

# The relationship between children and family dogs concerning their possible aggressive behavior: a pilot study using a questionnaire for parents

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**Abstract:** The aim of this study was to survey the relationship between children and their dogs and the causes of dog's aggressiveness towards them. A 34-item questionnaire divided into three sections was administered to 152 parents of 1 to 6 year old children owning a dog. It emerged that 8.6% of dogs showed signs of aggressiveness towards the family's children. The dog's age, sex and adoption before the child's birth did not result in discriminating factors in manifesting aggression. Instead, dogs whose tails and/or ears were pulled by children tended to be more aggressive towards them. A large number of scientific studies are highlighting the importance of unsupervised dog-child relationship and, according to 84% of parents, explanations led to an improvement in this relationship, but indeed aggression towards children was not reduced. These preliminary data suggest that children and parents need to be guided by experts so that the relationship between dogs and children living together does not lead to aggression.

**Key Words:** child; dog; aggression.

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## Introduction

The relationship between children and family dogs is very important, particularly when it helps a child having problematic stages of development (Bodmer, 1998; Friedmann et al., 2003; Beetz et al., 2011; Beetz et al., 2012), but sometimes this relationship can also have side effects: for example, human beings can be victims of zoonoses (Robertson & Thompson, 2002; Chomel & Sun, 2011; Chomel, 2014) and bites (Tuggle et al., 1993; De Keuster et al., 2006), resulting in trauma and other forms of distress (Speirs et al., 2015; Bryant, 1990).

Canine aggressions towards young children are characterized by familiarity and, unfortunately, severe damages (Gislason and Call, 1982; Overall & Love, 2011; Peters et al., 2004). Children aged 5 to 6 years are disproportionately susceptible to dog bite attacks relative to the adult population and there is a need to provide them with well-validated education programs to teach the correct behaviour when interacting with dogs (Coleman et al., 2008; Mariti et al., 2011). The aim of this study was to survey the relationship between children and their dogs and the causes of aggressiveness in dogs toward the children that live with them.

## Materials and methods

A 34-item questionnaire divided into three sections was administered to 152 parents of 1 to 6 year old children (average  $3.78 \pm 1.48$  years) owning a dog (78 females and 74 males, different breeds,  $4.63 \pm 3.94$  year old). The first two sections regarded dog and child personal characteristics

(age, personality and how much time the child and the dog spent together). The third section surveyed the dog-child relationship and included questions such as: if the adoption had occurred before or after the child's birth; possible changes for the child or dog after the arrival of the new family member; the child's perception of the dog; the way dog and child play; possible dog aggressions toward the child. Data were statistically analyzed by  $\chi^2$  and t tests ( $p < 0.05$ ).

## Results

The 8.6% ( $n=13$ ) of dogs showed signs of aggressiveness toward the familiar children (growl and/or attempt to bite). The dog's age ( $t=0.361$ ;  $p=0.719$ ), sex ( $\chi^2=0.008$ ;  $p=0.928$ ) and adoption before the child's birth (7.5% vs 10.2%;  $\chi^2=0.073$ ;  $p=0.787$ ) are not discriminating factors in manifesting aggression. Instead, dogs whose tails and/or ears are pulled by children tended to be more aggressive towards them (23.8% vs 5.8%;  $\chi^2=3.046$ ;  $p=0.081$ ). The 84% of parents stated to have explained to their child how to relate with the dog; in the case it was not done, it was statistically more probable that the child considered the family dog as a brother or the child was not interested in the cohabitant animal ( $\chi^2=71.684$ ;  $p=0.000$ ). According to the parents, explanations led to an improvement in the child-dog relationship (62.5% vs 37.5%;  $\chi^2=15.016$ ;  $p=0.000$ ), but indeed aggressions toward children were not reduced (9.4% vs 4.2%;  $\chi^2=0.193$ ;  $p=0.660$ ).

## Discussion

Recent studies have shown that the majority of canine aggressions happens at home and involve younger children (Meints & De Keuster, 2006). These accidents may be due to mistakes in the education of dog (Gazzano et al., 2008) and/or in the child's relationship with the animal. In the majority of accidents (86%), a child's interaction with the family dog appears to trigger the biting (Kahn et al., 2003). In this study, the dogs showed signs of aggressiveness towards children that played by pulling the tails and/or ears, so the parents have the duty to explain the correct way to interact with the family dog. Human education is important: if we can influence the children's attitudes when they are still young, they will grow into responsible adults. These preliminary data suggest that children and parents need to be guided by experts so the relationship between dogs and children living together does not lead to accidents. Parents and children need to know about the safest way to interact with their dog in a household setting. According to De Keuster, they need a simple prevention tool as part of a bigger prevention program in veterinary practices, human health care practices, schools and canine rescue centres (De Keuster et al., 2005).

