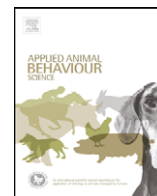




ELSEVIER

Contents lists available at ScienceDirect

Applied Animal Behaviour Science

journal homepage: www.elsevier.com/locate/applanim

Video analysis of dogs with separation-related behaviors

Clara Palestrini^{a,*}, Michela Minero^a, Simona Cannas^a, Emanuela Rossi^a, Diane Frank^b

^a Dipartimento di Scienze Animali, Sezione di Zootecnica Veterinaria, Facoltà di Medicina Veterinaria, Università degli Studi di Milano, Via Celoria 10, 20133 Milano, Italy

^b Université de Montréal, Faculté de Médecine Vétérinaire, Centre Hospitalier Universitaire Vétérinaire, C.P. 5000, Saint-Hyacinthe, QC, Canada J2S 7C6

ARTICLE INFO

Article history:

Accepted 14 January 2010

Available online 13 February 2010

Keywords:

Dogs

Behavior

Separation-related problems

Separation anxiety

ABSTRACT

Separation-related behaviors are described as problematic behaviors that occur exclusively in the owner's absence or virtual absence. Diagnosis is generally based on indirect evidence such as elimination or destruction that occurs during owner absence. Questionnaire studies are based on owner perception and might therefore underestimate the actual proportion of dogs with separation problems. The aim of this study was to film dogs with separation-related problems when left home alone and compile objective information on behaviors exhibited. Twenty-three dogs, ranging in age from 5 months to 13 years (2.9 ± 22.7 years), were filmed home alone for 20–60 min (49.87 ± 12.9 min) after owner departure.

Analysis of behaviors on tape showed that dogs spent most of their time vocalizing ($22.95 \pm 12.3\%$ of total observed time) and being oriented to the environment ($21 \pm 20\%$). Dogs also exhibited panting ($14 \pm 18\%$), were passive ($12 \pm 27\%$) and were destroying ($6 \pm 6\%$) during owner absence. Most dogs displayed signs within less than 10 min after owner departure, such as vocalizing (mean latency 3.25 min) and/or destroying (mean latency 7.13 min). Barking and oriented to the environment tended to decrease (respectively $p = 0.08$ and $p = 0.07$) and conversely panting tended to increase over time ($p = 0.07$).

Diagnosis of separation-related problems is traditionally dependant on owner reports. Although owner observation may be informative, direct observation and standardized behavioral measurement of dogs with separation-related problems, before and after treatment, would be the best way to diagnose and to measure behavioral improvement.

© 2010 Elsevier B.V. All rights reserved.

1. Introduction

Problems that occur when the owner is absent represent one of the principal causes for the breakdown of the human–companion animal bond and can lead to surrender of numerous dogs to shelters (Miller et al., 1996; Van der Borg et al., 1991).

In the literature, undesirable behavior problems that occur during owner absence are listed as separation anxiety, separation-related problems, isolation anxiety, separation reactions, separation-related distress and

separation anxiety syndrome. Separation anxiety is described as problematic behavior motivated by anxiety that occurs exclusively in the owner's absence or virtual absence (Appleby and Pluijmakers, 2004; Borchelt and Voith, 1982; Flannigan and Dodman, 2001; Overall, 1997). Anxiety-related disorders and separation anxiety are among the most common behavioral problems in domestic dogs (Overall et al., 2001) with separation anxiety being diagnosed in 20–40% of dogs referred to animal behavior practices in North America (Simpson, 2000; Takeuchi et al., 2000; Voith and Borchelt, 1996). Some authors and veterinarians question whether dogs with separation-related problems are truly anxious (Papurt, 2001).

Separation-related distress has, for many years, been believed to be a distress response to separation from the

* Corresponding author. Tel.: +39 02 5031 8042; fax: +39 02 5031 8030.
E-mail address: clara.palestrini@unimi.it (C. Palestrini).

figure to whom the dog is attached (Voith and Borchelt, 1985). In most cases, the attachment figure is the dog's owner or a person in the household with whom the dog displays a strong affiliation. The degree of distress is thought to be related to the degree of the attachment to the absent figure (Schwartz, 2003). It is likely that separation-related distress in dogs has a multi-faceted etiology, so various authors have advocated symptom-based approaches for data collection since these approaches may avoid inappropriate interpretation of animals' motivation (Blackwell et al., 2006; McCrave, 1991; McGreevy and Masters, 2008).

