

Preventive Care for Physical Activity and Fruit and Vegetable Consumption: A Cross-  
Sectional Survey of Family Carer Expectations of Health Service Delivery for People  
with a Mental Health Condition

Jacqueline Mary Bailey

BPsyc (Hons) PhD (Psychology)

A thesis submitted in partial fulfilment of the requirements for the degree of Masters of  
Clinical Psychology

University of Newcastle

School of Psychology

November, 2019

### Statement of Originality

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. I give consent to this copy of my thesis, when deposited in the University Library\*, being made available for loan and photocopying subject to the copyright Act 1968.

\*Unless an Embargo has been approved for a determined period.

Dr Jacqueline Bailey

Research Student

21.11.2019

### Acknowledgement of Collaboration

I hereby certify that the work embodied in this thesis has been done in collaboration with other researchers. I have included as part of this thesis a statement clearly outlining the extent of collaboration, with whom and under what auspices.

I contributed to the: development of the research question, research design and methodology, development and modification of the survey instrument, managed data collection procedures, cleaned the data, led the statistical analysis, interpretation of results and writing of the manuscript. Dr Tara Clinton-McHarg contributed to the development of the research question, interpretation of results, preparation and editing of the manuscript. Professor Jenny Bowman contributed to the development of the research question, research design and methodology, development and modification of the survey instrument, interpretation of results, preparation and editing of the manuscript. Dr Paula Wye contributed to the development of the research question, research design and methodology, data collection, development and modification of the survey instrument, interpretation of results, preparation and editing of the manuscript. Professor John Wiggers contributed to the development of the research question, interpretation of results, preparation and editing of the manuscript. Dr Kate Bartlem contributed to the development of the research question, interpretation of results, preparation and editing of the manuscript.

Dr Jacqueline Bailey

Research Student

21.11.2019

Statement of Authorship

I hereby certify that the work embodied in this thesis contains a manuscript of which I am a joint author. I have included as part of the thesis a written statement, endorsed by my supervisor, attesting to my contribution to the joint work.

Dr Jacqueline Bailey

Research Student

21.11.2019

Dr Tara Clinton-McHarg

Primary Research Supervisor

21.11.2019

### Acknowledgments

Firstly, I would like to express my sincere gratitude to the participants who gave their time to this research and shared their experiences with the research team. To my supervisors Dr. Tara Clinton-McHarg and Professor Jenny Bowman. Thank you for your support and guidance these past two years. I cannot express how grateful I am to have had the opportunity to learn from you and further develop my research skills. Thank you to Dr. Paula Wye, Professor John Wiggers, and Dr. Kate Bartlem for your guidance and contribution to this manuscript.

To the Physical Health in Mental Illness (PHiMI) research team and my 'Aviation Office Buddies', thank you for making it a joy to come to work each day. We have celebrated many different research wins over the years and our ability to make the most of those wins really motivated me to keep going. I look forward to seeing the amazing achievements you will all continue to make throughout your careers. To my fellow clinical masters students, thank you for your company on this journey. You have all aided me in numerous ways, whether it be through our group study sessions, or our many social gatherings which provided a much needed break from study. It is a privilege to begin my clinical career with all of you and I know I am a better clinician because of our time together.

To my parents who have always supported me in all aspects of my life. The support and assistance you have given me to achieve my career goals goes above and beyond what any daughter could hope for. Mum and Dad, thank you. I love you.

This thesis is dedicated to my husband Brendon. Your belief in me has given me a strength and determination I would not have found without you. I cannot wait to see what we can achieve together next.

## Table of Contents

Statement of Originality .....	ii
Acknowledgment of Collaboration .....	iii
Statement of Authorship .....	iv
Acknowledgments .....	v
Table of Contents .....	vi
List of Tables .....	viii
List of Appendices .....	ix
Manuscript .....	1
Title Page .....	3
Abstract.....	4
Background.....	6
Methods .....	13
Aims.....	13
Design and Setting.....	13
Participants and Recruitment.....	14
Measures .....	15
Data Analysis.....	17
Results .....	19
Sample characteristics.....	19
Expectations of care provision.....	22
Health risk behaviour status.....	23

Perceived mental health effects of fruit and vegetable consumption and physical activity .....	23
Associations between socio-demographic and attitudinal variables, with expectations of care provision .....	25
Discussion.....	28
Conclusions .....	31
Abbreviations: .....	33
Declarations: .....	34
References .....	35
Appendices .....	48

