

Project on the Good Physician

Using Life Stories to Study Medical Student Wellness

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Conflicts of interest

None to declare

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A Question for Medical Science Educators

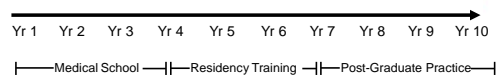
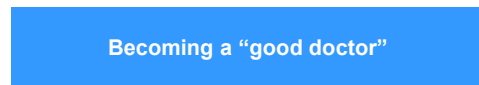


How does one become and remain a good physician?

Sir William Osler, MD
"The Saint - Johns Hopkins Hospital"
Original drawing by Max Brödel

Eliz. Saint - Johns Hopkins Hospital

Project on the Good Physician: Longitudinal Study of the Moral and Professional Formation of US Physicians



Challenges of Medical Education Research

- Mostly conducted within single institutions
 - Limited Generalizability
 - Context-specific confounders
- Limited by short-term follow-up
 - Inability to track educational (clinical) outcomes
 - Elusive "holy grail" of medical education research
- Suffers from lack of available research funding
 - Issues of sustainability and institutional commitment
 - A NIH "Institute of Medical Education Research"

The Push for an Educational Data Warehouse

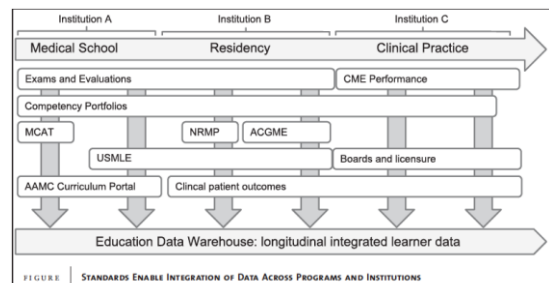
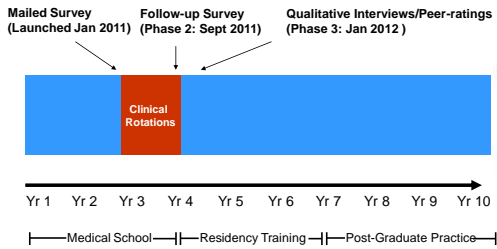


FIGURE STANDARDS ENABLE INTEGRATION OF DATA ACROSS PROGRAMS AND INSTITUTIONS

Cook, DA et al. Longitudinal research databases in medical education: Facilitating the study of educational outcomes over time and across institutions. Acad Med, 2010.

Triola MM et al. The Education Data Warehouse: A Transformative Tool for Health Education Research. Journal of Graduate Medical Education, 2012.

National Pilot Study of U.S. Medical Students



Methodology

- **Sampling**
 - Stratified, two-stage cluster sample of 24 U.S. allopathic medical schools
 - Randomly selected 40 students from each school:
 - Total sample: 960 students
- **Questionnaire Mailing**
 - Pre-notification letters/emails sent along with requests for address verification
 - First mailing with survey, \$5 incentive (follow-up survey \$10 incentive)
 - Reminder post-card follow-up
 - Second mailing and email requests with online version of survey
 - Third mailing and email requests with online version of survey

For more details on methodology, see the Project on the Good Physician website: <https://pmr.uchicago.edu/projects/research/good-physician>

Methodology

- **Response rates:**
 - Of the 960 cases fielded, 4.3% were declared out-of-scope (students who dropped out, wrong addresses, inaccurately identified as third-years on the AMA masterfile)
 - 1st survey: 564/919 (Adjusted response rate 61%)
 - Follow-up: 474/564 (Adjusted response rate 84%)
- **Qualitative Interviews/Peer-Rating Module**
 - At the end of the follow-up survey, students were offered the opportunity to participate in future studies including completed peer ratings and/or qualitative interviews
 - 21 interviews total, offered \$50
 - Peer-ratings, 3-4 ratings per student, offered \$50

For more details on methodology, see the Project on the Good Physician website: <https://pmr.uchicago.edu/projects/research/good-physician>

Comparison of our National Sample with AAMC data

PGP survey			AAMC 2010 total	
Women	46.7	282	Women	47.4% 37,499
Men	53.3	322	Men	52.6% 41,571
Total		604	Total	79,070

For more details on methodology, see the Project on the Good Physician website: <https://pmr.uchicago.edu/projects/research/good-physician>

