

**ADDRESSING THE HEALTH RISK
BEHAVIOURS OF PEOPLE WITH A
MENTAL ILLNESS: A COLLABORATIVE
APPROACH?**

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BPsyc (Hons)

**A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy**

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LIST OF PUBLICATIONS INCLUDED IN THIS THESIS

Chapter 2: Bartlem, K., Bailey, J., Metse, A., Asara, A., Wye, P., Clancy, R., Wiggers, J., & Bowman, J. (2018). Do mental health consumers want to improve their long-term disease risk behaviours? A survey of over 2000 psychiatric inpatients. *International Journal of Mental Health Nursing*, 27(3): 1032-1043. doi: 10.1111/inm.12411

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CO-AUTHOR STATEMENT

I attest that Research Higher Degree candidate Jacqueline Bailey has contributed to the following publications for which I am a co-author. Jacqueline has:

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- Contributed to research design and methodology
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ADDITIONAL PUBLICATIONS AND PRESENTATIONS

Publications

- Bailey, J., Regan, T., Bartlem, K., Wiggers, J., Wye, P., & Bowman, J. (2019). A survey of the prevalence of modifiable health risk behaviours among carers of people with a mental illness. *BMC Public Health*, 19(1240). doi: 10.1186/s12889-019-7577-4
- Metse, A., Stockings, E., Bailey, J., Regan, T., Bartlem, K., Wolfenden, L., Taylor, G., Wiggers, J., & Bowman, J. (2019). Rates of retention of persons with a mental health disorder in outpatient smoking cessation and reduction trials, and associated factors: Protocol for a systematic review and meta-analysis. *BMJ Open*, 9(e030646). doi: 10.1136/bmjopen-2019-030646
- Stockings, E., Black, N., Bartlem, K., Metse, A., Regan, T., Bailey, J., Wolfenden, L., Wiggers, J., & Bowman, J. (2019). Outpatient interventions for smoking cessation and reduction for adults with a mental disorder. *Cochrane Database of Systematic Reviews*. (3) Art. No.: CD013286 doi: 10.1002/14651858
- Fehily, C., Bartlem, K., Wiggers, J., Wolfenden, L., Regan, T., Dray, J., Bailey, J., & Bowman, J. (2018). Systematic review of interventions to increase the provision of care for chronic disease risk behaviours in mental health settings: Review Protocol. *Systematic Reviews*, 7(10):67. doi: 10.1186/s13643-018-0735-4
- Dray, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, W., Hodder, R., McElwaine, K., Tremain, D., Bartlem, K., Bailey, J., Small, T., Palazzi, K., Oldmeadow, C., Wiggers, J. (2017). Systematic review of universal resilience-focused interventions targeting child and adolescent mental health in the school setting. *Journal of the American Academy of Child and Adolescent Psychiatry*, 56(10): 813-824. doi: 10.1016/j.jaac.2017.07.780

Bartlem, K., Bowman, J., Bailey, J., Freund, M., Wye, P., Lecathelinais, C., McElwaine, K., Campbell, E., Gillham, K., & Wiggers, J. (2015). Chronic disease health risk behaviours amongst people with a mental illness. *Australian & New Zealand Journal of Psychiatry*, 49(8): 731-741. doi: 10.1177/0004867415569798

Tremain, D., Freund, M., Wolfenden, L., Bowman, J., Dunlop, A., Bartlem, K., Bailey, J., McFayden, T., Dray, J., Wye, P., Leigh, L., & Wiggers, J. The provision of preventive care for modifiable health risk behaviours by clinicians within substance use treatment settings: A systematic review. *Preventive Medicine*. Under Review.

Bradley, T., Bartlem, K., Campbell, L., Wye, P., Rissel, C., Reid, K., Regan, T., Bailey, J., & Bowman, J. Use of a telephone-based coaching service for chronic disease health risk behaviours by people with a mental health condition. *Preventive Medicine Reports*. Under Review.

