



Life Stress and Cat Café Visitation

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Introduction

The Cat Café.

- People experience multifaceted stress throughout their life span. This stress can be a result of job and family expectations, financial obligations, milestones (e.g. marriage), and injury or illness.
- There is strong evidence that interacting with therapy dogs reduces subjective stress (Barker et al., 2016); however, the evidence that pet interaction reduces physiological stress is mixed.
- Many people find comfort in interacting with animals, especially their own pets. It has been demonstrated that multiple pet ownership is linked to oxytocin, a neuropeptide involved in bonding, which is released when interacting with unknown animals (Curry et al., 2015). Oxytocin has demonstrated buffering capabilities against stress and promotes well-being and social interaction (Uvas-Moberg & Petersson, 2005). This interaction between oxytocin and stress indicates that oxytocin can help decrease stress.
- Physiological markers of stress, like heart rate and blood pressure, demonstrate mixed results after interacting with animals.
- Grossberg et al., (2015) failed to demonstrate heart rate and systolic, diastolic, and mean arterial blood pressure reduction after exposure to a pet dog. This study induced stress through mental arithmetic and TAT cards.
- Gee et al., (2014), similarly, failed to find decreased heart rate variability when students interacted with therapy dogs. This study attempted to induce stress via a working memory task.
- A study examining interaction with a therapy dog in patients with PTSD, suggests that animals reduce subjective stress in a way comparable to human friend (Lass-Hennemann et al., 2014).

Introduction

Current Study.

- Research has attempted to induce stress and has been unsuccessful at demonstrating the efficacy of stress reduction. This may indicate that animal interaction is more beneficial when reducing longer-term stress rather than short-term stress, like what has been studied in the past. Additionally, animals may be more effective at reducing life stress as opposed to artificially produced stress.
- Past research has limited the time participants may spend interacting with the study animals. The current study will allow participants to spend as much time as necessary with the café cats.
- The present study will record a physiological marker of stress and measure perceived stress before and after interacting with cats at a local cat café with the aim of increasing clarity regarding the underlying stress reduction mechanism.

Hypothesis

- Self-reported stress levels will be lower after interacting with the cats at a local cat café. Physiological stress may or may not be lower after interacting with the cats.

Proposed Methods

Pre-Interaction.

- Participants will be recruited at a local cat café.
- Before interacting with the cats, participants will be asked to fill out a stress visual analog scale (1-100) and state trait anxiety inventory. Participants will then have their heart rate variability assessed.

Proposed Methods

Post-Interaction.

- Participants will then interact with the cats in any way congruent with the regulations of the cat café for as long as the participant desires. Typical activities include playing with, petting, and sitting with the cats.
- Post interaction, participants will retake the stress visual analog scale, perceived stress scale, heart rate variability, and indicate how/long they interacted with the cats.

Proposed Analyses

- Three *t*-tests will be utilized to analyze the data with an α of .017 for each test to prevent the total error from exceeding .05.
- These *t*-tests will compare pre- and post- measures of stress, including heart rate variability, stress visual analog scale, and perceived stress scale.
- Additional tests may be used to analyze specific interaction's ability to decrease stress (e.g. does playing with the cats reduce subjective and/or physiological stress significantly more than watching or talking to the cats?)
- Additional tests may be used to analyze the effect of time spent with the cats (e.g. how does spending 30 minutes with the cats compare to spending only 10 minutes with the cats in terms of stress reduction?)

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