Research

Validation of a selection protocol of dogs involved in animal-assisted intervention

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ABSTRACT

Animal-assisted interventions (AAIs) with dogs are becoming popular worldwide, but there is a lack of scientific data on dog selection procedures, which prevents the organizations involved from adopting a uniform assessment method. In the absence of legal regulations and common guidelines, dogs currently engage in diverse activities, some of which may pose more of a concern for their welfare than others. The present study sought to standardize and validate a selection protocol of dogs involved in AAIs and to make it available to interested Italian institutions. To meet this aim, we enrolled dogs already working in AAIs and qualified by their handlers as fully suitable (N = 20) or suitable with reserve (N = 20) and nonworker pet dogs (N = 20) in this study. Each dog underwent a behavioral examination followed by role-playing, simulating an AAI session, presenting various conditions, and unexpected stimuli possibly occurring in AAIs. In both procedures, blinded experts judged the suitability of dogs evaluating controllability, reliability, and predictability of their social behavior and considering possible concerns regarding safety or welfare of patients and of the dogs themselves. Concurrent validity between procedures was fair, whereas reasons for dogs' allocation resulted in moderate accordance for dogs being aggressive, fearful, or avoidant of an unknown person. Moreover, dogs judged suitable, suitable with reserve, or not suitable by the experts significantly differed for the relative duration of negative interactions with unknown person, fear, and aggressiveness expressed in the role-playing. Differences in the ability to cope with stressful situations possibly occurring in AAIs were unnoticeable with the present protocol, and stress signals shown by dogs during the role-playing were judged by the experts or by the handlers not to differ between dogs. Given our results, the present protocol could be easily and properly adopted to identify dogs' behavioral prerequisites for AAIs. For the procedure to work properly, each dyad (dog and handler) should undergo behavioral examination and role-playing simulation in sequence.

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Introduction

Animal-assisted interventions (AAIs) are achieving a certain level of recognition worldwide and this is accompanied by a growing body of research on the effect of these programs on human health and well-being (Urbanski and Lazenby, 2012; Bernabei et al., 2013; Marcus, 2013; O'Haire, 2013). In 2012, the Italian National Reference Centre for Animal Assisted Interventions conducted a nationwide survey of organizations offering this program, finding that such programs were widely distributed throughout the country and frequently involved dogs (CRN, 2012). The widespread involvement of dogs in AAIs is embedded in the outstanding interspecific social ability of this species and in the dogs' ease in adapting to various human environments (Miklósi and Topál, 2013). Nonetheless, not every dog is suitable to be involved in AAIs and both international associations (IAHAIO,

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1998; AVMA, 2014), and Italian authorities (CNB, 2005; DGR n. 4130, 2006; DM G.U., 2009) have noted specific requirements to be fulfilled.

Procedures for the selection and screening of dogs involved in AAIs (thereafter referred as therapy dogs) are more or less formalized by a number of therapy animal registration organizations (e.g., AKC, 2014). Although diverse criteria are listed by each organization, most of them follow a general approach, which takes into account prerequisites, appropriate training, supervised working experiences, and evaluations by experts observing the dogs and their handlers operating in AAI settings. Essential minimum prerequisites are good health of dogs, absence of behaviors that could jeopardize participants in AAIs (jumping up or on, mouthing, biting, dodging, or apparent aggression), and favorable disposition to interact with unknown people. Having good basic obedience skills and living with the handler or being familiar with the handler for a certain period are other common prerequisites. Appropriate training is aimed at preparing the dog (and the handler) for the evaluation process used by the organization. Being comfortable in a medical setting; accepting rough handling, uncontrolled vocalizations, or approach by strangers; being surrounded by a group of people; disregarding food or toys on cue; and, in general, being able to cope with stressful situations possibly occurring in AAIs are expected skills of a therapy dog. Moreover, interaction with patients should appear enjoyable for the dogs, and the dogs must not show signs of stress, fear, aggression, or shyness, nor should they attempt to avoid touch.

