Mindfulness in the Curriculum: Preaching to the unconverted

Assoc. Prof. Craig Hassed
Department of General Practice
Mindfulness coordinator
craig.hassed@monash.edu
Medical student health

- Medical students similar to general student population prior to commencement of medical course
- Pattern manifests itself from first year with stress, depression and burnout being common
- Compared with other academic disciplines, medical students demonstrate more significant reductions in psychological wellbeing as the course proceeds
Burnout and mental health in new medical graduates

- Mid-final year: 28% of medical students had burnout
- 8 months into internship: 75% interns had burnout
- 73% (of interns) met criteria for psychiatric morbidity on at least one occasion

- Cancer: 585k
- Heart disease: 611k
- COPD: 149k
- Suicide: 41k
- Firearms: 34k
- Motor vehicles: 34k

Based on our estimate, medical error is the 3rd most common cause of death in the US.

However, we’re not even counting this - medical error is not recorded on US death certificates.

Data source: http://www.cdc.gov/nchs/data/nvss/nvss64/nvss64_02.pdf

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Doctor health and medical errors

- Study determined prevalence of depression and burnout among residents medical staff in 3 US hospitals
- 20% of residents met criteria for depression
- 74% met the criteria for burnout
- Depressed residents made 6.2 times as many medication errors as residents who were not depressed

Applications of mindfulness

- **Mental health:** E.g. therapeutic application for depression, anxiety, panic disorder, stress, emotional regulation, addiction, sleep problems, eating disorders, psychosis, ADHD, autism, reduced burnout, greater resilience...

- **Neuroscience:** E.g. structural and functional changes in the brain, stimulation of neurogenesis, possible prevention of dementia and cognitive decline, down-regulating the amygdala, improved executive functioning and working memory, reduced default mental activity, improved self-monitoring and cognitive control, improved perception of sensory input...

- **Clinical:** E.g. therapeutic applications for pain management, symptom control, coping with chronic illness (e.g. cancer and MS), metabolic and hormonal benefits (e.g. reduced allostatic load, cortisol), facilitating lifestyle change (e.g. weight management, smoking cessation), improved immunity (e.g. improved resistance, reduced inflammation), improved genetic function and repair, slower ageing as measured by telomeres...

- **Performance:** E.g. sport, academic, leadership qualities, mental flexibility and problem solving, decision-making, sunk-cost bias...

- **Education:** E.g. improved problem-solving, executive functioning and working memory, better focus, less behavioural problems, fostering growth mindsets...

- **Relationships:** E.g. greater emotional intelligence and empathy, improved communication, reduced vicarious stress and carer burnout...

- **Spiritual:** E.g. transcendence, unity, deep peace, connectedness...
Case for inclusion of mindfulness and wellbeing in core curriculum

- Student wellbeing
- Building resilience and preventing carer burnout
- Enhancing clinical performance, empathy and communication
- Reducing errors
- Integrating biomedical, psychological and social sciences with clinical medicine
- Laying foundations for clinical skills i.e.
  - Lifestyle management
  - Behaviour change
  - Mindfulness-based stress management
- Building peer support
- Experiential and deep learning model
- Patients going to CAM practitioners for wellbeing advice they should be receiving from their doctors
Health Enhancement Program

- Monash has a commitment to:
  - your well-being
  - producing holistically minded doctors
  - a curriculum which integrates the biomedical, psychological and social sciences with clinical medicine
- HEP is mindfulness-based lifestyle program
- Core element of Year 1 Personal and Professional Development
Health Enhancement Program

- Lectures
  - Evidence, Science, Clinical application
- Tutorials
  - Practical and personal application
  - First Semester 6 weeks
    - Mindfulness-based stress management
    - ESSENCE lifestyle program
- Second semester 5 lectures
  - Positive psychology, improving performance, mental health enhancement
The ESSENCE of Health

HEP is based on the Essence model

- Education
- Stress management
- Spirituality
- Exercise
- Nutrition
- Connectedness
- Environment
Stress Release Program