## Reference

- Beetz A., Julius H., Turner D., Kotrschal K. (2012). Effects of social support by a dog on stress modulation in male children with insecure attachment. *Frontiers in psychology*, 3. doi: ORG/10.3389/FPSYG.2012.00352
- Beetz A., Kotrschal K., Turner D.C., Hediger K., Uvnäs-Moberg K., Julius H. (2011). The effect of a real dog, toy dog and friendly person on insecurely attached children during a stressful task: an exploratory study. *Anthrozoös*, 24 (4), 349-368.
- Bodmer N.M. Impact of pet ownership on well-being of adolescents with few familiar resources. In: Wilson C.C., Turner D.C. (Eds.), *Companion Animals in Human Health*. SAGE Publications, Thousands Oak, CA, 1998; pp. 237-247.
- Bryant B.K. The richness of the child-pet relationship: a consideration of both benefits and costs of pets to children. *Anthrozoös* 1990; 3: 253-261.
- Chomel B.B. Emerging and Re-Emerging Zoonoses of Dogs and Cats. *Animals (Basel)* 2014 September; 4 (3): 434-445.

- Chomel B.B., Sun B. Zoonoses in the bedroom. *Emerg Infect Dis.* 2011 Feb; 17 (2): 167-172.
- Coleman G., Hall M.J., Hay M. An Evaluation of a Pet Ownership for School Children. *Animal Welfare Science Centre.* 2008; 21: 271-284.
- De Keuster T., De Cock I., Moons C.P.H. Dog bite prevention - How a Blue Dog can help. *Proceedings of FECAVA Symposium 2005.*
- De Keuster T., Lamoureux J., Kahn A. Epidemiology of dog bites: a Belgian experience of canine behaviour and public health concerns. *Vet. J.* 2006; 172: 482-487.
- Friedmann E., Thomas S.A., Stein P.K., Kleiger R.E. Relation between pet ownership and heart rate variability in patients with healed myocardial infarcts. *Am. J. Cardiol.* 2003; 91: 781-721.
- Gazzano A., Mariti C., Alvares S., Cozzi A., Tognetti R., Sighieri C. The prevention of undesirable behaviors in dogs: effectiveness of veterinary behaviorists' advice given to puppy owners. *J. Vet. Behav. Clin. Appl. Res.* 2008; 3: 125-133.
- Gislason I.L., Call J.D. Dog bite in infancy: trauma and personality development. *J. Am. Acad. Child Psychiatry* 1982; 21: 203-207.
- Kahn A., Bauche P., Lamoureux J. And The Members of the Dog Bites Research Team 2003. Child victims of dog treated in emergency departments. *European J. Pediatr* 2003; 162: 254-258.
- Mariti C., Papi F., Mengoli M., Moretti G., Martelli F., Gazzano A. Improvement in children's humaneness toward nonhuman animals through a project of educational anthrozoology. *J. Vet. Behav. Clin. Appl. Res.* 2011; 6: 12-20.
- Meints K., Keuster T. Test yourself - a first assessment of the dog bite prevention project "Blue Dog": part I: education- the "Blue Dog" is born. Part II: the "Blue Dog"- do children really get the message?, *Proceedings Wsva Congress 2006.*
- Overall K.L., Love M. Dog bites to humans-demography, epidemiology, injury, and risk. *Journal-American Veterinary Medical Association* 2001; 218 (12): 1923-1935.
- Peters V., Sottiaux M., Appelboom J., Kahn A. Posttraumatic stress disorder after dog bites in children. *J. Pediatr.* 2004; 144: 121-122.
- Robertson I.D., Thompson R.C. Enteric parasitic zoonoses of domesticated dogs and cats. *Microb. Infect.* 2002; 4: 867-873.
- Speirs J., Showery J., Abdou M., Pirela-Cruz M.A., Abdelgawad A.A. Dog bites to the upper extremity in children. *Journal of paediatrics and child health* 2015; 51 (12): 1172-1174.
- Tuggle D.W., Taylor D.V., Stevens R.J. Dog bites in children. *J. Pediatr. Surg.* 1993; 28: 912-914.

### Il comportamento aggressivo del cane di famiglia nella relazione con il bambino: uno studio pilota con l'utilizzo di un questionario per i genitori

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#### Sintesi

Lo scopo di questa ricerca è stato quello di valutare la relazione tra il bambino ed il suo cane e le cause di possibili episodi di aggressività canina nei confronti del bambino.

Un questionario, costituito da 34 domande e diviso in 3 sezioni, è stato somministrato a 152 genitori di bambini di età compresa tra 1 e 6 anni, proprietari di cani.

Dall'analisi dei dati è emerso che l'8,6% dei cani ha mostrato segni di aggressività nei confronti del bambino. L'età del cane, il sesso e l'essere stato adottato prima della nascita del bambino, non sono risultati fattori discriminanti per la manifestazione del comportamento aggressivo dell'animale. È emerso invece che i cani a cui il bambino ha tirato la coda e/o le orecchie sono più aggressivi nei suoi confronti.

Un gran numero di studi ha rilevato come sia pericoloso che le interazioni del bambino con il cane non siano supervisionate da un adulto. L'84% dei genitori riferisce che la spiegazione al bambino del modo corretto d'interazione ha portato a un miglioramento della relazione ma non a una riduzione delle aggressioni.

Questi dati preliminari suggeriscono che bambini e genitori hanno la necessità di essere guidati da esperti in modo che la relazione tra cani e bambini sia vissuta in modo corretto e privo di pericoli.