

The Impact of a Shadowing Program on Medical Students’ Interest in Plastic Surgery

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Background	Results (demographics)	Results (responses)	Results (regression)																																																																																														
Plastic surgery is a broad specialty that is often misunderstood by medical students, who tend not to perceive plastic surgeons as the providers of both reconstructive and cosmetic plastic surgery procedures. This is likely due to a lack of formal education on a plastic surgery service during the preclinical years of medical school. However, exposure to the field before third-year clerkships and electives is crucial for competitiveness in the National Resident Program Match. Shadowing is highly impactful in shaping students' desire to pursue surgery, but the impact of plastic surgery shadowing remains unexplored.	Of 54 students who shadowed during the study, 43 unique questionnaires were completed (79.6%). Gender distribution was 27 (62.8%) female, 16 male, and 0 other. Reported race was Asian in 25 (58.1%) responses, White in 13 (30.2%) responses, Hispanic in 3 (7.0%) responses, African American in 1 (2.3%) response, and other in 1 response. The majority of students were in their first year of medical school (62.8%) (Table 2).	Reported interest in pursuing a surgical specialty after medical school, on a scale of 0 to 100, was 65.6 +/- 32.1. There was no significant difference in surgical interest between gender (p=0.21) or race (p=0.42) responses. Most students participated in both clinic and OR shadowing (67.4%). Mean times shadowed in the clinic was 3.8 +/- 5.0 and reported impact, on a scale of 0 to 100, was 54.7 +/- 26.2. Mean times shadowed in the OR was 4.4 +/- 3.6 and impact, on a scale of 0 to 100, was 67.8 +/- 25.1. The impact of OR compared to clinical shadowing approached, but did not reach, statistical significance on a comparison of means t-test (p=0.053).	On simple linear regression of the factors predicting the reported impact of clinical shadowing on future specialty interest, number of times shadowed in the clinic (p=0.16), year in medical school (p=0.58) and reported likelihood of pursuing a surgical specialty after medical school (p=.50) were not significantly predictive. For OR shadowing impact, times shadowed was a statistically significant predictor (p=0.0002), but year in medical school (p=0.82) and reported likelihood of pursuing a surgical specialty after medical school (p=0.061) were not. On multivariate regression, the times shadowed remained significant after controlling for overall interest in a surgical specialty. For the categorical perception of shadowing experiences increasing, decreasing, or not changing desire to pursue a career in plastic surgery, chi-squared analysis yielded no significant statistical prediction for times shadowed in clinic (p=0.26), times shadowed in the OR (p=0.95), or medical school year (p=0.31).																																																																																														
Methods	<table><tr><td>What is your gender?</td><td>1st year</td><td>27</td><td>62.8</td></tr><tr><td>What is your race/ethnicity?</td><td>2nd year</td><td>12</td><td>27.9</td></tr><tr><td>What year are you in medical school?</td><td>3rd year</td><td>1</td><td>2.3</td></tr><tr><td>How strongly are you considering pursuing a surgical specialty?</td><td>Gap/research year</td><td>3</td><td>7.0</td></tr><tr><td>What types of shadowing have you done (OR and/or clinic)?</td><td>Race/Ethnicity</td><td>N</td><td>%</td></tr><tr><td>How many times have you shadowed in the clinic?</td><td>African American</td><td>1</td><td>2.3</td></tr><tr><td>How impactful was shadowing in the clinic on your future specialty interests?</td><td>Asian</td><td>25</td><td>58.1</td></tr><tr><td>How many times have you shadowed in the OR?</td><td>Hispanic</td><td>3</td><td>7.0</td></tr><tr><td>How impactful was shadowing in the OR on your future specialty interests?</td><td>Other</td><td>1</td><td>2.3</td></tr><tr><td>Overall, how did your shadowing affect your desire to pursue plastic surgery?</td><td>White</td><td>13</td><td>30.2</td></tr><tr><td></td><td>Gender</td><td>N</td><td>%</td></tr><tr><td></td><td>Female</td><td>27</td><td>62.8</td></tr><tr><td></td><td>Male</td><td>16</td><td>37.2</td></tr><tr><td></td><td>Interest in surgery (0-100 scale)</td><td>Mean</td><td>SD</td></tr><tr><td></td><td>Interest in pursuing surgery</td><td>65.6</td><td>32.1</td></tr><tr><td></td><td>Impact of clinical shadowing</td><td>54.7</td><td>26.2</td></tr><tr><td></td><td>Impact of OR shadowing</td><td>67.8</td><td>25.1</td></tr><tr><td></td><td>Desire to pursue in plastic surgery</td><td>N</td><td>%</td></tr><tr><td></td><td>Significantly increased</td><td>10</td><td>24.2</td></tr><tr><td></td><td>Somewhat increased</td><td>20</td><td>45.5</td></tr><tr><td></td><td>No change</td><td>4</td><td>9.1</td></tr><tr><td></td><td>Somewhat decreased</td><td>1</td><td>3.0</td></tr><tr><td></td><td>Significantly decreased</td><td>8</td><td>18.2</td></tr></table>	What is your gender?	1 st year	27	62.8	What is your race/ethnicity?	2 nd year	12	27.9	What year are you in medical school?	3 rd year	1	2.3	How strongly are you considering pursuing a surgical specialty?	Gap/research year	3	7.0	What types of shadowing have you done (OR and/or clinic)?	Race/Ethnicity	N	%	How many times have you shadowed in the clinic?	African American	1	2.3	How impactful was shadowing in the clinic on your future specialty interests?	Asian	25	58.1	How many times have you shadowed in the OR?	Hispanic	3	7.0	How impactful was shadowing in the OR on your future specialty interests?	Other	1	2.3	Overall, how did your shadowing affect your desire to pursue plastic surgery?	White	13	30.2		Gender	N	%		Female	27	62.8		Male	16	37.2		Interest in surgery (0-100 scale)	Mean	SD		Interest in pursuing surgery	65.6	32.1		Impact of clinical shadowing	54.7	26.2		Impact of OR shadowing	67.8	25.1		Desire to pursue in plastic surgery	N	%		Significantly increased	10	24.2		Somewhat increased	20	45.5		No change	4	9.1		Somewhat decreased	1	3.0		Significantly decreased	8	18.2		<table><tr><th>Conclusions</th></tr><tr><td>The value of structured shadowing programs is demonstrated. Additionally, our results indicate that efforts may benefit most from facilitating student</td></tr></table>	Conclusions	The value of structured shadowing programs is demonstrated. Additionally, our results indicate that efforts may benefit most from facilitating student
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Table 1 Survey questions

Table 2 Survey results