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

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Abstract
Small group teaching is an important part of undergraduate medical education, providing the ideal setting for learners to clarify misunderstandings, test hypotheses and evaluate evidence. However, there is an overall paucity of literature examining case-based small group sessions in medical school. This study was designed to examine the perceptions of effectiveness of case-based small group teaching in the pre-clinical years and compare its results in order to identify opportunities to improve. The results highlight areas that need further investigation and are consistent with the literature that small group learning is effective.

RESULTS:
A total of 188 students in years 2, 3 and 4 participated in the study. The survey was emailed to all potential students and 183 answered. Of the 183 students who started the survey, 170 answered all questions. Of the 195 students who started the survey, 175 answered all questions (90%).

Survey Respondent Characteristics

<table>
<thead>
<tr>
<th>Students</th>
<th>Overall No. (%)</th>
<th>Facilitators</th>
<th>Overall No. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender*</td>
<td>Total = 188</td>
<td>M = 95</td>
<td>F = 93</td>
</tr>
<tr>
<td>Age*</td>
<td>Total = 188</td>
<td>25</td>
<td>26-30</td>
</tr>
<tr>
<td>Facilitators</td>
<td>M = 76</td>
<td>95</td>
<td>34</td>
</tr>
</tbody>
</table>

Both students and facilitators reported agreement that problem solving is as important as content covered (p = 0.00) and that the problem solving process is more important than the right answer (p = 0.00).

Cases, Content and Evaluation

Both students and facilitators agreed that the most desirable main purpose of the small group session is to practice problem solving (p = 0.07). A statistically significance difference was found between the beliefs of students and facilitators, however, reported that the least desirable purpose of small group is to learn new material.

Conclusions

FACILITATOR CHARACTERISTICS
• Students reported variable experiences with facilitators and believe that facilitation in small groups is a skill for which formal training is recommended.
• While the literature appears to support higher value placed on facilitator content expertise over small group facilitation skills, our study found that students, compared to facilitators, felt much more strongly that small group leaders’ skills in facilitation were more important than content expertise.

GROUP ATMOSPHERE AND STRUCTURE
• Since both students and faculty agreed that their cohort should be required to attend training on learning and teaching with in a small group setting, additional training on both aspects would be beneficial.
• While students felt more responsibility to facilitate material in small group was not recommended, both students and faculty agreed that the highest value placed on small group learning was in practicing problem-solving skills – more important than ’getting the right answer’.

CASES, CONTENT AND EVALUATION
• Faculty were twice as likely to recommend students completely work up a case prior to a small group meeting, whereas 85% of students recommended cases be presented for the first time during a session. This demonstrates the disconnect between the current model that best supports learning and teaching.

LIMITATIONS
• The nature of a survey is such that questions are subject to varying degrees of interpretation and reporting bias.
• While the scope of this study was limited to case-based small group learning, both students and faculty participated in other types of small group learning that may have influenced their responses.
• Students had more exposure to small group sessions than faculty, thus, consistency between facilitator likely facilitated into student responses.

FUTURE RESEARCH AND NEXT STEPS
• Recommend students and facilitators come together to discuss areas of different perspectives and prioritize areas of action.
• Encourage workshops to focus on developing small group teaching and balancing content with problem solving skills to best meet our institutional needs.
• Readminister survey after implementation of newly identified areas of training as well as for increases in areas of agreement between facilitators and students.

Acknowledgements

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References