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Ownership of Companion Animals among Residents of Dormaa Central Municipality in the Bono Region of Ghana

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ABSTRACT
The survey was conducted to assess the ownership of companion animals and its related concerns in the Dormaa Central Municipality of Ghana. A total of 140 pet owners or individuals who have owned pets in the past were randomly selected from five communities within the municipality. The data were collected with a structured questionnaire using the one-on-one interview method. The data were analysed using the descriptive statistics and the chi-square analysis of the Statistical Package for Social Science (SPSS) software at 95% confidence level. The findings show that 59.0% of the respondents were females. The pet owners were mostly youthful between the ages of 15 and 25 years old (36.51%). Educational level and marital status of pet owners had significant ($p<0.05$) effects on many pet ownership variables studied such as possession of names, sex of pet owned and physical health benefits of respondents. Majority of the pet owners (79.41%) had had some form of formal education but mostly up to the basic level (39.71%). Most of the pet owners kept local breeds of dogs and cats for companionship or security purposes. Rabies was the major health concern raised by respondents as associated with pet ownership followed by worm infestation (5.7%). Relevant institutions must be tooled and tasked to provide education on basic principles of pet care and health management in the municipality.

Keywords: *Bono region, companion animals, Dormaa, pet ownership*

INTRODUCTION
Human-animal relationships have existed over centuries but they may have changed from being one of hunter and prey connections to one that provides mutual benefits between humans and other species which have become reliant on each other for companionship and survival. The human-animal bond has been reinforced by the acquisition of pets; resulting to psychological and physical benefits in children, adults and elders (Purewal *et al*., 2017; Dall *et al*., 2017). For instance, improvements in physical, mental, psychological and social health through pet ownership have been described by several researchers (Fine, 2015; Day, 2016; Mueller *et al*., 2018; Powell *et al*., 2018; Kretzler *et al*., 2022). According to Martins *et al*. (2023), pets have significant and positive effects on the physical activities of owners compared to non-owners. Growing evidences indicate that pets may trigger feelings of comfort, security, and emotional support, which probably have positive effects on humans by counteracting feelings of anger, sadness, anxiety, and depression (Bennett *et al*., 2015; Hui Gan *et al*., 2019; Kogan *et al*., 2021). Although pet keeping is not culturally universal, it exists in most parts of the world, and array of theories have been offered to explain why people

bring animals into their lives (Herzog, 2010). It was estimated that at least one pet forms part of 70% of homes in the United State according to the American Pet Products Association (2025). While pets are properly cared for and managed in the developed nations, majority of pets in the developing countries are branded as free-roaming and are given inadequate veterinary care and raised under poor husbandry conditions. This results to great public health issues with the animals being considered as uncontrolled reservoir for zoonotic diseases (Day *et al*., 2012). For instance, in Ghana, rabies is a public health concern due to a large population of stray dogs found across the country (Ministry of Food and Agriculture, MoFA, 2011 as cited by Awuni *et al*., 2019).

However, factors such as guilt and stress of owners for being unable to provide the desired care; difficulties in securing commercial houses that allow pet keeping and financial strain of pet care, including the cost of pet food, veterinary care and pet grooming have been mentioned as potential drawbacks to pet ownership (Kogan *et al*., 2025). In view of this, if knowledge on pet management is adopted by pet owners, it will harness efforts by public health experts to create awareness on zoonotic diseases and their control (Athilakshmy *et al*., 2020). Since the reasons for owning companion animals can change from one place or culture to another, it has become necessary for donors of research and researchers in Ghana to consider exploring into areas of pet management and ownership in smaller towns in the country. Therefore, the objective of this study was to assess pet ownership and its related concerns in the Dormaa Central Municipality of Ghana.

MATERIALS AND METHODS

Study Area

The study was undertaken in the Dormaa Central Municipality which is located in the Bono Region of Ghana. Participants for the study were randomly selected from five communities namely Aboabo, Dormaa Main, Kofi Asua, Koraso and Masu each of which is located in the geographical zones of the Municipality. The municipality was selected because of its proximity to researchers. The municipality is found on longitude 3º00´ W and 3º30´ W and latitudes 7º00´N and 7º30´ N. The municipality has a total population of 112,111 people according to the Ghana Statistical Service, GSS (2019). Most of the people are engaged in agriculture and forestry works.

Ethical Considerations

All the participants consented to participate in the study; they were not forced by the researchers. Although the work focused on pets, no substance or research protocol was tested on them. In addition, no sensitive information about the respondents regarding their health was collected and so no ethical approval was obtained for the work (Menchetti *et al*., 2024).

Experimental Design and Sampling Methods

The stratified random sampling approach was adopted to sample pet owning households for the study. The municipality was first divided into five geographical zones and one community was randomly selected from each zone. With the assumption that about 50% of the populace in the study area owned pets; sample size of respondents for this study was estimated using the formula proposed by Yamane (1967) which is presented below:

$n = N/ (1+N \times e^2)$

where:
n = sample size; N = population size (i.e. owners of pets in Dormaa Central Municipality); and e = sampling error of 0.05.

Using the sample estimation method above, one hundred and forty (140) individuals who have owned pet(s) before or owned pet(s) during the time of the study were selected from the five communities. Random sampling method was used to select households that had pets. Where only one pet owner was in a house, the person was purposively sampled but where there was more than one pet owner in a house or household, the simple random sampling method was used to select one of them.

Data Collection Procedure

The data collection approach involved one-on-one interview using a semi-structured questionnaire. However, the researchers made observations where necessary. The questionnaire was written in the English Language but where a

respondent was not able to read or comprehend the language, the researchers read and explained the questions to the respondent in his/her preferred dialect. The questionnaire was first pretested with 14 respondents prior to the main administration of questionnaires.

