Basic Laparoscopic Simulation in Santa Cruz, Bolivia: Improving Access and Confidence

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Introduction

- Simulation is a valuable and essential tool for skill acquisition in surgery
- Provides safe, low-risk environment
- Laparoscopy is an emerging technology in Bolivia; however, there are very few, cost prohibitive practice settings
- Lack of simulation laboratories contributes to decreased availability of laparoscopic surgery
- Laparoscopic surgery has been associated with decreased pain, length of stay, and overall recovery time
- Improving laparoscopic training may improve overall operative outcomes in Bolivia

Aims

- Provide a low-cost, basic laparoscopic workshop
- Analyze pre- and post-course evaluations
- Understand population in attendance and evaluate improvements in confidence

Methods and Materials

- Four-hour practical skills workshop
- Follow-up practice sessions
- Skill stations: object transfer, circle cutting, plane dissection, intra- and extra-corporeal knot-tying



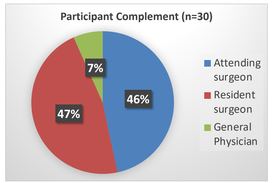
- 17-item pre- and post-course evaluations for demographics and confidence

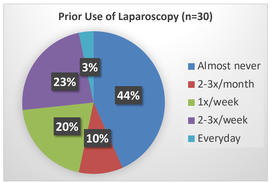
Results

- Three courses over 4 months
- 39 participants

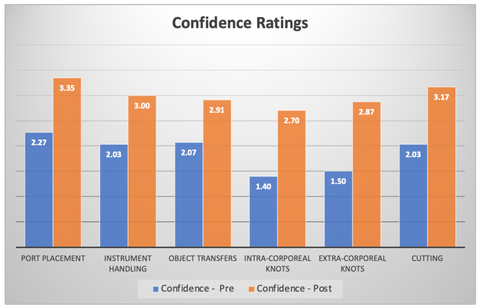
Demographics

- Average age: 31.2 years (n=30)
- 66.7% male (n=30)





Pre- and post-course confidence by skill



Results, cont.

- 100% (n=23/23) found the course useful
- 100% (n=23/23) would recommend it to a colleague
- 100% (n=23/23) reported they would scrub more laparoscopic cases in the future

Conclusions

- While the availability of laparoscopy expands in Bolivia, simulation options remain limited.
- This study demonstrates a basic, hands-on course can improve providers' confidence and desire to perform minimally invasive surgeries.
- More advanced courses and a transition-to-independence mentorship program are being developed to ensure safe transition to practice

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Acknowledgements

The authors of this poster would like to thank Drs. Hernan Roca and Ricardo Villaroel for their dedication and significant contribution to the teaching and success of the three courses.