

Prevention and Wellness: An Online Elective for Medical Students

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Introduction

Burnout: a psychological syndrome involving emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment among professionals who work with other people in challenging situations.¹

Medical Students and burnout:

- were more likely to report engaging in one or more unprofessional behaviors than those without burnout²
- were less likely to report altruistic views of physician's responsibility to society, and were less likely to want to provide care to the underserved²

Burnout in Residents: in one study of 47 residents burnout increased from 4.3% to 55.3% between beginning and end of intern year³

Physicians in Practice: 7,288 physicians surveyed in 2012: 46% suffered from overall burnout⁴

Small scale interventions:

- Mindfulness practices (MBSR) can improve well-being, burnout and capacity for relating to other people in healthcare workers (doctors, nurses, med students)^{5,6,7,8,1}
- Perceived stress (med students) improved significantly (short term studies) with mind body techniques (yoga, breathing, meditation).^{5,9,10,11,12}

Since there is a need for interventions to improve well-being in medical students an elective in Prevention and Wellness was created for senior medical students. The course is web based and has a medical knowledge and self care component

In this study we will show the results from the wellbeing and wellness behaviors assessments in a cohort of 4th year medical students at several institutions

Demographics:

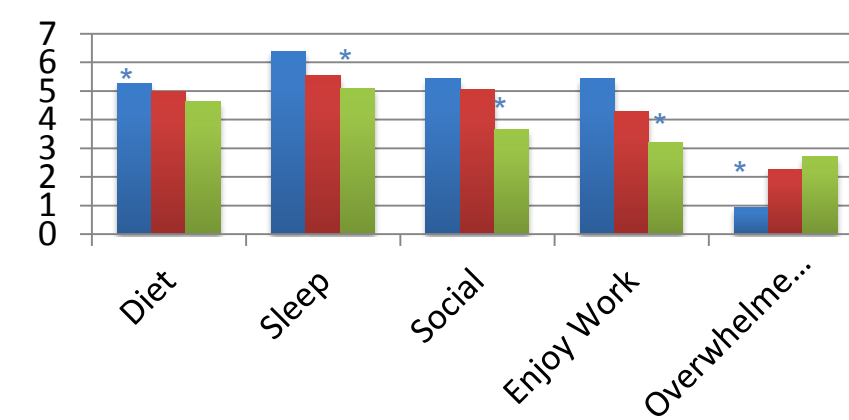
- 48 students completed the pre and post surveys within 7-60 days (31 were female)
- 157 students completed the pre test assessments,

Methods

Evaluation	General
WELL-BEING ASSESSMENT Perceived Stress Scale Depression (CESD) Mindfulness Freiburg Mindfulness Inventory Satisfaction with Life Scale Maslach Burnout Inventory	<ul style="list-style-type: none"> Medical students completed well-being and wellness behavior measures at the start and completion of the P&W course. Data were collected directly from the medical students online using an individualized link to an Internet-based survey website (Survey Monkey). Descriptive statistics, paired t-tests, and Oneway ANOVAs were conducted.
WELLNESS BEHAVIORS: ARIZONA LIFESTYLE INVENTORY (ALI) – 70 items Diet & Supplements , Spirituality/Mind-Body , Social Support and Leisure Activities , Work and Sleep	

Results

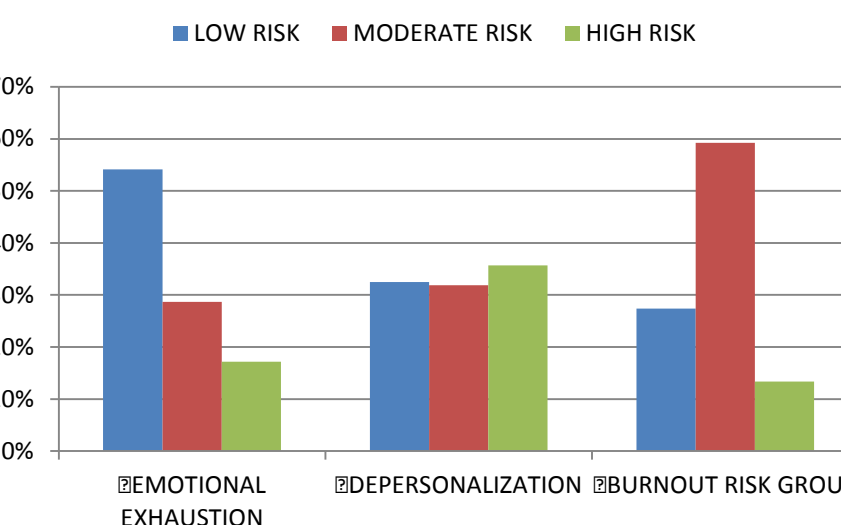
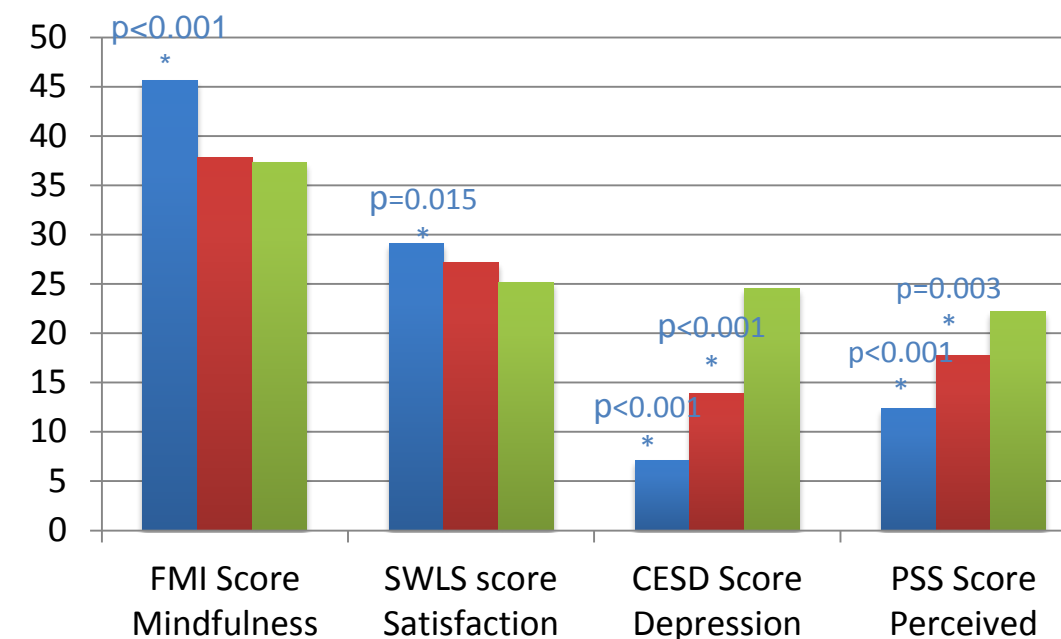
Low Risk Moderate Risk High Risk



