if I let it roam around the street and other public places without a leash.					
4. My pet dog/s might get infected by rabies even if I am providing them food, shelter and proper grooming.					

IV-C. Perceived Barriers

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. It is costly to take my pet dog/s to Veterinarian's Clinic for regular check-up.					
2. It is also expensive to provide adequate food, clean shelter, and proper grooming to my pet dog/s.					
3. I have no time to take care of my pet dog/s.					
4. We do not have free dog vaccination in our barangay.					
5. We do not have rabies prevention and control ordinance in our barangay.					

IV-D. Perceived Benefits

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Rabies is 100% fatal, but 100%					

preventable.					
2. Rabies can be prevented by giving my pet dog/s vaccine and yearly booster thereafter.					
3. Providing my pet dog/s with its basic needs will help reduce the number of stray dogs.					
4. Davao City LGU provides free dog vaccination thru the City Veterinarian's Office.					
5. Davao City LGU has an intensified Rabies Prevention and Control Program.					

IV-E. Self-efficacy

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I am willing to take the recommended actions to protect myself, my family and other people from acquiring rabies disease.					
2. I will have my pet dog/s vaccinated.					
3. I will provide my pet dog/s with adequate food, clean shelter, and proper grooming.					
4. I will allot time to properly take care of my pet dog/s.					
5. I will not let my pet dog/s wander the streets or other public places without a leash.					
6. I will not let my children play with unvaccinated dogs.					
7. I will not let my pet dog/s lick my open cut or wound.					
8. I will abide with the rabies prevention and control program of the Davao City LGU.					

Annex 2-B: Survey Questionnaire

(CEBUANO)

I. SOCIO-DEMOGRAPHICS & SOCIO-ECONOMIC BACKGROUND

Barangay: _____

Seks: [] Male [] Female

Edad: _____

Labing taas nga edukasyong nakab-ot

- ___ None
- ___ Elementary Graduate
- ___ High School Graduate
- ___ College Graduate

Pila mo kabuok myembro sa inyong panimalay: _____

Pila imong kita kada bulan? (Classification based on Philippine Institute for Development Studies)

- ___ Ubos sa PHP10,481 (poor)
- ___ Naa sa PHP10,481 hantod PHP20,962 (low-income class, but not poor)
- ___ Naa sa PHP 20,962 hantod PHP 41,924 (lower middle-income class)
- ___ Naa sa PHP 41,924 hantod PHP 73,367 (middle middle-income class)
- ___ Naa sa PHP 73,367 hantod PHP 125,772 (upper middle-income class)
- ___ Naa sa PHP 125,772 hantod PHP 209,620 (upper-income class, but not rich)
- ___ Labaw pa sa PHP 209,620 (rich)

II. EXPOSURE TO RABIES

1. Pila ka iro ang inyong gibuhi sa balay? _____

2. Napaakan na ba ka ug iro?

___ Oo ___ Wala

3. Aduna ba kay kaila nga napaakan ug iro?

___ Oo ___ Wala

3a. Kung anaa, kinsa siya/sila?

- ___ Myembro sa pamilya/paryente
- ___ Gawas sa pamilya og paryente

4. Aduna ba siya/sila'y nasinati na daotang epekto human napaakan ug iro?

___ Oo ___ Wala

5. Aduna ba ka'y kaila nga namatay tungod sa rabies?

___ Oo ___ Wala

III-A. KNOWLEDGE

1. Ang rabies usa ka sakit nga makaapekto sa central nervous system sa tao.

___ Tinood ___ Dili tinood

2. Ang mga sintomas sa rabies mao ang hilanat, pamaol, phobia sa tubig, abnormal nga pamatasan, ug sa ubang kaso, phobia sa preskong hangin.

_____ Tinood _____ Dili tinood

3. Ang mga iro mao ang pangunang gigikanan sa rabies.

_____ Tinood _____ Dili tinood

4. Sa unsang pamaagi matakdan ang tao sa rabies?

_____ Pinaagi sa pinaakan sa iro

_____ Pinaagi sa pagtilap sa iro sa pamanit sa tao nga naa'y buwang samad

_____ Pinaagi sa pagkamras ug paglapat sa laway sa iro nga adunay rabies ngadto sa imong pamanit

_____ Pinaagi sa pagkaon ug hilaw o dili maayong pagkaluto sa iro nga adunay rabies

III-B. PRACTICES

1. Aduna ba ka'y registration card aron mamonitor ang bakuna sa imong iro?

_____ Naa _____ Wala

2. Nakarehistro baa ng imong mga binuhing iro?

_____ Oo _____ Wala

3. Nabakunahan na ba imong iro kontra rabies?

_____ Oo _____ Wala

4. Aduna bay booster kontra rabies ang imong iro kada tuig?

_____ Oo _____ Wala

5. Imo bang ginatugutan ang imong binuhing iro nga maglaroy-laroy sa pampublikong lugar nga wala hikti?

_____ Oo _____ Wala

6. Imo bang ginahatagan ug saktong pag-amuma imong binuhing iro pinaagi sa paghatag niini ug saktong pagkaon, limpyong puluy-anan, og maayong pamustura?

