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Research In-Progress

Effectiveness of 3D Box Model Trainers in Kidney Transplantation Training: A Controlled Study

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Introduction: There are a variety of methods for training surgical residents for kidney transplantations. Rising costs and decreasing availability of cadavers for training has led to a decline in surgical confidence and technical skills in surgeons exiting residency. Three-dimensional (3D) box model trainers are affordable and available, presenting an appealing alternative to traditional methods. However, there is a lack of data that supports the effectiveness of such models in training within scientific literature. The aim of this study is to determine if box model trainers for kidney transplantations can be used to supplement the development of technical skills and increase the confidence of surgical residents. If results demonstrate that residents have increased technical competence and confidence after using the model, this could lead to a drastic improvement in surgical resident training for kidney transplantations.

Methods: Residents will be asked to conduct surgery on the training model four times, four weeks in a row, where their procedure will be recorded on video camera. Their trials will then be graded by a medical professional. Residents will also be subjected to a qualitative survey where they will be asked several technical questions regarding their confidence in performing a kidney transplant.

Preliminary Results: To date, the 3D kidney transplantation model has been completed. Also, a population of first and second year surgical residents at UF Health Shands Hospital has been selected for data collection.

Next Steps: Next steps are to implement the 3D kidney transplantation model into the current training of surgical residents at UF Health Shands Hospital.