Data Analysis

The data on qualitative variables were analysed using descriptive statistics of Statistical Package for Social Science (SPSS) software (version 2020) and the chi-square (χ^2) analysis was done to determine the effects of the categorical variables (gender, educational level and marital status of respondents) on some of the response variables studied at 95% confidence level.

RESULTS

Figure 1 shows the gender distribution of the respondents. More than half (59.0%) of the pet owners were females whiles 41.0% of them were males.

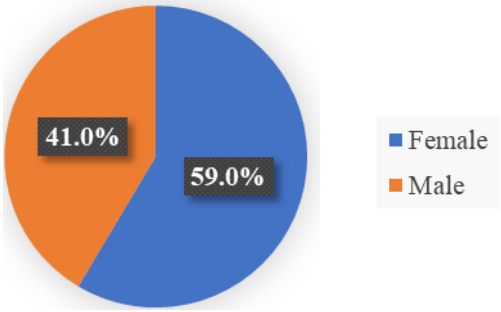


Figure 1: Gender distribution of respondents

Majority (36.51%) of the pet owners were between the ages of 15 and 25 years old, followed by those who were between 36 and 45 years (25.4%) (fig. 2). Those who were in the oldest age group (above 55 years) formed the lowest proportion of the respondents (9.52%).

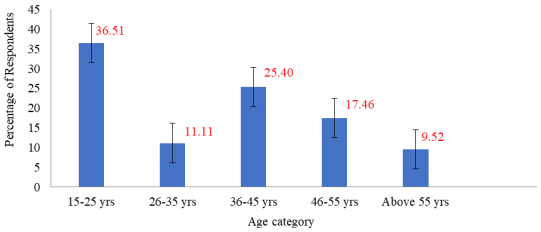


Figure 2: Age distribution of respondents

Gender of respondents did not have significant effect ($p>0.05$) on all the pet ownership variables studied except provision of medication to sick pets (Table 1).

Majority of the respondents (39.71%) had basic education whilst 26.47% of respondents had secondary education and 13.24% of respondents have had tertiary education with 20.59% of respondents having no formal education (fig. 3).

Level of education of respondents had significant effect ($p<0.05$) on all the response variables studied except whether ownership of pets affected social life of owners (Table 2). The effect of education on ownership of pet, sex of pet owned and physical health benefit of pet owners was highly significant ($p<0.01$). Large proportion (35.82%) of the respondents were

Table 1: Effect of gender of the respondents on pet ownership related variables

Independent factor	Response variables	df	chi-square value	p-value
Gender of respondent	Ownership of pet	2	1.588	0.452^{ns}
Gender of respondent	Kind of pet owned	4	4.313	0.365^{ns}
Gender of respondent	Sex of pet owned	4	3.307	0.508^{ns}
Gender of respondent	Medication when sick	2	6.603	0.037^{*}
Gender of respondent	Possession of pet name	2	0.580	0.748^{ns}
Gender of respondent	Affected social life	2	0.078	0.962^{ns}
Gender of respondent	Physical health benefits	2	0.443	0.801^{ns}

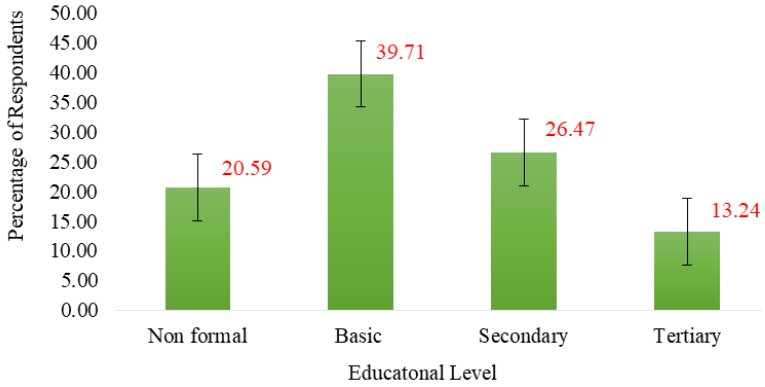


Figure 3: Percentage distribution of educational level of respondents

Table 2: Effect of educational level of the respondents on pet ownership related variables

Independent factor	Response variables	df	chi-square value	p-value
Education	Ownership of pet	8	84.208	0.0001**
Education	Kind of pet	16	30.866	0.014*
Education	Sex of pet owned	16	41.594	0.0001**
Education	Medication when sick	8	17.702	0.024*
Education	Possession of pet name	8	18.760	0.016*
Education	Affected social life	8	12.336	0.137ns
Education	Physical health benefits	8	20.632	0.008**

*ns: Non-significant (p>0.05); * p<0.05; ** p<0.01*

farmers followed by those who were students (31.34%), traders (14.93%), teachers (5.97%) and masons (2.90%). About 9.0% of the respondents engaged in other economic activities but each constituted less than 2.0% of the respondents (fig. 4).

The distribution of marital status of respondents is presented in figure 5. It shows that 50.75% of the pet owners were married whilst 46.27% of respondents were single. Less than 2% each of the respondents were either separated or divorced.

Marital status had significant ($p<0.05$) effect on all the response variables studied except provision of medication to sick pets (Table 3).

Majority (98.0%) of the respondents were Christians with few of respondents (2.0%) being Muslims (fig. 6).

About 89% of the respondents in this study were current pet owners whilst 11.0% of them had owned pet(s) before the study. Most of the pet owners (41.94%) kept only dogs. Pet owners who kept only cats constituted 35.48% whiles 20.61% of respondents kept both dogs and cats with only 1.61% of the respondents keeping birds (Table 4). Pet owners who kept local breeds of pets constituted 34.29% of the respondents. Whiles 1.43% of respondents kept foreign breeds of pets, more than half of the respondents (64.29%) did not respond to the question. A large proportion of respondents (42%) kept only male pets, followed by those who kept both male and female pets (34.0%) and 24.0% of the respondents kept only female pets. About forty-four percent (44.26%) of the owners of pets acquired their pets as gift from their family members or friends whereas 4.92% of respondents adopted stray animals as pets (Table 4).

