

ABSTRACT

This study is intended to establish and evaluate the effects of a surgical skills program for students interested in surgical specialties at the Brody School of Medicine.

The Surgical Skills Program (SSP) at Brody was developed based on the need for a centralized entity that delivers education of surgical skills to preclinical and clinical students interested in surgery.

HYPOTHESIS

We hypothesize that student participants in the SSP will have higher performance in the skills taught and will be better prepared to implement these skills during their first year of residency than those who do not participate in the program.

BACKGROUND

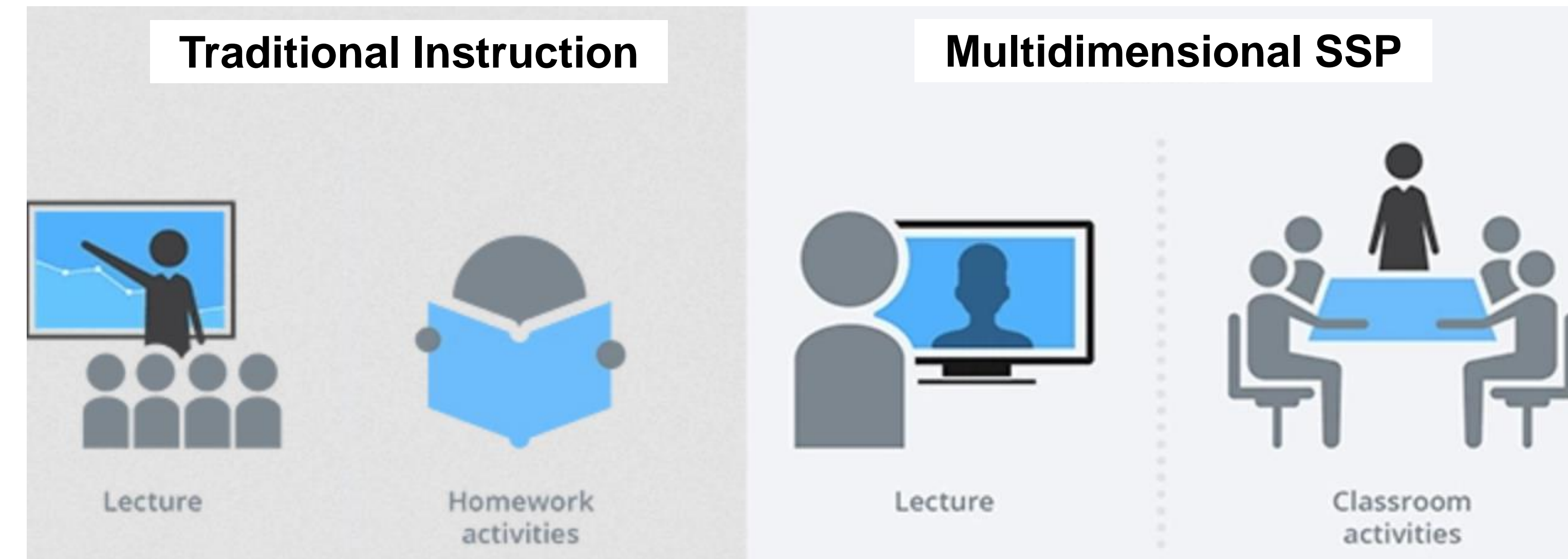
Residency programs across the country experience variation in first-year surgical resident skill set and have to spend time standardizing skill set and preparedness in interns^{4,5}.

Third year surgical skill boot camps have no data showing that participation translates to improved residency performance, nor benefit to knot tying or suturing skills^{2,3}.

