Measuring Co-Curricular Professionalism in Pharmacy Students: Analysis of the Behavioral Professionalism Assessment

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### BACKGROUND

- Professional socialization is a co-curricular expectation of pharmacy education degree programs.
- Difficult to measure as an abstract concept, professionalism has been examined in pharmacy students to understand the structural attitudinal and behavioral attributes that are most commonly associated with the construct (e.g., Beardsley, 1996; Fjortoft and Lee, 1994; Hammer et al., 2000; Plake and Lanson, 2001).
- Using peers to provide anonymous feedback on the professional behaviors of other students has the advantage of local and more persistent observation than faculty or administrative access might allow.
- The Behavioral Professionalism Assessment (BPA) is a 26-item battery which has been deployed in the peer context in multiple studies, to measure observable professional behaviors.
- The student burden leads us to seek options for reducing the number of items, yet achieving similar utility.

### METHODS

- The Behavioral Professionalism Assessment was administered to students in their first and second professional years (P1 and P2), in randomized within-cohort groups of 12-13 students. Each student evaluated 12-13 peers in their first and second professional years (P1 and P2), in randomized within-items, yet achieving similar utility.
- Data were examined for appropriateness for factor analysis:
  - Factor analysis (pca) was conducted through SPSS 24, using an eigenvalue of 1 or higher.
  - Item 10 ("Student handles stress; i.e., remains calm, levelheaded and composed in critical, stressful, or difficult situations.") did not load on any of the three main factors. This item did not appear in the original 25-item scale whose factors have been evaluated in the literature.
  - A variety of possibilities may be influencing this item’s performance.
    - Students may be proficient at hiding stress in their public face, making the "handling of stress" difficult for others to assess.
    - Stress is a sign of (perceived) weakness.
    - Stress is definitely an issue for pharmacy students. To evaluate it more effectively, the School deploys a separate instrument: The Perceived Stress Scale (10 items; Cohen et al., 1983).
- Additional items to be included on survey, beyond BPA, as suggested by student feedback, advisor feedback, and current literature:
  - Professionalism of public posts on social media
  - Recreational technology use in the classroom setting
  - Professionalism of public posts on social media

### RESULTS

- Three factors were detected, accounting for 81.448% of variance:
  - Factor 1 = Interpersonal/Social Skills
    - Factor 2 = Responsibility
    - Factor 3 = Communication Skills
  - Two items (5 and 13) loaded on Factors 1 and 2, one item (10) does not meet the coefficient cutoff of 0.50 and other items load under one factor. The double loading items are listed under the subscale on which they weigh heaviest.

### DISCUSSION AND IMPLICATIONS

A revised BPA version based on factor analysis may reduce respondent burden. Ideas for revisions, derived from qualitative student feedback:

- Reduction of items based on loading strength as well as student feedback on item performance and validity.
- Some aspects we are able to rate other students on are rather difficult or even impossible. I may know a student quite well but still have little idea of how he or she behaves in an ethical manner (0.666). I may know a student quite well but still have little idea of how he or she behaves in an ethical manner (0.666). To evaluate it more effectively, the School deploys a separate instrument: The Perceived Stress Scale (10 items; Cohen et al., 1983).
- Addition of open-ended areas for qualitative feedback.
- "Could there be a comment section so that we can specify why we choose answers, or ways that our peers could improve themselves?" - PY2, 2016.
- "I think it would benefit the school to add more detailed questions about ethics pertaining to cheating. It seems difficult to address cheating that goes on in and out of class and during tests, and I think adding that to this survey would help address this issue. I think it would also benefit those who actually cheat by encouraging them to not do so." - PY2, 2016.
- Additional items to be included on survey, beyond BPA, as suggested by student feedback, advisor feedback, and current literature:
  - Professionalism of public posts on social media
  - Recreational technology use in the classroom setting
  - Other, as identified by further exploration

### COLLABORATION POTENTIAL

Does your program have a professionalism component? If so, we would love to talk about collaborative opportunities to examine this construct in an interdisciplinary fashion. Take a bookmark and contact us!