

Longitudinal Effects of Graduate Allied Health Education on Physical and Mental Health

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ABSTRACT

Student wellness represents an ongoing focus in academia. Allied health professional (AHP) students complete educational tracks that are rigorous, placing them at risk for impact to physical and mental wellness. Previous data support such changes in this population and poor student wellness may contribute to weak academic performance, attrition, and quality of life.

PURPOSE: This study evaluated the impact of the AHP program on the physical, mental, and sleep health of 1st year graduate AHP students.

METHODS: Graduate students (n=29; 30% men, 70% women) in the Stony Brook School of Health Professions participated across 3 timepoints (T01-Baseline/Sept, T02-Feb and T03-Jun) during their 1st year of study. Measures included: (1) physical measures of blood pressure, heart rate (HR), body weight/composition, and aerobic fitness (6MWT and 3 min YMCA step test), (2) mental health screening using the PHQ-9, Depression Anxiety Severity Scale, and Perceived Stress Scale, and (3) sleep quality assessment using the PSQI and Fatigue Severity Scale. Data was analyzed by descriptive statistics and RM-ANOVA.

RESULTS: Across timepoints, resting HR and BP were in healthy ranges. An increase in systolic pressure among women was noted in T02, increasing from 114±7.9 to 119.6±10.7 mmHg. Body weight remained stable, but both men and women showed a reduction in body fat percentage in T02. 3 min step test and 6MWT outcomes were within normal limits, however, a subset of participants (between 20-70% based on time point studied) had recovery HR below average and/or distances below the lower limit of normal. Students reported experiencing moderate/severe symptoms of depression, anxiety, and stress, and the prevalence of these symptoms surpassed rates observed in the general population. PSQI scores indicated poor sleep quality, with >20% of students reporting fatigue warranting clinical evaluation.

CONCLUSION: Data support that AHP graduate students display risk factors that increase their vulnerability to cardiometabolic, mental health, and sleep disorders. Outcomes will provide for better understanding of student health and wellbeing. Data will guide the development of wellness interventions and inform a larger RCT looking at effects of exercise and mindfulness on stress in young adults.