Who’s looking after the doctor’s health?

Stress and burnout in doctors

Dr Blánaid Hayes,
Consultant Occupational Physician (Beaumont Hospital),
Dean of Faculty of Occupational Medicine,
Royal College of Physicians of Ireland.
Hospitals facing ‘staffing meltdown’ due to doctor shortage

Delays in treating patients in emergency departments predicted

The Irish National Adverse Events Study (INAES): the frequency and nature of adverse events in Irish hospitals—a retrospective record review study

Natasha Rafter,1 Anne Hickey,2 Ronan M Conroy,3 Sarah Condell,4 Paul O’Connor,5 David Vaughan,6 Gillian Walsh,7 David J Williams8
Overview

• Burnout measures
• Burnout prevalence and stress
• Impact of burnout
• Interventions
• The future
Work demand

Coping skills

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Stress and burnout in doctors

• Links between work and health are well documented
• Work with excessive demand coupled with low support and control has a negative impact
• A negative psychosocial environment in work is associated with depression and other common mental disorders

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• ‘What we know is that stress kills people. It causes heart disease, it causes relationships to break up, it causes poor immune functioning - it is a really clear killer in society.’

• ‘The paradox at the heart of the health service is that we are damaging and killing the very people who are committing their working lives to caring for the health and wellbeing of other people. We are actually creating more customers for our system. It’s a deeply disturbing paradox.’

Michael West, Head of Thought Leadership at the King’s Fund, January 14th 2016
http://careers.bmj.com/careers/advice/Stress_of_working_for_NHS_is_killing_staff,_King%E2%80%99s_Fund_says
• Work stressors
  • Emotionally demanding work
  • Trying to do more with less
  • Systems of governance leading to loss of autonomy and erosion of professional values
  • Rigid organisational structures and inflexible hours
  • Highly bureaucratic professional regulatory systems (e.g. appraisals, revalidation, quality inspections).

• Professional facilitators
  • Knowledge of and access to drugs
  • Potential to self-medicate/prescribe
  • Tendency to avoid seeking help and support when unwell or under pressure
  • Perceived stigma among doctors around mental illness
What is burnout?

- First reported in 1970’s, increasingly reported as a phenomenon of the modern world of work
- Caused by chronic occupational stress
- 3 criteria
  - Emotional exhaustion (physical and emotional tiredness)
  - Depersonalisation (a break down in the ability to care, emerging cynicism, disengagement from the human service component of work)
  - Reduced personal accomplishment (reduced output across all areas of life)
- These occur in a previously highly functioning person for whom they are uncharacteristic
- People around the individual also suffer
Caveats

• MBI is gold standard but not designed as a diagnostic tool
• Its cut-off points don’t conform to any scientifically validated standard
• Psychological and psychobiological mechanisms underlying it are largely unexplained.
• Unlikely to represent a separate pathological entity

• How is it reported?
  • As a continuous or dichotomous variable
  • By its individual elements or various combinations
    • Usually EE
    • May be EE +/- DP
    • EE + (DP or PA) = EE + 1
    • Or just 2 statements
Risk factors for burnout in doctors

- Female gender
- Younger age
- Longer working hours
- Low job satisfaction

National Survey (data collected 2014)

Captures and explores:
• Demographic Details
• Career Satisfaction
• Lifestyle
• Wellbeing
• **Workplace Wellbeing**
• Coping

Sample
• Randomised sample
• 1863 completed
• 1749 met inclusion criteria
• Response rate 55%
  • Consultants 60%
  • Trainees 51%

Analysis
• M= 50.5% F= 49.5%
• Consultants ~ trainees
• 85% Irish nationality
Response rates by specialty

- Surgeons: 49%
- COP: 57%
- RCPI Physicians: 48%
- RCPI Pathology: 48%
- RCPI Paediatrics: 55%
- COI: 33%
- O&G: 47%
- EM: 63%
- COA: 57%

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Mean hours worked per specialty

- Anaes: 60.3 hours
- EM: 53.9 hours
- O&G: 59.7 hours
- Oph: 57.1 hours
- Pead: 61.0 hours
- Pathol: 51.5 hours
- Physician: 57.2 hours
- Psych: 48.6 hours
- Surgeon: 69.4 hours

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What’s up doc? A national cross-sectional study of psychological wellbeing of hospital doctors in Ireland

Bílimair Hayes,1,2 Lucia Pihodova,2 Gillian Walsh,2 Frank Doyle,2 Sally Doherty2

ABSTRACT

Objectives To measure levels of psychological distress, psychological well-being and self-stigma in hospital doctors in Ireland.