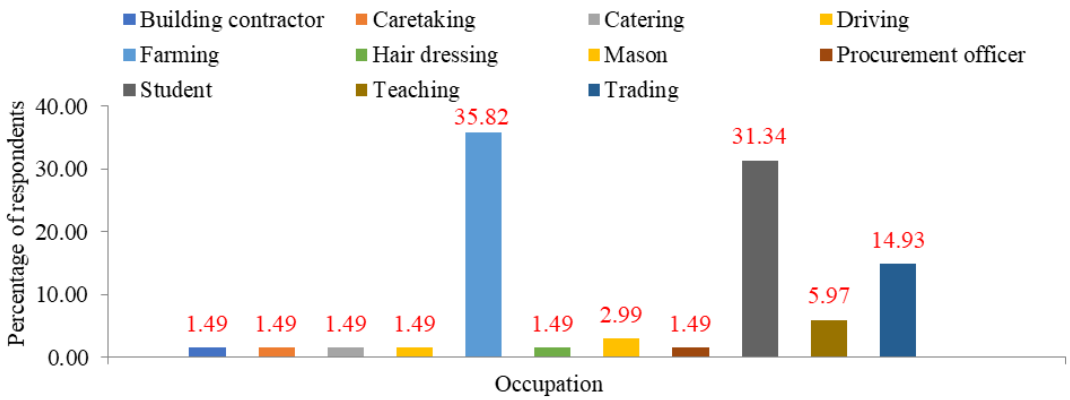


Figure 4: Occupation distribution of respondents

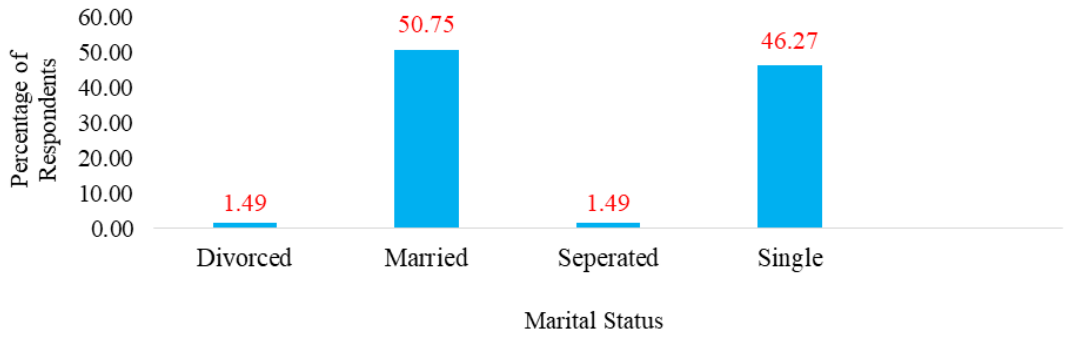
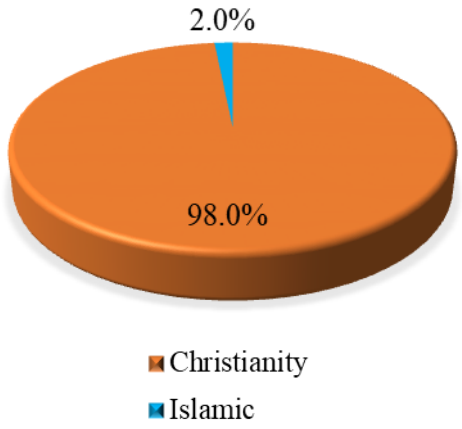


Figure 5: Marital status of respondents

Table 3: Effect of marital status of respondents on pet ownership related variables

Independent factor	Response variables	df	chi-square value	p-value
Marital status	Ownership of pet	8	63.433	0.0001**
Marital status	Kind of pet owned	16	31.352	0.012*
Marital status	Sex of pet owned	16	39.095	0.001**
Marital status	Medication when sick	8	15.180	0.056ns
Marital status	Possession of pet name	8	22.598	0.004**
Marital status	Affected social life	8	17.010	0.030*
Marital status	Physical health benefits	8	31.755	0.0001**

*df – degree of freedom; ns: Non-significant (p>0.05); * p<0.05; ** p<0.01*



Majority of the pet owners (80.0%) considered their pets as part of their family whilst 4.29% of respondents did not see their pets as family members. The large proportion of respondents (61.0%) had names for their pets with 51.43% of these respondents calling their pets by their names. A greater proportion of respondents (75.71%) did not insure their pet(s) whilst only 4.29% of respondents had insured their pets (Table 4).

Sixty-eight (68.0%) of the respondents responded to why they kept pets in their homes. Out of this, 62.9% of the males and 50.0% of the female pet owners kept their animals for companionship whiles 51.4% and 67.9% of the male and female respondents respectively kept pets

Table 4: Ownership characteristics of companion animals among residents

Description	Details	Response	
		Frequency	Percentage (%)
Have you owned/ own a pet/ pets?	I own pet(s)	124	88.57
	I have owned pet(s)	16	11.43
Which species of animal do you keep as pet?	Bird	2	1.61
	Cat	44	35.48
	Dog	52	41.94
	Both dog and cat	26	20.97
Which breed of animals do you prefer as pet(s)?	Local	48	34.29
	Foreign	2	1.43
	No response	90	64.29
Which sex of animals do you prefer to keep as pet(s)?	Female	30	24.19
	Male	52	41.94
	Both	42	33.87
How did you obtain your pet (s)?	Adoption	8	6.56
	Adopted straw animals	6	4.92
	Gift from relative/ friend	54	44.26
	Purchased by the roadside	48	39.34
	Purchased from a breeder	6	4.92
Do you consider your pet(s) as part of your family?	Yes	112	80.0
	No	6	4.29
	No response	22	15.71
Do you have name(s) for your pet(s)?	Yes	74	60.66
	No	48	39.34
Do you call your pet(s) by their name(s)?	Yes	72	51.43
	No	30	21.43
	No response	38	27.14
Have you insured your pet(s)?	Yes	6	4.29
	No	106	75.71
	No response	28	20.0