- Mindfulness-based stress management
- SRP a postgraduate course (Monash and RACGP) since 1991
- Guided practices on Moodle
- Punctuating day with mindfulness meditation (formal)
  - ‘Full stops’: start with 5-10 minutes b.d.
  - ‘Commas’: 15-60 sec p.r.n.
- Day-to-day (informal) mindfulness practice
- Cognitive practices: perception, letting go, acceptance, presence of mind
- Mindfulness experiments and role-plays
Health Enhancement Program

- Deep learning / experiential model
- Students apply the program to their own life
  - Personal benefit
  - Foundation for understanding how it applies to patients
- Participation in practical activities encouraged but voluntary
- Keep weekly journal about experiences, insights and questions
- Integration with weekly PBLs
- Assessment of core knowledge and skills in written and oral exams
Student wellbeing

- Health Enhancement Program (HEP) at Monash comprises mindfulness and ESSENCE lifestyle programs
- Study of 2006 cohort found that 90.5% of students personally applied strategies
- Improved student wellbeing noted at time 2 (post-course / pre-exam) compared to time 1 (pre-course / mid-semester) on all measures
  - Reduced depression, hostility and anxiety subscale
  - Improved psychological and physical quality of life
Outcomes of HEP for 2006 Monash Medical Students

Symptom Checklist comprises 9 subscales and an overall score (GSI)

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Time 1 (N=239)</th>
<th>Time 2 (N=162)</th>
<th>Normative ref. adolescents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somatization</td>
<td>.62</td>
<td>.49</td>
<td>.61</td>
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<tr>
<td>Obsessive Compulsive</td>
<td>1.13</td>
<td>1.01</td>
<td>.91</td>
</tr>
<tr>
<td>Interpersonal sensitivity</td>
<td>.99</td>
<td>.85</td>
<td>.99</td>
</tr>
<tr>
<td>Depression</td>
<td>.91</td>
<td>.77</td>
<td>.80</td>
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<tr>
<td>Anxiety</td>
<td>.65</td>
<td>.54</td>
<td>.66</td>
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<tr>
<td>Hostility</td>
<td>.67</td>
<td>.50</td>
<td>.88</td>
</tr>
<tr>
<td>Phobic Anxiety</td>
<td>.33</td>
<td>.25</td>
<td>.39</td>
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<tr>
<td>Paranoid Ideation</td>
<td>.75</td>
<td>.59</td>
<td>.91</td>
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<tr>
<td>Psychoticism</td>
<td>.67</td>
<td>.50</td>
<td>.63</td>
</tr>
<tr>
<td>Global severity Index</td>
<td>.78</td>
<td>.64</td>
<td>.76</td>
</tr>
<tr>
<td>Number of Positive Symptoms</td>
<td>38.7</td>
<td>22.7</td>
<td>39.81</td>
</tr>
<tr>
<td>Intensity of Symptoms (Distress Index)</td>
<td>1.63</td>
<td>1.53</td>
<td>1.57</td>
</tr>
</tbody>
</table>
Mindfulness and study engagement

- Study on 2013 cohort of year 1 Monash medical students
- Post mindfulness program:
  - Large increases in dispositional mindfulness
  - Increases in study engagement (UWES particularly study dedication and vigour)
  - No increase in depression, anxiety or stress in pre-exam period compared with early semester prior to mindfulness program
Mindfulness and student wellbeing

- Study investigated relationships among engagement in self-care behaviours, dispositional mindfulness, and psychological distress
  - 207 Australian medical students aged across the 5 years of the Monash University medical course
  - Online survey: demographics, the Five Facet Mindfulness Questionnaire, the Health-Promoting Lifestyle Profile II, and the DASS
- Dispositional mindfulness a significant moderator of relationship between self-care and psychological distress – i.e. greater mindfulness meant less distress and greater self-care
  
Student wellbeing in medical curricula

- “Two medical schools stand out because they have integrated mindfulness into their curricula: the University of Rochester School … (USA) and Monash Medical School (Australia). Studies show that students who follow these programmes experience decreased psychological distress and an improved quality of life.”
  
