Introduction

Academic resilience has received attention in the education literature as a possible determinant of student success.

- Defined as a noncognitive factor describing a student’s ability to overcome adversity and improve academic performance.

Previous studies in non-pharmacy student populations demonstrate that students with more resilience are better able to manage school pressures than those with less resilience.

- Per a review of the literature (PubMed and Google Scholar, years unlimited), there was no existing valid and reliable scale designed to measure academic resilience in student pharmacists.

Objective

To develop a valid and reliable academic pharmacy resilience scale adapted for use in the didactic portion of the curriculum.

Methods

To develop academic resilience scale for student pharmacists:

- Conducted literature search of existing resilience scales, narrowed to existing academic resilience measures.

Selected Cassidy’s Academic Resilience Scale (ARS-30) for adaptation (Cronbach’s alpha=.90, evidence of construct validity).

Original ARS-30 had 3 subscales: (a) perseverance, (b) reflecting and adaptive help-seeking, and (c) negative affect and emotional response.

ARS-30 vignette (Figure 1) adapted to portray an adverse scenario a student pharmacist in the didactic curriculum might face.

- 30 items of ARS-30 revised to capture responses of student pharmacists to this vignette.

5-point Likert scale used to assess response to each item (1=Strongly disagree to 5=Strongly agree). 10 items reverse-scored.

Assessed convergent validity using the reliable and valid 8-item Short Grit Scale (Grit-S), which has 2 subscales, (a) perseverance of effort and (b) consistency of interest.

5-point Likert scale used to assess level of response (1=Not like me at all to 5=Very much like me).

4 items reverse-scored.

Survey administered to P1, P2 and P3 students (n=544) at the beginning of Fall 2017 semester.

Results

- 457 (84%) students participated; participants were 62.9% female and 69.7% white, with mean age of 24.3 years ± 3.3.

- In exploratory factor analysis, 4 factors/subscales identified (Table 1).

- Remaining 16 items (Table 2) included in the Academic Pharmacy Resilience Scale (APRS-16).

- Total score range from 16-80, with higher scores indicating greater resilience.

- Four factors of the APRS-16:

  - Negative affect and emotional response: 5 items, scores ranging from 5-25.
  - Reflecting and adaptive help-seeking: 5 items, scores ranging from 5-25.
  - Adaptive thought processes: 3 items, scores ranging from 3-15.
  - Perseverance: 3 items, scores ranging from 3-15.

- Construct validity of the Grit-S confirmed in the confirmatory factor analysis, as both subscales had significant factor loadings (p<.001) and model fit indices were acceptable.

- In convergent validity analysis, the APRS-16 and its subscales were significantly, positively associated with the Grit-S and its subscales (p<.001). See Table 3.

Implications

- Development of a valid and reliable measure of academic resilience in student pharmacists was necessary for the field, but valid and reliable measures are not widely available.

- Evidence supports the reliability and validity of the APRS-16.

- Future studies should investigate the relationship between academic resilience and academic outcomes among student pharmacists, as well as the impact of interventions to promote resilience and success in this population.