

Canines in the emergency department: a novel approach to stress reduction in emergency medicine providers

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Background and Hypothesis:

Cognitive stress during shiftwork contributes to burnout in emergency care. We hypothesize that if emergency care providers (physicians and nurses) were to interact with a therapy dog, their stress levels will decrease.

Experimental Design or Project Methods:

Consenting emergency medicine physicians and nurses provided three self-reported assessments of stress as well as saliva samples near the beginning of their shift. During peak hours in the emergency department at Eskenazi Hospital participants are randomized to interact with either a therapy dog or perform a mindfulness exercise via art therapy for five minutes. Self-perceived stress and saliva samples are obtained 30 minutes later and again near the end of shift. To assess potential change in participant behavior, patients of providers in either group receive a validated questionnaire assessing perceived empathy of the provider. Salivary cortisol will be measured at the end of the study by a vendor (Salimetrics). The sample size of 40 per group is predicated on a 25% decrease in self-reported stress in the dog group on the emergency care worker stress scale (ECWSS).

Results:

From June 1 to July 10, 24 participants have been randomized (12 in each group). Seven participants (58%) exposed to dogs had a mean decrease in the ECWSS of -5 (+/-1.8) compared with four participants (33%) who had a mean decrease of -2 (+/-0.8) after art therapy. The mean overall change in ECWSS after dog was -2 (+/-1.5) vs. +3 (+/-1.5) after art therapy. Current data suggest a greater decrease of self-reported stress after interaction with a therapy dog, compared to art therapy.

Conclusion and Potential Impact:

Interim analysis suggests that exposure to a therapy dog decreases stress in a subset of emergency care workers. This work will help determine if human-animal interaction can modulate stress biology imposed by providing emergency medical care.