Table 5: Reasons for owning pets by gender of respondents

Reason for keeping pets	Male				Female			
	Yes		No		Yes		No	
	Freq	%	Freq	%	Freq	%	Freq	%
Companionship	44	62.9	26	37.1	28	50.0	28	50.0
Security	36	51.4	34	48.6	38	67.9	18	32.1
Breeding	22	31.4	48	68.6	8	14.3	48	85.7
Rodent & reptile control	30	42.9	40	57.1	16	28.6	40	71.4
Hunting	30	42.9	40	57.1	16	28.6	40	71.4
Sale	-	-	70	100.0	2	3.6	54	96.4
Food	2	2.9	68	97.1	-	0.00	56	100.0
Emotional purpose	2	2.9	68	97.1	-	0.00	56	100.0

Freq: frequency; %: percentage

Table 6: Social, financial and health concerns in relation to pet ownership in the Dormaa Central Municipality

Description	Details	Response	
		Frequency	Percentage (%)
Does pet(s) keeping affect your social life?	Yes	48	34.29
	No	48	34.29
	No response	44	31.42
Have you encountered any unexpected cost in relation to keeping your pet(s)?	Yes	40	28.58
	No	64	45.71
	No response	36	25.71
How is your daily routine affected by keeping of the pet(s)?	Damaging	2	1.43
	Positively	12	8.57
	No response	126	90.0
Have you encountered any unexpected cost in relation to keeping your pet(s)?	Yes	40	28.58
	No	64	45.71
	No response	36	25.71
Do you believe that keeping pet(s) has impacted your mental and emotional wellbeing positively?	Yes	68	48.57
	No	28	20.00
	No response	44	31.43
Do you believe that keeping pet(s) has any physical health benefits?	Yes	82	58.57
	No	32	22.86
	No response	26	18.57
Do you have any health concerns in relation to owning pet(s)?	Yes	16	11.43
	No	64	45.71
	No response	60	42.86

for security. About forty-three (42.9%) and 28.6% of the males and females respectively kept their pets for protection and hunting whilst 31.4% of the males against 14.3% of the female respondents kept pets for breeding purposes (Table 5).

About thirty-four percent (34.29%) of the pet owners had their social lives influenced by ownership of pets (Table 6). Most of the respondents (45.71%) did not encounter unexpected cost related to keeping the pets with only 28.57% of respondents having encountered unexpected cost in relation to owning pets. Only about 9.0% of the respondents indicated that their daily routine was positively affected as a result of owning pets with majority of respondents not responding to the question. The large proportion of respondents (48.57%) responded that pet ownership impacted positively on their mental and emotional wellbeing whilst 20.0% of respondents responded that pet ownership did not positively affect their mental and emotional wellbeing. About 58.0% of the respondents had noticed physical health benefits from owning pet(s) while 23% of them indicated that they have not noticed any physical health benefits from owning the animals. Meanwhile, 45.71% of the respondents reported no pet ownership related concerns whilst 11.43% of them had concerns in relation to pet ownership.

Whilst majority (70.0%) of respondents did not respond to whether they have health concerns associated with pet ownership, 12.9% of respondents raised concern about rabies followed by worm infestation (5.7%) (fig. 7). Few respondents reported other concerns such as mechanical injury, eye disorder, poison, tick infestation, coughing, etc.

DISCUSSION

Demographic Characteristics of Pet Owners in the Dormaa Central Municipality

According to Issah *et al*. (2020) and Menchetti *et al*. (2024), gender can significantly influence the ownership of companion animals which was not the case in this study. The non-significant effect of gender on ownership of companion animals observed in the Dormaa Central Municipality is consistent with the findings of several researchers in other parts of the country (Awuni *et al*., 2019; Issah *et al*., 2020; Dogbey *et al*., 2024). These findings are, however, contrary to the cultural notion that suggests that men have upper hand in owning properties such as animals compared to women (Issah *et al*., 2020). The high percentage of female owning pets compared to males partly suggests that females in the study area are more attached to pets than their male counterparts or females are usually available at home to take care of pets (Issah *et al*., 2020).