The great deal of effort put by these organizations into standardizing procedures has provided the framework guiding the selection procedure; however, limitations exist. First, each organization interprets the requirements from their own perspective thus reflecting the biases of that particular association (Fredrickson-MacNamara and Butler, 2006). Second, in some cases, organizations have an active role in educating the dog-handler dyad before they undergo the evaluation process. In spite of the good faith of the people involved in the training and evaluation practice, there is no independent objective verification, a concern for reliability across many working-dog disciplines. Third, none of these selection procedures have been assessed for their scientific validity to the best of our knowledge. Invalid assessment of dog suitability to task would pose significant welfare concerns for therapy dogs and participants. Moreover, the lack of scientific data on selection procedures prevents organizations involved in AAIs from recognizing a uniform method of selection and standardizing procedures in a way that could benefit them all.

The present study sought to standardize and validate a protocol for the selection of therapy dogs, making it available to Italian institutions and organizations working in this field. As a first attempt to validate the selection protocol, we focused on the evaluation of the behavioral prerequisites (i.e., sociability toward strangers and absence of behaviors threatening the patients' and dogs' safety or welfare). Assessment of these prerequisites was performed through a behavioral examination and the evaluation of the dogs' behavior in a role-playing simulating an AAI session. Both evaluations are crucial and represent, respectively, the initial bottleneck and the final outcome of the entire process. Because these behavioral prerequisites have to be consistent in a therapy dog, concurrent validity between the outcomes of the 2 evaluations was expected. Validation also required estimating the sensibility and specificity of the evaluations. This should be performed by comparing the outcome of a procedure with a gold standard; however, in the absence of such standard, we compared the judgments of both evaluations with the objective assessment of the dogs' undesirable behavior.

Materials and methods

Behavioral examination

Evaluation of the dogs' prerequisites through a behavioral examination was the first step of our evaluation procedure. Clinical assessments were performed at the Animal Behavior Service of the Department of Comparative Biomedicine and Food Science (University of Padova). During the examination, the same veterinary behaviorist evaluated both the history and present behavior of the dog, being unaware of the specific working experience of the dog. The veterinarian was asked to evaluate the possible presence of behavioral problems and the dogs' suitability to work in AAIs. Suitability of dogs was evaluated on controllability, reliability, and predictability of their social behavior and additionally a possible concern regarding safety or welfare of patients; safety and welfare of dogs were also taken into account. The level of technical skills was not accounted for suitability. At the end of the behavioral examination, the veterinarian assigned the dog to one of the following categories: unsuitable (UN; dog with possible behavioral problems and/or concern regarding safety or welfare of patient and/or dog), suitable with reserve (RV; dog with fair social behavior and without concern regarding safety or welfare of patient and/or dog), and suitable (SU; dog with good or excellent social behavior and without concern regarding safety or welfare of patient and/or dog). A detailed description of reasons for the allocation was written for each dog.

Role-playing

The same dog-person dyads were enrolled in a role-play, simulating an AAI session; in brief, each dog-handler pair was exposed to various conditions and unexpected stimuli that could occur during clinical AAI experiences. This second step of the procedure included aspects that could be defined as critical for both the handler and the animal with regard, in particular, to the maintenance of both the animal's and the patient's welfare. The role-playing was performed in the Laboratory of Applied Ethology (Department of Comparative Biomedicine and Food Science, University of Padova), where a closed-circuit television system allowed technicians to supervise both recording and timing of the procedure.

Setup of the role-playing

The environments in which a dog-handler dyad performs AAI usually vary depending on distractions presented, familiarity of environment by the dog, and physical characteristics. The Delta Society (Delta Society, 2002) indicated the following common distracters should be used: food; other people; unexpected, loud, and sharp noises; and an unexpected approach and interaction with a stranger in which the stranger pets the dog. We built the role-playing episodes following the possible situations given below.

To this aim, we selected specific materials (crutches, metal walker, chairs, table, sunglasses, noisy bracelet, white coat, dog brush, little ball, chocolate chips) that are common elements in AAI environments and may constitute sources of distraction and awkwardness for the dog. One dog brush and 1 ball, widely used by handlers during AAI sessions to perform various activities, were made available for the entire time of the simulation.

Besides these materials and based on our clinical experience in AAI (Marinelli et al., 2009), we selected specific challenging behaviors of both the patient and his or her accompanying health care professional that can occur during an AAI. For instance, autistic, schizophrenic, or disabled patients can be uncooperative during the