History of Mindfulness@Monash

- Personal experience and commitment
- 1989 began teaching in medical faculty
- 1990-1 optional lunchtime meditation-based stress management
  - Faculty student wellbeing survey (high stress, poor mental health)
- 1991 2-hour stress management core curriculum – positive evaluations
  - Developed Stress Release Program for GPs (RACGP / Monash)
- 1991-2001 limited core mindfulness content
  - 2hr workshop year 1, 1hr lecture year 2, 1hr workshop year 6
  - 12-week electives in mindfulness and MBM
- 2000: New 5-year medical curriculum under development
- 2002: New curriculum begins including mindfulness-based lifestyle program – Health Enhancement Program
- 2005 Harvard started using SRP in their mindfulness elective for their medical students
Monash program used at Harvard

“At Harvard, a group of faculty members and students are developing workshops for first- and second-year students to teach “mindfulness” and self-renewal skills, based on a program pioneered by Craig Hassed of Australia's Monash University.”

History of Mindfulness@Monash

- Invitations to speak on mindfulness within and outside of Monash
- Support of Counselling and student wellbeing services
- 2007 free T-t-T programs for Monash staff
- Profile and interest raised within the wider university
  - HW&D, new programs such as MAS and M@W, OH&S, HR, Leadership – Academic Heads induction, MRS
- 2010 other faculties start including mindfulness in core curriculum
- 2010 Academic heads meeting – growing staff stress and demands
  - 2011 letter to VC: review and Monash Mental Health Strategy
- 2012 Mental Health @ Monash Review and recommendations
  - Whole of university approach to mental health and wellbeing
  - 2013 Funding expanded: Mindfulness Consultant x 2
Programs offered at Monash

- Within curricula
  - Medicine
  - Physiotherapy
  - Nursing
  - Dietetics
  - OT
  - Pharmacy
  - Psychology
  - IT
  - MBA
  - Education
  - Architecture
  - Art and Design
  - Law

- Collaborations with other universities e.g. Leicester, ANU, Deakin, Notre Dame, Harvard, Auckland, Montreal, McGill...

- MAS
- SRP
- M@W
- Drop-in sessions
- TTT
- Student leadership
- OHS
- Within units and faculties
- Counselling
- CEED
- MOOC (online – FutureLearn)
Important principles

- Make the case to students as well as faculty
- Voluntary personal application
- Make core knowledge and skills assessable
- Tutor selection and training
  - Commitment personally and professionally
  - Tutors trained in delivery of HEP
  - Mentoring and weekly briefings and debriefings
- Underpinned by lecture series based on science and clinical applications
- Integration with other curricular content
- Appropriate language and delivery
Communicating and teaching the message

1. Start with evidence
2. Relevance and context for students – work, health, academic…
3. Address recognised needs: practical application to everyday life
4. Secular
5. Simple language
6. Avoid imposing agenda on students
7. Work gently with resistance – encourage healthy scepticism
8. Humour
9. Experiential
The four f’s (3 f’s and a ph)

- Flexible with the form but
- faithful to the philosophy
- Straight MBSR or MBCT models may not be a good fit for the curriculum
  - Curricular time allocated
  - Student motivation
  - Contextualised with other curriculum
Free 6-week online mindfulness course

- https://www.futurelearn.com/courses/mindfulness-wellbeing-performance
- Collaboration between Monash University and FutureLearn (UK)
Mindful Medical Practitioners

1. Why Teach Mindfulness to Clinicians?
2. Scientific Underpinnings and Evidence Pertaining to Mindfulness
3. Applied Mindfulness in Medicine
4. How Mindfulness Has Been Integrated into Three Medical School Curriculums
5. Steps for Starting and Sustaining Programs
6. Program Delivery
7. Educating Teachers
8. Future Directions, Culture and Caveats for Mindfulness in Medical Settings
Mindful Learning

- The role of mindfulness for learning, teaching and wellbeing
  - Principles of mindfulness
  - Evidence and neuroscience
  - Impact of distraction, screen time, multitasking…
  - Teaching mindfulness
  - Contextualising in the curriculum
  - Dealing with resistance
  - Mindfulness experiments…