## Duke University School of Medicine

## Doctor of Physical Therapy

## Background

- Stress is one of the most common negative side effects of postgraduate healthcare education. ${ }^{1}$
- High levels of continuous stress lead to burnout.
- Burnout is defined as emotional and physical exhaustion resulting from a combination of exposures to environmental and internal stressors and inadequate coping or adaptive skills. ${ }^{3}$
- Burnout has significant effects on mental health, empathy, professional behavior, and academic success. ${ }^{2}$
- Burnout can lead to depression, depersonalization, decreased quality of life, and suicide ideation. ${ }^{2}$
- Burnout also has effects beyond education, influencing future clinicians ability to exhibit empathy and professionalism. ${ }^{4,5}$
- There is evidence to show that burnout increases during health care focused graduate school programs. ${ }^{5}$
- Effective counseling services are underutilized by students in professional school. ${ }^{6}$


## Purpose

To investigate burnout and its correlation to and effect on the psychological, professional, empathetic, and academic acuity of graduate healthcare students.


## Methods

- Scoping review on the epidemiology and effects of burnout in graduate students.
- Initial literature review returned 8224 publications.

4255 full-text articles assessed

- Inclusion Criteria:
- English language papers published within the last 10 years. - Subjects must be in postgraduate health professional programs.
- Exclusion Criteria:
- Publications including undergraduate students or graduated practitioners.
Non translated articles.
- After screening for eligibility, 27 articles remained.
- These 27 articles were sorted into 5 domains of interest etiology, professionalism, mental health, empathy, and academics.
- Each domain was verified by a separate author, with a third author resolved disagreements in verification.


## The Prevalence and Effect of Burnout on Graduate Healthcare Students

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## Results

- A moderate to high degree of burnout was reported by $21-55 \%$ of medical students
- $85 \%$ of studies investigated MD graduate students,
- Dental, nurse practitioner, PA, OT, and podiatric students were also studied
- Burnout among medical students has been linked to decreased empathy, altruism, and compassion.
- Burnout is inversely correlated with qualities associated with professional behavior within graduate medical students.
- Burnout among graduate healthcare students is highly correlated with depression symptoms
- Burnout and depression symptoms are higher in health profession students is higher than age matched peers and the general population.


## Conclusions

- The prevalence of burnout is high within graduate healthcare students, and that burnout can have an effect on their mental health, empathy and professional conduct.
- Nearly all of the studies selected were cohorts, primarily from medical student participation with sparse information representing other graduate level health care professional students.
- Physical therapy students were not among the populations studied in the literature found to meet inclusion criteria.


## Clinical Relevance

Understanding the prevalence and effects of burnout within graduate health care programs allows faculty and administration to plan curriculum, and provide information to students to understand, recognize and create opportunities to decrease burnout in order to create long lasting, high quality clinicians.

|  | References |
| :---: | :---: |
| 1. Firth J: Levels and sources of stress in medical students. Br Med J (Clin Res Ed.) 1986; 292: 1177-1180. |  |
| 2. Deary IJ et al.. A longitudinal cohort study of burnout and attrition in nursing students. J Adv Nurs. 2003 Jul;43(1):71-81. |  |
| 3. Dyrbye LN et al. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. Acad Med. 2006 Apr;81 (4):354-73. |  |
| 4. Dyrbye $L \mathbb{N}$ et al. A multi-institutional study exploring the impact of positive mental health on medical students' professionalism in an era of high burnout. Acad Med. 2012 Aug;87(8): 1024-31. |  |
| 5. Dyrbye LN et al.. Relationship between burnout and professional conduct and attitudes among US medical students. JAMA. 2010 Sep 15;304(11):1173-80. <br> 6. Dyrbye LN, et al. The Impact of Stigma and Personal Experiences on the Help-Seeking Behaviors of MedicalStudents With Burnout. Acad Med. 2015 Jul;90(7):961-9. |  |
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