Comparison of our National Sample with AAMC data

Project on the Good Physician Survey		AAMC 2010 total	
Black or African American	10.3	57	(Note: respondents allowed to indicate multiple categories)
American Indian or Alaska Native	0.4	2	Black or African American 7.0% 5,548
Asian	22.0	136	American Indian or Alaska Native 0.8% 654
White	57.5	349	Asian 22.0% 17,375
Hispanic	5.4	33	Native Hawaiian or Other Pacific Islander 0.3% 240
Other	4.5	27	White 60.1% 47,525
Total	100.0	603	Other Non-Hispanic or Latino Race 0.1% 104
			Mexican American 2.6% 2,058
			Puerto Rican 2.1% 1,646
			Cuban 0.7% 585
			Other Hispanic or Latino 2.8% 2,219
			Foreign 1.7% 1,309
			No Race Response or Unknown Citizen 2.8% 2,242
			Unduplicated Total Enrollment 79,070

For more details on methodology, see the Project on the Good Physician website: <https://pmr.uchicago.edu/projects/research/good-physician>

Project on the Good Physician: Study Topics

- **Obstacles to medical virtue**
 - Burnout
 - Entitlement
- **Facilitators of medical virtue**
 - Experiences of moral elevation while working with a clinical exemplar
- **Physician Well-Being**
 - Work motivation, sense of calling and vocational identity
 - Life meaning and life satisfaction
 - Career choices (i.e. work among underserved)
 - Life Stories (Qualitative component)
- **Basic Demographics**
- **Religion/Spirituality**
 - Moral Intuitions (Haidt)
 - Religious affiliation
 - Importance of religion
 - Spirituality
- **Personality Characteristics**
 - Big 5 Personality
- **Virtues**
 - Empathy
 - Mindfulness
 - Interpersonal Generosity

For more details on methodology, see the Project on the Good Physician website: <https://pmr.uchicago.edu/projects/research/good-physician>

Stressing the Journey: Using Life Stories to Study Medical Student Wellbeing

Tania M. Jenkins, PhD
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 Temple University

Jenkins, Tania M., Jenny Kim*, Chelsea Hu*, John Hickerrell*, Sarah Watanaskul*, John Yoon. "Stressing the Journey: Using Life Stories to Study Medical Student Wellbeing." *Revise & resubmit at Advances in Health Sciences Education*
 *Undergraduate students at The University of Chicago

Background: Burnout among medical students

- Medical students suffer from high rates of psychological distress
 - Growing levels of cognitive and emotional burnout *after* starting medical school
 - High levels of stress, burnout, alcohol dependence, depression, and suicidal ideation
- (1) Quality of life matters for medical professionals and (2) burnout can negatively affect job performance and patient care

Bore et al., 2016; Brazeau et al., 2014; Dyrbye and Shanafelt, 2016; Dyrbye et al., 2008; Dyrbye et al., 2014; Dyrbye, Thomas, and Shanafelt, 2006; Fares et al., 2016; Jackson et al., 2016; Matheson et al., 2016; Mazurkiewicz et al., 2012; Rosenstein et al., 2016; Scholz et al., 2015


Background: Burnout among medical students

- Increasing emphasis on resilience in medical training

AMERICAN PSYCHOLOGICAL ASSOCIATION

ABOUT APA TOPICS PUBLICATIONS & DATABASES PSYCHOLOGY HELP CENTER NEWS & EVENTS SCIENCE

Home > Resilience Help Center > The Road to Resilience



The Road to Resilience

"the process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress [...]. It means 'bouncing back' from difficult experiences"

<http://www.apa.org/helpcenter/road-to-resilience.aspx>

Beckman, 2015; Beresin et al., 2016; Bore et al., 2016; Dunn et al., 2008; Dyrbye, Power, et al., 2010; Eley and Stallman, 2014; Goldhagen et al., 2015; Greenhill et al., 2015; Haglund et al., 2009; Howe et al., 2012; Slavin et al., 2014; Tempiski et al., 2015; Thompson et al., 2016

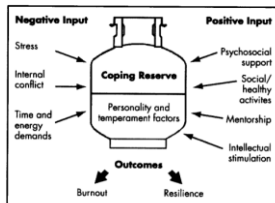
Background: Burnout among medical students

- Few studies examine how stressors and resilience-building factors emerge before, and throughout the *duration of*, medical school
- **Our goal:** examine medical students' journeys into, and experiences in, medical school to help us identify sources of stress as well as factors that can attenuate or protect against stress

Dyrbye et al., 2015; Dyrbye, Power, et al., 2010; Dyrbye and Shanafelt, 2016; Fares et al., 2016; Haglund et al., 2009; Hamid and Singaram, 2016; Kijger et al., 2013; Kötter et al., 2016; Mazurkiewicz et al., 2012; Santen et al., 2010

Background: Burnout among medical students

FIGURE 1. Conceptual Model: Coping Reserve Tank



Academic Psychiatry, 32:1, January-February 2008

Dunn, L. B., Iglewicz, A., & Moutier, C. (2008). A conceptual model of medical student well-being: Promoting resilience and preventing burnout. *Academic Psychiatry*, 32(1), 44-53.

