

Breed and Behaviour: a scientific analysis of canine temperament

K. Kanchana¹, D.M. Cherry^{1,2}, G. Gangaraju³, G. Triveni⁴,
U. Vinod⁵

^{1,3}Department of Livestock Production Management, College of Veterinary Science, SVVU-Tirupati ²Department of Livestock Production Management, Veterinary College, Athani, KVAFSU; ⁴Department of Veterinary and Animal Husbandry Extension Education, C.V.Sc., SVVU, Proddatoore; ⁵Department of Animal Genetics and Breeding, C.V.Sc., SVVU, Tirupati
Corresponding author email: mirandadimphna@gmail.com

Journal of Livestock Science (ISSN online 2277-6214) 16: 594-598

Received on 28/2/25; Accepted on 22/9/25; Published on 27/9/25

doi. 10.33259/JLivestSci.2025.594-598

Abstract

The study was conducted in Kurnool district of Andhra Pradesh, which is divided into three divisions. In concern to the temperament of pet dogs, majority of dogs in the present study except Rottweiler, Doberman and Pandikona were found to be friendly while, cent percent of Rottweiler and Doberman exhibited hostile reaction. All the Pandikona dogs in Pattikonda division were very aggressive and hostile towards other humans and animals. In terms of reaction during different activities like grooming, rubbing belly, grabbing collar, hugging or kissing, ear cleaning and head patting, the dog's reactions were comparatively lower than nail trimming, bathing, being lifted by others and while giving medications. The mean value of dog reaction scores under various situations varied from 1.42 ± 0.05 to 2.82 ± 0.03 . The activities such as walking around or disturbing a sleeping dog and yelling at dogs loudly were found to be least disturbing activities. The activities such as taking away food item or a dog toy, physically restraining the dog, putting on collar while barking, separation from owner, visitors and strangers meeting, a person lifting or examining a dog, approach by another dog while on leash or off leash disturbed dogs to a greater extent.

Key Words: Excitable; Pet dog; Temperament; Pandikona; Yelling

Introduction

The concept of companion animals is as old as human civilization itself and the most common among them is the dog. The dog (*Canis lupus familiaris*) is the most preferred domestic mammal reared as pet both for guardian role in livestock rearing (Yilmaz et al., 2015) and living in home as a much-loved family member (Vijaykumar et al., 2006) in modern times. Dogs are subspecies of grey wolves (*Canis lupus*), and they are closely related to wolves, foxes, and jackals due to their comparable physical characteristics and habits. In hunter-gatherer communities dating back more than 12,000 years, dogs were regarded as a wild animal that assisted and accompanied humans on hunting expeditions.

Dogs have played roles like hunting allies and bodyguards against predators. They have quite similar traits like wolves and live in social groups called packs. A peculiar character of communicating with body postures, facial expressions and vocalization has been observed in wolves. Dogs too are seen with similar features but over the years due to domestication and human touch, the behaviour pattern in them has undergone remarkable change. Dogs, as they have pack behaviour, they follow a clear hierarchy, a leader. This unique behaviour of following a leader and maintaining a boss- subordinate behaviour has made the dog the most preferred animal to be reared as pet by humans. Since dogs naturally have a predisposition to accept decisions made without resentment, humans prefer to be around dogs because it gives them psychological happiness. The modern-day dogs still have the same innate group mentality as their wild ancestors. Dogs are devoted pets that offer their owners company and solace. Therefore, the covert purpose for keeping a dog is companionship (Bennett et al., 2007). Thus, dog being most preferred pet animal, their number over the years has increased from 19.41 million in 2018 to 31.41 million (Statista, 2022). Similarly, increasing trend of pet dog rearing has also been observed in Andhra Pradesh state and has recorded a population of 3.9 lakhs (BAHS, 2019). Kurnool, one of the most prominent and largest districts of undivided Andhra Pradesh has highest population of pet dogs (33,468) as compared to the other districts of Rayalaseema zone (SAAP, 2020).

Materials and methods

The study was conducted in Kurnool district of Andhra Pradesh, which is divided into three divisions. Kurnool & Kodumuru mandals of Kurnool division, Pattikonda & Devanakonda mandals of Pattikonda division and Adoni & Yemmiganuru mandals of Adoni division were considered under the present study. Sixty respondents were personally interviewed from each division to gather the data in accordance with the interview schedule that was created. Therefore, 180 respondents with a total of 225 dogs of 13 different breeds were considered from Kurnool district for the present study.