The most common complaints are destructive behavior directed at the home, self-inflicted-trauma, inappropriate elimination, increased and repetitive motor activity (pacing, circling) and excessive vocalization (whining, barking, or howling) in the owner's absence (Appley and Pluijmakers, 2004; King et al., 2000; Simpson, 2000).

Destructive behavior (chewing, digging and scratching) is usually directed at exit points such as doors, windows and gates (McCrave, 1991). Specific objects in the apartment or the house are scratched, chewed or torn apart. Occasionally this behavior may even lead to extensive destruction of furniture. Diagnosis is generally based on indirect evidence such as elimination or destruction during owner absence instead of visualizing tapes of actual behaviors and body language. Several owners will be made aware of a problem only because neighbors complain about excessive vocalization. Separation-related problems may therefore be underestimated if elimination does not occur, destruction is absent or minor and if no one hears the dog vocalize. Some behavioral signs, such as pacing, circling, or other repetitive actions can only be identified if a video-recorded film is done during owner absence. Therefore, questionnaire studies based on owner perceptions may underestimate the real proportion of dogs with separation problems, as well as the severity of the signs.

To our knowledge, only one study (Lund and Jørgensen, 1999) reported observations of filmed behaviors exhibited by dogs with separation problems in their own environment. The aim of this study was to film dogs with separation-related problems when left home alone and compile additional objective information on behaviors exhibited.

2. Materials and methods

2.1. Subjects

Twenty-three dogs (three intact and seven spayed females, nine neutered and four intact males) ranging in age from 5 months to 13 years (2.9 ± 2.7 years) were included. Dogs were chosen among patients presented for separation-related problems to two Behavior Clinics.

Breeds included two Siberian huskies and two Beagles, and one of each of the following: Golden Retriever, Poodle, English Cocker Spaniel, West Highland White Terrier, Wire Fox Terrier, Basset Hound, Doberman, American Staffordshire Terrier, Dachshund, as well as 10 mixed breeds.

Dogs were filmed under routine conditions normally adopted by the owners: 11 dogs were allowed to run freely

in the home, nine were kept in a cage and three were confined in a room.

2.2. Data collection

The owners were asked to fill out a questionnaire including information on the dog's characteristics and history as well as on the physical and social environment of the dog. Questions touched on home environment, management, age (current, age at acquisition), sex, reproductive status (entire or neutered/spayed), breed, number of adults and children in the household (children older than 18 years were considered adults), source of dog (breeder, pet store, shelter, rescue, family, friends or stray), and number of dogs and cats in the household. Other specific questions about the dog's behavior during owner absence were also compiled (house soiling, destruction, vocalization).

A video camera was installed in the room where the dog usually stayed during owner absence. If the dog was allowed to roam freely, the camera was installed where the dog was believed to spend most of its time. The owners were asked to start the camera immediately prior to their departure from home. The dogs were filmed when left home alone for variable periods ranging from 20 to 60 min (49.87 ± 12.9 min) depending on the owner's schedule.

2.3. Data collection and analysis

2.3.1. Questionnaire

Answers to the questionnaire were scored. Absolute and relative frequencies were calculated and expressed as percentage.

2.3.2. Video recording

The behavior of each dog was video-recorded and every videotape session was subsequently analyzed. Twenty categories covering all recorded behaviors were established (Table 1). A focal animal continuous recording method (Martin and Bateson, 1993) was used to describe the dog's activity. Behaviors were recorded in terms of duration of occurrence or frequency. Behaviors recorded as states were: exploration, locomotion, circling, passive behavior, orientation to environment, scratching, oral behavior, play, panting, grooming, ears back, barking, whining, howling, trembling, paw up and not visible. Yawning, lip licking, elimination were recorded as events.

Inter-observer reliability was assessed by two observers that scored independently a random sample of three videotaped sessions, for a total duration of 3 h of observation. The reliability was calculated by means of percentage agreement and Spearman's correlation. Percentage agreement was always more than 87%, Spearman's $Rho = 0.983$, $p < 0.001$.

2.3.3. Statistical analysis

In order to describe duration and frequency for each behavior a descriptive analysis was first performed. Categories such as play, grooming, ears back, trembling, circling, elimination and not visible were not considered for statistical analysis either because of total absence of the given behavior or short duration.

Download English Version:

<https://daneshyari.com/en/article/4523359>

Download Persian Version:

<https://daneshyari.com/article/4523359>

[Daneshyari.com](https://daneshyari.com)