_____ Oo _____ Wala

III-C. SOURCES OF INFORMATION

1. Sa milabay nga tuig, aduna bay barangay health worker, officer, o leader ang naghisgot mahitungod sa rabies?

_____ Oo _____ Wala

2. Sa milabay nga tuig, naka-apil ka ba og mga seminar o trainings mahitungod sa rabies?

_____ Oo _____ Wala

3. Sa milabay nga tuig, imo bang napabakunahan imong binuhing iro kontra rabies pinaagi sa Lokal na Panggamhanang mass vaccination?

_____ Oo _____ Wala

4. Sayod ba ka nga adunay Intensified Rabies Prevention and Control Program ang Lokal na Panggamhanan sa Davao?

_____ Oo _____ Wala

IV. RISK PERCEPTION ON DOG RABIES

IV-A. Gilantaw nga Kadako sa Peligro nga Dala sa Rabies

Statement	Hugtanon nga dili mouyon	Dili mouyon	Wala'y ikasulti	Mouyon	Hugtanon nga mouyon
7. Posibleng makapatay og tao ang rabies kung dili dayon matambalan.					
8. Wala nay epektibong tambal kontra rabies kung nasinati na ang mga sintomas niini.					
9. Posibleng makapatay pud og iro ang rabies.					
10. Tungod sa rabies, napulo ka libo kapin ka tao ang nangamatay kada tuig, labi na sa Asya ug Africa.					
11. Ang rabies mao ang adunay pinakataas nga rate sa pagkamatay taliwala sa ubang infectious disease.					
12. Ang rabies mas dali muabot sa utok sa tao kung ang tao mapaakan ug iro sa ulo og liog.					

IV-B. Gilantaw nga Kahigayunan nga Matakboyan og Rabies

Statement	Hugtanon nga dili mouyon	Dili mouyon	Wala'y ikasulti	Mouyon	Hugtanon nga mouyon
5. Posibleng matakdan ko sa rabies kung mapaakan o makambrasan ug lalom sa iro nga walay bakuna kontra rabies.					
6. Posibleng mapaakan ang mga bata ug wala mabakunahing iro og dako ang posibilidad nga dili nila kini ireport sa ilang mga ginikanan.					
7. Posibleng mamaak akong iro og mga taong wa niya ilhi kung ako kining tugutan nga maglaroy-laroy sa pampublikong lugar nga wala hikti.					
8. Posible gihapon magka-rabies akong iro bisan pa ug aduna silay saktong pagkaon, limpyong puy-anan, ug maayong pamustura.					

IV-C. Gilantaw na Babag sa Paglikay Batok Rabies

Statement	Hugtanon nga dili mouyon	Dili mouyon	Wala'y ikasulti	Mouyon	Hugtanon nga mouyon
6. Mahal ang magpabakuna ug iro kontra rabies.					
7. Mahal ang serbisyo nga ginahatag sa mga beterinaryo.					
8. Mahal ang muhatag ug saktong pagkaon, limpyong puloy-anan, ug maayong pamustura sa akong binuhing iro.					
9. Wala ko'y panahon muatiman sa akong mga binuhing iro.					

10. Wala'y libre nga bakuna sa iro sa among barangay.					
11. Wala'y ordinansa ang barangay mahitungod sa rabies prevention and control.					

IV-D. Gilantaw na Benepisyo sa Paglikay Batok Rabies

Statement	Hugtanon nga dili mouyon	Dili mouyon	Wala'y ikasulti	Mouyon	Hugtanon nga mouyon
6. Ang rabies makamatay, apan pwede kini malikayan.					
7. Mapugngan ang pagkuyanap sa rabies kon ang iro nabakunahan og kada tuig adunay booster.					
8. Malikayan ang paglaroy-laroy sa akong iro sa pampublikong lugar kon ano kini hikot.					
9. Makatabang sa di pagkalat sa mga stray dogs sa dalan ang paghatag nako ug saktong pagkaon, limpyong puy-anan og maayong pamustura sa akong iro.					
10. Adunay libre nga bakuna sa iro ang City Veterinarian's Office sa Davao.					
11. Adunay pinahugot nga Rabies Prevention and Control Program ang Davao City.					