This article focuses on temperament of various dog breeds, reaction of dogs towards other animals and humans, reaction of pet dogs (Figure 1 and 2) to handling during various activities and reaction of pet dogs to different disturbing situations in study area. The data were subjected to basic statistical analysis as per Snedecor and Cochran (1989).

Result

The present study (Table 1) revealed that, among 7 Shih Tzu, 3 were quiet and 4 were playful. Out of 28 Pomeranians, 13 were quiet, 12 were playful and 3 were excitable. Out of 25 Labradors, 40.0 percent were quite, 52.0 percent were playful and 8.0 percent were excitable. It was observed that, among 10 Rottweiler pet dogs, 4 were aggressive followed by excitable (3), confident (2) and playful (1). Similarly, of the total 10 golden retriever pet dogs, about 4 were excitable and rest 3, 2 and 1 were aggressive, playful and confident, respectively. Out of 11 Spitz, almost 7 were quite followed by playful (3) and excitable (1). However, among 9 pug pet dogs, about 4 were playful and rest 3 and 2 were aggressive and excitable, respectively. It was noticed that, all Doberman were confident enough. Regarding Dachshund, about 3 and 2 were playful and quiet, respectively. Meanwhile, among 10 German shepherd, 5, 3 and 2 were playful, excitable and aggressive, respectively. Equal number of Siberian husky pet dogs were fallen under playful and excitable categories. Among 44 Pandikona dogs, maximum of 37 were aggressive and rest 7 were confident. Whereas, of total 58 ND Local varieties, 26 were playful followed by excitable (15), quite (9) and aggressive (8) (Figure 1).

Majority of Shih Tzu (85.71%), Spitz (90.91%) and pug (66.67%) were friendly while 14.28 percent Shih Tzu, 9.09 percent Spitz and 33.33 percent of pug were hostile in nature. Out of 28 Pomeranians, 75.0 percent were friendly, 21.43 percent were fearful and 3.57 percent were hostile. Most (80.0%) of the Labrador dogs were friendly while, 20.0 percent were observed to be fearful. 100.0 percent of Rottweiler, Doberman and Pandikona were hostile in nature. About 60.0 of golden retriever and 65.52 percent of ND Local varieties belonged to hostile and friendly category, respectively (Table 2). All the dachshunds under the present study were found to be friendly towards other humans. Most of German shepherd (60.0%) and Siberian husky (83.33%) were friendly towards other humans. Whereas the investigation revealed that breed had a significant influence on relation with other animals and humans ($P \leq 0.05$).

