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Et al.

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

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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 education. This study was designed to examine characteristics of effective case-based small group teaching in the pre-clinical years and compare results to identify what qualities contribute to small group learning and which may be in need of a redesign so that the small group learning experience can be improved.

METHODS: An 18-item survey was distributed to 301 students who had facilitated a case-based small group session during that same time. Chi-square tests of equality of proportions were used to compare the answers of students and small group facilitators. Of the 79 (54%) small group facilitators and 195 (50%) students responded. Of the 79 students who started the survey, 70 answered all questions (88.6%). Of the 195 students who started the survey, 176 answered all questions (90.3%).

Survey Respondent Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Facilitators</th>
<th>Overall (%)</th>
<th>Facilitators Overall (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>75 (35)</td>
<td>47 (37)</td>
<td>46 (57.0)</td>
<td>29 (36)</td>
</tr>
<tr>
<td>Age</td>
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<td>26-30</td>
<td>31 (34.0)</td>
<td>25 (31.4)</td>
</tr>
<tr>
<td></td>
<td>11 (4.8)</td>
<td>12 (15.2)</td>
<td>24 (29.3)</td>
<td>34 (43.0)</td>
</tr>
</tbody>
</table>

RESULTS: 79 (54%) small group facilitators and 195 (50%) students responded. Of the 79 students who started the survey, 70 answered all questions (88.6%). Of the 195 students who started the survey, 176 answered all questions (90.3%).

Survey

Facilitator Characteristics

A significantly greater percentage of students (89%) reported that the small group leader should be a skilled facilitator rather than a content expert (p = 0.04).

Question | N | Agree | Neutral | Disagree | p-value
--- | --- | --- | --- | --- | ---
Role of facilitator to create supportive environment | 176 | 139 (79%) | 7 (4%) | 30 (17%) | <0.01
Facilitators | 70 | 63 (90%) | 4 (6%) | 3 (4%) |
Facilitator skills most important | 176 | 156 (89%) | 7 (4%) | 23 (13%) | 0.23
Facilitators | 70 | 61 (87%) | 7 (10%) | 2 (3%) |
Review session objectives | 176 | 126 (72%) | 9 (5%) | 41 (23%) |
Facilitators | 70 | 51 (73%) | 10 (14%) | 19 (27%) |
Facilitators should attend training | 176 | 138 (80%) | 1 (1%) | 37 (21%) |
Facilitators | 70 | 60 (86%) | 1 (1%) | 9 (13%) |
Role of facilitator to summarize main points at end | 176 | 149 (85%) | 2 (1%) | 25 (14%) |
Facilitators | 70 | 58 (83%) | 1 (1%) | 11 (16%) |
Role of facilitator to identify and address misunderstandings | 176 | 151 (86%) | 1 (1%) | 24 (14%) |
Facilitators | 70 | 55 (79%) | 1 (1%) | 14 (20%) |
Facilitators | 70 | 80 (12%) | 8 (12%) | 12 (18%) |

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 factored into student responses.

Facilitator characteristics

Both students and facilitators agreed that the most desirable main purpose of the small group session is to practice problem solving (p = 0.71). 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

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CATEGORIES, CONTENT AND EVALUATION

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.

FUTURE RESEARCH AND NEXT STEPS

Recommend students and facilitators come together to discuss areas of the atmosphere that may have influenced their responses.

ACKNOWLEDGEMENTS

We would like to thank the University of Massachusetts Medical School Office of Faculty Development for their support of this project. We are grateful to Dr. Bruce Barton for his assistance with the statistical analysis. We also appreciate the assistance of Dr. Melissa Fischer, Tricia Donny MPH, Christine Locke, Andrew Walls and Joel Bradley.

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CONCLUSIONS

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