

# Survey to Investigate the Knowledge, Attitude, and Practice of Pet Owners on Animal Health Control in the City of Banda Aceh

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**Abstract.** This study was aimed to obtain information on pet owners understanding towards animal health control in the City of Banda Aceh. The survey was conducted by interview pet owners those visited Veterinary clinics in the City of Banda Aceh. A number of 51 pet owners were included as respondent in this study. The interview was conducted using a structure questionnaire, which contained both open and closed questions. The pet owners were interviewed for the knowledge, attitude, and practice toward animal health control. Data obtained in this study were analysed descriptively, continued with chi-square test. The results showed that most of the owners interviewed in three animal clinics in the City of Banda Aceh were keeping cats as their pet animals (98.04%), and a few proportion of them were the owner of dogs. At proportion of 60.78% of the pet owners were women, and men only 39.22%. Statistical analysis showed that there were significant association ( $P < 0.05$ ) between knowledge, attitude, and practice towards animal health control of the owners those visited the three clinics in the City of Banda Aceh. Based on the results of this study it is concluded that most of the pet owners those visited veterinary clinics in Banda Aceh have good knowledge, attitude, and practice towards animal health control.

Keywords: knowledge, attitude, practice, animal health control, pets, owners.

## 1 Introduction

Nowadays, the number of pet owners has been reported getting increase every year. In United State of America (USA) has been reported that 66% of household own pets, such as dogs and cats [1]. Recently, a report from a survey also mentioned an increase of rate of pets ownership in several countries in Asia [2]. It is could reflects the growing wealth in this region. In Indonesia, for example, in 2018 the rate of pet ownership is at 67%. In this country most of people are own either cats or dogs, but the rate of ownership of cats is higher (37%) as compared to dogs ownership (16%) [2]. The owner may have different purposes in having different pets, such as for home security guard or as friend.

Indeed, the owner also need to ensure that the pets their own is healthy, both physically and mentally, as well as provided with standard house and enough food. It is mean that the owner cares for their animal welfare [3, 4, 5]. The pet owners in developed countries, such as in USA, have realized that they need to allocate special budget for controlling animal health and welfare for their pets [6, 7].

Owner attention for health and welfare of pets is associated with their knowledge that increases responsibility [8, 9]. In fact, their knowledge on controlling animal health is not only beneficiate for their pets, but also for themselves, such as to prevent from

possible zoonotic diseases [10]. The knowledge of owners is also expected could improve the attitude and practice of them towards animal health control [11].

In the last 5 years, there is a trend of the rate of pet ownership in the City of Banda Aceh and surrounding area (i.e., Aceh Besar District) of Aceh Province. This might happened because of change of lifestyle of the community in this area and the growing wealth in this city. Preliminary observation has showed that some of pet owners are joined the animal lovers club in the City of Banda Aceh, such as Cat Lovers. However, very little information, if any, on the knowledge, attitude, and practice of pet owners towards effort in controlling animal health in the City of Banda Aceh.

## 2 Materials and Methods

### 2.1. Study Area

The present study was carried out in Banda Aceh, the capital city of Banda Aceh from July to September 2018.

### 2.2. Study Design

This study was conducted using a cross-sectional approach. A number of 3 veterinary clinics in the City of Banda Aceh were purposively selected for the location of study. In each clinic was collected information from the random selected pet owners as respondent whose visiting

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the clinics. The number of respondent was estimated using a formula of Slovin (Notoatmodjo, 2010), as follow:

$$n = \frac{N}{1 + N e^2}$$

Where:

n: Sample size

N: Population size

e: margin of error 0.05 (5%)

Through preliminary observation it was known that, in average, 58 clients visited the three veterinary clinics per week for controlling the health of their pets. This data was assumed as population size. Then, using the Slovin's formula above the calculation was obtained 51 respondents required for interview in this study.

### 2.3. Data Collection

The pet owners included in this survey were they who living in Banda Aceh City and Aceh Besar District. The inclusion of pet owners for interview in each clinic was conducted using random sampling technique. The face-to-face interviews were conducted using a structured questionnaire in the location of selected clinics. The respondents were briefed about the purpose of the study and an informed written consent was obtained prior to the interview.

### 2.4. Data Analysis

Data analysis were carried out descriptively and continued with chi square test.

## 3 Results and Discussion

### 3.1 Demographic characteristics of the respondents

The results of interview of 51 respondents showed a demographic characteristic of respondents as shown in Table 1. Based on this data it can be seen that the majority of owners who took their pets to animal clinics in the City of Banda Aceh were female (60.78%) and the rest were male (39.22%). Most of the owners were not have permanent job (43.14%). 35% of pet owners was answered that they works in private sector (35.29%) or as government official (9.80%). The rest of the owners were responded that they work as housemother (5.88%). The education of owners was dominated by higher education level (70.59%).

The question was follow-up by asking the income permonth of respondent. It was known that only 31 of them filled up the answer for this question. The rest of 20 respondents were not answered this question. Among 31 respondents who responded to this question, most of them (25.49%) were answered their income in the range of >Rp. 2.000.000 – ≤Rp. 5.000.000 permonth. The rest of them were reported their income in the range of ≤ Rp.2.000.000 permonth (19.61%) and >Rp.5.000.000 permonth (15.69%). Almost all respondents own cats as their pets.

**Table 1.** Demographic characteristic of 51 respondents (pet owners) visited veterinary clinics in the City of Banda Aceh.