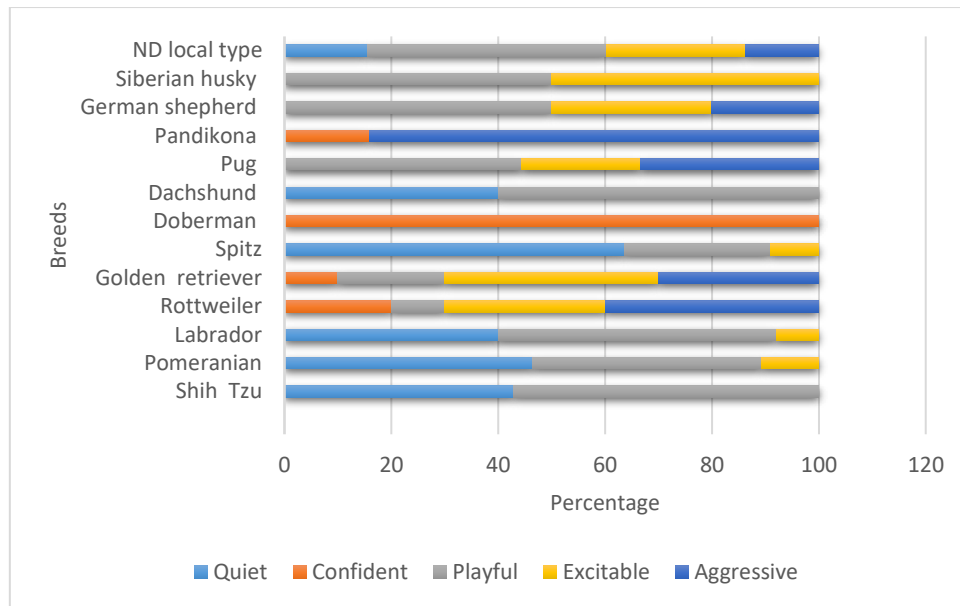


Figure 1 Temperament of dog breeds in Kurnool district

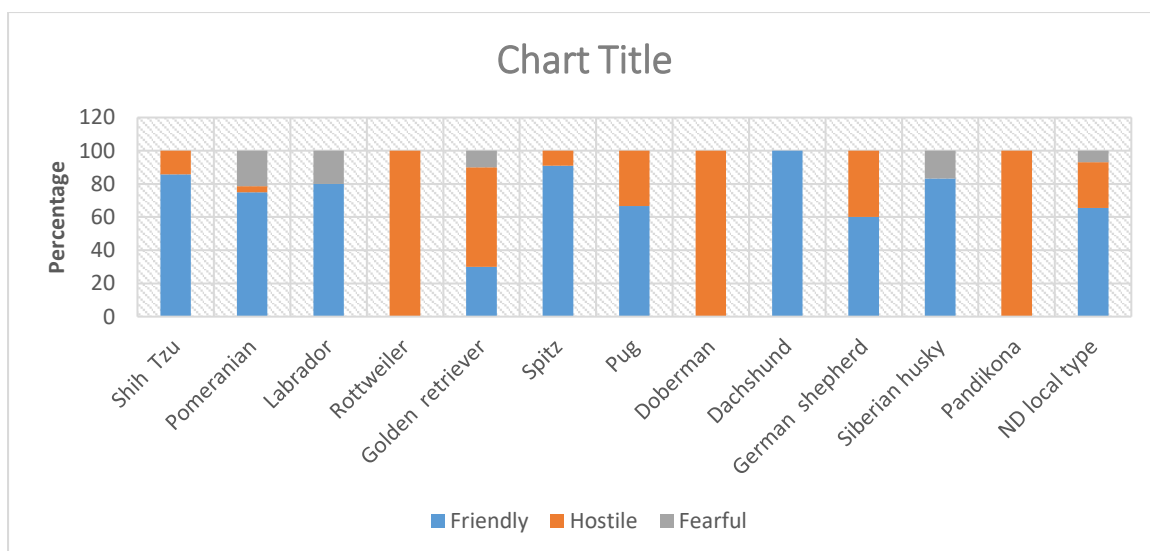


Figure 2 Reaction of pet dogs towards other animals and humans

Reaction of pet dogs to handling during various activities

In the present study, out of 225 dogs, only 139 dogs underwent nail trimming. Accordingly, their owners reported that out of those 139 dogs, 77 were neutral, 27 tried to escape, 3 were frightened and 32 were found to be barking during nail trimming. Grooming was carried out in only 98 dogs and those owners reported that, majority (61) of dogs neutral. It was observed that, majority (149) of dogs were neutral during belly rubbing, grabbing collar (143) and hugging or kissing (179) and permitted the owners to continue the same (Table 3). The results indicated that, ear cleaning was practiced in 139 dogs and their owners indicated that, 77 dogs were neutral, 27 tried to escape, 3 were frightened and 32 resisted and barked during the activity. It was noted that, majority (113) of dogs tried to escape while bathing as per owners perception. It was observed that, most of dogs (161) were neutral during head patting, and while lifting (95). Majority of dogs were reluctant while administering the medicine and exhibited go away reaction (99). The present study also revealed that the overall mean values of, grooming, rubbing belly, grabbing collar, hugging or kissing, ear cleaning and head patting, the dog's reaction was comparatively lower than nail trimming, bathing, being lifted by others and while giving medications (Table. 3).

Table1: Temperaments of various dog breeds Kurnool district (N=225)

| Breeds | Quiet | Confident | Playful | Excitable | Aggressive |
|------------------|-----------|-----------|-----------|-----------|------------|
| ShihTzu | 3(42.86) | 0 | 4(57.14) | 0 | 0 |
| Pomeranian | 13(46.43) | 0 | 12(42.86) | 3(10.71) | 0 |
| Labrador | 10(40.0) | 0 | 13(52.0) | 2(8.0) | 0 |
| Rottweiler | 0 | 2(20.0) | 1(10.0) | 3(30.0) | 4(40.0) |
| Golden retriever | 0 | 1(10.0) | 2(20.0) | 4(40.0) | 3(30.0) |
| Spitz | 7(63.63) | 0 | 3(27.27) | 1(9.09) | 0 |
| Doberman | 0 | 2(100.0) | 0 | 0 | 0 |
| Dachshund | 2(40.0) | 0 | 3(60.0) | 0 | 0 |
| Pug | 0 | 0 | 4(44.44) | 2(22.22) | 3(33.33) |
| Pandikona | 0 | 7(15.91)) | 0 | 0 | 37(84.09) |
| Germanshepherd | 0 | 0 | 5(50.0) | 3(30.0) | 2(20.0) |
| Siberianhusky | 0 | 0 | 3(50.0) | 3(50.0) | 0 |
| NDlocaltype | 9(15.52) | 0 | 26(44.83) | 15(25.86) | 8(13.79) |
| Total | 44(19.56) | 12(5.33) | 76(33.78) | 36(16.0) | 57(25.33) |

N=No.of petdogs; Percentages in parentheses represent the proportion of dogs with various temperaments.