Life stories

Review of General Psychology
 2003, Vol. 5, No. 2, 100-127

Copyright 2003 by the Educational Publishing Foundation
 0893-3200/03/\$10.00 DOI: 10.1037/1089-3200.5.2.100

The Psychology of Life Stories

Dan P. McAdams
 Northwestern University

Recent years have witnessed an upsurge of interest among theorists and researchers in autobiographical recollections, life stories, and narrative approaches to understanding human behavior and experience. An important development in this context is D. P. McAdams's life story model of identity (1985, 1993, 1996), which asserts that people living in modern societies provide their lives with unity and purpose by constructing internalized and evolving narratives of the self. The idea that identity is a life story resonates with a number of important themes in developmental, cognitive, personality, and cultural psychology. This article reviews and integrates recent theory and research on life stories as manifested in investigations of self-understanding, autobiographical memory, personality structure and change, and the complex relations between individual lives and cultural modernity.

Methods

- In-depth phone interviews with 21 fourth-year medical students (2012)
 - Asked whether they felt burned out at any point during medical training
 - ~1 hour in duration
 - Interviews transcribed and de-identified (2012)
- Secondary analysis (2016-2017)
 - De-identified data helped reduce threats to confidentiality
 - Fresh perspective

Findings

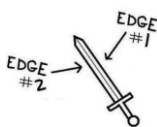
Table 1: Summary statistics of 21 medical students interviewed (n, %)

Female	12 (57)
Experienced significant negative personal life events before or during medical school (e.g. Death of a parent)	6 (29)
Reported burnout during medical school	17 (81)
Registered as having "high" burnout on the survey	6 (29)
Spiritual and religious	5 (24)
Spiritual but not religious	8 (38)
White or Asian	19 (90)
Specialty intentions	
Primary care	8 (38)
Specialty	11 (52)
Debt	
<\$100,000	6 (29)
\$100,000-\$200,000	5 (24)
>\$200,000	10 (48)

Findings



Reported stressors



Double-edged swords (motivational stressors)



Stress-attenuating factors

Photo source: Google Images

Findings

- Reported stressors
 - *Negative role models*

- "[For those of us] who were dead set on surgery [...] he wasn't enough to change our minds [...], but the other people who didn't want to do surgery [...] it solidified the stereotype in their mind [...]. [S]urgeons can be real jerks and very self-centered and hypocritical" (Respondent 11).
- "You think that most people [who] get into medicine are nice people who want to help patients, but you sort of realize that a lot of individuals do it for their ego or for their feeling of power [...]. Sort of jaded me—the way things were" (Respondent 19).
- "I learned what *not* to do. And you need people like that just as much as you need people to show you what to do" (Respondent 5).

Findings

- Reported stressors
 - *Difficult rotations*
- "I was working too much and not gaining anything out of it [...]. Then, on top of that, having to work 90 hours a week just [...] really burned me out. And it stopped immediately when I got off that rotation" (Respondent 2).
- "[The] attitude and demeanor of many of the surgeons had a really negative impact on me [...]. I got the impression that none of them really enjoyed their jobs, so they took out their stress and the consequences of their lifestyle on others [...]. [O]ftentimes it was very degrading [to work with those surgeons]" (Respondent 17).

Findings

- Reported stressors
 - *USMLE Step One*
- "[J]ust going through the motions." (Respondent 7)
- "How much longer can I do this, and what am I sacrificing to be doing this?" (Respondent 11).
- "I think taking Step 1 was actually a really high point even though it's so arduous—I think once things sort of come together you realize [...] you actually know a lot of things at the same time" (Respondent 3).

Findings

• Double-edged swords

- *Financial concerns*
 - “[I]t’s impossible to do anything else at this point [...]. I’m \$300,000 in debt. [...] I can’t just stop and work at Starbucks” (Respondent 16).
 - “There were a lot of times when I actually considered dropping out [...]. [There were] even times the only reason I stayed in [was] because of the debt that I was already in” (Respondent 21).

