behavior modification; other medications were prescribed or the dose was increased over the same period (n = 4); and there was a reduced challenge to the dog (n = 1, lack of storms with noise phobic animal).

In this study 78% of owners felt that the DAP collar had helped in the management of their dog’s anxiety in the four week period that the collar was worn by the dog. This is similar to studies indicating the effectiveness of DAP conducted in other countries. As many dogs that live in Australia spend much of their time outside the DAP collar is likely to be more useful than the DAP diffusor or DAP spray in managing anxiety related disorders in Australia. 

**Key words:** dog appeaseament pheromone; dogs; anxiety disorders

**References**


**DIFFERENCES IN SEROTONIN LEVELS BETWEEN AGGRESSIVE ENGLISH COCKER SPANIELS AND AGGRESSIVE DOGS OF OTHER BREEDS**

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Aggression is one of the most common behavioral problems in dogs and may have important negative effects on public health, the human-animal bond and animal welfare. There is ample evidence showing a negative correlation between serotonin serum levels and aggressive behavior in a variety of species, including the domestic dogs. This negative correlation is particularly pronounced in dogs that show impulsive aggression. Data obtained in previous studies suggests that the English cocker spaniel (ECS) is more likely to show impulsive aggression than other breeds in some countries where they have been studied. Accordingly, we examined serum serotonin levels between aggressive ECS and aggressive dogs of other breeds.

We evaluated 19 ECS dogs that presented for aggression at the Animal Behaviour Service – Barcelona School of Veterinary Medicine. This study group was compared with twenty aggressive dogs of other breeds attended in the same center. Serum serotonin levels were measured using an ELISA method.

Aggressive ECSs had significantly lower levels of serum serotonin than aggressive dogs of other breeds (318.6 ng/ml ± 67.1 and 852.77 ng/ml ± 100.58 respectively), but the variance did not differ significantly between ECSs and other breeds (SD = 449.84 vs 292.47; p > 0.05). Our results indicate that ECSs have lower serum serotonin than do aggressive dogs of other breeds. This pattern could explain why ECSs seem to be more likely to show impulsive aggression than other breeds. ECS could be a good model to study the neurophysiological mechanisms underlying impulsive aggression.

**Key words:** aggression; behavior; dog; English cocker spaniel; serotonin

**INTERNATIONAL COOPERATION IN APPLIED ETHOLOGY COURSES**

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During the last few decades there has been growth in the need for the application of scientific principles to modify animal behavior for the ultimate benefit of the animal’s and the owner’s welfare. Consequently there has been explosive growth in the number of practitioners and institutions providing courses related to animal behavior and animal behavior therapy (de Boo and Knight, 2006). Regrettably, there has been relatively little standardization of the courses provided within and between countries (de Boo and Knight, 2006). An international collaboration and standardization of recommended courses would ensure high professional standards and benefit anyone who consults with the public. Such agreement would allow professionals and pet-owners to select properly trained and qualified behaviorists, and would encourage using scientific methods to modify animal behavior (Wickens et al., 2007). The Catholic University College Ghent, Belgium strives to promote international cooperation between all institutes that offer such courses. This is done through the exchange of programs and course material, but also through the exchange of lectures. The latter is financially supported by the European authorities in a “teaching exchange program” (LLP program: Higher Education (Erasmus), European