Therapy Dogs Offer New Fibromyalgia Management Option

- Better Together Study from Purina and Mayo Clinic found people with fibromyalgia experienced a more positive emotional-physiologic state after single session with therapy dog
- For condition with no known cure, researchers identify animal-assisted activity is an effective tool to help manage the physical and mental health of fibromyalgia patients
- Therapy dogs studied too; physiologic readings suggest dogs calmer at the end of patient sessions

ST. LOUIS, Aug. 19, 2020 / PRNewswire / -- New research from Purina and Mayo Clinic brings a pet-centered treatment option to the forefront for patients with fibromyalgia, a chronic centralized pain sensitivity disorder characterized by widespread musculoskeletal pain accompanied by fatigue, sleep, memory and mood issues. A newly published study by Mayo Clinic and Purina researched the impact of animal-assisted activity sessions in patients with fibromyalgia and found benefits of the interaction to patients and the therapy dogs working to help them.

The National Fibromyalgia Association estimates 10 million Americans and between 3 and 6 percent of the world population suffers from fibromyalgia. Purina and Mayo Clinic designed the Better Together study to investigate the direct effects of animal-assisted activity in patients with fibromyalgia. At the same time, the study measured the emotional state of the therapy dogs during the treatment session to better understand the impacts on these specially trained canine companions. For both patients and the therapy dogs, researchers used multiple non-invasive physiological biomarkers, including salivary oxytocin and cortisol concentrations, tympanic membrane temperatures and various cardiac parameters.

"The Better Together study showed therapy animals could be an evidence-based treatment option, and healthcare professionals should strongly consider utilizing animal-assisted activity in the care of their patients with fibromyalgia," said Arya Mohabbat, M.D., assistant professor of medicine in the Division of General Internal Medicine at Mayo Clinic, and lead Mayo Clinic researcher on the project.

While fibromyalgia has some effective treatment strategies, most individuals live with chronic symptoms and look for non-conventional treatments in search of relief. For 221 patients, each enrolled in the Mayo Clinic Fibromyalgia Treatment Program, an outpatient program staffed by physicians from the Mayo Clinic Division of General Internal Medicine, the Better Together study provided reprieve for those in the treatment group and hope for those in the control group.

The Better Together study found the patients in the treatment group were in a more positive emotional-physiologic state as a result of the animal-assisted activity session compared to the control group. People who interacted with therapy dogs saw their oxytocin levels increase significantly, while their heart rates decreased. They reported less negative emotions and more positive emotions. The results suggest a 20-

minute therapy dog visit can significantly and positively impact the physical and mental health of patients with fibromyalgia.

## **Therapy Dogs Calmer**

Despite the widespread use of therapy dogs in clinical settings, there's a lack of understanding of the impact of animal-assisted activity sessions on the emotional state of the dogs. In addition to interacting with patients of all ages in varying physical and emotional states as part of their work, therapy dogs are exposed to novel environments that may include new sights, sounds and textures that require ongoing focus and adaptation.

The study found the dogs – all members of the Mayo Clinic Caring Canines program, which varied in breed, age and size – did not show signs of stress during the animal-assisted activity session and may have been in a more relaxed state at the end of the session. For most parameters, there were no changes in the dogs, signaling contentment; however, for those that did change, they pointed to a more positive emotional and physiological state, such as a significantly lower heart rate, at the end of the session. This signals the dogs were not only good at their jobs, but in many cases, enjoyed the work they were doing with patients.

"We need to expand our understanding of how animal-assisted activity impacts therapy dog's wellbeing, and this sizeable study with 19 dogs of various breeds provided solid evidence that animal-assisted activity done in the right condition does not have negative impacts on well-trained therapy dogs," said François Martin, M.A., Ph.D., Applied behavior and welfare research section leader at Purina, and lead Purina scientist on the project. "This only encourages us to do more research to continue to demonstrate the power of the human-animal bond on people while ensuring assistance animals also experience positive wellness as a result of their work."

The Better Together study is the first one to utilize physiologic parameters to provide scientific evidence that animal-assisted activities is a valid option for the management of fibromyalgia. The authors of the study believe that animal-assisted activity should become a standard treatment strategy to help patients manage this chronic condition.

To learn more about the positive human health impacts of the Better Together study, visit <a href="https://www.mayoclinicproceedings.org/article/S0025-6196(20)30519-X/fulltext">https://www.mayoclinicproceedings.org/article/S0025-6196(20)30519-X/fulltext</a>. For more information about the canine impacts of the study, visit <a href="https://www.mdpi.com/2076-2615/10/5/819">https://www.mdpi.com/2076-2615/10/5/819</a>.

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