Graph 1: Differences in wellness behaviors by burnout groups at baseline (*p<0.05)

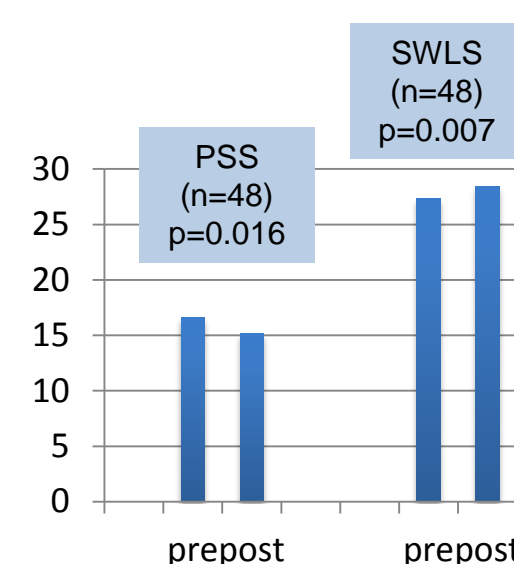
Graph 2: Wellbeing by Burnout Risk Group – Pretest (At baseline 43 students low risk, 92 students moderate, 21 students high risk)

Low Risk Moderate Risk High Risk



Graph 3: Wellbeing by Burnout Risk Group: Combination of Emotional Exhaustion and Depersonalization

Graph 4: Wellness Behaviors: Significant Changes Pre and Post Course P<0.05



Well Being Measures
Perceived Stress
Mindfulness
CESD - Depression Score
Satisfaction with Life
Burnout - Emotional Exhaustion
Burnout - Depersonalization
Burnout - Personal Accomplishment

Graph 5: Wellbeing – Significant Changes Pre and Post Course

Conclusions

Changes between pre and post assessments: Some wellness behaviors (diet, mind-body/spirituality, nurturing relationships) and wellbeing dimensions (satisfaction with life and perceived stress) improved.

At baseline:

- 2/3 of the students scored moderate/high for depersonalization and close to 1/2 scored moderate/high for emotional exhaustion
- Students in the high burnout group scored significantly lower for mindfulness and satisfaction with life and the higher for depression and perceived stress
- Students in the high burnout group reported worse diets, sleep and social relationships and were less likely to enjoy work and more likely to feel overwhelmed at work

Limitations: Even though the sample is from multiple institutions, the number of students that completed the pre and post test was smaller. The post test was immediately after the course without long term assessment. It was an elective, so the sample of the medical students who took the course were likely more keen to take care of themselves, so the rates of burnout may be higher in the general medical student population.

Implications: Burnout rates are high in the last year of medical school and may get worse in residency. For physicians who are burnt out, they are more likely to be less mindful, less gratified by their work and more depressed. There is a need, however challenging, for burnout prevention that should likely start with medical students.

Further Study: Intentional interventions to decrease burnout may be necessary to balance the effects of the “hidden curriculum” in medical education. Support of medical student wellness throughout medical school and positive reinforcement of self-care at all levels.

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Acknowledgments

This project was mentored by Dr. Patricia Lebensohn, whose help is acknowledged with great appreciation. Support from AZCIM is also gratefully acknowledged and the help of Audrey Brooks and Paula Cook