IV-E. Kinaiya batok sa Paglikay sa Rabies

Statement	Hugtanon nga dili mouyon	Dili mouyon	Wala'y ikasulti	Mouyon	Hugtanon nga mouyon
9. Andam ako nga sundon ang mga nirekomendang action para maprotektahan akong sarili, pamilya, og ubang tao batok sa rabies.					
10. Akong pabakunahan akong mga iro kontra rabies.					
11. Akong hatagan ug saktong pagkaon, limpyong puy-anan og maayong pamustura akong binuhing iro.					
12. Akong gahinan og oras ang saktong pag-alaga sa akong iro.					
13. Dili nako tugutan akong iro nga maglaroy-laroy sa pampublikong dalan kung wala kini hikti.					
14. Dili nako tugutan akong mga anak na makigdula sa mga iro na wala pa bakunahi.					
15. Dili nako tugutan akong iron a tilapan akong samad.					
16. Musunod ako sa pinahugot nga rabies prevention and control program sa Davao City.					

Annex 3: Letter to Barangays on Survey Promotion

July 3, 2020

Hon. January N. Duterte
Punong Barangay
Barangay Catalunan Grande, Davao City

Dear Barangay Captain Duterte,

Good day!

I am Katrina M. Sanchez, a Master of Development Communication student of UP Open University. As part of my data gathering for graduate thesis, I am conducting an online survey about Motivators and Barriers for Responsible Pet Ownership in Davao City to dog pet owners in Barangays Catalunan Grande Toril, and Tugbok. According to Davao City Veterinarian's Office, these three (3) barangays have the most number of reported rabies cases in 2018. The goal of my academic research is to help improve the city's adherence to responsible pet ownership as rabies preventive measure.

Relative to this, I am humbly asking for your assistance in gathering responses for my online survey by sharing the link thru your Facebook page. I utilized Survey Monkey as the platform for this survey, and it can be accessed thru this link: <https://www.surveymonkey.com/r/LJDZRP>

Your help would be very much appreciated in making this academic research successful. Should you want to discuss this further with me, I can be reached thru this mobile number 09062190344, or thru my email address: katmancaosanchez@gmail.com.

I am looking forward to your positive response to this request.
Thank you very much.

Sincerely,

Katrina M. Sanchez



July 3, 2020

Hon. Lilibeth L. Al-ag
Punong Barangay
Barangay Toril, Davao City

Dear Barangay Captain Al-ag,

Good day!

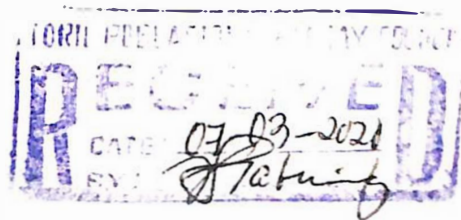
I am Katrina M. Sanchez, a Master of Development Communication student of UP Open University. As part of my data gathering for graduate thesis, I am conducting an online survey about Motivators and Barriers for Responsible Pet Ownership in Davao City to dog pet owners in Barangays Catalunan Grande Toril, and Tugbok. According to Davao City Veterinarian's Office, these three (3) barangays have the most number of reported rabies cases in 2018. The goal of my academic research is to help improve the city's adherence to responsible pet ownership as rabies preventive measure.

Relative to this, I am humbly asking for your assistance in gathering responses for my online survey by sharing the link thru your Facebook page. I utilized Survey Monkey as the platform for this survey, and it can be accessed thru this link: <https://www.surveymonkey.com/r/LDZRPM>

Your help would be very much appreciated in making this academic research successful. Should you want to discuss this further with me, I can be reached thru this mobile number 09062190344, or thru my email address: katmancaosanchez@gmail.com.

I am looking forward to your positive response to this request.
Thank you very much.

Sincerely,
Katrina M. Sanchez



July 3, 2020

Hon. Wilfredo C. Anfone
Punong Barangay
Barangay Tugbok Proper, Davao City

Dear Barangay Captain Anfone,

Good day!

