

Teaching Image-Guided Procedures on Human Donors to Increase Medical Student Interest in Interventional Radiology

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INTRODUCTION

Considering the novelty of IR residency programs, many medical schools lag behind in educating medical students about IR¹. Without this knowledge and adequate exposure, it is difficult for medical students to make an educated choice regarding IR residency².

PURPOSE

The purpose of this study is to determine if teaching image-guided procedures on human donors can impact medical student interest in IR residency, and to assess which factors medical students consider most relevant when choosing their residency.

METHODS

This is an IRB-exempt study. Pre-surveys were sent to students at the Yale School of Medicine (SOM) and Frank H. Netter M.D. SOM at Quinnipiac University. Selection committees invited 20 participants to the IR Procedure Course: A four-hour, hands-on course where students learned image-guided procedures on human donors and ultrasound phantom models. Post-surveys were distributed at the end of the course. Results were analyzed using Wilcoxon signed rank and Exact tests.

Table 1: Student Demographics

Class	N	Percentage
First-Year	2	11.8%
Second-Year	10	58.8%
Third-Year	4	23.5%
Fourth-Year	1	5.9%
Gender		
Male	12	70.6%
Female	5	29.4%
Medical School		
Yale SOM	9	52.9%
Quinnipiac SOM	8	47.1%

RESULTS

The 17 students that completed both surveys and attended the course were included in our study. Prior to our course, 52.9% had no exposure to IR procedures. There was a statistically significant increase in perceived IR knowledge from "not knowledgeable at all" to "slightly knowledgeable" from pre- to post-survey (p=0.009). Questions about interest in IR education all demonstrated the same positive trend but failed to show a significant difference between surveys. Students ranked strong practical teaching in IR and wide case spectrum as the most important factors when choosing an IR residency program. After our course, 88.2% of students stated they were either "definitely" or "probably" interested in an IR elective. Also 47.1% of students were either "definitely" or "probably" interested in an IR residency program. Everyone said they would recommend this course to other medical students interested in IR.