Findings

• Double-edged swords

- *Personal life events*
 - “[O]nce you’ve gone through something like that [...] it does definitely make you a more compassionate doctor. I know that my ability to give tough news to families has probably deepened so much because of [my] own personal experiences” (Respondent 12, who lost her father during third year).
 - “I had trouble thinking of any other specialty as even a possibility [...]. I decided that this was no way to go through life. [...] [I] did my best to come to know [every] specialty inside and out before I had to actually decide if it would be for me. [...] I was actually lucky enough to get my dysrhythmia under control [...], but I wouldn’t change having to have gone through that. [...] I learned that you can deal with anything” (Respondent 5, diagnosed with dysrhythmia).

Findings

• Double-edged swords

- *Personal life events*
 - “I realized [...] life is short and that it was really my dream to become a doctor [...]. Once you go through an experience like having cancer, you are less afraid... [G]iven my past and [...] realizing why I was doing what I was doing, for those reasons I never felt cynical. [...] [I]t always seems my life is kind of a path, looking towards the destination rather than focusing on the hardness of the journey” (Respondent 1, diagnosed with cancer as a young adult).

Personal life events may therefore contribute not only to burnout (Dyrbye et al. 2006) but also resilience.

Findings

• Stress-attenuating factors

- *Positive role models*
 - “[This role model] didn’t treat me as just another medical student. He had me first assist on a couple of cases, which is a little bit unheard of at the hospital where I was. And he just [...] showed faith in my abilities [...]. Sort of made me feel like I could conquer the world” (Respondent 5).
- *Support networks*
 - “I realized that she really did get it. She was looking at the big picture” (Respondent 11).

Findings

• Stress-attenuating factors

- *Faith and spirituality*
 - “I feel like choosing medical school and becoming a physician is part of my destiny [...]. [I know] this time period is temporary because there’s nothing that I can’t overcome” (Respondent 8).
 - “It’s my religion that first got me to treat people with respect [...]. It has affected the way I approach people. [...] I was a lot less nervous than a lot of my classmates about talking to patients and about delving into their private life” (Respondent 10).
- *Passion*
 - “I would be worried about [burnout] if I was going into a different specialty that wasn’t surgery [...]. [With another specialty], I would definitely predict that I would burn out at some point because I didn’t go into it for the right reasons. Now that I’m going into something I know I’m giddy about, I don’t worry about that” (Respondent 3).

Conclusions

- Using life stories, we sought to understand how medical students make sense of their trajectories to identify key stressors as well as factors that protect against stress
 - Stressors included negative role models, stressful rotations, and the USMLE Step One
 - “Double-edged swords” produced stress but also helped students persevere (for better or worse): debt, personal life events
 - Stress-attenuating factors, including positive role models, support networks, faith and spirituality, and passion, helped students reframe stressors as temporary

Conclusions

- We found very high rates of reported burnout (81%)
 - This may be because of the longitudinal focus of our question; we asked whether respondents had felt burned out at *any point* during the course of medical school
 - It is conceivable for medical students to feel burnout without registering as being burned out on a standardized assessment
 - Future research is needed on self-perceived burnout and its effects on medical student well-being

Conclusions

- The findings underline the importance of a life history approach to studying wellbeing among medical students
- Limitations
 - Generalizability
 - Selection / limitations of secondary data analysis
 - Recall bias

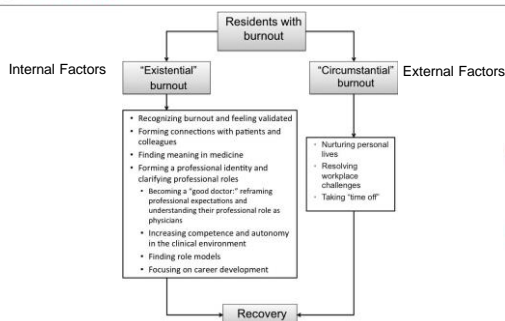
Thank you
Questions?

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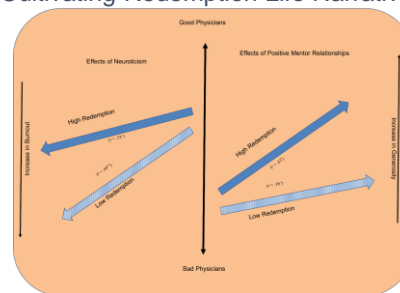
Additional slides

2017 Burnout Study



Abedini NC et. al, *Journal of Graduate Medical Education*, 2017.

Cultivating Redemption Life Narratives



Yoon et al. *Project on the Good Physician: Redemption Life Narratives Predict Growth in Generosity and Protects from Burnout*. (unpublished manuscript)

Final Word by Viktor Frankl