Variable	No. Respondents (N)
Pets own	
<i>Cat</i>	50
<i>Dog</i>	1
Sex of owners	
<i>Male</i>	20
<i>Female</i>	31
Age of owners	
<i>≤ 17 years old</i>	4
<i>&gt; 17 years old</i>	47
Job of owners	
<i>Government official</i>	5
<i>Private</i>	18
<i>Housemother</i>	5
<i>Not working</i>	23
Education Level of owners	
<i>Primary School</i>	2
<i>Junior High School</i>	2
<i>Senior High School</i>	7
<i>Higher Education</i>	36
<i>Other</i>	4
Monthly income of owners	
<i>≤ Rp. 2.000.000</i>	10
<i>&gt;Rp. 2.000.000 - ≤Rp. 5.000.000</i>	13
<i>&gt; Rp. 5.000.000</i>	8
<i>Not answer</i>	20

In general, people are interest to own cats and dogs as their pets [8, 9, 10, 12]. Perhaps this choice was due to the practical in caring these pets. However, the finding in this survey was showed that most of the pet owners in the City of Banda Aceh own cat as their pets. This result perhaps due to religious reason, since most of the population in Banda Aceh is Moslem. Therefore, this reason could make them for not interested to have dog as their pets [13]. However, a further study is needed to explore the specific reasons of owner chosing cat as their pets in the City of Banda Aceh.

The finding in this study showed that almost all pet owners who visited the veterinary clinic in Banda Aceh was women. This result is similar to data collected in several former studies [8, 12, 14]. A study conducted in Texas, USA for example, was also found that women dominated the demography data of pet owners [8]. However, lack of information available from any study to explain the preference of women to own pets.

Then, the results of this study also showed that most of owners was a middle income (25%). The rest of them were categorized as lower and upper incomes. The owner needs to allocate some budget for caring their pets. In general, the most spending cost for pet is food [12]. Further result also showed that some of the respondents were not given any answer for their income. Perhaps, because they did not have job at the time of study conducted. Some of them might have status as students, which means they do not have any income yet.

The results of evaluation for knowledge, attitude, and practice of 51 pet owners who visited veterinary clinics in the City of Banda Aceh for their effort in controlling animal health is shown in Table 2.

**Table 2.** Category of knowledge, attitude, and practice towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh.

Dimension	Category				Total (N)
	Good		Poor		
	n	%	n	%	
Knowledge	29	56.86	22	43.14	51
Attitude	27	52.94	24	47.06	51
Practice	25	49.02	26	50.98	51

It was found from this study that most of respondents (56.86%) have a good category on their knowledge towards effort in controlling animal health. A similar result was obtained for the attitude of respondents, which have a good category in the majority (52.94%). On the other hand, among 51 respondents was showed a similar percentage of the category of good (49.02%) and poor (50.98%), of their practice towards effort in controlling animal health.

Next analysis was focused on the association between the level of knowledge and attitude of owners towards effort in controlling animal health (Table 3). The results showed that among 22 owners those categorised as poor of knowledge were resulted in the majority of them less in attitude towards effort in controlling animal health ( $P < 0.01$ ). On the other hand, among 29 respondents with category good knowledge were found most of them also have good attitude..

**Table 3.** Association between knowledge and attitude towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh.

Knowledge	Attitude		Total	p-value
	Poor	Good		
Poor	15	7	22	<0.01
Good	9	20	29	
Total	24	27	51	

The results of analysis for association between knowledge and practice towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh is described in Table 4. This results showed a significant association between knowledge and practice of pet owners ( $P < 0.01$ ). It can be seen that when the owner has poor knowledge, then most of them will also lack in practising towards effort in controlling animal health. A similar trend was also found to the owners categorised as good knowledge resulted in large number of them will showed a good practice.

**Table 4.** Association between knowledge and practice towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh.

Knowledge	Practice		Total	p-value
	Poor	Good		
Poor	20	7	27	<0.01
Good	9	15	24	
Total	29	22	51	

Finally, the results of analysis for association between attitude and practice towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh is presented in Table 5. This results showed that the owners who expressed poor attitude, then most of them also poor in their practice towards effort in controlling animal health ( $P < 0.001$ ). On the other hand, the majority of owners that showed good attitude were also conducting good practice towards effort in controlling their animal health.

In general, the results of this study were showed a linier association between knowledge, attitude, and practice towards effort in controlling animal health among pet owners who visited veterinary clinics in the City of Banda Aceh. This results may reject the suggestion that a non-linier association that exist between knowledge and practice on attention given by the owners toward their pets [5]. Perhaps, this statement will be valid when the pets their own was originated from stray animals. In this case, the owner may express a poor practice in effort in controlling animal health [9]. However, it is will not apply in the country or owner that regulate a strict animal welfare.

It is interesting to continue this study in the future for analysis on the demography and the spending for related expenditure in the owned pets in the City of Banda Aceh.

**Table 5.** Association between attitude and practice towards effort in controlling animal health among 51 pet owners who visited veterinary clinics in the City of Banda Aceh.

Attitude	Practice		Total	p-value
	Poor	Good		
Poor	21	4	25	<0.001
Good	6	20	26	
Total	27	24	51	

## 4 Conclusion

It is concluded that most of the pet owners those visited veterinary clinics in Banda Aceh has a good knowledge, attitude, and practice on animal health control.

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