Table 2 Reaction of pet dogs towards other animals and humans in Kurnool district (N=225)

| Breed | Friendly | Hostile | Fearful |
|------------------|------------|-----------|----------|
| ShihTzu | 6(85.71) | 1(14.28) | 0 |
| Pomeranian | 21(75.0) | 1(3.57) | 6(21.43) |
| Labrador | 20(80.0) | 0 | 5(20.0) |
| Rottweiler | 0 | 10(100.0) | 0 |
| Golden retriever | 3(30.0) | 6(60.0) | 1(10.0) |
| Spitz | 10(90.91) | 1(9.09) | 0 |
| Pug | 6(66.67) | 3(33.33) | 0 |
| Doberman | 0 | 2(100.0) | 0 |
| Dachshund | 5(100.0) | 0 | 0 |
| German shepherd | 6(60.0) | 4(40.0) | 0 |
| Siberian husky | 5(83.33) | 0 | 1(16.67) |
| Pandikona | 0 | 44(100.0) | 0 |
| ND local type | 38(65.52) | 16(27.59) | 4(6.9) |
| Total | 120(53.33) | 88(39.11) | 17(7.56) |

N=No.of pet dogs ; Figures in parenthesis indicates the percentage of pet dogs.

Table 3 Reaction of dogs to different handling practices in Kurnool district (N=225)

| Activity | Neutral | Go away | Fearful | Bark | Not tried | Mean±SE | SD |
|--------------------|------------|------------|-----------|-----------|------------|-----------|------|
| Nail trimming | 77(34.22) | 27(12.0) | 3(1.33) | 32(14.22) | 86(38.22) | 2.20±0.06 | 1.01 |
| Grooming | 61(27.11) | 21(9.33) | 0 | 16(7.11) | 127(56.44) | 1.70±0.11 | 1.09 |
| Rubbing belly | 149(66.22) | 0 | 11(4.89) | 29(12.89) | 36(16.0) | 1.58±0.08 | 1.13 |
| Grabbing collar | 143(63.56) | 0 | 17(7.56) | 29(12.89) | 36(16.0) | 1.64±0.08 | 1.15 |
| Hugging/kissing | 179(79.56) | 0 | 0 | 29(12.89) | 17(7.56) | 1.16±0.04 | 0.67 |
| Ear cleaning | 77(34.22) | 27(12.0) | 3(1.33) | 32(14.22) | 86(38.22) | 1.93±0.10 | 1.22 |
| Bathing | 54(24.0) | 113(50.22) | 13(5.78) | 43(19.11) | 2(0.89) | 2.20±0.07 | 1.01 |
| Patting head | 161(71.56) | 3(1.33) | 0 | 27(12.0) | 34(15.11) | 1.44±0.07 | 1.04 |
| Being lifted | 95(42.22) | 15(6.67) | 46(20.44) | 45(20.0) | 24(10.67) | 2.20±0.08 | 1.25 |
| Giving medications | 23(10.22) | 99(44.0) | 3(1.33) | 14(6.22) | 86(38.22) | 2.05±0.06 | 0.77 |

N: No. of pet dogs; Figures in parenthesis indicate the percentage of dogs reaction to different handling practices.

Reaction of pet dogs to different disturbing situations

It was found that, majority (71.56%) of dogs barked when tried to approach while it was eating or when food was taken away from dog. Similarly, most of dogs (79.56%) expressed their displeasure through barking when their toy was taken away. Whereas majority of dogs when disturbed during sleep were found to be neutral (66.22%), followed by barking dogs (17.78%). When dogs were physically restrained, 44.0 percent were fearful, barked (38.22%) and few were neutral (16.44%) at their owner (Table 4).

During the instance of putting collar when barking, about 17.33 percent were neutral, 13.78 percent were fearful while, 52.89 percent of pet dogs expressed anger by barking and few (16.0%) were by biting. Majority (44.0%) of dogs were fearful; 10.22 percent were neutral while the owners were yelling at dog loudly. Most

(66.22%) of dogs expressed their anger and displeasure by barking when separated from owners. When visitors and strangers approached, majority (63.56%) barked, 25.33 percent were neutral and 2.67 percent were fearful. About 52.0 percent barked when a person was lifting or examining the dog. It was noticed that, majority of dogs barked when dog was on leash (85.33%) or without leash (36.44%) while walking besides another dog.