Figure 2: Most Important Factors When Choosing and IR Residency Program

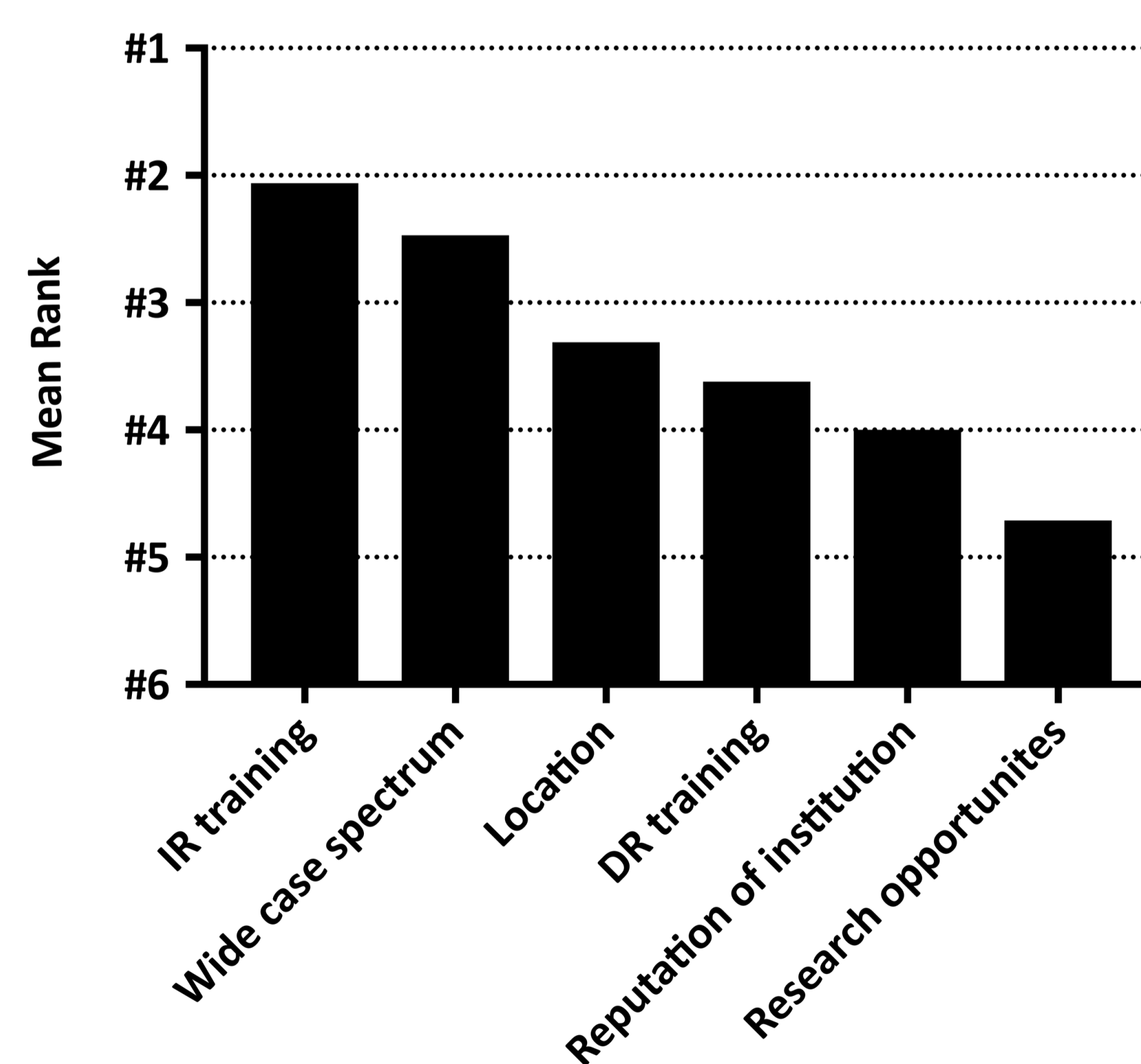


Figure 3: Pre/Post Survey Results

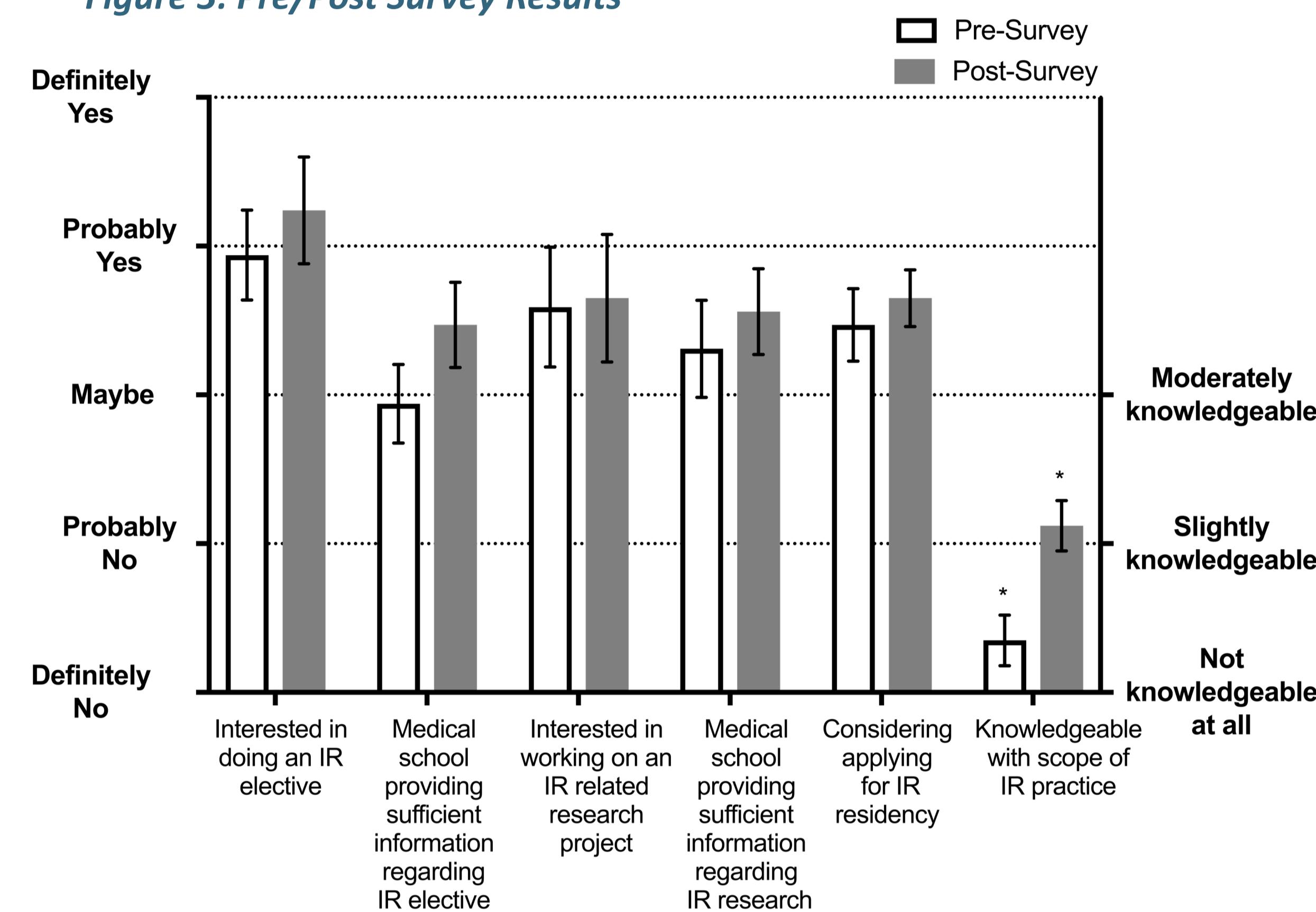


Image 1: Ultrasound-guided Core Needle Biopsies



Image 2: Fluoroscopic Shoulder Arthrograms



CONCLUSIONS

The uses of human donors to teach image-guided procedures in an imaging suite led to increased perceived IR knowledge in medical students. IR residency programs may consider emphasizing their strong practical IR curriculum and wide case spectrum to enhance medical student interest in their programs. Future studies should further investigate the impact of integrating regular image-guided procedure courses into the medical school curriculum³.

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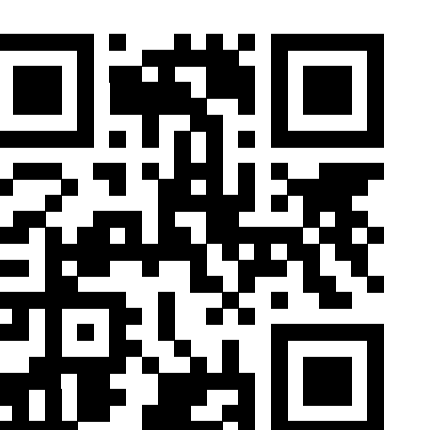
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