CANINE INTERACTIONS IN TOWN PŘEROV

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Abstract: The increasing incidence of obesity is a problem in the Czech Republic as well as in some other countries. Regular walking may be an important component of weight management. Effective approaches are necessary to promote this activity. Dog walking may be such a solution that can help encourage physical activity and improve the health of humans and dogs. Dogs can interact with other dogs in public places. Therefore, the aim of our study was to examine interactions between dogs in public places in town Přerov. Four hundred and eighty five canine dyads were observed. The sex of the dog and age of the dog had an effect on the initiation of interactions between dogs. The age of the dog and size of the dog had an effect on the termination of interactions between dogs. Further research will be necessary to fully understand dog interactions in public places.

Key Words: dog, interaction, walk

INTRODUCTION
Physical activities may be an important component of weight management in people and dogs. Dog walking can improve the health of humans (Epping 2011) and dogs (Degeling et al. 2012). Dogs are social animals, and therefore they need contacts with other dogs. However, little is known about the incidence of interactions between dogs in public places (Rezáč et al. 2011). This can be one of the reasons why nearly half of owners do not walk with their dogs regularly (Bauman et al. 2001). An understanding of dog interactions in public places can help better predict dog behavior on walks. The objective of the present study was to examine the effect of a leash, dog age, sex and size and human gender on interactions between dogs in public places.

MATERIAL AND METHODS
The interactions between dogs were observed in public places in the town Přerov in 2016. Four hundred and eighty five canine dyads were examined. The observation was conducted by focal-animal and all-occurrences sampling methods. Interactions were recorded when one dog initiated the interaction. The observation was ended when owners or dogs terminated the interaction. The initiation of interaction and termination of interaction were recorded. The use of a leash, dog age, sex and size and human gender were recorded. The behavior of dogs and their owners was not influenced by the observer. Data were stored in the Excel database. Off-leash dogs that were recalled by their owners during interactions were not included in further analysis. The statistical analysis of the frequency of canine interactions was performed by the chi-square test. Results were considered significant at P < 0.05.

RESULTS AND DISCUSSION
Dogs off a leash interacted one another more often (P < 0.05) than when one or two dogs were on a leash (Figure 1). This indicates that the use of a leash considerably decreases the interactions between dogs. Similar results were reported in other studies (Westgarth et al. 2010, Rezáč et al. 2011). Male dogs interacted one another more often (P < 0.05) than female dogs (Figure 2). However, the reason is not known. Small dogs interacted one another more often (P < 0.05) than with larger dogs (Figure 3). Large dogs interacted one another more often (P < 0.05) than with smaller dogs (Figure 3). Medium dogs did not show these differences (Figure 3). These results indicate that small and large dogs prefer the
interactions with dogs of the same size. Dogs interacted one another more often (P < 0.05) when both owners were women than when they were men (Figure 4). One of the reasons may be that more dog owners were women than men. Another explanation may be that women allow the interactions between dogs more often than men.

Figure 1 The effect of the use off a leash on the frequency of dog interactions

Figure 2 The effect of the sex of the dog on the frequency of dog interactions

Figure 3 The effect of the size of the dog on the frequency of dog interactions

Figure 4 The effect of the sex of the owner on the frequency of dog interactions
Male dogs initiated interactions with female dogs nearly two times more often (P < 0.05) than vice versa (Figure 5). This suggests that the interactions between dogs with the opposite sex may have some association with the sexual behavior. Puppies initiated interactions with adult dogs more often (P < 0.05) than vice versa (Figure 6). The reason may be that puppies want to play with adult dogs more often than vice versa. Similarly, Řezáč et al. (2011) reports that puppies play more often than adult dogs.

![Figure 5 The effect of the sex of the dog on the initiation of dog interactions](image1)

![Figure 6 The effect of the age of the dog on the initiation of dog interactions](image2)

Adult dogs terminated interactions with puppies more than two times more often (P < 0.05) than vice versa (Figure 7). This suggests that adult dogs are not interested as much in the interactions with puppies than vice versa. Small dogs terminated interactions with medium dogs nearly two times more often (P < 0.05) than vice versa (Figure 8). This is in agreement with the finding that dogs probably prefer the interactions with dogs of the same size.

![Figure 7 The effect of the age of the dog on the termination of dog interactions](image3)

![Figure 8 The effect of the size of the dog on the termination of dog interactions](image4)

**CONCLUSIONS**

Our results showed that the initiation of interactions between dogs is affected by the sex of the dog and age of the dog. The termination of interactions between dogs is influenced by the age of the dog and size of the dog. Further research will be needed to fully understand the factors that affect dog interactions in public places.

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**REFERENCES**


