Identifying Characteristics of Effective Small Group Learning Valued by Medical Students and Facilitators

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Identifying Characteristics of Effective Small Group Learning Valued by Medical Students and Facilitators

Authors
Diana T. Robillard, Laura M. Spring, Susan J. Pasquale, and Judith A. Savageau

Comments
Medical students Diana Robillard and Laura Spring participated in this study as part of the Senior Scholars research program at the University of Massachusetts Medical School.

This poster is available at eScholarship@UMMS: https://escholarship.umassmed.edu/ssp/120
Abstract Small group teaching is an important part of undergraduate medical education, providing the ideal setting for learners to clarify misunderstandings, test hypotheses and explore ideas. There is an overall paucity of literature examining case-based small group sessions in medical school. This study was designed to examine facilitators’ perceptions of effective case-based small group teaching in the pre-clinical years and compare results in order to identify strengths and weaknesses and to highlight areas for improvement. METHODOLOGY: An 18-item survey was sent to 381 students who started the second year of medical school at the University of Massachusetts between August 2008 and August 2010 and to 146 of 161 facilitators who had facilitated a case-based small group session that was started between 1999 and 2010. Chi-square tests of equality of proportions were used to compare responses of students and facilitators. RESULTS: 79 (54%) small group facilitators and 195 (50%) students responded. Of the 79 facilitators who started the survey, 70 answered all questions (88.6%). Of the 195 students who started the survey, 179 answered all questions (90.3%). A significantly greater percentage of students (69%) reported that the small group leader should be a skilled facilitator rather than a content expert (p = 0.04). Learners are able to reflect on their own experiences while also learning from their peers. Additionally, more facilitators and students preferred case-based learning to traditional lecture, indicating that this approach helps learners keep control over their learning activities since they can raise questions and contribute to group redefinition. Small group sessions allow students to work collegially and obtain skills critical to being part of a medical team such as active listening, presenting an argument, and persuasion. Perhaps most importantly, in a small group environment, students are able to monitor their own understanding and knowledge acquisition, identify gaps in understanding, and prepare themselves for a career of self-directed learning in those gaps. Several characteristics of effective small group learning have been identified in the literature. 3 Steward used focus groups to assess preclinical year students’ perceptions of effective small group sessions in a traditional curriculum. Key characteristics identified by students were tutor characteristics (including personal attributes, knowledge of subject matter), a non-threatening group atmosphere, clinical relevance and integration, and pedagogical materials that encourage independent thinking and problem solving.6

Methods An 18 item survey, informed by the review of the literature and a focus group of facilitator, cases, content, student evaluation, group structure, and items included: student and facilitator characteristics, desired role of the facilitators, content, student evaluation, group structure, and atmosphere.

Results

Survey Respondent Characteristics

<table>
<thead>
<tr>
<th>Question</th>
<th>N</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>185</td>
<td>71%</td>
<td>23%</td>
<td>6%</td>
<td>0.85</td>
</tr>
<tr>
<td>Facilitators</td>
<td>76</td>
<td>70%</td>
<td>22%</td>
<td>8%</td>
<td>0.06</td>
</tr>
</tbody>
</table>

| Age* | 25 | 73 (30.0) | 9 (36.0) | 23 (91.2) | 0.017 |

| Years Facilitating | 2008 | 60 (31.4) | 55 | 7 (8.9) | 2009 | 49 (25.7) | 610 | 13 (16.5) | 2010 | 47 (25.1) | 1120 | 21 (24.6) |

| Other | 15 (7.9) | >20 38 (48.1) | 55 | 7 (8.9) | 2009 | 49 (25.7) | 610 | 13 (16.5) | 2010 | 47 (25.1) | 1120 | 21 (24.6) |

| Key: Asterisk(*) denotes an optional question; MSII is the 2nd year of medical school

Facilitator Characteristics

A significantly greater percentage of students (69%) reported that the small group leader should be a skilled facilitator rather than a content expert (p = 0.04). Learners are able to reflect on their own experiences while also learning from their peers. Additionally, more facilitators and students preferred case-based learning to traditional lecture, indicating that this approach helps learners keep control over their learning activities since they can raise questions and contribute to group redefinition. Small group sessions allow students to work collegially and obtain skills critical to being part of a medical team such as active listening, presenting an argument, and persuasion. Perhaps most importantly, in a small group environment, students are able to monitor their own understanding and knowledge acquisition, identify gaps in understanding, and prepare themselves for a career of self-directed learning in those gaps. Several characteristics of effective small group learning have been identified in the literature. 3 Steward used focus groups to assess preclinical year students’ perceptions of effective small group sessions in a traditional curriculum. Key characteristics identified by students were tutor characteristics (including personal attributes, knowledge of subject matter), a non-threatening group atmosphere, clinical relevance and integration, and pedagogical materials that encourage independent thinking and problem solving.6

Conclusions

Both students and facilitators agree that the most desirable main purpose of the small group session is to practice problem solving (p = 0.77). A statistically significant difference was noted between students and facilitators, however, reported that the least desirable purpose of small group is to learn new material.

References


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