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This Tufts veterinary student spent the summer playing music for very good dogs to see if it helped with short-term stress - The Boston Globe

Shirley Leung

5-6 minutes

Sidney Beecy let her entire summer go to the dogs — but it was all in the name of scientific research.

The graduate student at Cummings School of Veterinary Medicine at Tufts University spent months studying whether playing different types of music for dogs could have an impact on their anxiety and behavior when subjected to certain environments for shorter periods of time — like, say, a visit to a vet’s office.

“Pet owners are always concerned about their dogs undergoing something that makes them feel stressed, whether it’s being home alone for a while or going to a groomer or the veterinarian’s office,” Beecy said in a telephone interview. “So if we can give them an option to play music with a scientific study to back it up, than that would be great.”

The work was supported by a grant from PetSmart Charities, which made a contribution to Cummings School to help fund veterinary student research like Beecy’s.

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Seana Dowling-Guyer, associate director of the Center for Shelter Dogs at Cummings School and faculty member at the Center for Animals and Public Policy, is helping oversee Beecy's research.

The research is also being done alongside Emily McCobb, director of the Center for Shelter Dogs; and Dr. Aniruddh Patel, a Tufts University psychology professor who brought up the idea with Beecy in the spring of 2018, when she was an undergraduate student at Tufts.

Beecy's [work dovetails with previous research](#) that suggests [classical music can have a calming effect](#) on dogs living in kennels or shelters for longer periods of time.

To conduct her own study, Beecy enlisted the help of 41 dogs of different breeds from around the Worcester County area, near Cummings School, and their owners.

The experiment, which stretched from July through August, required the veterinary student to sometimes spend hours each day meeting with her furry test subjects and their owners.

"Depending on the day, one day I might have two dogs, one in the morning and one at night," she said. "And some days it was from 7 a.m. to 7 p.m."

Dowling-Guyer added, "Sidney had no trouble filling most of her spots all summer. People were really interested in this project and had a lot to share. They were very interested in what might happen."

Each dog was brought to the school and placed in a room first with its owner, and then alone.

While in the room by themselves, the dogs were exposed to one of two types of tunes — "music psychoacoustically designed to reduce stress in pet dogs," called ["Through a Dog's Ears,"](#) or relaxation

music designed for people, titled "[Liquid Mind](#)," by Chuck Wild. Other dogs heard no music, and sat in complete silence. The auditory stimuli for each subject was randomly assigned, researchers said.

During the separation period from their owners, both the dogs' behavior and heart rate variability were recorded, using a video camera and a special collar with sensors, Beecy said.

"We were really looking at how the behavior and heart rate changed when we were in the room with the dog, and then when we left the room," and played music, or left the room quiet, she said. "We wanted to see how the music might attenuate the stress the dog was feeling."

For now, researchers only have preliminary results, and the observations are mostly anecdotal.

But Beecy said she noticed some specific behaviors in the dogs, ranging from the animals sleeping through the experiment to howling along to the music.

"It was really interesting how different dogs reacted," she said.

The next steps for Beecy and her advisors is to analyze the data collected this summer, a process that will include poring over video content taken when the dogs were in the room, and picking through the information from the special collars.

"We are systematically coding the behavior, like signs of stress and relaxation and activity, and also counts of behaviors, like the number of times a dog jumps or laid down and rested," said Dowling-Guyer. "That all takes a little while."

Researchers expect to have final results by sometime next summer, at which point they'll explore publishing their findings, they said.

In the long-term, researchers hope that the study might even help look at the differences between how dogs and humans perceive music.

But for now, Beecy does know this from her time spent with the pets: All the dogs [were good dogs](#).

“It was a really, really fun summer,” Beecy said. “I got to pet so many dogs.”

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