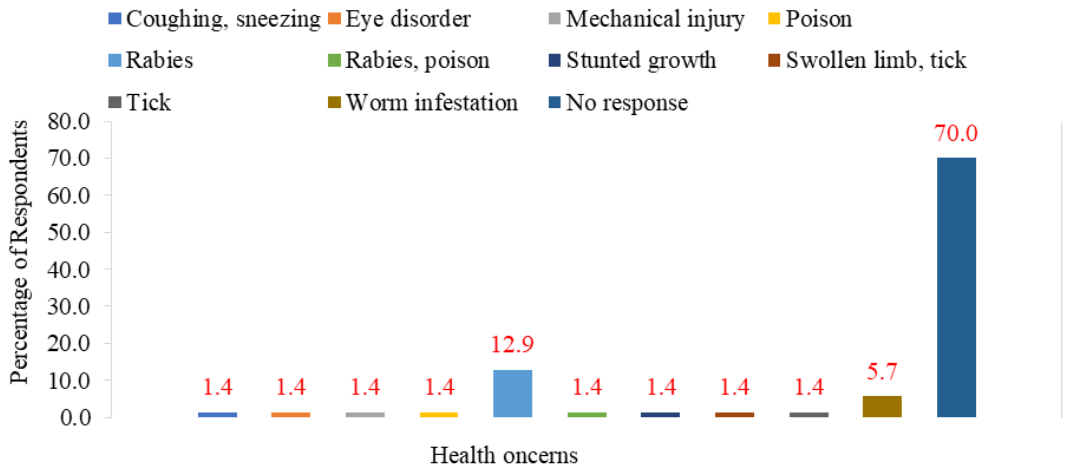


Figure 7: Major health concerns in relation to pet ownership

The variation in the ages of pet owners agrees with the report of Issah *et al*. (2020) who have shown that age has a significant effect on pet ownership in the Wa Municipality. However, whilst a large proportion (36.5%) of pet owners in Dormaa Central Municipality were between 15 and 25 years old, only 7% of pet owners in Wa Municipality were between 15 and 24 years old (Issah *et al*., 2020). A study by Dogbey *et al*. (2024) has also reported respondents who were 20-39 years old as the youngest age group of people who mostly owned pets. The fairly large proportions of young people or adolescents owning pets could probably be due to the assertion by Melson *et al*. (1991) that adolescents who experience social difficulties with their peers resort to pets for companionship. Since the financial capabilities of young people are generally not strong compared to middle-aged people, the dominance of young people in the ownership of pets in the study area may affect the management of these pets including housing, feeding and provision of adequate healthcare. Beck and Katcher (2003) indicated that economic and housing challenges were found to hinder pet ownership.

The significant ($p<0.01$) influence of educational level on ownership of pets observed in this study is contrary to the report of Issah *et al*. (2020) that educational level of people cannot determine whether or not they would want to own a pet or they own a pet. The approximately 80% of pet owners with some formal education observed in this study was lower than the 97.5% of formally educated respondents reported in a study in Accra (Dogbey *et al*., 2024). The difference could be due to Accra being an elite and cosmopolitan society compared to Dormaa Central Municipality. The high literacy level of the pet owners could be a guarantee for adoption of best pet husbandry practices which could help in the reduction or prevention of zoonotic diseases in the municipality.

Majority of the pet owners were economically engaged by way of having an occupation which was similar to what was reported by Dogbey *et al*. (2024) in Accra. Many of the pet owners in the municipality worked as farmers which supports the findings of Awuni *et al*. (2019) that farming was the predominant occupation of dog owners in the Upper East region of Ghana. Other fractions of the respondents indicated that they worked as artisans and public servants whiles a larger proportion (31.34%) of them were in school. Dogbey *et al*. (2024) have earlier reported 10.8% of student pet-owners in Accra in their investigation. The living standard of pet owners in the current study area could be higher than the 3.8% of the non-working pet owners reported by Dogbey *et al*. (2024).

The significant influence of marital status on pet ownership is consistent with several findings (Awuni *et al*., 2019; Issah *et al*., 2020). Similar to the findings of Awuni *et al*. (2019) and Issah *et al*. (2020) in other parts of Ghana, it was observed that half of the pet owners were married, which could probably be due to the stable lifestyle of married individuals which may put them in the position to properly care for their pets. The sizable proportion of single or unmarried pet owners (46.27%) in this study was also in agreement with Awuni *et al*. (2019) and this observation could be an adaptive strategy by single persons by reduce loneliness.

The high proportion of Christian pet owners compared to Muslims corroborates the results of Dogbey *et al*. (2024) that a higher proportion of pet owners in Accra were Christians. However, the present outcome may not imply religious restrictions to pet ownership within the municipality. Rather, the results could be attributed to the fact that, the Bono region as an Akan dominated region, and has more Christians than Muslims who mostly engage in ruminant production.

Ownership characteristics of Companion Animals

Dogs were the predominant species kept as companion animals in Dormaa Central Municipality similar to the findings of Dogbey *et al*. (2024) and Issah *et al*. (2020) who also reported canine species as the most kept animal species for pets in Accra and Wa respectively. However, in Qatar, Alho *et al*. (2018) reported cats as the most popular pets owned with 69.3% of their respondents having at least a cat and 51.3% of the owners having only cats as their pet. The sizable proportion of owners keeping both dogs and cats (20.97%) is in agreement with the notion that, across the globe, cats and dogs are the most

common animal species kept by most households as pets (Pereira *et al*., 2016). Only two persons owned birds as pet during the time of the study; indicating less preference for birds as pets or companion animals in the municipality. The large proportion of dogs kept as pets in Dormaa Central Municipality could be due to the fact that majority of the populace are farmers and may use the dogs as companions to accompany them on their farms. In addition, the large numbers of dogs and cats raised as pets may also be due to their utilisation for security as well as their use in controlling reptiles and rodents in homes (Paul *et al*., 2010).

Companionship and security were the main reasons why the male and female respondents respectively kept their pets in the study area. This agrees with Alho et al. (2018) who also reported that a large proportion of their respondents, particularly the females kept pets for security reasons. This, however, may be due to increased criminal activities in the area as perceived by Okoro (2020). Meanwhile, many of the pet owners also used the animals to control rodents and reptiles either in their homes or workplaces. The municipality being an agrarian area had many of the pet owners using their pets (dogs) in hunting for game. It can be said that, most of the respondents may have developed love or friendly association with their pets (Menchetti *et al*., 2024) and so, could not slaughter them for food but preferred to sell them out. Meanwhile, other pet owners in the municipality used their pets for breeding purposes as was done in some kennels in the Sylhet City of Bangladesh (Chowdhury *et al*., 2020). While all the female respondents in this study indicated that they kept their pets for emotional support, the male respondents preferred to sell them.

The preference for local breeds of pets to foreign breeds in this study is similar to the findings of Alho *et al*. (2018) who reported that, the domestic Shorthair was the most famous breed (66.14%) kept by some pet owners in Qatar. This, however, was not the case for a survey that was conducted by Chowdhury *et al*. (2020) which reported that, foreign dogs were mostly kept and bred for security and commercial purposes in the Sylhet City of Bangladesh and in Chennai, Tamilnadu, where most of the people kept foreign dogs for passion (Athilakshmy *et al*., 2020). The differences in the breed/ origin of pets kept by residents in the various locations (Dormaa Central, Sylhet City and Chennai, Tamilnadu) in the studies outlined can be attributed to differences in the cost of pet breeds, the purpose of raising pets and the differences in the ecological conditions of the areas as well.