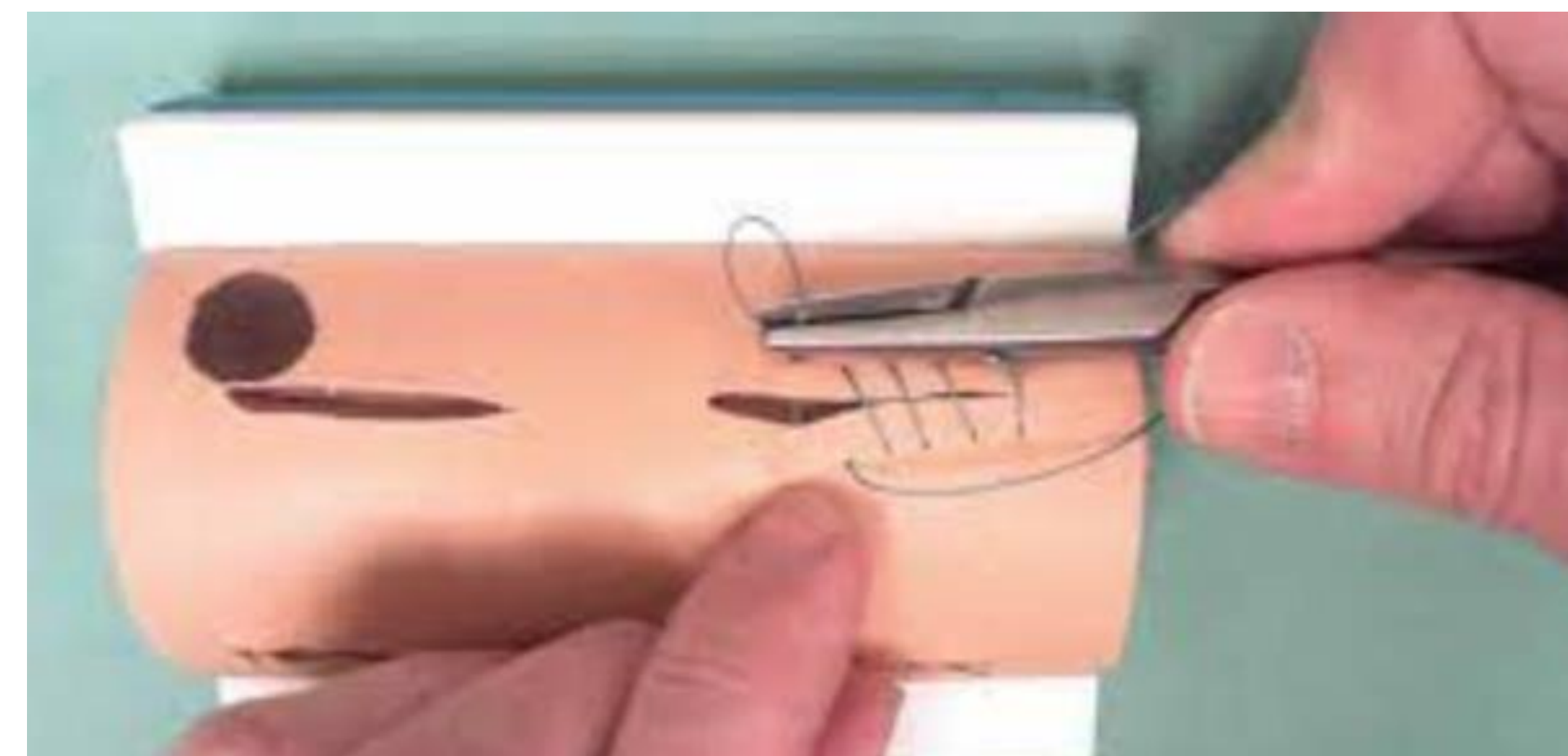
Support for early specialty-specific education through multidimensional longitudinal programs that pair videos with in class instruction^{1,6}.

PROGRAM STRUCTURE FOR THE FUTURE SURGEON

Clinician led labs & Asynchronous Self Study Videos



Video Recording and Feedback



Skills

- Two hand knot tying
- Simple interrupted suture
- Horizontal mattress suture

Grading Metrics

- Instrument handling
- Tissue handling
- Time
- Accuracy
- Knot Strength

Skill	Poor (1)	(2)	Satisfactory (3)	(4)	Superior (5)
Instrument Handling					
Tissue Handling					
Accuracy					
Knot Strength					

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METHODS

Study population is composed of 15 medical students, preclinical and clinical, interested in general surgery.

The program pairs clinician led labs with self-study videos. Video materials are specifically made for the program by the department of general surgery at the Brody School of Medicine.

Participants have 2 minutes to perform the skill, where they will be video recorded. Physician assessors will blindly score the individual utilizing a 5-point Likert scale and grading metrics. Physician assessors also provide commentary/feedback for that video recording which is sent back to the student.

Individual student improvement will be assessed every 6 months as quantitative data to examine the program's effects on student performance improvement.

Sign rank test will be utilized to evaluate the association of the program with individual progress for each skill. Interrater reliability measure along with interclass correlation coefficients (ICC) will be utilized to measure the reliability of physician assessors. IBM SPSS 24.0 will be used for all statistical analysis.

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