

Reducing Death Anxiety: The Impact of Advanced Care Planning

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Background/Objective: Death anxiety affects multiple areas of patients' physical and mental health. Reducing this phenomenon has the potential to improve quality of end of life (EOL). The effects of spirituality, age, self-esteem, biological sex, presence of symptoms and level of isolation have been previously studied. Advanced care planning (ACP) is a simple intervention which has known positive impacts on quality of EOL by decreasing healthcare costs and undesired hospitalizations; however, only 33% of the population has completed it. This study will examine the correlation between death anxiety and ACP. We hypothesize that there will be a statistically significant lower level of death anxiety in participants with ACP.

Methods: The study population will include patients presenting to the Parkview Regional Medical Center ED who are ≥ 65 , with a sample size of 1,000. We will use a translated and adapted version of the 17 question Likert-type Scale of Death Anxiety, developed and validated by Cai et al. in 2017. It will be presented via REDCap and will include electronic signature of informed consent. Finally, we will include questions about ACP and advanced directives. Participants will also complete a basic demographic survey to account for confounding factors. Analysis will include a Mann-Whitney test, univariate and multivariate regressions.

Results: This project resulted in IRB submission drafts of a study protocol, informed consent, SDA survey and REDCap data collection tool. The researchers are seeking Parkview Health-IRB approval in Fall 2020, with an anticipated study start date of Spring 2021.

Impact: This project has the potential to improve quality of life by decreasing death anxiety and resulting negative stress reactions. Interventions for decreasing death anxiety have not been extensively studied, so directions for future research are broad and could include impacts of ACP in varying ages and contexts outside of the ED.

Osteology Modules for the Human Structure Course

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Background and Objective: The COVID-19 pandemic has created a need to deliver much content for the Human Structure (HS) course virtually. Because osteology is a fundamental component of human gross anatomy, the goal of this project was to create quality interactive osteology modules for HS that can be delivered online.

Project Methods: To ground our module development in best practices for teaching and learning human gross anatomy, we reviewed 100 articles from PubMed databases and selected 9 for discussion during weekly literature review meetings. Key search terms included: education research, computer-assisted instruction (CAI), technology-enhanced learning (TEL), clinically based anatomy, integrated learning, medical education, and more. We created the modules using Microsoft PowerPoint™ and EndNote X9™ for referencing purposes. Bone images were captured and edited with a Nikon USATM D850 DLSR camera and Adobe Photoshop, respectively. Additional images were obtained from IUSM online textbooks, miscellaneous websites, and the radiology database Radiopaedia™. Each module includes pertinent clinical correlations, radiology, and post-module quizzes for students to assess their higher-order knowledge.

Results: We created 7 osteology modules using best practices for human gross anatomy teaching and learning: (1) Vertebral Column, (2) Thorax, (3) Shoulder Girdle & Brachium, (4) Elbow, Antebrachium, Hand, (5) Pelvic Girdle & Thigh, (6) Knee, Leg, Foot, (7) Cranium & Hyoid.

Conclusion and Potential Impact: Studies have demonstrated that CAI/TEL and radiological imaging work synergistically with traditional didactic methods to facilitate learning of human gross anatomy. Our modules will be used statewide in the HS course for first-year medical students as a CAI learning tool. Looking forward, we plan to use both qualitative and quantitative methods to determine if use of these modules results in better exam performance or aids in other aspects of the learning process.