The largest proportion of the respondents who preferred to keep only male animals as pets was in concomitant with the findings of Athilakshmy *et al.* (2020), but many more of the current respondents also kept pets of both sexes than those who kept only female pets. The reason for this may be due to an undocumented notion that, most people do not want to keep female pets because they will give birth to increase the number of animals which will increase the burden of care required from owners.

The predominant sources of pet acquisition in this study (gifts and purchases from pet sellers) is contrary to report from Qatar where Alho *et al*. (2018) reported that majority of respondents had either adopted their pets from the street (44%) or from shelters (11.3%). In another study, 43.73% of the pet owners indicated that they bought their pets (dogs) (Kim *et al*., 2020) which is close to the 39.34% reported in the present study. Other owners have adopted their pets or found them as stray animals while very few of them indicated that they obtained theirs from pet breeders. Meanwhile in the past, Athilakshmy *et al*. (2020) had reported that 39.83% of the respondents in their work acquired their pets (dogs) from breeders although pets purchased from breeders accounted for just 1.3% of respondents in the survey conducted in Qatar (Alho *et al*., 2018).

Several authors (Herzog, 2011; Downey et al., 2008; McConnell et al., 2017) have reported that dogs and cats are often considered as parts of family members supporting the majority of the current respondents who considered their pets as part of their family in this study.

Social, Financial and Health Concerns in Relation to Pet Ownership

Socially, pets such as dogs provided assistance to people with disabilities while sniffer dogs are used by security agencies to detect crime and

improve defence (Yadav *et al*., 2017). Children can keep pets to develop the desire of being responsible and kind (Herzog, 2011). Per the current results, pet keeping affected the social and financial lives of many of the respondents even though a greater percentage of the respondents said they did not encounter any unexpected cost or expenditure in relation to keeping the pets. However, in a previous study, a few of the pet owners interviewed reported that they had difficulties to cover the cost of caring for their dogs (Dogbey *et al*., 2024) but that happened during a pandemic when the economy of both pet and non-pet keepers was affected. Pet owners who kept dogs in the current survey used them for work to earn income as was done by the respondents in another investigation by Singh *et al*. (2015).

Nearly all the respondents in a survey testified that they had loving or friendly associations with their pets (Menchetti *et al*., 2024). This could have significantly and positively affected the mental and emotional life of a lot of the respondents as reported by Martins *et al*. (2023) in a review paper. Bowen *et al*. (2020) have revealed that, keeping of companion animals can contribute significantly to the mental wellbeing of their owners. Similarly, in this study, majority of the respondents in this work had indicated that keeping of the animals had affected their mental and emotional wellbeing. This might result to the appreciation that most of the pet owners in turn rendered to their pets by way of feeding and healthcare provision as discovered in another work (Agyeiwaa, 2024). Emotional and mental benefits could be derived from pets during social restrictions such as lockdowns; because these are times when pet owners would cope better with emotional adversities such as isolation (Grajfoner *et al*., 2021; Kogan *et al*., 2021). Nonetheless, from a survey, no differences were reported between the number of pet owners and non-pet-owners who defined themselves as "very happy" (Herzog, 2010). Although pets may predispose their owners to pandemics such as Covid-19 infection (Jurgiel *et al*., 2020), most of the respondents in this study indicated that they obtained certain physical benefits from keeping their pets perhaps through exercise from walking their pets.

Many of the current respondents reported varying health concerns in relation to pet ownership although majority (70.0%) of respondents did not respond to the question. The report of rabies and worm infestation as major health concerns from ownership of pets is in agreement with Shoesmith *et al*. (2021) who reported that pet owners were often worried or concerned about the possibility of their animals transmitting viral diseases to them. Other surveys suggested that companion animals were involved in the transfer of the Covid-19 infection (Kiros *et al*., 2020; Goumenou *et al*., 2020; Leroy *et al*., 2020; Parry, 2020). The large number of respondents who could not open up on their health concerns in relation to pet ownership could mean that pet owners in the Dormaa Central Municipality were not well informed about zoonotic diseases.

CONCLUSION

The findings of this survey show that dogs and cats were the predominant species kept as pets and there is an existance of a good relationship between pets and their owners in the Dormaa Central Municipality. In addition, security and companionship were the major reasons why people kept pets in the study area. Whilst gender of pet owners did not affect many of the pet ownership variables, education and marital status of pet owners affected parameters such as possession of names by pets, social life of respondents, physical health benefits of respondents, sex and kind of pet owned. However, there were health concerns associated with pet ownership and so, relevant institutions must be tooled and tasked to provide education on basic pet care and health management among pet keepers in the study area.

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REFERENCES

Agyeiwaa, B. (2024). Ownership of animals among residents of Dormaa Central Municipality in Bono Region of Ghana. Dissertation presented for the Award of Diploma in Agriculture, University of Energy and Natural Resources. Pp. 50.

Alho, A.M., Lima, C., Colella, V., Carvalho, L.M., Otranto, D. and Cardoso, L. (2018). Awareness of zoonotic diseases and parasite control practices: a survey of dog and cat owners in Qatar. *Parasites and Vectors*, 11 (133): 1-7. https://doi.org/10.1186/s13071-018-2720-0.

American Pet Products Association (2025). Pet Industry Market Size, Trends & Pet Industry Statistics from APPA. Available at: https://americanpetproducts.org/industry-trends-and-stats (accessed 5 June 2025).

Applebaum, J.W., Ellison, C., Struckmeyer, L., Zsembik, B.A. and McDonald, S.E. (2021). The impact of pets on everyday life for older adults during the COVID-19 pandemic. *Frontiers in Public Health*, 9. DOI: 10.3389/fpubh.2021.652610.

