



2020 LEAD Capstone Poster Session

Socially Distanced Surgical Training

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Abstract

Technical skill training is a core component of surgical specialties. However, due to the increasing time constraints during training and need for social distancing during the pandemic, this has been impossible to achieve. I developed an affordable portable laparoscopic trainer that can be used to practice laparoscopy while the residents are at home and the proctor is coaching via Zoom.



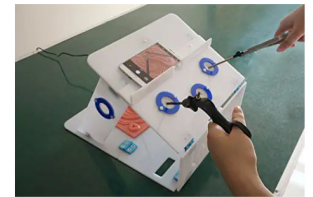
Objectives

- Develop an affordable surgical simulator
- Enhance collaboration between different surgical departments.
- Export this simulator and curriculum to different institutions in Texas, and the world.



Background Information

- The American Board of OBGYN requires a Fundamentals of Laparoscopic Surgery (FLS) certificate
- Commercial laparoscopic trainers are expensive
- The laparoscopic training center is 30 minutes away from Parkland Hospital (door-to-door)
- COVID-19 Pandemic



Sponsored
Laplay Laparoscopic Training
Box, Simulator Box, for Training, with
Suture pad
★★★★★ 2
\$369⁰⁰



Specific Aims

- Build an affordable model to practice laparoscopy.
- Develop a curriculum to proctor the residents.
- Collect objective and subjective data to compare effectiveness of the model.



Project Plan

- Develop a laparoscopic trainer.
- Calculate the budget for 18 residents.
- Select a streaming service (i.e. Zoom, Teams, etc)
- Develop a curriculum.
- Collect subjective data using SurveyMonkey.
- Collect objective data with laparoscopic task performance.



Application of What You Learned at LEAD

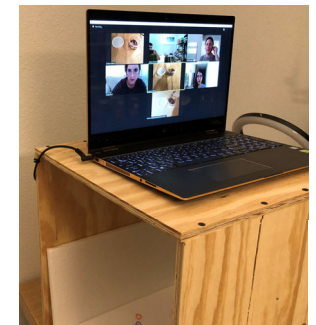
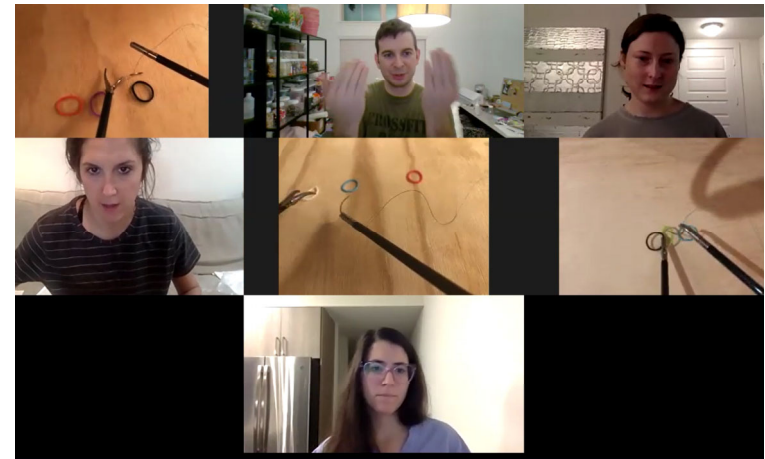
- Developing a forward-looking curriculum.
- Enhancing the wellness and work environment for residents in OBGYN and other surgical residencies at UTSW.



Proposed Budget



- Laparoscopic graspers = \$50
 - Two per resident x 18 residents = \$1800
- Camera holder = \$16
 - One per resident x 18 residents = \$288
- Wood and for 18 boxes = \$300
- Total cost of materials for 18 laparoscopic trainers = \$2400
- Zoom subscription = \$19.99 per month
- Proctors = “included” if we use the current in-person staff





Innovation and Significance

- Affordability and flexibility.
- Improvement of resident wellness and skills
- Easy to extrapolate to other departments and institutions.



References

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