Perceived Stress and Coping Strategies Among Health Care Profession Students
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Background
- The Guidance Document for Standards 2016 of the Accreditation Council for Pharmacy Education (ACPE) encourages colleges and schools of pharmacy to assess and correct underlying causes of ineffective learning experiences. These assessments include measurements of perceived stress in faculty, staff, and students and an evaluation of stress’ potential for a negative impact on programmatic outcomes and morale.1
- Accreditation standards from the Commission on Collegiate Nursing Education (CCNE) also require a regular evaluation of teaching and learning practices to facilitate ongoing improvement of achievement of student outcomes.2
- The Perceived Stress Scale (PSS-14) is a widely used, psychometrically validated 14-item instrument that measures the degree to which situations in subjects’ lives are rated as stressful. The scale value may be used reliably as an outcome variable that measures a subject’s perceived stress level as a function of stressful events and methods of coping. Subjects respond to each of the 14 items by indicating how often they felt or thought a particular way in the past month using a 5-point scale (0 = never; 4 = very often).3
- The College of Health and Pharmaceutical Sciences at the University of Louisiana at Monroe is comprised of the School of Pharmacy, the Kitty Degree School of Nursing, and the School of Health Professions.

Objective
- To assess perceived stress, major stress factors, and coping strategies among health care profession students in the College of Health and Pharmaceutical Sciences at the University of Louisiana at Monroe.

Methods
- This project was approved by the Institutional Review Board of the University of Louisiana at Monroe.
- Students within the College who are enrolled in professional health care curricula were emailed invitations to participate in perceived stress surveys administered at the beginning (baseline), midpoint, and end of the fall 2014 semester.
- Surveys were comprised of three sections:
  - Personal information
    - Age, gender, ethnicity, marital status, children
    - Major, semesters completed, and GPA
    - Involvement in student organizations
    - Alcohol use, smoking status, exercise habits
  - Perceived Stress Scale (PSS-14)
  - Self-identified stress factors and coping strategies
    - Students identified one factor that contributed most to their stress level during the past month.
    - Students identified coping strategies used during the past month.
    - Students were grouped as pharmacy majors, nursing majors, and other.
    - PSS-14 scores were computed and compared statistically among majors and time of semester using analysis of variance models.
    - Descriptive analyses of stress factors and coping strategies were performed

Results
- Respondents included 275 students at baseline (BL), 218 students at midpoint (MP), and 172 students at the end of the semester (EOS).
- Differences in PSS-14 scores by major:
  - No significant difference in PSS-14 scores was present by major at BL (p=0.902) or MP (p=0.880).
  - At EOS, PSS-14 scores were higher for nursing majors (40.42) than pharmacy majors (35.09; p=0.026) and other majors (33.15; p=0.027).
- Differences in PSS-14 scores by time of semester:
  - BL to MP: PSS-14 scores increased within each major:
    - Nursing (p=0.031); Pharmacy (p=0.002); Other Majors: (p=0.030)
  - MP to EOS: No significant differences in PSS-14 scores existed within groups (majors)
    - BL to EOS: PSS-14 scores increased for Pharmacy (p=0.002) and Nursing (p=0.001) but not for Other Majors (p=0.999).
  - The most frequently identified factor contributing to stress levels was academic responsibilities (49.2% of students).
  - The most frequently identified coping strategy to relieve stress was talking with friends or family (72.6% of students).

Limitations
- As this is a single-site study, results may not be generalizable to other institutions.
- Differences in curricular delivery between this institution and others should be considered when comparing results of this study with other institutions.
- Logistical and software issues prevented longitudinal analysis of data throughout the semester, the three administration times of the survey represent point estimates of student data.

Implications
- Information on perceived stress is useful to help identify modifiable risk factors for poor student outcomes.
- Since academic responsibilities were identified as the major cause of stress in this student population, programs could be offered to assist students in developing improved planning, time management, and other techniques to better manage academic workloads.
- Successful self-identified coping strategies provide useful information to offer to other students who may be experiencing elevated stress levels.

References
2. Standards for Accreditation of Baccalaureate and Graduate Nursing Programs. Washington, DC: Commission on Collegiate Nursing Education; 2013:16.