Athilakshmy, P., Kumaravel P. and Vimalrajkumar N. (2020). General Dog Management Practices Followed and Constraints Faced by Pet Owners in Chennai - An Empirical Study. *International Journal of Current Microbiology and Applied Sciences*, 9(10): 674-682. doi: 10.3389/fvets.2020.00493.

Awuni, B., Tarkang, E., Manu, E., Amu, H., Amogre, A.M., Aku, Y.F., Ziema, A.S., Bosoka, A.S., Adjuik, M. and Kweku, M. (2019). Dog Owners' Knowledge about Rabies and Other Factors That Influence Canine Anti-Rabies Vaccination in the Upper East Region of Ghana. *Tropical Medicine and Infectious Disease*, 4: 115. doi:10.3390/tropicalmed4030115.

Bennett, P., Trigg, J., Godber, T. and Brown, C. (2015). An experience sampling approach to investigating associations between pet presence and indicators of psychological wellbeing and mood in older Australians. *Anthrozoös*, 28(3): 403–20. http://dx.doi.org/10.1080/08927936.2015.1052266

Bowen, J., García, E., Darder, P., Argüelles, J. and Fatj´o, J. (2020). The effects of the Spanish Covid-19 lockdown on people, their pets, and the human-animal bond. *Journal of Veterinary Behaviour*, 40: 75–91, https://doi.org/10.1016/j.jveb.2020.05.013.

Chowdhury, M.S.R., Hossain, M.A., Islam, M.R., Uddin, M.B., Hossain, M.M., Rahman, M.M. and Rahman, M.M. (2020). Management practices of pet dog among a representative sample of owners in Sylhet, Bangladesh. *Advances in Animal and Veterinary Sciences*, 8(8): 819-825. http://dx.doi.org/10.17582/journal.aavs/2020/8.8.819.825.

Dall, P.M., Ellis, S.L.H., Ellis, B.M., Grant, P.M., Colyer A, Gee NR, Granat H. M. and Mills, S. D. (2017). The influence of dog ownership on objective measures of free-living physical activity and sedentary behaviour in community-dwelling older adults: a longitudinal case controlled study. *BioMed Central Public Health*, 17: 496. doi: 10.1186/s12889-017-4422-5.

Day, M. J. (2016). Human-animal health interactions: the role of one health. *American Family Physician*, 93:345–6.

Day, M.J., Breitschwerdt, E., Cleaveland, S., Karkare, U., Khanna, C., Kirpensteijn, J., Kuiken, T., Lappin, M.R., McQuisten, J., Mumford, E., Myers, T., Palatnik-de Sousa, C.B., Rubin, C., Takashima, G. and Thiermenn, A. (2012). Surveillance of zoonotic infectious disease transmitted by small companion animals. *Emerging Infectious Diseases*, 18(12): e1. doi: 10.3201/eid1812.120664.

Dogbey, G., Dugah, A., Abbiw, R.K., Agbolosu, A., Asare-Dompreh, K., Odoom, T., Okine, A., Amakye-Anim, J., Otsyina, H.R. and Enyetornye, B. (2024). Impact of COVID-19 on pets and pet owners: A survey conducted in selected veterinary clinics in Accra, Ghana. Heliyon, 10: e37328.

Downey, H. and Ellis, S. (2008). Tails of Animal Attraction: Incorporating the Feline into the Family. *Journal of Business Research*, 61: 434–441. doi:10.1016/j.jbusres.2007.07.015.

Fine, A. H. (2015). Handbook on animal-assisted therapy: Foundations and guidelines for animal-assisted interventions. Fourth ed. Amsterdam; Boston: Elsevier Academic Press. 427 p.

Ghana Statistical Service, GSS (2019). 2017-2018 Ghana census of Agriculture. National report. Pp. 182.

Goumenou, M., Spandidos, D. and Tsatsakis, A. (2020). Possibility of transmission through dogs being a contributing factor to the extreme Covid-19 outbreak in North Italy. *Molecular Medicine Reports*, 21: 2293-2295. https://doi.org/10.3892/mmr.2020.11037.

Grajfoner, D., Ke, N.G. and Wong, M.M.R. (2021). The effect of pets on human mental health and wellbeing during Covid-19 lockdown in Malaysia. *Animals*, 11 (9): 2689, https://doi.org/10.3390/ani11092689.

Herzog, H. (2010). Some we love, some we hate, some we eat: Why it's so hard to think straight about animals. New York, NY: Harper.

Herzog, H. (2011). The Impact of Pets on Human Health and Psychological Well-Being: Fact, Fiction, or Hypothesis? *Current Directions in Psychological Science*, 20(4): 236–239, DOI: 10.1177/0963721411415220.

Hui Gan, G.Z., Hill, A.M., Yeung, P., Keesing, S. and Netto, J.A. (2019). Pet ownership and its influence on mental health in older adults. *Aging and Mental Health*, 24: 1605–12. https://doi.org/10.1080/13607863.2019.1633620.

Issah, B., Ansah, T. and Alagma, H. A. (2020). Awareness of zoonotic diseases among pet owners in Wa Municipality of Ghana. *UDS International Journal of Development [UDSIJD]*, 7(2): 387-397. https://doi.org/10.47740/497.UDSIJD6i

Jurgiel, J., Filipiak, J.K., Szarpak, Ł., Jaguszewski, M., Smereka, J. and Dzieciątkowski, T. (2020). Do pets protect their owners in the Covid-19 era? *Medical Hypotheses*, 142: 109831 https://doi.org/10.1016/j.mehy.2020.109831.

Kim, W-H, Min, K-D, Cho, S. and Cho, S (2020) The Relationship Between Dog-Related Factors and Owners' Attitudes Toward Pets: An Exploratory Cross-Sectional Study in Korea. *Frontiers in Veterinary Science*, 7: 493. doi: 10.3389/fvets.2020.00493.

