ABSTRACT

This study is intended to evaluate the performance and correlation between using chopsticks and the da Vinci surgical robot for medical students in the Brody School of Medicine. The study was developed to address the growing costs of surgical skills training in medical students, residents, and attending physicians.

HYPOTHESIS

We hypothesize that students who perform well on the chopstick manipulation test in phase 1 will also have a high performance with using the da Vinci surgical robot in phase 2.

BACKGROUND

"Chopstick" surgery is a growing form of surgical education that may enhance a surgeon's ability to move, navigate, and direct the precision and accuracy of surgical equipment in the 21st century. A study by Danzer et al., estimated that a 4-week dedicated simulation rotation within a general surgery residency dedicated to surgical hand dexterity costs $12,516 per resident. A correlation in using traditional chopsticks and the Da Vinci Machine may provide surgeons with a cost-effective method of training. Since the mechanics of performing surgery with the Da Vinci Surgical Machine mimic similar hand movements of using traditional chopsticks, we propose that a relationship may exist between manual dexterity and varying degrees of chopstick mastery.

REFERENCES