Development of a Tool to Systematically Assess Student Perceptions of Near-Peer-Assisted Learning

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OBJECTIVE

• To develop a tool to evaluate student perceptions of near-peer-assisted learning (NPAL). Specificially:
  - Perceived effectiveness
  - Relationships with near-peer teachers
  - Overall general value

BACKGROUND

• NPAL is defined as junior students receiving training by students one or more years their senior within the same curriculum or level of education.1
• NPAL is utilized in a variety of allied health education programs, including pharmacy, medicine and nursing.2
• Despite frequent use in allied health education, there is a significant lack of validated tools to assess NPAL outcomes and impact.1,2

METHODS

• Likert scale survey developed using published literature on NPAL use within allied health education.1,3,4
• Content validation by content experts and a psychometrician.
• Face validation via cognitive interviews with APPE students.
• P1 students with NPAL exposure provided by P4 students.
• Conducted in pharmacy practice lab.
• Duplicate attempts removed prior to identifying survey responses.
• Two reverse-score items included in survey.
• Cronbach’s Alpha coefficient (α) to assess reliability and internal consistency.
• Construct validity performed using Exploratory Factor Analysis (EFA).

DEMOGRAPHICS

Survey Overall: n=81/88

SURVEY QUESTIONS

Responses n = 81/88 (92% response rate)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Cronbach’s alpha</th>
<th>General Value</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effectiveness</td>
<td>α=0.84</td>
<td>Mean (SD)</td>
<td></td>
</tr>
<tr>
<td>Relationships with Near-Peers</td>
<td>α=0.61</td>
<td>4.4 (0.5)</td>
<td>5</td>
</tr>
<tr>
<td>General Value</td>
<td>α=0.82</td>
<td>4.4 (0.5)</td>
<td>5</td>
</tr>
</tbody>
</table>

RESULTS

SURVEY QUESTIONS

1. Near-peer teachers can provide constructive feedback that helps in enhancing my clinical skills. 4.4 (0.5)
2. Near-peers who educated me performed satisfactorily in their assigned role. 4.5 (0.7)
3. Near-peer teachers provide unique learning insights since they have recently been in my situation. 4.6 (0.5)
4. Near-peers who taught me explained concepts effectively. 3.8 (1.2)
5. Being taught by a near-peer provides a safe learning environment. 4.4 (0.6)
6. Near-peer teachers relate to me well since they have recently been in my situation. 4.4 (0.6)
7. I learn better from a traditional faculty member than a near-peer teacher. 2.8 (0.9)
8. Near-peer assisted learning was a valuable experience to me. 4.2 (0.6)
9. Near-peer assisted learning experiences are a positive addition to our curriculum. 4.4 (0.7)
10. I would benefit from more near-peer assisted learning experiences. 4.2 (0.8)
11. Please add any other comments you have about near-peer assisted learning (limit 150 characters). N/A

FREE RESPONSE ASSESSMENT

23 of 22 free-response comments were positive.

CONCLUSIONS

• The reliability and validity findings indicate that our survey can be utilized to systematically evaluate student perceptions of NPAL.
• Educators may use this tool to help guide use of NPAL in allied health education.
• Further research on NPAL is needed to establish areas for optimal curricular placement and overall impact on learner outcomes.

DISCUSSION

• When utilized to assess NPAL experiences, survey results can yield insights on strengths and opportunities. For example, constructive comments from our free-response assessment can inform future development of near-peer teachers in our curricula.
• Although commonly used, there remains a significant lack of research on how to optimize NPAL use in pharmacy education. Assessments of student perceptions may serve as a springboard in evaluating this area, but more research is needed.
• Future research should work to identify ideal curricular placement of NPAL. For example, it is possible that students prefer NPAL for some learning situations, but not others.1

REFERENCES

• For citation list, please scan this code:

INTERNAL CONSISTENCY AND RELIABILITY

VALIDITY: EXPLORATORY FACTOR ANALYSIS

CONSTRUCTIVE COMMENTS

Positive themes described near-peer teachers as relationship, approachable, less intimidating, and easy to understand.

Constructive comments described student embarrassment after making a mistake in front of near-peer teachers, and a perceived lack of experience.

Eigen value

Diference

Proportion

Cumulative

Cumulative

Factor

Eigenvaue: 5.7
Difference: 4.1
Proportion of variance explained: 0.5
Cumulative variance: 0.5

MINEIGEN to account for 69.6% of the variance.

3 of 12 factors were retained by the MINEIGEN to account for 69.6% of the total variance.