Design National cross-sectional study of randomised sample of hospital doctors. Participants provided sociodemographic data (age, sex, marital status, work grade consulted, highrisk specialist trainees), specialty and working hours and completed well-being questionnaires (the Depression Anxiety Stress Scales, WHO Wellbeing Index, General Health Questionnaire) and single-item scales on self-rated health and self-stigma.

Setting High publicly funded hospitals and residential institutions.

Participants 1749 doctors (response ratio of 65%). All hospital specialists were represented except radiology.

Results Half of participants were men (50.5%). Mean hours worked per week were 57 hours. Over half (52.6%) rated their health as very good/excellent, while 52.5% recorded positive subjective well-being (WHO-5). Over a third (35.6%) experienced psychological distress (General Health Questionnaire 12). One seventh (14%) experienced severe symptoms of depression, anxiety and stress were evident in 7.2%, 4.1% and 9.8% of participants (Depression, Anxiety, Stress Scales-21). Symptoms of distress, depression, anxiety and stress were significantly higher and levels of well-being were significantly lower in trainees compared with consultants, and this was not accounted for by differences in sociodemographic variables.

Strengths and limitations of this study

This study provides new information on levels of well-being in a national cohort of hospital doctors in Ireland in the aftermath of the country’s economic crisis, which resulted in substantial cut backs in health expenditure and workforce declines.

The utilisation of widely used standard instruments allows for comparison with previous studies of the profession and the national population.

The good response rate and the range of specialties represented validates the results as being representative.

The population surveyed did not include doctors who may well be experiencing even greater distress including the most junior grades (interns) and those occupying senior posts who are not registered with a postgraduate training body.

The study is limited by the fact that it is cross-sectional in design and one cannot determine whether the associations observed are causally related or the potential direction of any effects.

Developments contribute to ever spiralling costs, which governments seek to control while striving to improve the quality of patient care. Indeed, the utilisation of huge resources does not always translate into the delivery of highquality care, which is a growing challenge for doctors to provide in an environment where one’s autonomy is eroded by cost containment and increasing targets. While many of these changes are global phenomena, the situation in Ireland has been commented on recently.

http://bmjopen.bmj.com/content/bmjopen/7/10/e018023.full.pdf
Two thirds reported that if they were experiencing mental health problems they wouldn't want others to know (self-stigma)
Work stress (ERI)

<table>
<thead>
<tr>
<th></th>
<th>Consultants</th>
<th>HSTs</th>
<th>BSTs</th>
<th>Total</th>
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<tbody>
<tr>
<td>Effort Reward Imbalance</td>
<td>Effort reward ratio</td>
<td>1.4</td>
<td>1.5</td>
<td>1.4</td>
</tr>
<tr>
<td></td>
<td>Effort*</td>
<td>3.4</td>
<td>3.3</td>
<td>3.1</td>
</tr>
<tr>
<td></td>
<td>Reward*</td>
<td>2.6</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>Over-commitment*</td>
<td>2.6</td>
<td>2.7</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*Range from 1 to 4, where higher number indicates higher level of effort/reward/over-commitment.
# Burnout symptoms in doctors

<table>
<thead>
<tr>
<th>Maslach Burnout Inventory (MBI)</th>
<th>Consultant %</th>
<th>HST %</th>
<th>BST %</th>
<th>Total</th>
<th>Interns* (2012/13)</th>
<th>GPs** (2012/13)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBI emotional exhaustion (EE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>45.7</td>
<td>59.1</td>
<td>61</td>
<td>52.3</td>
<td>55.4%</td>
<td>52.7%</td>
</tr>
<tr>
<td>MBI depersonalisation (DP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>18.3</td>
<td>38.3</td>
<td>43.3</td>
<td>28.6</td>
<td>51.5%</td>
<td>31.6%</td>
</tr>
<tr>
<td>MBI personal accomplishment (PA)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>40.4</td>
<td>28.6</td>
<td>24.7</td>
<td>34.0</td>
<td>41.6%</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