Bailey, J., Clinton-McHarg, T., Wye, P., Wiggers, J., Bartlem, K., & Bowman, J. Preventive care for physical activity and fruit and vegetable consumption: Family carer expectations of service delivery for people with a mental health condition. In draft.

Presentations

**Presenting author*

Bradley*, T., Bartlem, K., Campbell, E., Wye, P., Rissel, C., Reid, K., Regan, T., Bailey, J., Bowman, J. Use of a population level prevention service for chronic disease risk behaviours by people with a mental health condition. Australasian Society for Behavioural Health and Medicine Conference, February 2019, Christchurch, New Zealand. (Oral presentation).

Bailey*, J., Regan, T., Bartlem, K., Wye, P., Wiggers, J., Bowman, J. Prevalence of chronic disease risk behaviours among carers of people with a mental illness. Joint

Australian Psychological Society College of Health Psychologists and Australasian Society for Behavioural Health and Medicine Conference, July 2017, Gold Coast, QLD. (Oral presentation).

Bailey*, J., Bartlem, K., Wye, P., Wiggers, J., Bowman, J. Family carers: A role in addressing chronic disease risk behaviours for people with a mental illness? Joint Australian Psychological Society College of Health Psychologists and Australasian Society for Behavioural Health and Medicine Conference, July 2017, Gold Coast, QLD. (Oral presentation).

Bailey, J., Hansen, V., Wye, P., Wiggers, J., Bartlem, K., Bowman*, J. Family carer experiences in supporting nutrition and physical activity behaviour change for people with a mental illness. International Society of Behavioural Nutrition and Physical Activity Annual Meeting, June 2017, Victoria, Canada. (Poster).

Bailey, J., Bartlem*, K., Wye, P., Wiggers, J., Bowman, J. Family carers: A role in addressing chronic disease risk behaviours for people with a mental illness? 13th Behavioural Research in Cancer Control Conference, May 2017, Melbourne, VIC. (Oral presentation).

Bailey*, J., Regan, T., Bartlem, K., Wye, P., Wiggers, J., Bowman, J. Prevalence of chronic disease risk behaviours among carers of people with a mental illness. World Congress on Public Health, April 2017, Melbourne, VIC. (Oral presentation).

Bailey*, J., Bartlem, K., Wye, P., Wiggers, J., Bowman, J. Family carers: A role in addressing chronic disease risk behaviours for people with a mental illness? World Congress on Public Health, April 2017, Melbourne, VIC. (Oral presentation).

Bartlem, K., Bailey*, J., Metse, A., Wye, P., Wiggers, J., Bowman, J. Health behaviours in people with mental illness: Prevalence, interest in change, acceptability of care.

World Congress on Public Health, April 2017, Melbourne, VIC. (Oral presentation).

Bartlem, K., Bowman, J., Tremain, D., Wye, P., Bailey, J., Wiggers*, J. Intervention to increase preventive care in mental health services: Exploration of reasons for limited effect. World Congress on Public, Health April 2017, Melbourne, VIC. (Oral presentation).

Bailey, J., Bartlem*, K., Wye, P., Wiggers, J., Bowman, J. Family carers: A role in addressing chronic disease risk behaviours for people with a mental illness? International Congress of Behavioural Medicine, December 2016, Melbourne, VIC. (Oral presentation).

Bailey, J., Wye, P., Bartlem, K., Wiggers, J., Stockings, E., Metse*, A., Bowman, J. Chronic disease risk behaviour care for people with a mental illness: Family carer expectations of health and community services. International Congress of Behavioural Medicine, December 2016, Melbourne, VIC. (Oral presentation).

Bartlem*, K., Wye, P., Wiggers, J., Stockings, E., Metse, A., Bailey, J., Fehily, C., Bowman, J. Chronic disease risk behaviours among people with a mental illness: Prevalence, interest in change and acceptability of risk reduction care. International Congress of Behavioural Medicine, December 2016, Melbourne, VIC. (Oral presentation).

Bailey*, J., Bartlem, K., Wye, P., Wiggers, J., Stockings, E., Metse, A., Bowman, J. Chronic disease risk behaviour care for people with a mental illness: Family carer expectations. European Public Health Conference, November 2016, Vienna, Austria. (Oral presentation).

