

Medical Student and JMO mental health forum Newcastle

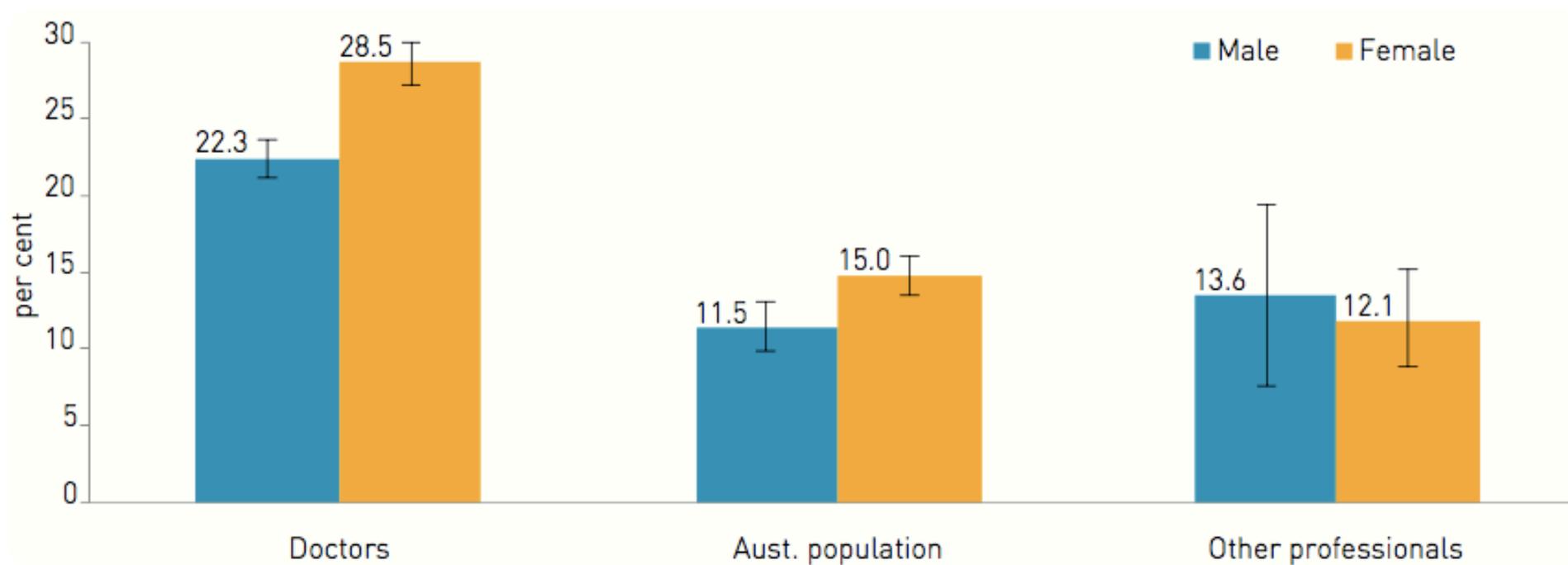
Helen Christensen and Sam Harvey (for the Prevention Hub)

Addressing the question: ***What works in junior doctor health; opportunities for effective interventions in university settings***

Earlier work from beyondblue

Information on prevalence from Beyondblue's survey of 11,000 doctors in 2013.

Figure 3: Suicidal ideation by gender in doctors, the Australian population and other professionals prior to the previous 12 months



Previous and continuing work:

Doctors Medical Service

AMA

Work of Deans and medical schools

Work of colleges

Work of student committees etc

QUESTION 3: HOW CAN WE BETTER RESPOND TO AND ASSIST JUNIOR DOCTORS WHEN BURNOUT AND OTHER MENTAL HEALTH ISSUES ARISE?

Ideas (key themes)

EMPLOYER/ LOCAL HEALTH DISTRICT LED

- Increase use of confidential mental health therapies, including apps/online programs, available 24/7
- Provide clear information on what resources are available and how to access them – includes promotion of existing resources such as the EAP, JMO Hotline and Doctors Health Advisory Service
- Provide gatekeeper/supervisor training so can recognise mental health issues in others/can help
- Encourage mental health to be accepted as legitimate reason for leave and facilitate time off when required to access mental health resources and/or have an employment break
- Provide funding/resources for private treatment and publish list of GPs/other mental health specialists with interest in treating doctors' health

**THE JMO
WELLBEING
& SUPPORT
FORUM**



Outline of the talk

This talk aims to cover three issues. I plan to:

- Review the scientific evidence for interventions in mental health for doctors (and conclude that the evidence base is wanting)
- Review the broader evidence base around suicide prevention (and look at those strategies with the likelihood of most impact)
- Examine a workplace model of mental health and describe one component that has promise.

A very quick preliminary view of the research evidence

Review articles n=9

JAMA Internal Medicine | [Original Investigation](#) | PHYSICIAN WORK ENVIRONMENT AND WELL-BEING

Controlled Interventions to Reduce Burnout in Physicians

A Systematic Review and Meta-analysis

Maria Panagioti, PhD; Efharis Panagopoulou, PhD; Peter Bower, PhD; George Lewith, MD; Evangelos Kontopantelis, PhD; Carolyn Chew-Graham, MD; Shoba Dawson, PhD; Harm van Marwijk, MD; Keith Geraghty, PhD; Aneez Esmail, MD

IMPORTANCE Burnout is prevalent in physicians and can have a negative influence on performance, career continuation, and patient care. Existing evidence does not allow clear recommendations for the management of burnout in physicians.

OBJECTIVE To evaluate the effectiveness of interventions to reduce burnout in physicians and whether different types of interventions (physician-directed or organization-directed interventions), physician characteristics (length of experience), and health care setting characteristics (primary or secondary care) were associated with improved effects.

- [← Editorial page 164](#)
- [+ Supplemental content](#)
- [+ CME Quiz at jamanetworkcme.com](#)

CONCLUSIONS AND RELEVANCE Evidence from this meta-analysis suggests that recent intervention programs for burnout in physicians were associated with small benefits that may be boosted by adoption of organization-directed approaches. This finding provides support for the view that burnout is a problem of the whole health care organization, rather than individuals.

2017

Review concludes that both individual and system factors can be important in burnout

2015

Concludes that
mindfulness based
interventions decrease
rates

Data Synthesis and Conclusions: Mindfulness-based interventions decrease stress, anxiety, and depression and improve mindfulness, mood, self-efficacy, and empathy in health profession students. Due to the range of presentation options, mindfulness training can be relatively easily adapted and integrated into health professional training programs.

REVIEW ARTICLE

MINDFULNESS TRAINING FOR HEALTH PROFESSION
STUDENTS—THE EFFECT OF MINDFULNESS TRAINING
ON PSYCHOLOGICAL WELL-BEING, LEARNING AND
CLINICAL PERFORMANCE OF HEALTH PROFESSIONAL
STUDENTS: A SYSTEMATIC REVIEW OF RANDOMIZED
AND NON-RANDOMIZED CONTROLLED TRIALS



Janet McConville, BAppSci (Physio), MPhysio^{1#} Rachael McAleer, MPhysio, BPhysio²
and Andrew Hahne, BPhysio (Hons), PhD¹



Cochrane
Library

Cochrane Database of Systematic Reviews

2015
CBT training and
changing schedules can
be effective

Preventing occupational stress in healthcare workers (Review)

Ruotsalainen JH, Verbeek JH, Mariné A, Serra C

Conclusions

We conclude that cognitive-behavioural training as well as mental and physical relaxation all reduce stress moderately. Changing work schedules can also reduce stress, but other organisational interventions have no clear effects. We need randomised studies with at least 120 participants and preferably a single component intervention. Organisational interventions need to be better focused on addressing specific factors that cause stress.

However, there are problems with these reviews

They are not specific to doctors; they often target only one type of interventions (eg. Mindfulness), and they address different target outcomes – burnout, depression, wellbeing and stress.

This limits their usefulness for our purposes

What about specific research studies directed only at doctors?

We located RCT studies of doctors exclusively (n=18)

The content of these interventions varied: Physical activity (1), stress management and resiliency (4) , wellness (1), burnout assessment (1) counselling (1) debriefing sessions (1) CME course in mindfulness (etc) Peer support (1) facilitated physician groups (1) online micro modules self selected (1) moodgym CBT (1)online mindfulness (2)guided imagery (1) and Duty hour restrictions (1)

Clearly, these studies of doctor are also limited

They have a narrow focus – i.e.

Many individual therapeutic interventions tested, with no clear consensus of which is better – and

Few consider systemic or health system interventions

If just restricted to junior doctors (n=7)

Doctor interventions – a quick review

Name of program	Target (suicide or depression?)	Design type	Intervention	Outcome measure success?
Medical residents				
Guille (2015)**	Medical residents	RCT vs control	Online CBT vs placebo control	Suicide ideation improved
Bragard and Etienne (2010)	Medical residents	RCT vs waitlist control	Communication stress skills training	Increase in self efficacy but no change in "burnout"
Gunasingam et al, 2015	Junior doctors	RCT	Debriefing	No significant differences
McCue 1991	Medical residents	Controlled trial	Stress management workshop –	Significant improvements in stress and burnout
Milstein et al.	House officers	RCT	Some analysis and <u>self support</u> technique	No significant differences
Ripp et al.(2015)	Residents	Cohort comparison	Duty Hours restriction (protected 5 hours sleep per night)	No significant differences
Saadat (2012)	Residents	RCT 3 groups – wellness, release time and Control	Wellness and release time.	Wellness group improved as did release time

Mixed interventions, about 50% (green) show some effects

Based on this quick review of the evidence,
we conclude that:

We would be unable to determine the direction of our work
based on the limited evidence base.

What is required is more information about what we know
from the broader work about what works in suicide prevention

Outline of the talk

This talk aims to cover three issues. I plan to:

- Review the scientific evidence for interventions in mental health for doctors (and conclude that the evidence base is wanting)
- **Review the broader evidence base around suicide prevention (and look at those strategies with the likelihood of most impact)**
- Examine a workplace model of mental health and describe one component that has promise.

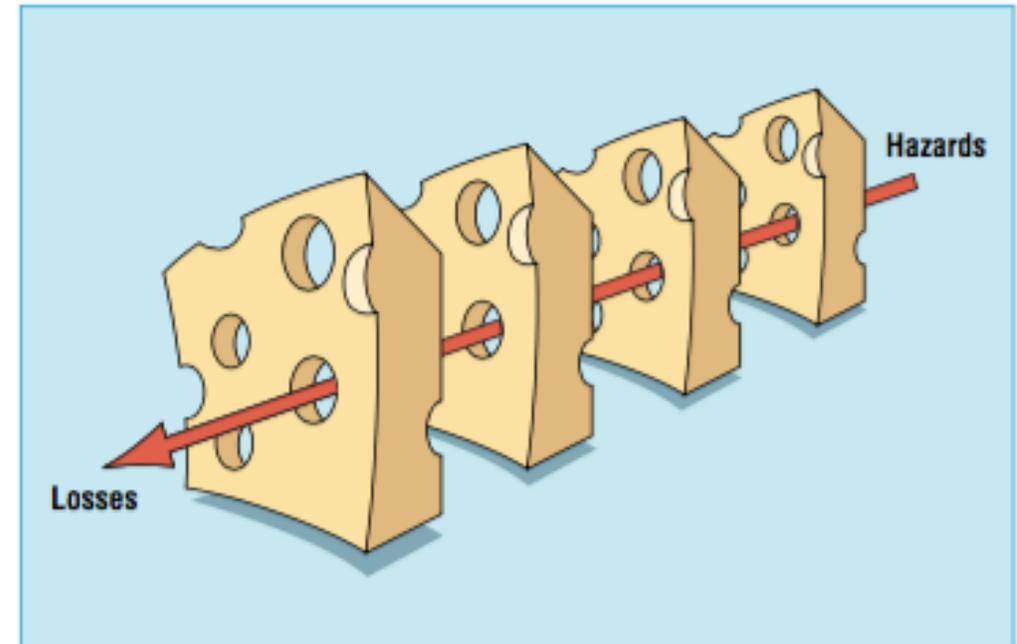
What does recent evidence tell us about suicide prevention?

The current thinking is that we need multifactorial approaches and simultaneous application of these across a range of settings

The Swiss cheese model of safety prevention must be supplemented by systems approaches

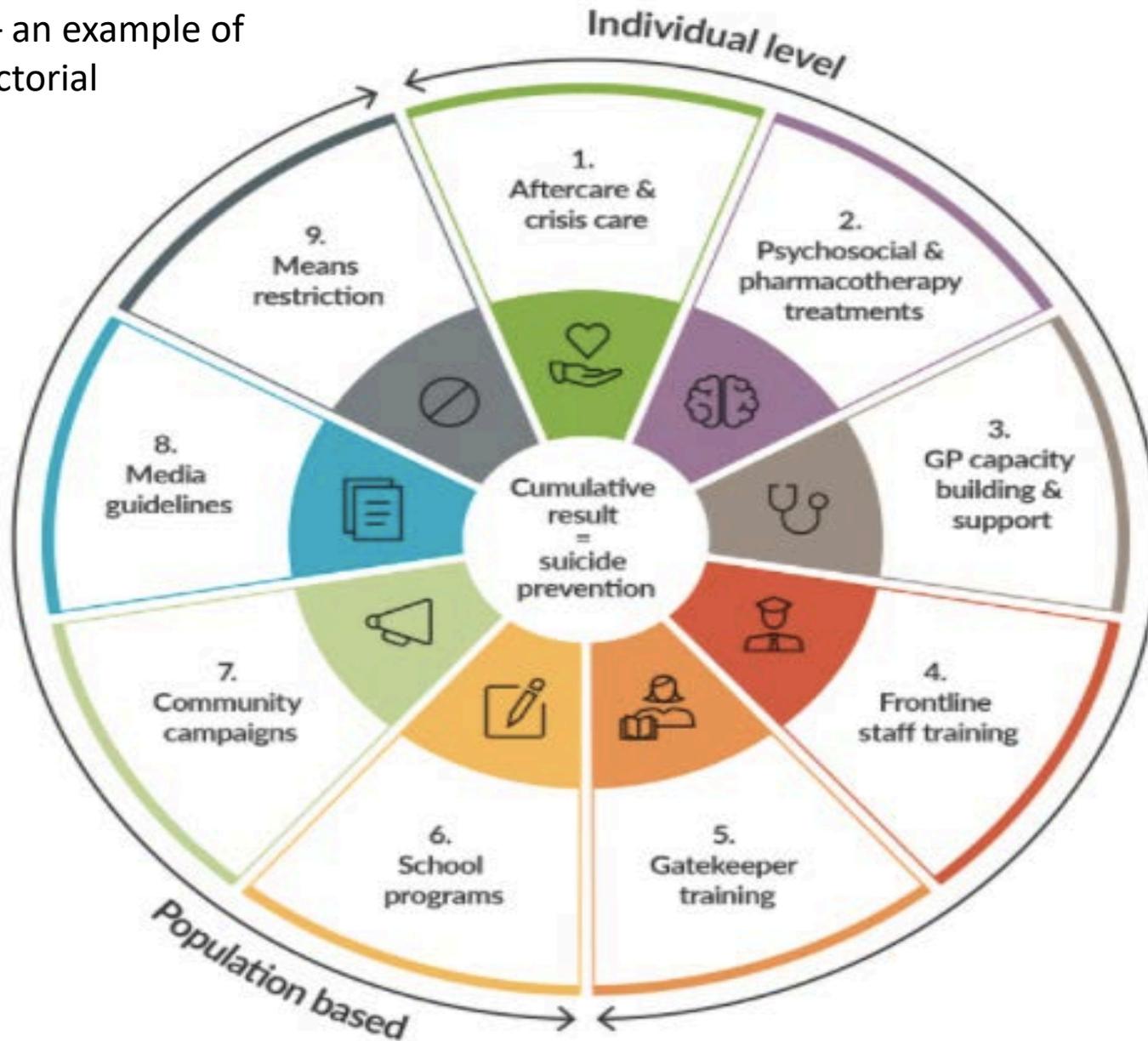
We need **systems approaches** to tackling these major problems and for configuring the ways in which we can reduce suicide.

James Reason BMJ 2000



The Swiss cheese model of how defences, barriers, and safeguards may be penetrated by an accident trajectory

Lifespan – an example of a multi-factorial approach



9 strategies have been shown in the literature to directly reduce suicide attempts and deaths

These range from clinical interventions (care after a suicide attempt, treatment, GP capacity building and support) through to community approaches such as gatekeeper training, school programs, media guidelines and means restriction

For illustrative purposes we can apply this model to doctor suicide

Crisis and Aftercare

Provide specialist follow up and crisis for doctors

Treatments and early intervention

Provide confidential/specialist treatment (to reduce embarrassment, privacy and fear of career registration) eg. Doctors Health Services Pty Ltd (DrHS)

Set up buddy programs for social support

Set up in-house help and EAP services for doctors

Offer CBT type programs for prevention and early intervention (and treatment)

More

Frontline training

Offer workforce training in suicide prevention for all those in the community, and kept up to date every 3 years

Include workplace programs that

- Change the conditions around rosters

- Stop mandatory reporting

- Reduce bullying

- Build mentally healthy workplaces (organisationally/culture)

- Building social support networks

Gatekeeper training and community responses

And more

Educational/university type school programs

Introduce mental health literacy/mentoring/fatigue management

Offer resilience and cognitive behaviour therapy

Advise the need to seek and use own GP

Build social support networks

Community campaigns

Stigma reduction around seeking help for young doctors

Raise awareness about doctors' mental health to the public and doctors

And even more

Media guidelines

Teach doctors about safe reporting of suicide

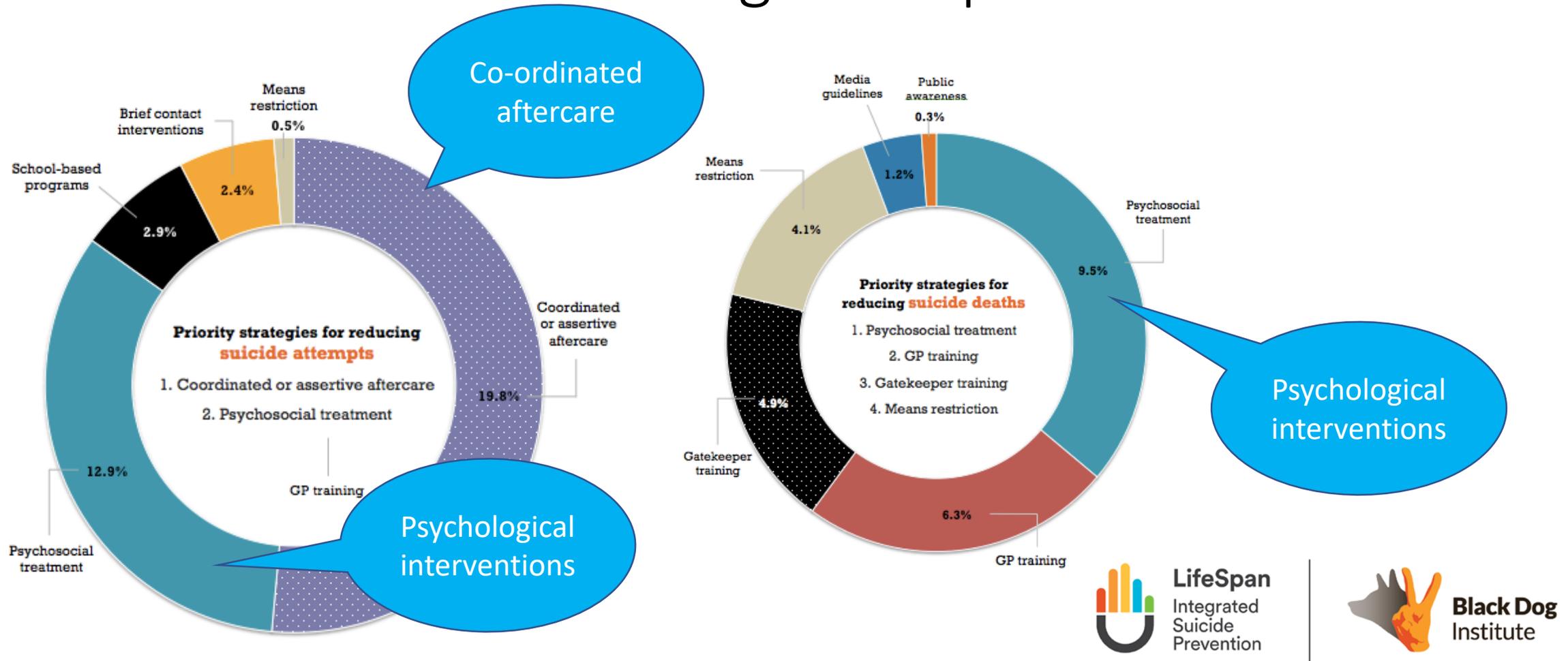
Means restriction

Provide information about specific risks for doctors with exposure to means of death in professional settings

Greater restrictions on access to medications?

Are any of these more effective than others to help prioritise?

In 2015 we estimated the effect of various interventions for lowering attempts and deaths



So to summarise

Multifactorial and systems approaches are in vogue

Key elements include: treatment, gatekeeper training, GP capacity building, and means restriction (for deaths) and care after a suicide attempt, and treatment (for attempts).

Outline of the talk

This talk aims to cover three issues. I plan to:

- Review the scientific evidence for interventions in mental health for doctors (and conclude that the evidence base is wanting)
- Review the broader evidence base around suicide prevention (and look at those strategies with the likelihood of most impact)
- **Examine a workplace model of mental health and describe one component that has promise.**

A workplace program with focus on systemic and individual factors within a developmental model may work

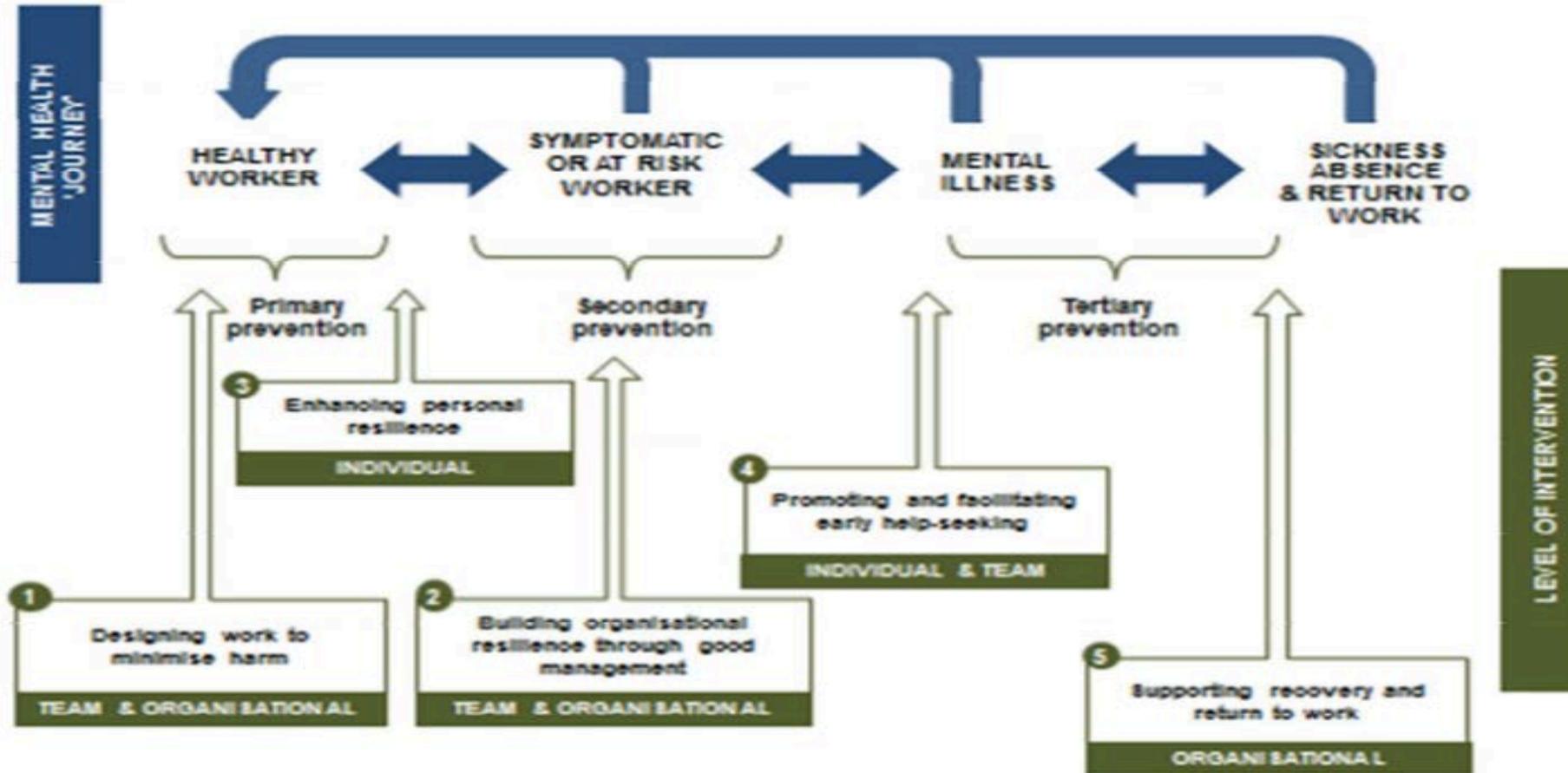
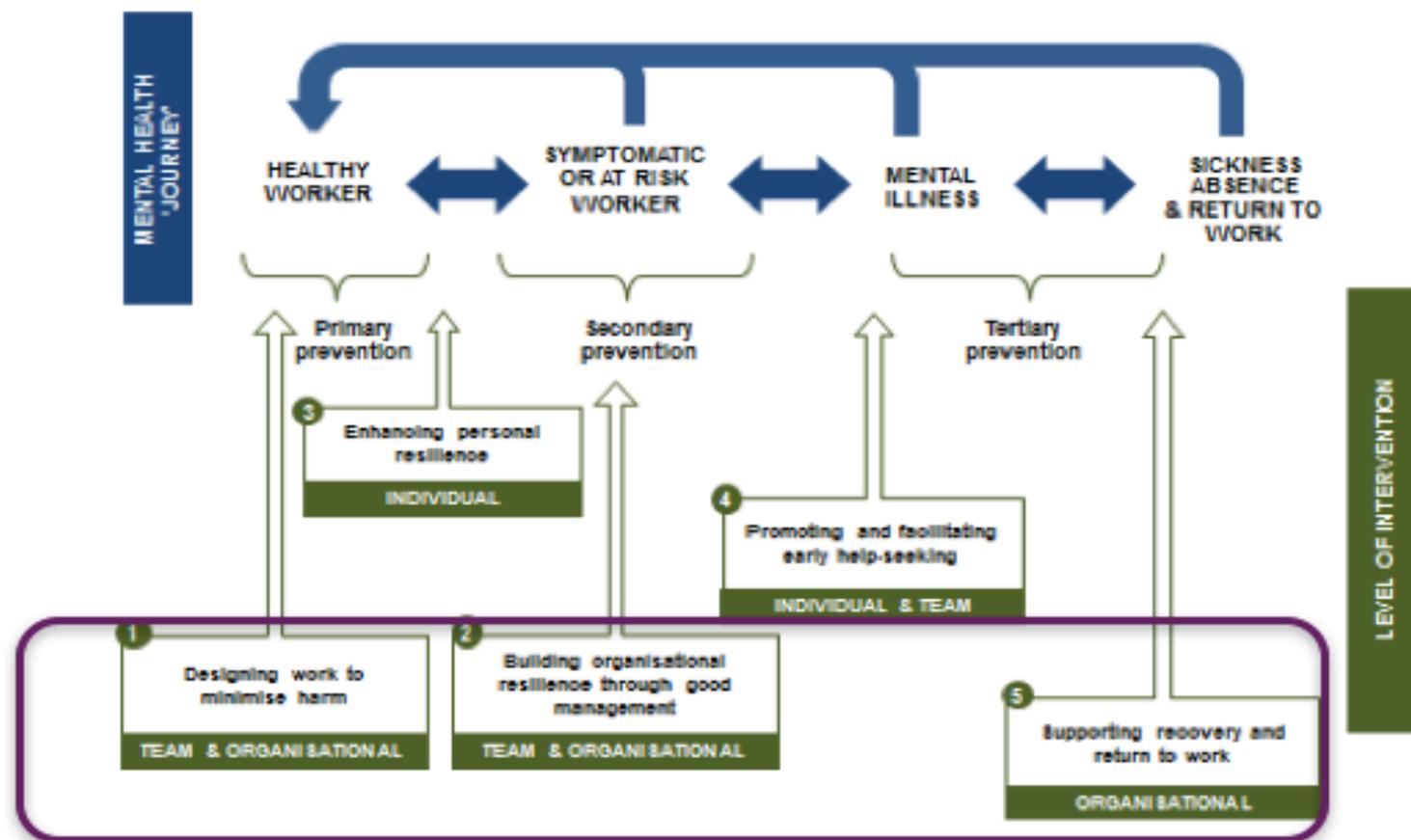
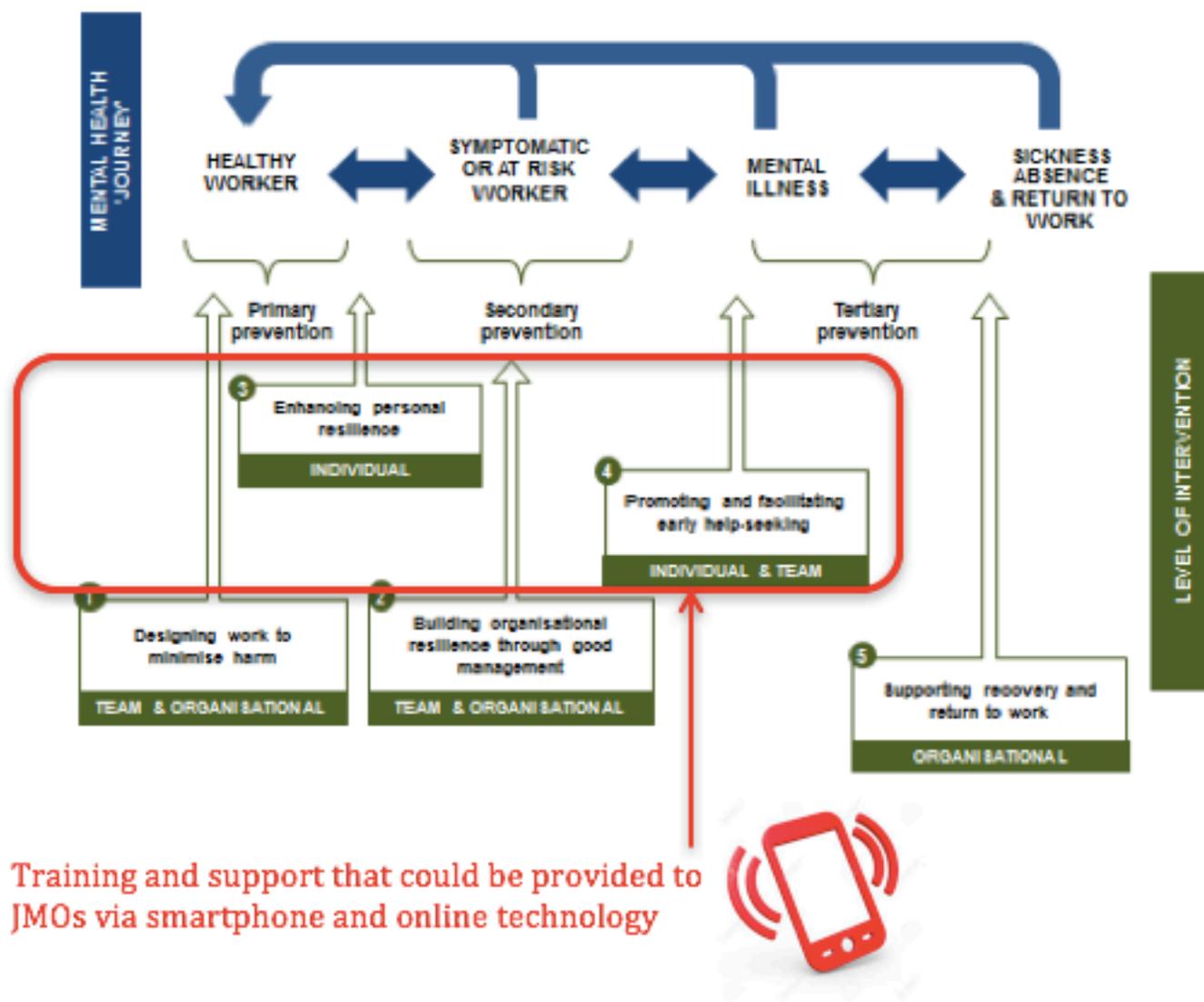


Figure 1: A framework to help plan how evidence-based interventions can be used in a coordinated and integrated way to aid JMOs' mental health and wellbeing.



Interventions that can be delivered via policy initiatives from NSW Health or Local Health Districts, for example; changes in rosters, alternations in contract lengths, training of key staff, supporting return to work programs

Figure 2: A demonstration of how a new smartphone enabled online system could be used to address the remaining aspects of the Framework for JMO Mental Health and Wellbeing.



Training and support that could be provided to JMOs via smartphone and online technology

Are web or app based psychological interventions effective?

Two recent studies indicate that can be effective for prevention and intervention

The use of MoodGYM to prevent suicide

Research

Original Investigation

Web-Based Cognitive Behavioral Therapy Intervention for the Prevention of Suicidal Ideation in Medical Interns: A Randomized Clinical Trial

Constance Guille, MD; Zhuo Zhao, MS; John Krystal, MD; Breck Nichols, MD; Kathleen Brady, MD, PhD; Srijan Sen, MD, PhD

IMPORTANCE In the United States, approximately 1 physician dies by suicide every day. Training physicians are at particularly high risk, with suicidal ideation increasing more than 4-fold during the first 3 months of internship year. Despite this increase, to our knowledge, very few efforts have been made to prevent the escalation of suicidal thoughts among training physicians.

OBJECTIVE To assess the effectiveness of a web-based cognitive behavioral therapy (wCBT) program delivered prior to the start of internship year in the prevention of suicidal ideation in medical interns.

DESIGN, SETTING, AND PARTICIPANTS A randomized clinical trial conducted at 2 university

Editorial page 1169

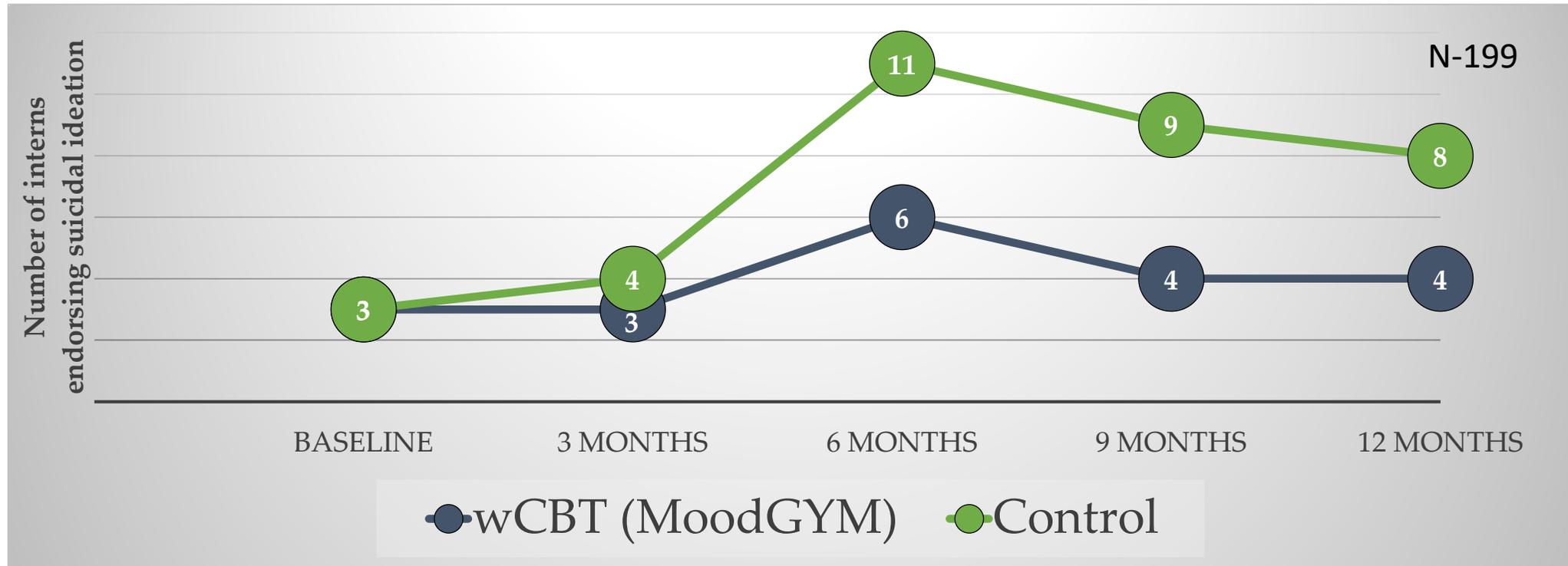
Author Audio Interview at jamapsychiatry.com

Supplemental content at jamapsychiatry.com



22 However, Guile et al. 2016, using MoodGYM (an online mental health program) demonstrated a reduction in suicide ideation at 6 weeks in medical students at the time of their intern year (after they completed the program 6 months earlier). The program was delivered prior to a "stress transition" and a good example of stress diathesis

PREVENTING SUICIDAL IDEATION IN NEW DOCTORS



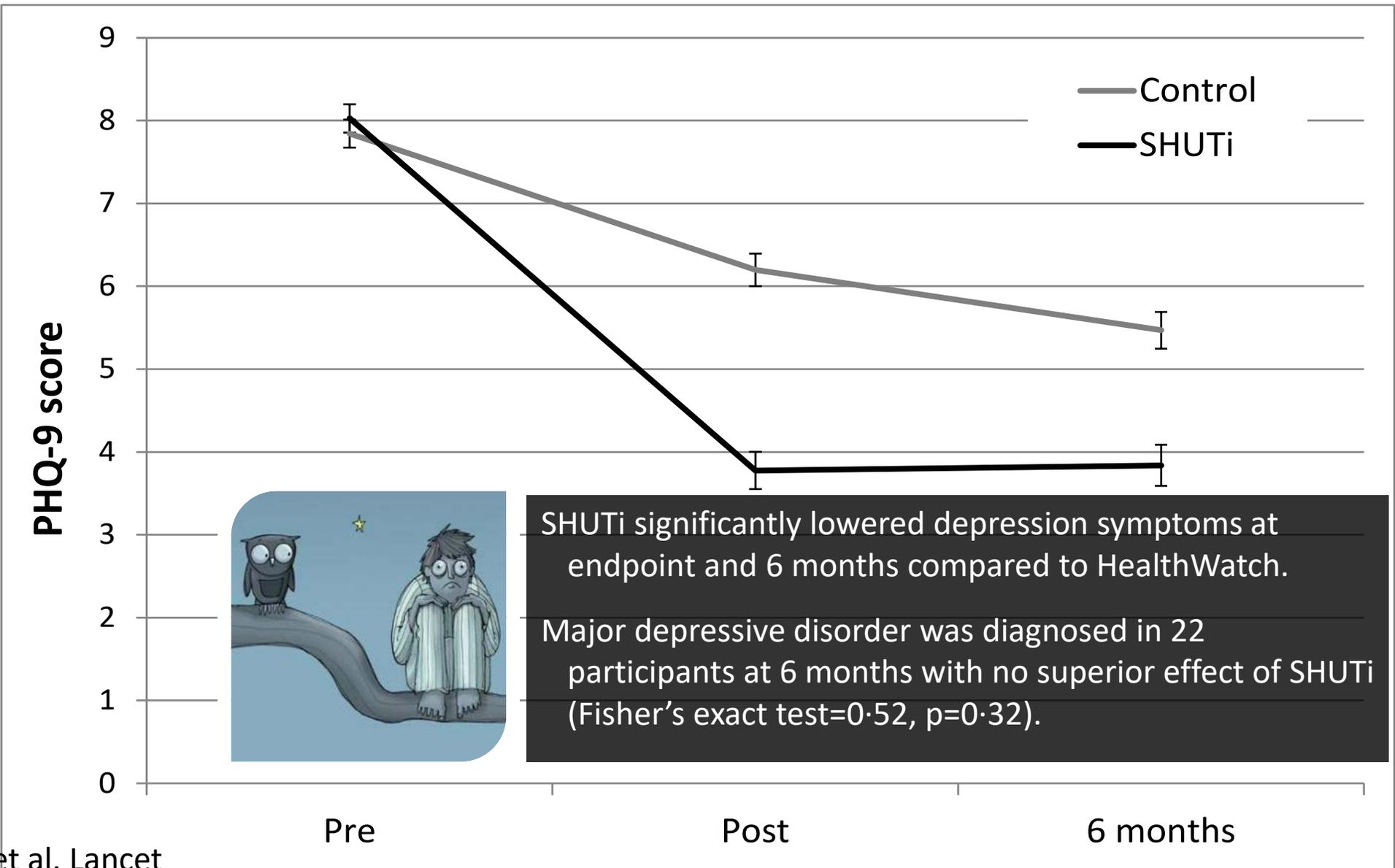
[Constance Guille, MD¹](#); [Zhuo Zhao, MS²](#); [John Krystal, MD³](#) et al. Web-Based Cognitive Behavioral Therapy Intervention for the Prevention of Suicidal Ideation in Medical Interns. A Randomized Clinical Trial. *JAMA Psychiatry*. 2015;72(12):1192-1198. [jamapsychiatry.2015.10](#)



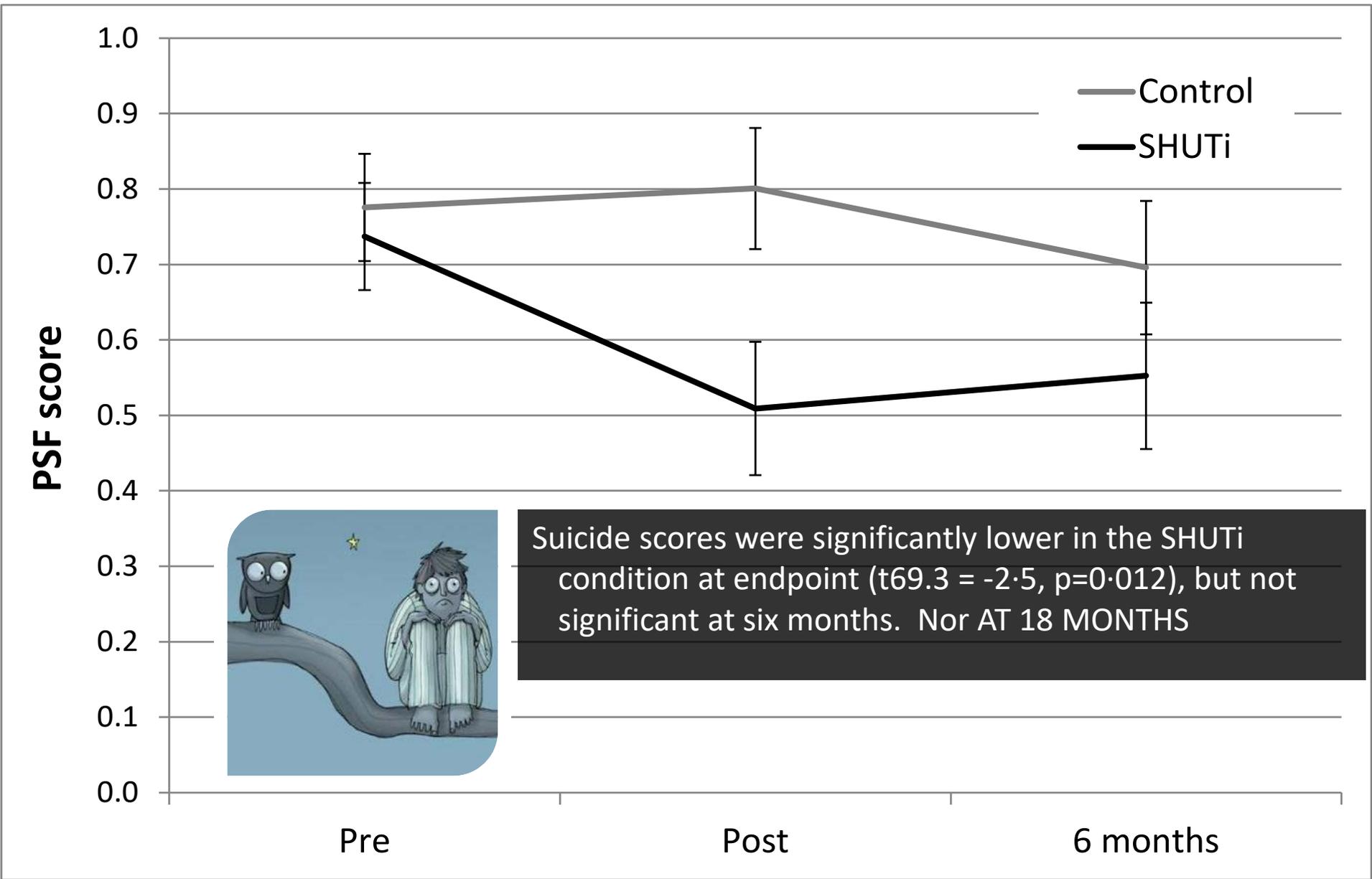
THE GOODNIGHT TRIAL: Preventing suicide and depression

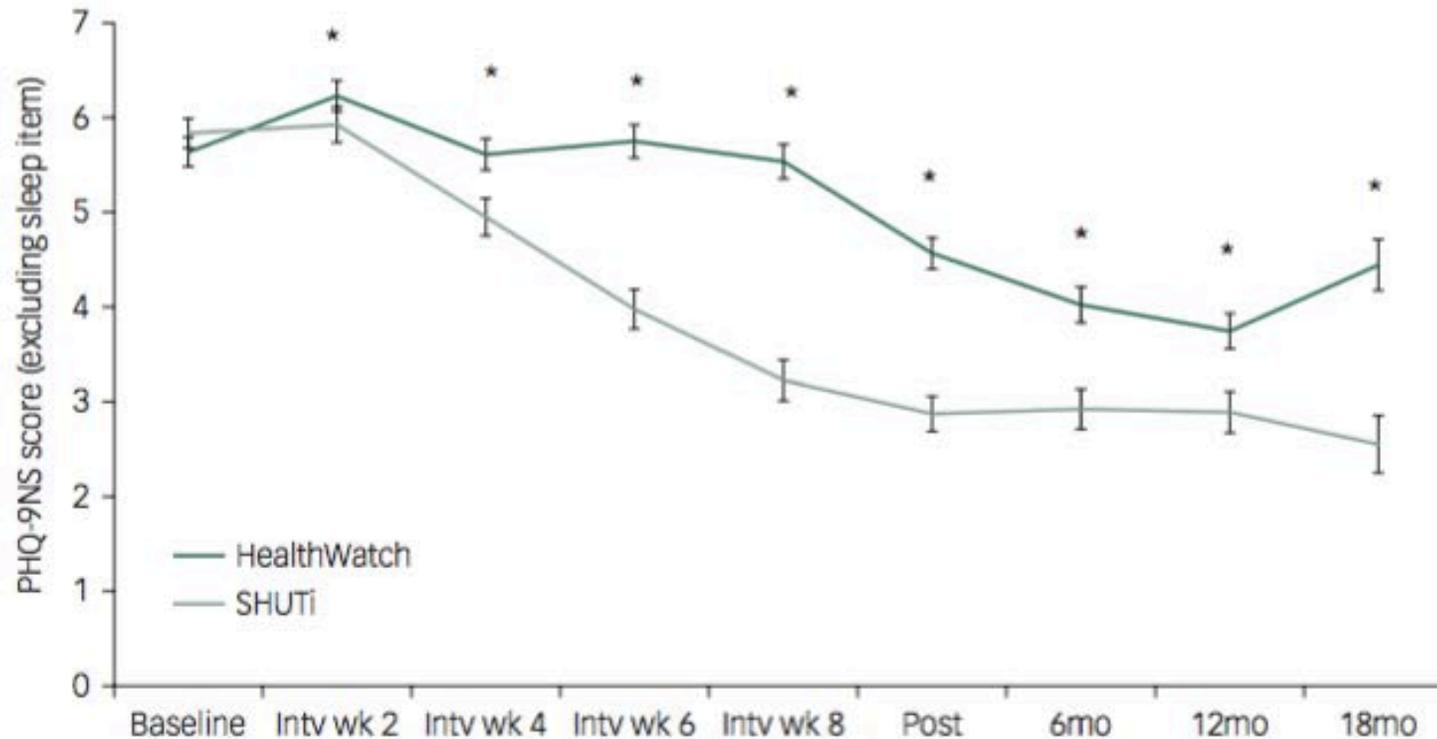


- **Design:** Two arm randomised controlled trial with measurements at baseline, endpoint (6 weeks), 6 month follow-up, and 18 month follow-up.
- **Participants:** 1162 Australian adults aged between 18 and 64 with Insomnia and depression symptoms but not Major Depressive Disorder (MDD).



Christensen et al. Lancet Psychiatry 2016





Data just to hand show that the effects of the intervention persist for depression for 18 months

Philip J. Batterham, PhD ¹, Helen Christensen, PhD ², Andrew J. Mackinnon, PhD ², John A. Gosling, BSc Hons ¹, Frances P. Thorndike, PhD ³, Lee M. Ritterband, PhD ⁴, Nick Glozier, PhD ⁵, Kathleen M. Griffiths, PhD ¹, (in press) *British Journal of Psychiatry*. Immediate and long-term outcomes in the GoodNight Study: Randomized Controlled Trial of internet-based insomnia treatment to prevent depression

Summary of the talk

- Evidence for interventions in mental health specifically for doctors is limited
- The broader evidence base around suicide prevention indicates that the application of multiple strategies is the preferred approach; that the application of a broader approach to doctor suicide is informative, and that certain strategies are likely to have more impact than others.

And ...

A workplace model of mental health may help guide a systematic approach, and given evidence of effectiveness from related studies, and the use of mobile technologies by doctors, at least one important strategy to follow.

Thank you for this opportunity

H.christensen@blackdog.org.au

So what do we plan to do?



Tackling Mental Ill-health in Medical Students and Doctors focuses on preventing anxiety, depression, and suicidal behaviour among Australia's medical workforce

Framework to assist training organisations, colleges and hospitals to design and implement "safe" environments for doctors and students.

Design and trial an intervention to be delivered to medical students, informed by qualitative interviews with medical students.

Trial novel and multi-modal interventions for junior doctors, informed by evidence reviews and consultation with junior doctors.

Provide updated data on doctor deaths and risk factors.
Engage in relevant health and medical conferences around doctor suicide.

Develop a specific framework for anaesthetists using leveraged funds.

Expected Impact

- All hospitals aware of safe practices
- New programs tested for dissemination to doctors and medical students
- Lower rates of suicide in doctors

Key Innovations

- First multi-modal program for doctors using evidence based practice
- Leading frameworks for safe practice in doctor training and practice

(recognising that plans change, and the momentum once started creates new opportunities)

Figure 1. Project Activity Streams within Tackling Mental Ill Health in Medical Students and Doctors

So what do we plan to do?

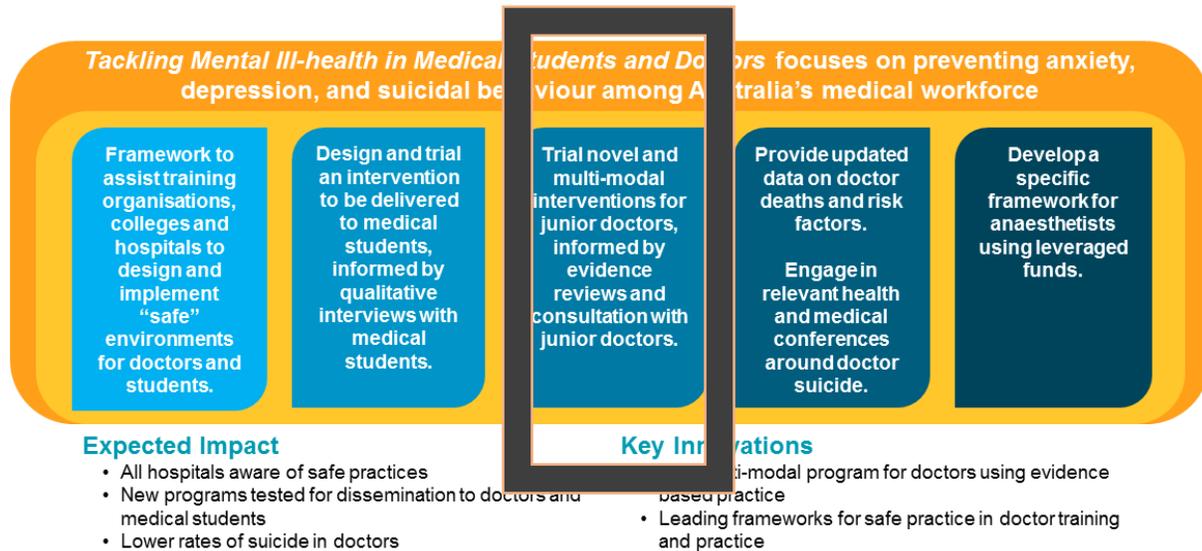


Figure 1. Project Activity Streams within Tackling Mental Ill Health in Medical Students and Doctors

Recent research articles by research groups

Research

Suicide by health professionals: a retrospective mortality study in Australia, 2001–2012

Allison J Milner^{1,2}, Humaira Maheen¹, Marie M Bismark³, Matthew J Spittal⁴

The known The risk of suicide may be higher for medical practitioners and nurses than for those in other occupations. This problem had not been assessed at a national level or by sex.

The new Age-standardised rates of suicide were higher for female medical practitioners, and for male and female nurses, than for other occupations. The rate of suicide for health professionals with access to prescription medicines was higher than for health professionals without ready access to these means.

The implications Suicide prevention initiatives should focus on workplace factors and differential risks for men and women employed as health professionals.

Abstract

Objectives: To report age-standardised rates and methods of suicide by health professionals, and to compare these with suicide rates for other occupations.

Study design: Retrospective mortality study.

Setting, participants: All intentional self-harm cases recorded by the National Coronial Information System during the period 2001–2012 were initially included. Cases were excluded if the person was unemployed at the time of death, if their employment status was unknown or occupational information was missing, or if they were under 20 years of age at the time of death. Suicide rates were calculated using Australian Bureau of Statistics population-level data from the 2006 census.

Main outcome measures: Suicide rates and method of suicide by occupational group.

Results: Suicide rates for female health professionals were

Suicide

Suicide literacy, suicide stigma and help-seeking intentions in Australian medical students

Wen I Chan Medical student, The Australian National University, Canberra, ACT, Australia

Philip Batterham Fellow in Mental Health Research, Centre for Mental Health Research, The Australian National University, Canberra, ACT, Australia

Helen Christensen Professor of Mental Health, Black Dog Institute, The University of New South Wales, Sydney, NSW, Australia

Cherrie Galletly Professor of Psychiatry, School of Medicine, University of Adelaide, Gilberton, SA, Australia



Australasian Psychiatry
2014, Vol 22(2) 132–139
© The Royal Australian and
New Zealand College of Psychiatrists 2014
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1039856214522528
apy.sagepub.com
SAGE