ANOVA confirmed significant differences between trainee and consultant grades with significantly higher levels of EE and DP in BSTs and HSTs (p <.001) while more consultants expressed low levels of personal accomplishment (p<.001)


Significance of findings

• Prevalence of high EE greatly exceeds levels reported in all reviewed studies (31.6 – 37.9%)

• Prevalence of high DP also higher than most studies reviewed but fell short of Australian study of doctors 2013 (21.2 - 34.6%)
## Burnout (MBI)

<table>
<thead>
<tr>
<th></th>
<th>Consultants</th>
<th>HSTs</th>
<th>BSTs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnout</td>
<td>24.4%</td>
<td>38%</td>
<td>38.4%</td>
<td>30.7%</td>
</tr>
<tr>
<td>Absence of burnout</td>
<td>75.6%</td>
<td>62%</td>
<td>61.6%</td>
<td>69.3%</td>
</tr>
</tbody>
</table>
## Burnout elsewhere

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
<th>Cohort</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>ROI</td>
<td>Hosp docs</td>
<td>30.7</td>
</tr>
<tr>
<td>2007</td>
<td>Netherlands</td>
<td>Residents (docs)</td>
<td>21.0</td>
</tr>
</tbody>
</table>
Burnout across hospital specialties

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Burnout (%)</th>
<th>Absence of Burnout (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaes</td>
<td>29%</td>
<td>71%</td>
</tr>
<tr>
<td>EM</td>
<td>44%</td>
<td>56%</td>
</tr>
<tr>
<td>O&amp;G</td>
<td>24%</td>
<td>76%</td>
</tr>
<tr>
<td>Oph</td>
<td>23%</td>
<td>77%</td>
</tr>
<tr>
<td>Paed</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Pathol</td>
<td>21%</td>
<td>79%</td>
</tr>
<tr>
<td>Physician</td>
<td>33%</td>
<td>67%</td>
</tr>
<tr>
<td>Psych</td>
<td>28%</td>
<td>72%</td>
</tr>
<tr>
<td>Surgeon</td>
<td>32%</td>
<td>68%</td>
</tr>
</tbody>
</table>

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Independent variables associated with burnout
National Survey of Wellbeing: burnout

• 31% of all doctors suffered burnout, with the highest rates in emergency medicine doctors and lowest in pathologists

• Burnout was significantly more prevalent in doctors practising in emergency medicine than in any other hospital specialty (OR 0.16-0.36 for other specialties)

• Further analysis:
  - Younger age
  - Female sex (OR 0.68 [CI = 0.52-0.9])
  - Longer working hours (OR 1.02 [CI = 1.01-1.03])
  - Greater work stress (OR 2.18 [CI = 1.69-2.8])
  - Higher presence of symptoms of depression (OR 1.03 [1 – 1.05])
  - …and stress (OR 1.08 [CI = 1.06-1.11]) were significantly associated with burnout (but anxiety was not).
Does professional and personal distress impact on behaviour and on patient care?

• More dissatisfied doctors tend to have riskier prescribing profiles, less adherent patients & less satisfied patients all of which might affect the quality of patient care

• Medical students with burnout admitted to cheating in tests and feeling less altruistic. Depression was less associated with unprofessional behaviours.

Burnout and medical error among American surgeons

Annals of Surgery 2010; 251: 995-1000
Review of CMDs and error / incidents (15 studies)

- **Strong evidence for a significant association between burnout / medical incidents** (2 longitudinal and 7 cross-sectional studies with a positive association [odds ratio (OR) 1.07–5.5])

- **Significant positive association between depression /medical incidents** (4 longitudinal studies and 3 cross-sectional studies (strong evidence; OR 2.21–3.29)

- **Significant positive association between fatigue / medical incidents** [1 longitudinal study and 1 cross-sectional study, but 1 cross-sectional study showed a non-significant association (strong evidence; OR 1.37)]

- **Significant positive association between sleepiness /medical incidents** [1 longitudinal study and 2 cross-sectional studies (strong evidence; OR 1.10–1.37)

- **No significant association was found between burnout and unprofessional behaviour** (inconsistent evidence)

- No evidence found for the association between unprofessional behaviour and depression, fatigue or sleepiness

Where do we go now?