I am Katrina M. Sanchez, a Master of Development Communication student of UP Open University. As part of my data gathering for graduate thesis, I am conducting an online survey about Motivators and Barriers for Responsible Pet Ownership in Davao City to dog pet owners in Barangays Catalunan Grande, Toril, and Tugbok. According to Davao City Veterinarian's Office, these three (3) barangays have the most number of reported rabies cases in 2018. The goal of my academic research is to help improve the city's adherence to responsible pet ownership as rabies preventive measure.

Relative to this, I am humbly asking for your assistance in gathering responses for my online survey by sharing the link thru your Facebook page. I utilized Survey Monkey as the platform for this survey, and it can be accessed thru this link: <https://www.surveymonkey.com/r/LDZRPM>

Your help would be very much appreciated in making this academic research successful. Should you want to discuss this further with me, I can be reached thru this mobile number 09062190344, or thru my email address: katmancaosanchez@gmail.com.


I am looking forward to your positive response to this request.
Thank you very much.

Sincerely,


Annex 4: Social Media Promotional Materials for the Survey

**KUNG IKAW PUMUPUYO SA BARANGAY
CAT. GRANDE, TORIL, OG TUGBOK,**

**SAYUD BA KA NGA
TAAS ANG KASO SA
RABIES SA INYONG
BARANGAY?**



I-scan ang QR Code alang sa usa ka online survey.



ADUNA KA BA'Y ALAGANG IRO UG
NAGPUYO SA **BRGY. CAT. GRANDE,**
TORIL, O TUGBOK?

**SAYUD KA BA
NGA TAAS ANG
KASO SA
RABIES SA
INYONG
BARANGAY?**



Annex 5: Cronbach's Alpha for Likert Scale Questions

Cronbach's Alpha was used to measure internal consistency (reliability) of questions in Part II-VI. Internal consistency of questions is acceptable if Cronbach's Alpha is at least 0.70.

The test shows that all the Cronbach's Alpha of items from Q27-Q32 of PERCEIVED THREAT/SEVERITY was 0.820. Hence, it is more than acceptable value. Furthermore, there is no need to delete any item. *See Table 1*

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
.820	6

The test shows that all the Cronbach's Alpha of items from Q33-Q36 of PERCEIVED SUSCEPTIBILITY was 0.819. Hence, it is more than acceptable value. Furthermore, there is no need to delete any item. *See Table 2*

Table 2. Reliability Statistics

Cronbach's Alpha	N of Items
.819	4

The test shows that all the Cronbach's Alpha of items from Q37-Q42 of PERCEIVED BARRIERS was 0.432. Hence, it is less than acceptable value. Nevertheless, **if item Q37 is deleted, the value of CA will increase to 0.659** which is a little less close to acceptable value. *See Table 3&3.1*

Table 3. Reliability Statistics

Cronbach's Alpha	N of Items
.432	6

Table 3.1. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q37	17.1000	10.544	-.267	.659
Q38	17.8000	5.067	.576	.077
Q39	16.8000	10.178	-.186	.557
Q40	15.8000	7.511	.374	.311
Q41	16.4000	6.267	.571	.168
Q42	16.6000	6.267	.452	.222

The test shows that all the Cronbach's Alpha of items from Q43-Q48 of PERCEIVED BENEFITS was 0.743. Hence, it is more than acceptable value. Furthermore, there is no need to delete any item. *See Table 4*

Table 4. Reliability Statistics

Cronbach's Alpha	N of Items
.743	4

The test shows that all the Cronbach's Alpha of items from Q49-Q56 of SELF-EFFICACY was 0.136. Hence, it is less than acceptable value. Nevertheless, if item Q45 is deleted, the value of CA will increase to 0.434 which is still less than the acceptable value. **Furthermore, another test was conducted, if both items Q45 and Q46 are deleted the value of CA will increase to 0.644 which is a little less close to acceptable value.** *See Table 5,5.1&5.2*

Table 5. Reliability Statistics

Cronbach's Alpha	N of Items
.136	6

Table 5.1. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q43	8.5000	2.278	.491	-.317 ^a
Q44	8.6000	3.822	-.162	.225
Q45	8.0000	3.778	-.249	.434
Q46	8.3000	2.678	.035	.145
Q47	7.8000	2.844	.198	-.010 ^a
Q48	7.8000	2.844	.198	-.010 ^a

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

Table 5.2. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Q43	6.7000	2.456	.410	.241
Q44	6.8000	3.956	-.212	.562
Q46	6.5000	2.944	-.033	.644
Q47	6.0000	2.222	.559	.120
Q48	6.0000	2.222	.559	.120

