Owner Training Key to Reducing Risk of Dog Bite Injuries

Herndon, Va. (June 19, 2019) – Dog attacks have been on the rise and it may be the owners who need to go back to school. A new study published in Risk Analysis: An International Journal investigated what leads dog owners to train their pets using positive reinforcement methods.

Positive reinforcement training methods are considered to be the most effective and humane approach to training dogs but many owners fail to effectively implement the technique.

According to the Centers for Disease Control and Prevention, approximately 4.7 million Americans are bitten by a dog each year and, in 2018, there were 36 dog-bite fatalities. Despite the legal liabilities and possible euthanization, many dog owners have not learned how to effectively manage their dog’s aggressive behavior.

This study found that perceived effectiveness of positive reinforcement and the owners’ level of confidence in their abilities were key factors in the use of such techniques. The researchers—Emma J. Williams and Emily Blackwell, University of Bristol, United Kingdom—also explored the potential role of psychological factors such as the owner’s emotional state, social influence, and cognitive biases on the use of positive reinforcement.

The study was designed to test a social science theory called Protection Motivation Theory that suggests focusing attention on owners’ appraisal of the threat of dogs’ bad behaviors as well as owners’ appraisal of the potential efficacy of positive reinforcement. Participants were recruited using an online survey panel and a total of 630 individuals completed the questionnaire.

Perceived confidence (i.e., self-efficacy) in using different reinforcement techniques, including positive reinforcement, when in the home and when in public appear to be the two most influential factors underlying how owners choose to manage their dog’s behavior, followed closely by the perceived severity of the behavior (i.e., threat). However, many respondents noted feeling stress and anxiety when their dog behaved badly and reported that this reduced their confidence in their ability to effectively manage their dog’s behavior.

Behaviors that owners struggle with might include stiff posture with hackles raised and intense staring, barking, growling, snarling, lunging, snapping, nipping, and/or biting.

The role of self-efficacy suggests that it is not enough to simply tell owners what techniques to use and how to use them. Instead, owners need help feeling that they are able to use the techniques, especially when their dog is acting aggressively.
"This research suggests that people are likely to need practical support when learning to use positive methods. This support should both demonstrate the effectiveness of reward-based training and provide an opportunity for people to practice skills under expert guidance, so that they really feel confident in using the techniques when they encounter challenging scenarios,” states Williams. “Importantly, this research also highlights the emotional impact that attempting to manage a reactive dog can have. It is important for owners, and the practitioners helping them, to consider how they can best manage their own well-being and reactions, as well as those of the dog, when navigating their training journey.”

Future interventions should focus on increasing owner confidence in the effective implementation of these methods across multiple scenarios, as well as helping owners manage their own emotional responses to a challenging situation. Providing owners both the space and time to practice techniques in diverse environments is likely to assist with developing confidence.

###

*Risk Analysis: An International Journal* is published by the nonprofit Society for Risk Analysis (SRA), an interdisciplinary, scholarly, international society that provides an open forum for all who are interested in risk analysis, a critical function in complex modern societies. Risk analysis includes risk assessment, risk characterization, risk communication, risk management, and risk policy affecting individuals, public- and private-sector organizations, and societies at a local, regional, national, or global level. To learn more, visit [www.sra.org](http://www.sra.org).