Discussion

Temperament of various dog breeds in Kurnool district was presented in table 1. Accordingly, it was found that majority of breeds excluding Doberman and Pandikona were playful. Doberman and Pandikona breed were confident and aggressive, respectively. Chi square test revealed that breed had a significant influence on temperament of dogs ($P \leq 0.05$). This determines the association between breed and temperament. Breeds like Pomeranian, Labrador, golden retriever, Spitz and Siberian husky were majorly playful and excitable. This could be the innate desired behavioural temperament of these breeds.

The reaction of various dog breeds towards other animals and humans were presented in table 2. It was studied that the calculated value was higher than the table value for chi square test carried out to study the association between breed and its reaction. This indicates breeds significantly influence pet dogs' reaction ($P \leq 0.05$). Majority of dogs in the present study except Rottweiler, Doberman and Pandikona were found to be friendly and cent percent of Rottweiler, Doberman and Pandikona exhibited hostile reaction. This hostile nature might be because of the less exposure of these pet dogs to other animals and outsiders. Few dogs of Pomeranian, Labrador, golden retriever and Siberian husky were found to be fearful and this might be attributed to improper and inadequate socialization during early stages of learning. The present findings were in agreement with Matthias et al., (2015). In the present study among the total 225 dogs, 53.33 percent were friendly, 39.0 percent were hostile and only 7.5 percent were fearful as per the owner's assessment of their pet dogs.

Table 3 depicted the reaction of dogs to different handling practices and the mean value of dog's reaction score for various activities ranged from 1.16 ± 0.04 to 2.20 ± 0.08 . From the results it could be concluded that activities like nail trimming, ear cleaning, bathing, lifting and drug administration involved more handling and as a result dogs exhibited higher reaction with higher mean score. Improper and unnecessary handling creates confusion in dogs which may lead to undesired reactions. Similarly, Bennet et al. (2007) observed mean scores of various activities between 1.26 to 3.78.

Reactions of dog to different disturbing situation as per owner's assessment has been presented in table 4. The mean value of dog's reaction score for various disturbing situations ranged from 1.42 ± 0.05 to 2.82 ± 0.03 for disturbing a sleeping dog and when another dog approaches off leash dog, respectively. This indicates the dogs showed least reaction when they were sleeping while, showed maximum reaction when they were off leash and approached by another dog. Majority of dogs in disturbing situations barked to exhibit their anguish and expressed aggression.

Conclusions

Accordingly, it was found that majority of breeds excluding Doberman and Pandikona were playful while Doberman and Pandikona breed were confident and aggressive, respectively. Breeds like Pomeranian, Labrador, Golden retriever, Spitz and Siberian husky were majorly playful and excitable. Regarding reaction of pet dogs towards others, it was noticed that majority of dogs except Rottweiler, Doberman and Pandikona were found to be friendly and cent percent of Rottweiler, Doberman and Pandikona exhibited hostile reaction.

References

- 1) BAHS (2019). Basic animal husbandry statistics livestock census, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture. Government of India.
- 2) Bennett, C.P., Rohlf, V.I. (2007). Owner-companion dog interactions: relationships between demographic variables, potentially problematic behaviours, training engagement and shared activities. *Applied Animal Behaviour Science*, 102, 65- 84.
- 3) Matthias, J., Templin, M., Jordan, M., Mand Stanek, D., Cause. (2015). Setting and Ownership analysis of dog bites in Bay County, Florida from 2009 to 2010. *Zoonoses Public Health*, 62:38-43.
- 4) SAAP (2020). Statistical Abstract Andhra Pradesh, Directorate of Economics & Statistics, Government of Andhra Pradesh, Gollapudi, Vijayawada.
- 5) Snedecor, G.W., Cochran, W.G. (1989). *Statistical Method*, 8th ed. Iowa state University Press, Ames, Iowa, USA.
- 6) Statista (2022) Statistics Research Department. <https://www.statista.com/>.
- 7) Vijayakumar, P., Xavier, F., Anil, L. (2006). Housing management practices of pet dogs in Central Kerala. *Indian Journal of Animal Research*, 40(1): 73-75.
- 8) Yilmaz O., Coskun F., Ertugrul M. 2015. Livestock Damage by Carnivores and Use of Livestock Guardian Dogs for its Prevention in Europe – A review. *Journal of Livestock Science* 6:23-35