The test shows that all the Cronbach's Alpha of items from Q49-Q-56 of SELF-EFFICACY was 0.797. Hence, it is more than acceptable value. Furthermore, there is no need to delete any item. *See Table 6*

Table 6. Reliability Statistics

Cronbach's Alpha	N of Items
.797	8

Annex 6-A: Electronic Consent Form for the FGD Participants (ENGLISH)

Good day! I am Katrina M. Sanchez, a Master of Development Communication student of the UP Open University. I'm currently working on an academic research about Motivators and Barriers for Responsible Pet Ownership in Davao City. The overall goal of this research is to help improve the city's adherence to responsible pet ownership as rabies preventive measure.

As part of my data gathering, I would like to invite you to participate in an online focus group discussion (FGD) via Zoom App. You are being invited to take part in this research because you are a dog owner who belongs to the three barangays with the highest rabies cases in Davao City in 2018, namely Brgy. Catalunan Grande, Brgy. Tugbok, and Brgy. Toril.

The FGD will take about thirty (30) minutes to an hour.

PARTICIPATION

Your participation in this FGD is completely voluntary. You may refuse to participate at any time without penalty. You may also decline to answer the questions you do not wish to answer for any reason.

BENEFITS

There will be no direct benefits from participating in this research study. However, your inputs will help the researcher learn more about what motivates and hinders dog owners from adhering to responsible pet ownership. This information will then be used to help Davao City improve adherence to responsible pet ownership.

RISKS

You may find some of the questions to be sensitive, and the audio recording of the entire online discussion to be uncomfortable, but rest assured that possible risks and discomforts are minimal.

CONFIDENTIALITY

The audio recording of the online discussion will be kept confidential. Only the researcher and her thesis adviser will have access to the information given. The audio recording will be used only for analysis, and extracts from the interview may be used in any conference presentation. Your name, however, will not be linked to any of the research materials. As such, no one will be able to identify your inputs and whether or not you participated in the discussion.

CONTACT

If you have further questions or clarifications, you may contact the researcher thru this mobile number +639062190344 or via email at kmsanchez@up.edu.ph.

CONSENT

Please check your choice below. Checking the "Agree" box indicates that:

You are of legal age
You have fully read and understood the terms above
You consent to participate in the FGD

- Agree
 Disagree

Signature over printed name

Date signed

Annex 6-B: Electronic Consent Form for the FGD Participants (CEBUANO)

Maayong adlaw! Ako si Katrina M. Sanchez, usa ka Master of Development Communication student sa UP Open University. Ako karon adunay research mahitungod sa Motivators and Barriers for Responsible Pet Ownership dinhi sa syudad sa Davao. Tumong niini ang pagtabang sa pagpalambo sa responsible pet ownership isip pamaagi batok rabies sa Davao City.

Kabahin sa akong data gathering, ginaimbita kita nga mu-participate sa usa ka online focus group discussion (FGD) pinaagi sa Zoom App. Ginaimbita kita sa pag-participate niini tungod kay ikaw naga-atiman og iro, ug lumulupyo sa barangay nga adunay pinakataas nga kaso sa rabies sa tuig 2018: Brgy. Catalunan Grande, Brgy. Tugbok, and Brgy. Toril.

Kining maong FGD mahuman sa sulod sa 30 minutes hantod isa ka oras.

PARTISIPASYON

Ang imong pag-apil niining FGD boluntaryo lamang. Aduna kay option nga mubalibad sa pag-apil sa bisan unsang panahon nga walay silot. Pwede usab nga magdumili ka sa pagtubag sa mga pangutana nga dili nimo gusto tubagon.

BENEPISYO

Wala'y direkta nga benepisyo ang imong pag-apil sa FGD, apan ang imong mga tubag makatabang sa researcher nga makakuha og Impormasyon mahitungod sa Motivators and Barriers for Responsible Pet Ownership dinhi sa syudad sa Davao. Kining maong impormasyon makatabang pag-usab sa pagpalambo sa responsible pet ownership isip pamaagi batok rabies sa syudad.

RISGO

Adunay mga pipila ka mga pangutana nga sensitibo, og posible nga dili ka comfortable sa audio recording nga pagahimuon sa tibuok FGD, apan makasiguro ka nga pagabuhaton sa researcher ang tanang posibleng pamaagi aron gamay ra ang risgo niini.

