Abstract

The study examined graduate students’ physiological measures of anxiety (heart rate HR, blood pressure BP, respiratory rate RR) and scores on the State Trait Anxiety Inventory (STAI) after either listening to music or interacting with a therapy animal prior to taking a practical exam. Graduate students in the Doctorate of Occupational Therapy program at Belmont University were invited to participate prior to taking a midterm and final practical exam. Data analysis included paired T-Testing. The analysis revealed a statistically significant increase in HR at the .05 level (p = .02) between the control and therapy animal conditions.

Methodology

**Design**: Manipulation of the Independent Variable (therapy dog, music, or control group) to determine effects on the dependent variables (HR, BP, RR, and STAI score).

**Participants**: 26 second year entry level OTD students in a pediatric intervention course in Spring 2018. Participants were assigned a student number to ensure privacy during data collection sessions.

**Instrument**: measures of:
- HR
- BP
- RR
- STAI score
- qualitative questionnaire
- professor’s interpretation

**Procedures**:
- Prior to the intervention session, baseline measurements of HR, BP, RR, and STAI scores were collected
- On the day of their practical exam, participants arrived 30 minutes prior to their scheduled exam time to participate in one of three intervention groups:
  - Group A (therapy animal)
  - Group B (music listening)
  - Group C (control)
- HR, BP, RR, and STAI were obtained before the intervention.
- HR, BP, and RR after the intervention was implemented for 30 minutes.
- Qualitative data was also collected from participants and professors

Results & Conclusions

Statistically significant difference in HR between pre- and post-intervention measures in both the control and therapy animal conditions.

- Group A: HR increased by an average of 4.88 between pre- and post-intervention measurements
- Group C: HR increased by an average of 16.88 between pre- and post-intervention measurements

Although in both cases students’ average HR increased immediately prior to taking their exam, the average HR for the control group increased significantly when compared to the therapy animal group.

Limitations/Implications

Limitations: Limited by the number of participants (N = 26) and the similarities in participants’ demographic information.

Implications for future research: Future studies should include participants with varied demographics and from more graduate programs and schools to increase the sample size.

References Available Upon Request