Brewer JF, O'Connell JK, Drennen AN, Dubose BT, Cantwell DA, Tiemeyer CB. *Role of Resilience and Stress in Predicting Academic Success in Physical, Occupational, and Speech Therapy Students* (poster). Combined Research Sections Meeting (CSM) of the American Physical Therapy Association. Denver, CO, 2020.

Abstract #22553

Purpose: To compare resilience and personal stress factors as well as examine the relationship between resiliency, stress, and cumulative GPA among PT, OT, and SLP students. Number of Subjects: Students (N=185) from three graduate health programs (physical therapy n=77, occupational therapy n=60, and speech therapy n=48) were invited to participate via Survey Monkey. Materials and Methods: Subjects voluntarily completed assessments in resiliency measured by the Conner-Davidson Resilience Scale (CD-RISC) and Psychological Capital Questionnaire (PsyCap), as well as personal stress factors measured by the Holmes-Rahe Stress Inventory (HRSI) and the Perceived Stress Scale (PSS). Participant demographics and GPA were blinded to researchers. Descriptive statistics examined the means of all independent variables. Bivariate correlations were used to explore the relationships between resilience, stress, and GPA. ANOVA examined differences in resiliency and GPA between the different graduate programs. **Results:** One hundred and twenty-six students (68%) participated in the survey (PT n=60, OT n=33, SLP n=33). No significant differences in either resilience or stress and GPA were found between the health professions students. There was a moderately significant correlation between PSS (stress) and CD-RISC (resilience) (r=-.53, p<.001). These subjects had higher PSS means (PT=15.4 ±5.7, OT=18.9 ±4.9, and SLP=15.9 ±5.4) and lower CD-RISC means (PT=64.1 ±8.0, OT=64.1 ±6.5, and SLP=64.5 ±7.3) than the general population means (PSS=12.9; CD-RISC=80.7). Total PsyCap (optimism, hope, confidence, and resiliency) averages (111.9 ±15.5 to 114.6 ±12.3) and four of the five CD-RISC constructs (tenacity 24.6 ±3.4 to 25.2 ±3.0, tolerance of stress 18.4 ±3.5 to 19.3 ±3.0, acceptance of change 16.1 \pm 2.3 to 16.8 \pm 1.7, and sense of control 9.6 \pm 2.0 to 10.4 \pm 1.7) increased slightly from first year to second year students. **Conclusions:** Stress and resilience showed a nonsignificant relationship with academic performance in health professions graduate students. Total resilience CD-RISC and PsyCap scores among the students in all three health professional programs were very similar. Interestingly, PSS scores were significantly inversely correlated with CD-RISC scores, suggesting that higher perceived stress could be characteristic of lower levels of resilience. The original validation study for the CD-RISC scale found subjects with anxiety had an average score of 62.4/100. Therefore, health professions students could be at higher risk for anxiety. Clinical Relevance: Neither stress nor resilience had a significant relationship with academic performance in graduate therapy programs. The relationship between perceived stress and resilience demonstrates the potential to explore the use of the CD-RISC as a predictor of other measures related to life satisfaction and psychological health with enrolled or potential graduate therapy students.

References:

- Gonsalves C, Sanchez-Campos M, MacLean H. Supporting Resilience in Medical School: Breakthroughs and Barriers. Int J Whole Person Care 2018; 5(2):2291-22918.
- Bezdjian S, Schneider KG, Burchett D, Baker MT, Garb HN. Resilience in the United States Air Force: Psychometric Properties of the Conner-Davidson Resilience Scale (CD-RISC). Psych Assess 2017; 29(5):479-485.
- Houpy JC, Lee WW, Woodruff JN, Pincavage AT. Medical student resilience and stressful clinical events during clinical training, Med Educ Online 2017; 22(1):1320187.
- Bazelais P, Lemay D, Doleck T. How does grit impact college students' academic achievement in science? Eur J Math Educ. 2016;4(1):33-43.
- Eley D, Leung J, Hong B, Cloninger K, Cloninger R. Identifying the dominant personality profiles in medical students: implications for their well-being and resilience. Plos One. 2016;11(8).
- Nuciforo M, Litvinsky Y, Rheault. W. Variables predictive of admission to us physical therapist education programs. J Phys Ther Educ 2014;28(3):112-119.
- Hartley M. Examining the relationships between resilience, mental health, and academic persistence in undergraduate college students. J Am Coll Health 2011;59(7):596-604.
- Oliveira Bosso L, da Silva RM, Siqueira Costa AL. Biosocial-academic profile and stress in first- and fourth-year nursing students. Invest & Edu en Enfermeria 2017; 35(2):131-138.
- Bexelius T, Lachmann H, Jarnbert-Pettersson H, Kalen S, Moller R, Ponzer S. Stress among medical students during clinical courses: a longitudinal study using contextual activity sampling system. Int J Med Edu 2019; 10:68-74.