CONFIDENTIALITY

Confidential ang audio recording sa FGD. Ang researcher og iyang thesis adviser lamang ang adunay access sa maong impormasyon. Ang audio recording gamiton lamang sa pagtuki sa tumong niining research, og adunay posibilidad nga gamiton kini sa mga pang-akademikong komperensya. Sa pagbuhat niini, dili ipahibalo ang imong pangalan. Busa, wala'y makabalo nga sa imuha gikan ang mga tubag, og dili pud mahibal-an nga niapil ka niining FGD.

CONTACT

Kon aduna ka'y mga pangutana o klaripikasyon, i-contact lamang ang researcher pinaagi niining number +69062190344, o sa email address nga kmsanchez@ddh.com.ph.

CONSENT

Palihog og check sa imong desisyon. Sa imong pag-check sa "Uyon," nagapasabot kini nga:

Ikaw anaa sa legal nga edad
Imong nabasa og nasabtan ang mga termino sa ibabaw
Ikaw boluntaryo nga mouyon sa pag-apil

- Uyon
 Dili uyon

Pirma ubos sa pangalan

Petsa sa pag-pirma

WELCOME!

An FGD on “Motivators and Barriers for Responsible Pet Ownership”



Goals:

1. Know your insights about responsible pet ownership
2. Discuss your perception on Davao City's intensified rabies prevention and control program

FGD Guidelines

1. Everyone is encouraged to unmute themselves during the whole duration of the discussion.
2. If you feel uncomfortable with the camera on, you may turn it off. However, you will be requested to turn it on before we end the session, for documentation purposes.
3. The facilitator will be asking questions. If you want to answer, please do not hesitate to speak up.

FGD Guidelines

4. You can answer in whatever dialect you are comfortable with.
5. Unique individuals as we are, we may not agree with each other's opinion as we go along with the discussion. Please keep a climate of respect and professionalism. Avoid using foul words and/or offensive gestures.

FGD Guidelines

6. If you have any concern, do not hesitate to call the facilitator's attention.

ANY QUESTIONS?



1

Can you tell us about how you started as a dog owner? Why did you decide to raise dog/s?

2

Are you aware of the risks associated with dogs? What measures are you doing to prevent these risks?

3

Do you believe that responsible pet ownership can help fight rabies? Why?

4

How familiar are you with the intensified rabies prevention and control program of the City Veterinarian's Office?

5

What are you satisfied about this program and why?

6

Is there anything you'd like to suggest to further improve the City's intensified anti-rabies program?

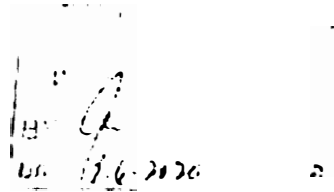
Thank you for attending this FGD!



Annex 8: Letter of Request for Interview with City Veterinarian's Office

March 6, 2020

Dr. Z. Palar, D.V.M.
City Veterinarian's Office
Davao City



Handwritten signature and date stamp: 03.06.2020

Dear Dr. Palar,

I am Katrina M. Sanchez, a Master of Development Communication student of Mindanao State University. I just got an approval to proceed with the data gathering of my thesis titled "Motivators and Barriers for Responsible Pet Ownership as Rabies Preventive Measure".

Relative to this, I am humbly asking for an appointment with you to conduct an interview about Davao City Veterinarian's Office's communication efforts, specifically on dog owners' adherence to responsible pet ownership. If it's not too much to ask, data on the anti-rabies campaign-related activities conducted and its outcomes will also be very helpful to substantiate my study.

Your positive response will be truly appreciated, Dr. Palar. I am hoping I could have a personal discussion with you soon.

I can be reached thru my mobile number **09062190344**, or thru my email address kmsanchez@msu.edu.ph

Thank you very much

Annex 9: Guide Questions for City Veterinarian's Office

- 1. Do you consider responsible pet ownership as an important aspect in eliminating rabies disease? Why?**
- 2. How are the Dabawenyos doing in terms of responsible pet ownership? How responsible are pet owners in Davao City?**
- 3. What are the City Vet's initiatives in promoting responsible pet ownership (i.e. free vaccine, trainings and seminars, population control ordinances, dog impounding)? What are the objectives of these programs?**
- 4. How are these programs implemented?**
 - **Key messages**
 - **Communication channels and target message receivers**
 - **Duration**
 - **Monitoring and evaluation tools**
- 5. How is the response of the message receivers? What is your evaluation on the programs implemented?**
- 6. What were the challenges you encountered? How did you deal with it?**
- 7. What are your plans for future improvement of City Vet's anti-rabies campaign?**