Bartlem, K., Bailey*, J., Metse, A., Wye, P., Wiggers, J., Clancy, R., Bowman, J. Health behaviours in people with mental illness: Prevalence, interest in change,

acceptability of care. European Public Health Conference, November 2016, Vienna, Austria. (Oral presentation).

Bartlem, K., Bowman, J., Tremain, D., Wye, P., Bailey*, J., Wiggers, J. An intervention to increase preventive care provision in mental health services. European Public Health Conference, November 2016, Vienna, Austria. (Poster).

Metse, A., Wiggers, J., Wye, P., Wolfenden, L., Prochaska, J., Stockings, E., Williams, J., Ansell, K., Fehily, C., Bailey*, J., Bowman, J. Smoking and mental illness: A bibliometric analysis of research output over time. European Public Health Conference, November 2016, Vienna, Austria. (Oral presentation).

Metse, A., Wiggers, J., Wye, P., Wolfenden, L., Freund, M., Clancy, R., Stockings, E., Terry, M., Allan, J., Colyvas, K., Prochaska, J., Bailey*, J., Bowman, J. An integrated smoking cessation intervention for mental health patients: A randomised controlled trial. European Public Health Conference, November 2016, Vienna, Austria. (Oral presentation).

Bailey*, J., Wye, P., Bartlem, K., Wiggers, J., Bowman, J. Family carers: A role in addressing cancer risk behaviours for people with a mental illness? UICC World Cancer Congress, November 2016, Paris, France. (Oral presentation).

Bailey*, J., Wye, P., Bartlem, K., Wiggers, J., Stockings, E., Metse, A., Bowman, J. Cancer risk behaviour care for people with a mental illness: Family carer expectations of health and community services. UICC World Cancer Congress, November 2016, Paris, France. (Oral presentation).

Bartlem, K., Bailey*, J., Metse, A., Wye, P., Wiggers, J., Clancy, R., Bowman, J. Health behaviours in people with mental illness: Prevalence, interest in change, acceptability of care. UICC World Cancer Congress, November 2016, Paris, France. (Oral presentation).

Metse, A., Wiggers, J., Wye, P., Wolfenden, L., Freund, M., Clancy, R., Stockings, E., Terry, M., Allan, J., Colyvas, K., Prochaska, J., Bailey*, J., Bowman, J. An integrated smoking cessation intervention for mental health patients: A randomised controlled trial. UICC World Cancer Congress, November 2016, Paris, France. (Oral presentation).

Metse, A., Wiggers, J., Wye, P., Wolfenden, L., Prochaska, J., Stockings, E., Williams, J., Ansell, K., Fehily, C., Bailey*, J., Bowman, J. Smoking and mental illness: A bibliometric analysis of research output over time. UICC World Cancer Congress, November 2016, Paris, France. (Oral presentation).

Dray*, J., Bowman, J., Campbell, E., Freund, M., Wolfenden, L., Hodder, R., McElwaine, K., Tremain, D., Small, T., Bartlem, K., Bailey, J., Wiggers, J. Systematic review of the effect of school-based, resilience-focussed interventions on child and adolescent mental health. The 22nd International Association for Child and Adolescent Psychiatry and Allied Professions World Congress, September 2016, Calgary, Canada. (Oral presentation).

Bailey, J., Wye, P., Bartlem*, K., Stockings, E., Metse, A., Wiggers, J., Bowman, J. Smoking cessation care for people with a mental illness: Family carer expectations of health and community services. UK Nicotine & Smoking Cessation Conference, June 2016, London, United Kingdom. (Oral presentation).

Bailey*, J., Bowman, J., Wye, P., Bartlem, K., Stockings, E., Metse, A., Wiggers, J. The provision of smoking cessation care for people with a mental illness: 'Carers' expectations of health and community services. Hunter Cancer Research Alliance Symposium November 2015, Newcastle, NSW. (Poster).

