Development and Psychometric Testing of a Remediation Effectiveness Scale in Nursing Education

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Background

Increasing pressure for pre-licensure nursing program enrollment, nursing student retention, and worry of decreasing NCLEX-RN®. pass rates when the Next Generation NCLEX is launched necessitate focused remediation efforts among nurse educators and pre-licensure nursing programs.

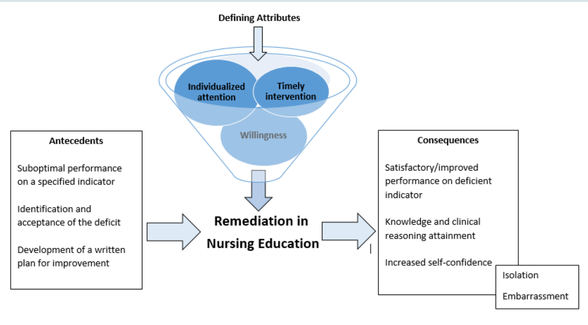
While most pre-licensure nursing programs are implementing remediation policies and strategies as a way to assist under-performing students and increase retention, lack of condense remains as to how to determine the effectiveness of these efforts.

As remediation becomes an increasing component of pre-licensure nursing curricula, program administrators and accrediting bodies will need to standard method to evaluate the effectiveness of such efforts. To date, no standard method of remediation exists, nor does any standard instrument in which to evaluate its effectiveness.

The literature describes various ways of assessing remediation efforts, such student performance on standardizing testing, course grades, or GPA; however these measures do not account for the key components of remediation such as timely intervention, individualized attention, and student/faculty willingness to accept remediation (Custer, 2018).

Framework

Custer's (2018) concept analysis on remediation in nursing education served as the framework for the development of this instrument. Custer identified the following antecedents, defining attributes, and consequences of remediation; which served as the basis for item development.



Methodology

To determine content validity of the Remediation Effectiveness Scale, a panel of five expert nurse educators was consulted to review the clarity, representativeness, and relevance of items on the initial instrument, consisting of 22 items. Four experts agreed to review the instrument.

The following rating scale was used by each expert to assess the clarity, representativeness , and relevance of each item:

1 = Not representative, clear, or comprehensive
2 = item needs major revision
3 = item needs minimal revision
4 = item is representative, clear or comprehensive

Content-validity index (CVI) was calculated for each item, 12 items that yielded 100% agreement were retained, and three items that yielded a 67% agreement were retained, totaling 15 items. The percentage agreement rating for each item was then totaled and averaged to calculate the scale content validity average (S-SVI/Ave) on the retained items, resulting in a value of .95.

Associate degree nursing students enrolled in the 0-credit *Decision Making In Nursing* course during the Fall 2019 and Spring 2020 semesters were invited to participate. A total of 27 students completed both the pre and post-tests using an anonymous online survey housed within SurveyMonkey®.

Administration and Scoring

This preliminary research aimed to determine the test-retest reliability of the Remediation Effectiveness Scale using a pilot test group. Institutional review board approval was obtained to administer the instrument to a convenience sample of nursing students. The scale was administered to the same participants at two different points in time, in this case two weeks apart, to assess stability of responses.

The Remediation Effectiveness Scale was administered using SurveyMonkey®. Participants answered several demographic questions and then indicated their level of agreement with each of the 15 items. The items were scored according to the following scale: strongly agree (5), agree (4), neither agree or disagree (3), disagree (2), and strongly disagree (1).

Total scores range from a maximum of 75 to a minimum of 15; the higher the score, the more likely that remediation was effective for that participant.

Results

Survey responses were electronically imported into the Statistical Package for Social Sciences software version 26. Test-retest reliability is the most commonly used indicator of survey instrument reliability (Litwin, 2003). In this pilot study, test-retest reliability was calculated and revealed a Pearson Product Moment Correlation of .72.

Various standards for determining reliability exist, however a general consensus is that values above .7 indicate acceptable reliability (Litwin, 2003).

Next Steps

- Continue to administer the Remediation Effectiveness Scale to pre-licensure students who have received academic remediation.
- Increase the sample size by utilizing the scale in various student groups, as warranted.
- Consider factor analysis as a means to assess whether different items in the Remediation Effectiveness Scale belong together (Litwin, 2003).

Contact Information

If you would like a permission to use the Remediation Effectiveness Scale, please contact Dr. Nicole Custer via email ncuster@mtaloy.edu

Conclusion

Once nursing education programs have put systematic remediation efforts into place, nurse educators should evaluate their effectiveness to advance the body of knowledge on this concept. Development and testing of the Remediation Effectiveness Scale acts as a crucial first step in being able to adequately evaluate remediation practices in nursing education.

Developing a valid and reliable tool to measure the effectiveness of remediation in pre-licensure nursing education may have far-reaching implications in academia. Nursing faculty, academic advisors, program administrators, and nursing education accrediting bodies may be able to take a unified approach in evaluating remediation efforts.

re·me·di·a·tion
/rəˌmēdēˈāSH(ə)n/

noun
noun: **remediation**

the action of remedying something, in particular of reversing or stopping environmental damage.
- the giving of remedial teaching or therapy.

Source: Dictionary.com

References

Custer, N. (2018). Remediation in nursing education: A concept analysis. *Teaching and Learning in Nursing* , *13*(3), 147-152. doi: 10.1016/j.teln.2018.02.002

Litwin, M. S. (2003). *How to assess and interpret survey psychometrics* (2nd ed.). Thousand Oaks, CA: Sage.

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