Patient’s Attitudes toward Medical Student Participation across Specialties: A Systematic Review

John L. Vaughn¹, MD, Lanette R. Rickborn², John A. Davis², PhD, MD
¹Department of Internal Medicine and ²College of Medicine, The Ohio State University, Columbus, OH, USA

Introduction

• Medical students commonly participate in patient care in a variety of different settings.
• In 2011 Mol and colleagues published a systematic literature review of patients’ attitudes toward medical students in general practice settings.
• The authors reviewed sixteen studies and concluded that patients’ attitudes toward medical student participation are generally positive.
• Many additional studies have been published in other specialties, but a systematic review of patients’ attitudes across specialties has not been performed.

Method

• We searched seven databases (CINAHL, Cochrane Library, ERIC, MEDLINE, PsycINFO, Scopus, and Web of Science) between January 1, 1999 and August 5, 2014.
• Two authors independently screened the results and selected articles that were written in English, were published in a peer-reviewed journal, and used a structured or semi-structured survey or interview to determine patients’ attitudes toward medical student participation in their care.
• Study quality was assessed using the Medical Education Research Study Quality Instrument (MERSQI).
• Data extraction was performed independently by two of three authors and any differences were resolved by discussion with the third author.
• Our data extraction variables included the article reference number, publication date, study country, study objective, study design, evaluation instrument, study setting, study specialty, degree of student participation, response rate, and summary of study findings.
• The risk of bias was assessed at the study level through an evaluation of study quality.

Results

• The search strategy returned 631 articles. Ultimately, 59 articles met our inclusion criteria.
• The mean (SD) total MERSQI score of included studies was 8.02 (1.49) with a possible range of 5-18.
• The mean prevalence-adjusted Cohen’s kappa for all domains was 0.55, indicating moderate interrater agreement.
• Twelve specialties were represented. The most common specialties were general practice (n=21; 36%), obstetrics and gynecology (n=10; 17%), and emergency medicine (n=4; 7%).
• Sixty-one unique evaluation instruments were used and 34 instruments (56%) lacked validity data.
• The most common study design was a single group cross-sectional or posttest only design (n=47; 80%) followed by a two group nonrandomized design (n=9; 15%) and randomized controlled trial (n=3; 5%).

Table 1. Characteristics of 61 unique evaluation instruments used to determine patients’ attitudes toward medical student participation across specialties

<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Administered Survey</td>
<td>48</td>
<td>79</td>
</tr>
<tr>
<td>Guided Survey</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Semi-Structured Interview</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Focus Groups</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Validity Type</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>No Validity Data</td>
<td>34</td>
<td>56</td>
</tr>
<tr>
<td>Content Validity</td>
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<td>44</td>
</tr>
<tr>
<td>Criterion Validity</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Construct Validity</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

• Six studies (10%) directly compared patient satisfaction in the presence and absence of medical students. Five of those studies (83%) found that there was no statistically significant difference in patient satisfaction when medical students were involved.
• Twenty-three studies (39%) measured patients’ willingness to accept medical student participation within individual specialties.

Results (Cont.)

• Five studies (8%) identified minority status as a predictor of refusal. More specifically, non-White patients were found to be less receptive to medical student participation than White patients.
• Informed consent for medical student participation was addressed by 9 studies (15%).
• Three studies (5%) explored the importance of obtaining informed consent to patients. All three studies found that patients considered it important and expected to be informed.

Conclusion

• Patient satisfaction is not significantly affected by medical student participation. However, patients’ acceptance of medical student participation varies widely depending on the type of participation. Consequently, patient satisfaction may be a poor surrogate marker of patients’ acceptance of medical students.
• Minorities are more likely to refuse medical student participation. One possible explanation is that they are more distrustful of the healthcare system and protective of their healthcare information.
• Patients prefer to be informed before medical students participated in their care. However, the best way to inform patients remains unclear.
• Future studies should develop and employ validated instruments to further explore patients’ attitudes toward medical student participation.