Bailey*, J., Wye, P., Stockings, E., Bartlem, K., Metse, A., Wiggers, J., Stockings, E. The provision of smoking cessation care for people with mental illness: 'Carers'

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Bartlem*, K., Bowman J., Bailey J., Freund M., Wye P., Lecathelinais C., McElwaine K., Wolfenden L., Campbell E., Gillham K., Wiggers J. Need for action: Preventive care for chronic disease risk factors within community mental health services. Population Health Congress September 2015, Hobart, TAS. (Oral presentation).

Bailey*, J., Wye, P., Stockings, E., Bartlem, K., Metse, A., Wiggers, J., Stockings, E. The provision of smoking cessation care for people with mental illness: Expectations and experiences of 'carers'. Australasian Society for Behavioural Health and Medicine Conference February 2015, Perth, WA. (Oral presentation).

Bailey*, J., Bowman, J., Wye, P., Bartlem, K., Stockings, E., Metse, A., Wiggers, J. The provision of smoking cessation care for people with mental illness: Expectations and experiences of 'carers'. UICC World Cancer Congress December 2014, Melbourne, VIC. (Oral presentation).

Bailey*, J., Bowman, J., Wye, P. Exploring the potential for carers to influence the physical health risk behaviours of people with a mental illness: A focus on smoking. University of Newcastle, School of Psychology 4th Year Research Conference November 2013, Newcastle, NSW. (Oral presentation).

Bartlem*, K., Bowman, J., Wiggers, J., Freund, M., Wye, P., Bailey, J., Prevalence of modifiable health risk behaviours in community mental health clients. Population Health Congress September 2012, Adelaide, SA. (Oral presentation).

GLOSSARY OF TERMS

The following is a list of terms used throughout this thesis:

Chronic disease - Non-communicable chronic diseases are persistent health conditions with long-lasting effects which once present, generally persist throughout the lifetime and require self-management with the support of health professionals. Such conditions are sometimes referred to as non-communicable diseases, particularly by the World Health Organisation. Whilst mental health conditions are a type of chronic disease, the term chronic disease used throughout this thesis refers to non-communicable chronic physical diseases such as cardiovascular disease, cancer, chronic respiratory conditions, chronic musculoskeletal conditions, and diabetes, unless otherwise specified.

Health risk behaviours - Modifiable health risk behaviours that increase an individual's risk of developing chronic disease. Health risk behaviours are referred to using different terms (such as health behaviours, chronic disease risk behaviours, and long-term disease risk behaviours) throughout this thesis. These terms have been retained in the individual chapters as they appear in the published article, where terminology may reflect responses to reviewer comments or journal preferences. The health risk behaviours under investigation in this thesis are tobacco smoking, harmful alcohol consumption, inadequate physical activity, and inadequate nutrition or fruit and vegetable. Fruit and vegetable consumption, and nutrition more broadly, are associated with the development of chronic diseases. Some chapters within this thesis examine fruit and vegetable consumption specifically, whereas others focus on nutrition more generally to be inclusive of the variable measures of nutrition in the research literature.

Mental illness - The description of mental illness in research literature is not always clear, for instance, the term 'serious mental illness' is often used to categorise mental illnesses such as schizophrenia, without a definition of such a categorisation. For the research studies conducted for this thesis, the term mental illness is used to refer to mental health conditions commonly

experienced by individuals accessing adult mental health services, that is, categories of mental illness outlined in the DSM-5 not including neurodevelopmental or degenerative disorders (for example, not including autism and dementia, but including but not limited to: schizophrenia, depression, anxiety, and personality disorders). When referring to research literature, the terms pertaining to mental illness categorisations utilised by the original source references are used.

Family carers - Throughout this thesis, the terms ‘family carer’ or ‘carer’ refer to individuals who provide support to people with a mental or physical disability without payment. In the research literature, family carers are referred to by a range of terms, often: family caregivers, informal carers, family members, or primary carers. The studies comprising this thesis utilise the terms ‘carer’ and ‘family carer’. When referring to the research literature, the terms utilised by original source materials are retained for accuracy in reporting.

ABSTRACT

Internationally and in Australia, people with a mental illness experience significantly greater morbidity and mortality and reduced life expectancy compared to people without such an illness. The majority of excess mortality is attributable to a higher prevalence of chronic physical disease. The health risk behaviours of tobacco smoking, harmful alcohol consumption, inadequate nutrition and inadequate physical activity are the leading modifiable risk factors for the development of chronic disease. People with a mental illness are consistently reported to experience a higher in engagement in such health risk behaviours than people without a mental illness; however, little research has examined the prevalence of health risk behaviours among people in psychiatric inpatient settings. The provision of preventive care to address such health risk behaviours in mental health services is recommended in policies and guidelines internationally and in Australia. Despite such policies, sub-optimal provision of preventive care has been reported with regards to smoking cessation care, however scant research exists on the extent to which such care is provided for other health risk behaviours.

Another potential avenue of health risk behaviour change support for people with a mental illness may be their informal or family carers. Carers have the potential to influence the health risk behaviours of the people they care for with a mental illness, however little is known about carers current: attitudes towards addressing the health risk behaviours for people with a mental illness; provision of health risk behaviour change support, and; potential barriers or supportive strategies to assist health risk behaviour change support. To address these evidence gaps, the aims of this thesis are, to:

1. Examine the need for preventive care for chronic disease risk behaviours in traditional mental health service settings and its current provision. Specifically to:

- a. Determine the prevalence of health risk behaviours (smoking, harmful alcohol consumption, inadequate nutrition, and inadequate physical activity); interest in improving ‘at risk’ behaviours, and; acceptability of receiving health risk behaviour change support during mental health treatment among a sample of Australian psychiatric inpatients.
 - b. Ascertain the prevalence of preventive care provision to people with a mental illness for the four health risk behaviours in mental health services generally through the conduct of a systematic review.
 - c. Explore family carers’: understanding of relationships between smoking and mental health; views and expectations of smoking bans in specialist mental health treatment settings, and smoking cessation care across a number of service settings.
2. To explore family carer current and potential provision of health risk behaviour change support to people with a mental illness, through:
- a. Investigating the extent of carers’ current involvement in promoting positive health risk behaviours; carers own health risk behaviours, attitudes and perceptions of their role and ability to address health risk behaviours of the person for whom they provide care.
 - b. Exploring carers’ experiences in addressing the health risk behaviours of the person they care for; existing barriers to addressing such behaviours; and perceptions of potential strategies to assist them to provide health risk behaviour change support.

Thesis aims were addressed through the conduct of a series of studies. A cross-sectional survey undertaken with 2075 psychiatric inpatients addressed aim 1a. A systematic review and meta-analysis was conducted to explore aim 1b. A cross-sectional survey of

144 carers of people with a mental illness provided the data utilised in 1c and 2a. Finally, a focus group methodology was employed to explore the experience of 31 carers with regards to addressing the health risk behaviours of the person for whom they provided care (2c).

The findings presented in this thesis have contributed to advancing research in the field in a number of ways. Findings further demonstrate the need for mental health services to provide preventive care for health risk behaviours given: the high engagement in risk behaviours and interest in receiving support to change risk behaviours reported among psychiatric inpatients in Chapter 2; the sub-optimal provision of preventive care reported in Chapter 3, and; carers expectations that services accessed by people with a mental illness provide smoking cessation care to their clients with a mental illness identified in Chapter 4. Findings of Chapters 5 and 6 provided the first investigations of the role of family carers in influencing the four health risk behaviours among people with a mental illness and suggest carers have the potential to provide health risk behaviour change support but may be assisted in their role to do so through increased collaboration and communication with services accessed by the person they care for with a mental illness.

Overall, this thesis identified the need to explore: how adherence to preventive care policies in mental health services might be increased; how the capacity of family carers to support health risk behaviour change might be facilitated, and; how people with a mental illness themselves perceive health risk behaviour change and what may be helpful in supporting them. The final chapter of this thesis proposes the need for further research to explore such concepts.