• Do we build resilience in our doctors?

• Do we try to address the issues in the workplace?

• What role have the training bodies?
Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis

Cullen Pinto, Laliye S. Dyer, Patricia Deven, Todd T. Shanafelt

Summary
Background Physician burnout has reached epidemic levels, as documented in national studies of both physiatrists and practicing physicians. This review examines the qualitative and quantitative evidence on burnout interventions and the efficacy of such interventions. It also surveys the quality and outcomes of the literature on approaches to prevent and reduce burnout necessitates.

Methods In this systematic review and meta-analysis, we searched MEDLINE, Embase, PsycINFO, Scopus, W. Science, and the Education Resources Information Center from inception to Jan 15, 2016, for studies of interven for prevent and reduce physician burnout, including single-arm or parallel group comparison studies. To include trials, we provide specific burnout-specific burnout using burnout measures with validity support from a common source of evidence. We included studies of medical students and non-physician health-care providers. We had potential eligibility of the abstracts and extracted data from eligible studies using a standardised form. Osmo were changes to overall burnout, emotional exhaustion score (high emotional burnout), and depression scores (high depression). We used random-effects models to calculate pooled search difference estimates in each outcome.

Findings We identified 2678 articles, of which 15 randomised trials including 716 physicians and 37 cohort studies including 2941 physicians met inclusion criteria. Overall burnout decreased from 54% to 44% (difference 10.5%) in 134 studies; emotional exhaustion score decreased from 30% to 25% (difference 0%) in 143 studies; and depression score decreased from 0% to 1% (difference 0%) in 36 studies.

Analyses of the internal medicine of a Research Agenda to Identify Evidence-Based Strategies to Improve Physician Wellness and Reduce Burnout

Laurie A. N. Debo, MD, MPH; Kimberly T. Wan, MD; Erica Foran, MD; Michael M. Cooper, MD, MPH; Jennifer C. Wingrove, MD; Laurene Marcus, MD; and Christopher A. Marcella, MD

P

 burnout, a syndrome characterized by emotional exhaustion, depersonalization, and the reduced professional effectiveness, seems to be on the rise. A 2015 study involving more than 7000 US physicians found that burnout was present at a rate of 38% among physicians recently trained in the United States. This rate was more prevalent among physicians younger than the general US population (14–24% vs 15–25% in the general population). US physicians generally share the burnout rate but differ significantly between specialties. For example, the burnout rate among primary care physicians is significantly higher than in other specialties (15–20% vs 5–10%). The results were not influenced by demographic, economic, or workplace factors.

Annals of Internal Medicine

DOI 10.1053/j.aim.2015.08.017

Editorial

Burnout among doctors: A system level problem requiring a system level response

Jared B. Emanuel, clinical professor, and Joanne E. Wallerstein, professor

Although doctors have a professional responsibility to be at the forefront of care, physicians and healthcare organizations also need to ensure that their own needs are met. Burnout is a serious health problem among healthcare professionals, who are at risk of burnout due to the high intensity of their work. In the past, burnout has been defined as a state of emotional exhaustion, depersonalization, and reduced professional accomplishment. Recent research has suggested that burnout is not just a consequence of work stress but also a cause of it. As work stress continues to increase, doctors are at risk of burnout due to the high intensity of their work.
Research

Launch of department

Education

Position paper

Training

Guidance for doctors

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We know that doctors who enjoy good mental health and are ‘engaged’ achieve better patient outcomes.

We know that being a doctor can be hard work, both physically and emotionally. As a provider of care, sometimes you need to be reminded of the importance of

‘Caring for the Care-givers’

Physician Well-being Position Paper

Sep 2014
Seven out of ten doctors love what they do and have a strong desire to practise medicine.
The future......

- HSE’s Workplace Health and Wellbeing Unit
- To be launched April 2018
References

2. Rimmer A. Stress of working for the NHS is killing staff, King’s Fund says. 15/1/2016
8. Dyrbye LN et al. Relationship between burnout and professional conduct and attitudes among US medical students. JAMA 2010;304:1173-80
Thank you