Kiros, M., Andualem, H., Kiros, T., Hailemichael, W., Getu, S., Geteneh, A., Alemu, D. and Abegaz, E.W. (2020). Covid-19 pandemic: current knowledge about the role of pets and other animals in disease transmission. *Virology Journal*, 17 (1): 143, https://doi.org/10.1186/s12985-020-01416-9.

Kogan, R.L., Erdman, P., Currin-McCulloch, J., Bussolari, C. and Packman, W. (2025). The impact of Covid on cat guardians: veterinary issues. *Animals*, 11 (3): 603, https://doi.org/10.3390/ani11030603.

Kogan, L. R., Currin-McCulloch, J., Bussolari, C., Packman, W. and Erdman, P. (2021). The psychosocial influence of companion animals on positive and negative affect during the COVID-19 pandemic. *Animals*, 11 (7), Article 7. DOI: 10.3390/ani11072084.

Kretzler, B., König, H. H. and Hajek, A. (2022). Pet ownership, loneliness, and social isolation: a systematic review. *Social Psychiatry and Psychiatric Epidemiology*, 57: 1935–1957. https://doi.org/10.1007/s00127-022-02332-9.

Leroy, M., Eric Ar Gouilh, Meriadeg, Brug`ere-Picoux Jeanne (2020). The risk of SARS-CoV 2 transmission to pets and other wild and domestic animals strongly mandates a one-health strategy to control the Covid-19 pandemic. *One Health*, 10: 100133, https://doi.org/10.1016/j.onehlt.2020.100133.

Martins, C.F., Soares, J.P., Cortinhas, A., Silva, L., Cardoso, L., Pires, M.A, and Mota, M.P. (2023). Pet's influence on humans' daily physical activity and mental health: a meta-analysis. *Frontiers in Public Health*, 11: 1196199. https://doi.org/10.3389/fpubh.2023.1196199.

McConnell, A.R., Lloyd, E.P. and Buchanan, T.M. (2017). Animals as Friends: Social Psychological Implications of Human–Pet Relationships. In Psychology of friendship;

Hojjat, M., Moyer, A., Eds.; Oxford University Press: Oxford, UK, pp. 157–174.

Melson, G.F., Peet, S. and Sparks, C. (1991). Children's attachment to their pets: Links to socio-emotional development. *Children's Environments Quarterly*, 55-65.

Menchetti, L., Riggio, G., Calipari, S., Mariti, C., Menor-Campos, D.J. and Diverio, S. (2024). Exploring Dog and Cat Management Practices in Multispecies Households and Their Association with the Pet-Owner Relationship. *Animals*, 14: 3465. https://doi.org/10.3390/ani14233465.

Mueller, M. K., Gee, N. R. and Bures, R. M. (2018). Human-animal interaction as a social determinant of health: descriptive findings from the health and retirement study. *BMC Public Health*, 18(1): 305. doi: 10.1186/s12889-018-5188-0.

Okoro, J.P. (2020). Community policing and crime management in the Wa municipality, Upper West region of Ghana. *African Social Science and Humanities Journal,* 1(1): 52-70.

Parry, M.A.N. (2020). Covid-19 and pets: when pandemic meets panic. *Forensic Science International*: Reports 2, 100090, 1-4. https://doi.org/10.1016/j.fsir.2020.100090.

Paul, M., King, L. and Carlin, E. P. (2010). Zoonoses of people and their pets: a US perspective on significant pet-associated parasitic diseases. *Trends in Parasitology*, 26 (4): 153–154. doi:10.1016/j.pt.2010.01.008.

Pereira, A., Martins, A., Brancal, H., Vilhena, H., Silva, P., Pimenta, P., Diz-Lopes, D., Neves, N., Coimbra, M., Alves, A.C., Cardoso, L. and Maia, C. (2016). Parasitic zoonoses associated with dogs and cats. A survey of Portuguese pet owners' awareness and deworming practices. *Parasites and Vectors*, 9: 245. DOI 10.1186/s13071-016-1533-2.

Powell, L., Chia, D., McGreevy, P., Podberscek, A.L., Edwards, K.M., Neilly, B., Guastella J. A., Lee V. and Stamatakis, E. (2018). Expectations for dog ownership: perceived physical, mental and psychosocial health consequences among prospective adopters. *PLoS One*, 13(7): e0200276. https://doi.org/10.1371/journal.pone.0200276.

Purewal, R., Christley, R., Kordas, K., Joinson, C., Meints, K., Gee, N. and Westgarth, C. (2017). Companion animals and child/adolescent development: a systematic review of the evidence. *International Journal of Environmental Research and Public Health*, 14:234. doi: 10.3390/ijerph14030234.

Shoesmith, E., Shahab, L., Kale, D., Mills, D.S., Reeve, C., Toner, P., de Assis, L. and Ratschen, E. (2021). The Influence of Human–Animal Interactions on Mental and Physical Health during the First COVID-19 Lockdown Phase in the U.K.: A Qualitative Exploration. *International Journal of Environmental Research and Public Health*, 18: 976. https://doi.org/10.3390/ijerph18030976.

Singh, S.K., Islam, P.R. and Hasan, T. (2015). The prevalence of clinical diseases in dogs of Sylhet Sadar, *Bangladesh. Journal of Pure and Applied Science & Technology*, 5 (1): 41–45.

Yadav, U., Zuhra, F.T. Rahman, M.A. and Ahmed, M.S. (2017). Epidemiological investigation of clinical diseases and condition of pet animals at Chittagong city area, Bangladesh. *Bangladesh Journal of Veterinary Medicine*, 15(1): 63. https://doi.org/10.3329/bjvm.v15i1.34058.

Yamane, T. (1967). Statistics, An Introductory Analysis (2nd Ed.). New York: Harper and Row.