A Longitudinal Analysis of Pharmacy Student Wellbeing: The First Professional Year

Chelsea Beavers, PharmD candidate, Tucker Carlson, PharmD candidate, Jessica Stringfellow, PharmD candidate, Morgan Thomas, Nicholas E Hagemeier, PharmD, PhD

Department of Pharmacy Practice, Gatton College of Pharmacy, East Tennessee State University, Johnson City, TN

Key Points

- Gallup conceptualizes wellbeing across 5 domains: Career, Community, Financial, Physical and Social.
- Study Objectives: 1) To longitudinally describe the domain-specific and overall wellbeing of pharmacy students across the first-professional (P1) year; 2) To determine the extent to which domain-specific wellbeing perceptions predict overall wellbeing perceptions.
- Significant fluctuations were noted across the P1 year, especially in the Fall semester. Physical and career wellbeing significantly predicted overall wellbeing most frequently.

Methods

Instrument Development

A 6-item questionnaire was developed based on Gallup's Wellbeing: The Five Essential Elements. Items assessed career, community, financial, physical, social, and overall wellbeing using a 7-point response scale (1=extremely poor; 7=extremely good).

Sampling

During the 2017-18 academic year, 1st-professional year (P1) students at ETSU completed the wellbeing questionnaire once weekly throughout a year long academic course (N=74).

Data Analysis

Repeated measures statistical tests and linear regression approaches were used for longitudinal and cross sectional analyses, respectively. Multiple imputation approaches were employed to handle missing data. An a priori alpha of 0.05 was established.

Results

Figure 1. Average P1 Wellbeing Ratings Across Fall and Spring Semesters.

- Fall Semester
  - Overall and domain specific wellbeing significantly decreased from semester beginning to end (p values < 0.017)
  - Physical and financial wellbeing significantly increased from semester beginning to end (p values < 0.043)

- Spring Semester
  - Physical and financial wellbeing significantly increased from semester beginning to end (p values < 0.043)

- Academic Year
  - While significant variation was noted, only community wellbeing significantly varied (decreased) from AY beginning to end (p=0.005).

- Exams
  - The number of exams in the week was significantly inversely correlated with career, community, physical, and overall wellbeing reported that week (p values < 0.045).

Implications

- Assessment of student wellbeing across the curriculum could inform development and integration of interventions to sustain and/or maximize wellbeing as students progress in the professional program. Career and physical wellbeing, in particular, frequently predicted overall wellbeing in our student cohort. Therefore, efforts to maintain/increase wellbeing in these domains are being considered at the College.
- Wellbeing decreased fairly rapidly during the Fall semester. Therefore, interventions may be best targeted early in the transition to pharmacy school.
- Students may need multiple, consistent “doses” of encouragement from others to give attention to their wellbeing. Mentors and others engaged in the curriculum may need to be trained on how best to encourage wellbeing promoting behavior among students.
- Research is warranted 1) to evaluate how wellbeing changes longitudinally as students progress through the professional program, and 2) to assess the effectiveness of curricular and co-curricular wellbeing interventions.