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). Specifically:
  - 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. [1,3-9]

METHODS

Online Survey
- Likert scale survey developed using published literature on NPAL use within allied health education.[1,3-6]

Quality Measures
- Content validation by content experts and a psychometrician.
- Face validation via cognitive interviews with APPE students.

Participants
- P1 students with NPAL exposure provided by P4 students.
- Conducted in pharmacy practice lab.

Data Analysis
- Duplicate attempts removed prior to de-identifying survey responses.
- Two reverse-score items included in survey.

Statistical Analysis
- Cronbach's Alpha coefficient (α) to assess reliability and internal consistency.
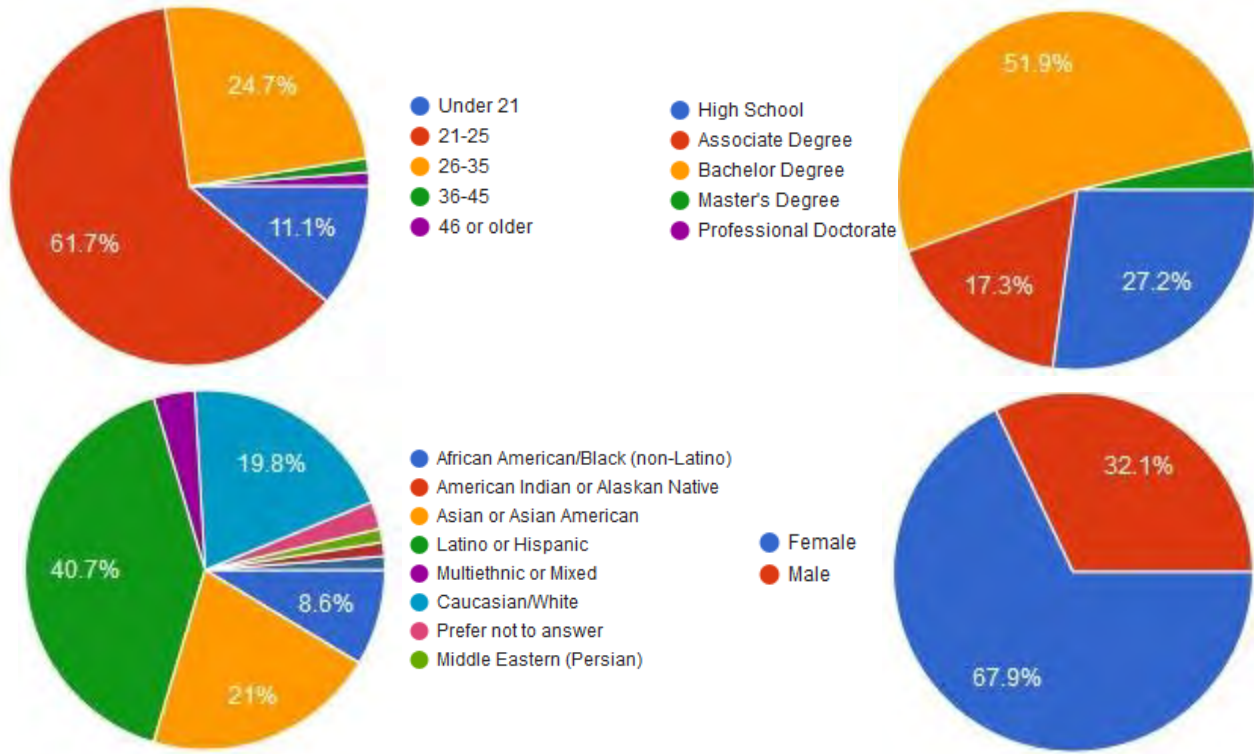- Construct validity performed using Exploratory Factor Analysis (EFA).

*The authors have no conflicts to report in relation to this work.

RESULTS

DEMOGRAPHICS

INTERNAL CONSISTENCY AND RELIABILITY

Domains Assessed	Cronbach's alpha	Median	Mode
Effectiveness	α=0.84	4	5
Relationships with Near-Peers	α=0.61	5	5
General Value	α=0.82	4	4
Survey Overall **α=0.86**			

FREE RESPONSE ASSESSMENT

21 of 22 free-response comments were positive.

Positive themes described near-peer teachers as relatable, 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.

SURVEY QUESTIONS

|	Responses n = 81/88 (92% response rate)	Mean (SD)
Effectiveness	1. Near-peer teachers can provide constructive feedback that is helpful 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 (0.6)
	Near-peers who taught me explained concepts effectively.	3.8 (1.2)
Relationships with Near-Peer	4. Being taught by a near-peer provides a safe learning environment.	4.4 (0.6)
	5. I feel comfortable asking a near-peer teacher questions about class material.	4.4 (0.6)
	6. Near-peer teachers relate to me well since they have recently been in my situation.	4.4 (0.8)
	7. * Being taught by a near-peer is an intimidating experience.	4.4 (0.6)
General Value	8. * I learn better from a traditional faculty member than a near-peer teacher.	2.8 (0.9)
	9. Near-peer-assisted learning was a valuable experience to me.	4.2 (0.6)
	10. Near-peer-assisted learning experiences are a positive addition to our curriculum.	4.4 (0.7)
	11. I would benefit from more near-peer-assisted learning experiences.	4.2 (0.8)
Opt.	12. Please add any other comments you have about near-peer-assisted learning. (limit 150 characters).	N/A

Items were on a 5-point Likert scale (SA=5, A=4, N=3, D=2, SD=1); * Denotes a reverse-scored item.

VALIDITY: EXPLORATORY FACTOR ANALYSIS

Eigen value	Difference	Proportion of variance explained	Cumulative
5.7	4.1	0.5	0.5
1.6	0.5	0.1	0.6
1.1	0.3	0.1	0.7
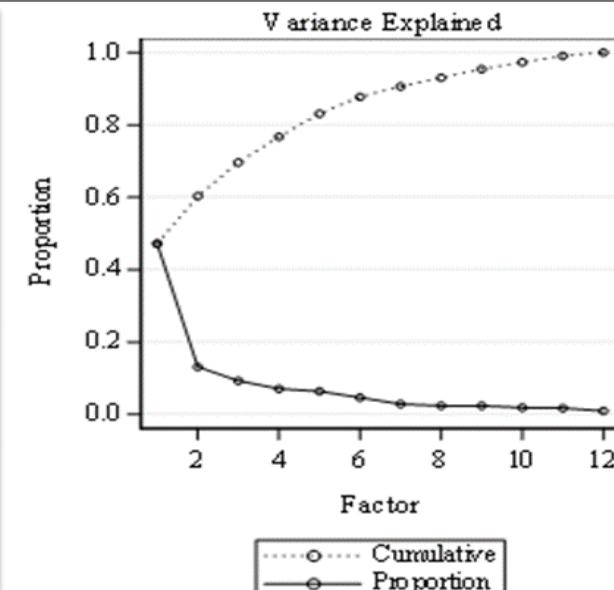
A simple structure resulted from the EFA, with most items having a large loading on the first factor and small loadings on the other factors.

Reverse-score items were distinguished with the highest loading on the second factor, which is expectable.

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

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 courses.
- 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.[10]

REFERENCES

- For citation list, please scan this code: