

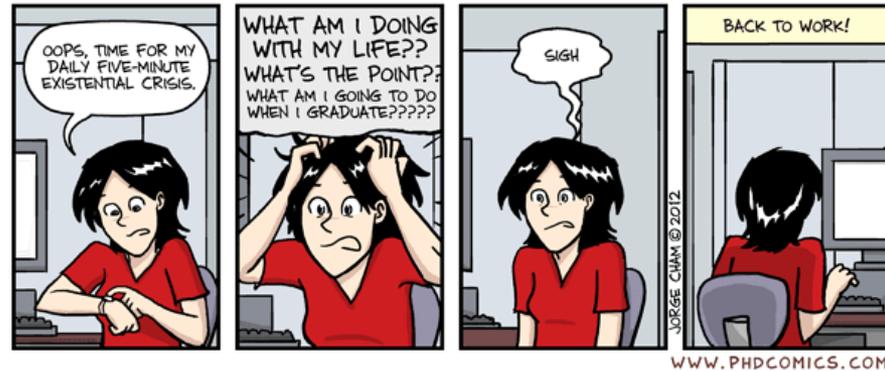
Wellbeing in PhD students in Australia



Dr Karen Barry

ACDS National Research Forum
26th September 2017

There's an awful cost to getting a PhD that no one talks about



Prospective PhD students should go in thinking about how they will handle psychological challenges as well as intellectual ones.

Psychological health of PhD student sample vs normative population

Attribute	Participants (n=81)	Age-matched normative mean
Mean age (\pm SD)	38.1 (1.3)	-
Percentage female (%)	81.5	-
Percentage international (%)	22.2	-
*Mean PSS score (\pm SD)	21.0 (3.0)	13.0 (6.2)‡
Mean DASS depression subscale score (\pm SD) (0-9 is the clinically normal range)	6.7 (6.0)	5.4 (7.1)
Mean DASS anxiety subscale score (\pm SD) (0-7 is the clinically normal range)	5.8 (6.9)	3.7 (5.0)
Mean DASS stress subscale score (\pm SD) (0-14 is the clinically normal range)	13.4 (8.4)	8.9 (8.4)

Study progress and links to stress?

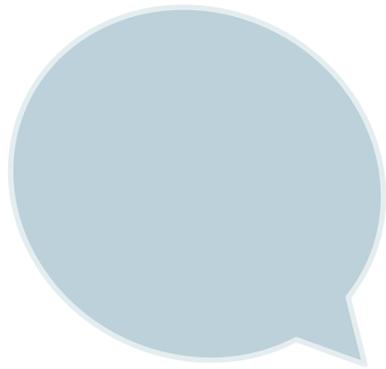
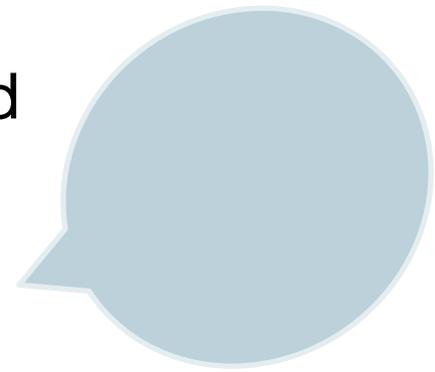
Attribute	Behind schedule (n=17)	Meeting schedule (n=55)	Exceeding schedule (n=3)	P value (one way ANOVA)
Mean PSS score (SD)	21.1 (2.5)	21.0 (3.2)	21.0 (3.5)	0.999
Mean DASS depression score (SD)	7.0 (4.7)	6.2 (6.2)	12.0 (5.6)	0.248
Mean DASS anxiety score (SD)	8.5 (8.3)	4.9 (6.4)	8.3 (6.8)	0.144
Mean DASS stress score (SD)	15.9 (9.5)	12.0 (7.5)	21.7 (8.6)	0.041**



Many candidates said that stress directly impeded or delayed progress;

stress caused them to disengage with the work, lose motivation, procrastinate

for others stress made them less productive (less capacity for problem solving, harder to articulate etc)



Many candidates said that stress indirectly influenced progress due to impact on wellbeing;

mood and emotional wellbeing

physical issues including difficulties sleeping, not eating well, exercising less

Major influences & challenges



Source: www.ucfhistory.wordpress.com

Top 10 Predictors Overall

1. **Career Prospects**
2. **Overall Health**
3. **Living Conditions**
4. **Academic Engagement**
5. **Financial Confidence**
6. **Social Support**
7. **Academic Progress & Preparation**
8. **Sleep**
9. **Feeling Valued & Included**
10. **Advisor Relationship**

Predictors of wellbeing in postgraduate students, University of California study 2014, n=790

Challenges reported by PhD candidates

CHALLENGES EXPERIENCED	Total**
Supervision and social interactions with their academic community	23
Problems related to social interactions with academic community	5
Problems related to supervision	19
Problems related to resources	4
Problems related to financial resources	2
Problems related to non-financial resources	2
Challenges related to domain specific expertise	30
Discipline-specific domain expertise	13
Methodological domain expertise	20
Challenges related to general work processes	56
Management of self, including motivation	29
Developing identity as a researcher	10
Developing generic skills for PhD (coursework and other requirements)	35
Candidature-related challenges*	(5)
External or personal*	(10)
Project-related challenges*	(7)
Total	128
*Categories and sub-categories added to the typology based on this study, **Category totals may be less than the sum of responses, as some candidates reported more than one type of challenge within each category.	

PhD structure

The wish list:

Research excellence

Publications

Industry engagement

Transferable skills.....

....all in under 4 years



PhD structure



1. **Career Prospects**
2. **Overall Health**
3. **Living Conditions**
4. **Academic Engagement**
5. **Financial Confidence**
6. **Social Support**
7. **Academic Progress & Preparation**
8. **Sleep**
9. **Feeling Valued & Included**
10. **Advisor Relationship**



Improving self-care for candidates mental health: case study

Self-care options for reducing psychological distress provide privacy and flexibility for candidates

Previous study in undergraduate medical students: mindfulness intervention self-care package developed by Warnecke et al. (2011) significantly decreased psychological stress indicators (PSS and the anxiety component of DASS)

**=> Could a self-care
mindfulness initiative
help doctoral students
reduce psychological
distress ?**



Source: www.ucfhistory.wordpress.com

Research method

Concurrent mixed method research design

Randomized Control Trial design replicated study on self-care with mindfulness intervention developed by Warnecke et al (2011)

Trial of 25 minute guided mindfulness practice practiced regularly over 8 week period

Control group

Pre-trial survey

Post-trial survey

Trial group

Pre-trial survey

8 week mindfulness

Post-trial survey

Demographic information collected during pre-trial survey

The mindfulness program

Aimed for daily practice for 8 weeks

25 minute guided audio, provided on CD



Participant sample

Initial sample: 81 candidates

15 males, 66 females

Average age = 38 years

Stage of candidature:

- 1st year (n = 20)
- Second year (n = 31)
- 3rd year (n = 21)
- 4th year or later (n = 9)

Whole cohort: 1246 candidates

49.5 female : 50.5 male

Main age range = 26-35 (47%)

Final sample: 73 candidates

Control group: n = 38

Trial group: n = 35 (14 interviewed)



Source: www.brilliantmindfulness.com

Psychological indicators (quantitative data)

Stress, depression and anxiety

PSS: Perceived stress scale (Cohen et al 1983)

DASS: Depression, Anxiety and Stress Scale (Lovibond & Lovibond, 1993)

Pre- and post-trial survey

Psychological capital:

- Hope
- Optimism
- Resilience
- Self-efficacy

(Luthans et al. 2004)

Open-ended questions (qualitative data)

Pre-trial survey

Questions about perceived study progress, most challenging aspects of PhD, how stress impacts study, what people do to reduce stress.

Post-trial Survey (+ interviews)

Questions about feelings of hope, optimism, resilience and self-efficacy.

Questions about using the mindfulness intervention (treatment group only)

Change in psychological attributes after the 8 week mindfulness intervention period.

Significant decrease in depression

Significant increase in psychological capital attributes (efficacy, hope, resilience)



Mindfulness may not be the preferred choice of self-care for everyone, but this study presents an example of the impact that self-care can play in mental health.



Training
for the
Olympics

Completing a PhD

Natural ability
Sleep well
Eat well
Train hard
Good coach



<http://www.abc.net.au/news/2017-05-01/mental-health-in-the-age-of-overtime-the-conversation/8486054>

References

- Cohen, S., Kamarck, T., and Mermelstein, R. (1983). "A global measure of perceived stress." *Journal of Health and Social Behaviour*, 24, 385-396.
- Levecque, K., et al. (2017). "Work organization and mental health problems in PhD students." *Research Policy* **46**(4): 868-879.
- Luthans, F., Luthans, K.W. and Luthans, B.C. 2004. Positive psychological capital: Beyond human and social capital. *Business horizons* 47:45-50.
- Lovibond, S. H., and Lovibond, P. F. (1993). *Manual for the Depression Anxiety Stress Scale*: University of New South Wales, Australia.
- Mani et al. 2015. Review and Evaluation of Mindfulness-Based iPhone Apps. *JMIR mHealth uHealth* 2015, 3(3) doi:10.2196/mhealth.4328
- McGagh, J., Marsh, H., Western, M., Thomas, P., Hastings, A., Mihailova, M., and Wenham, M. (2016). *Review of Australia's Research Training System*. Report for the Australian Council of Learned Academies, www.acola.org.au.
- Pyhalto et al. (2012) Challenges of Becoming a Scholar: A Study of Doctoral Students' Problems and Well-Being. ISRN, doi:10.5402/2012/934941

Acknowledgements

School of Land & Food



Dr Karen Barry
Graduate Research Co-ordinator, Deputy Associate Dean SET



Dr Alieta Eyles
Postdoctoral researcher

Faculty of Health



A. Prof Emma Warnecke
Director, Student Development and Support, MBBS Program



A. Prof Christine Stirling
(Previously) Deputy Dean of Graduate Research

TASMANIAN SCHOOL OF BUSINESS & ECONOMICS



A. Prof Angela Martin
Leader, Work Health and Wellness network



Dr Megan Woods
SME on qualitative research and N-Vivo

Acknowledgements

Thanks to all participants in the study

Funding support provided by:

- Teaching Development Grant
- Work Health and Wellbeing network

Statistical support provide by:

- Foad Fatehi