## List of Tables

Table 1. Socio-demographic characteristics .....	20
Table 2. Expectations of care in health and community service settings.....	22
Table 3. Perceived health effects of fruit and vegetable consumption and physical activity on mental health .....	24
Table 4. Variables associated with expectations of fruit and vegetable consumption and physical activity care provision.....	26



## List of Appendices

Appendix A: Journal Submission Guidelines .....	48
Appendix B: Ethics Approval .....	72
Appendix C: Information Statement and Consent Form.....	78
Appendix D: Recruitment Material.....	83
Appendix E: Survey Instrument.....	84
Appendix F: Published Manuscript.....	134

Manuscript:

Preventive Care for Physical Activity and Fruit and Vegetable Consumption: A Cross-  
Sectional Survey of Family Carer Expectations of Health Service Delivery for People  
with a Mental Health Condition

This thesis is formatted for submission to peer-reviewed journal BMC Health  
Services Research, refer to Appendix A for submission guidelines.

This manuscript has been published since submission in partial fulfillment for the award of degree. The published manuscript underwent minor edits as part of the peer-review process and may contain minor differences to the manuscript in this thesis. Refer to Appendix F for the published manuscript. The details of the published manuscript are:

Jacqueline Bailey, Tara Clinton-McHarg, Paula Wye, John Wiggers, Kate Bartlem, Jenny Bowman (2020). Preventive care for physical activity and fruit and vegetable consumption: A survey of family carer expectations of health service delivery for people with a mental health condition. *BMC Health Services Research*, 20 (201). Doi: 10.1186/s12913-020-5059-0

Preventive Care for Physical Activity and Fruit and Vegetable Consumption: A Cross-  
Sectional Survey of Family Carer Expectations of Health Service Delivery for People  
with a Mental Health Condition

Jacqueline M. Bailey BPsych Hons,<sup>a,b\*</sup> Tara L. Clinton-McHarg PhD,<sup>a,b</sup> Paula M. Wye  
PhD,<sup>a,b</sup> John H. Wiggers, PhD<sup>b,c,d</sup> Kate M. Bartlem PhD,<sup>a,b</sup> & Jennifer A. Bowman  
PhD,<sup>a,b</sup>

- a. School of Psychology, Faculty of Science and Information Technology, The  
University of Newcastle, University Drive, Callaghan, NSW, 2308, Australia.
- b. Hunter Medical Research Institute, Clinical Research Centre, Lot 1 Kookaburra  
Circuit, New Lambton Heights, NSW, 2305, Australia.
- c. Population Health, Hunter New England Local Health District, Booth Building,  
Wallsend Health Services, Longworth Avenue, Wallsend, NSW, 2287, Australia.
- d. School of Medicine and Public Health, Faculty of Health and Medicine, The  
University of Newcastle, University Drive, Callaghan, NSW, 2308, Australia.

\*Corresponding author: Jacqueline Bailey: [jacqueline.m.bailey@uon.edu.au](mailto:jacqueline.m.bailey@uon.edu.au)

Telephone: +61249854485

Fax: +61249 216 980

Postal address: School of Psychology, Faculty of Science and Information Technology,  
The University of Newcastle, University Drive, Callaghan, NSW, 2308, Australia.

Keywords: Chronic disease risk behaviours, Caregiver, Mental illness, Health Services,  
Fruit and vegetable consumption, Physical activity.

Word count: 5147

### Abstract

**Background:** Chronic disease is a leading cause of death globally, where inadequate fruit and vegetable consumption and inadequate physical activity are consistently implicated as key contributing risk factors. People with a mental health condition are reported to experience a higher prevalence of such risks and experience increased morbidity and mortality from resultant chronic disease. Despite guidelines identifying a need for services accessed by people with a mental health condition to provide care to address such health risk behaviours, sub-optimal care is frequently reported suggesting a need for innovative strategies to increase the provision of physical health care. An exploratory study was conducted to examine: 1) family carers' expectations of care provision regarding fruit and vegetable consumption and physical activity by health and community services for people with a mental health condition; 2) carer's own health risk behaviour status and perceptions of the influence of the health risk behaviours on mental health; and 3) possible associations of socio-demographic, clinical and attitudinal factors with carer expectations of care provision for fruit and vegetable consumption and physical activity.

**Methods:** Family carers of people with a mental health condition completed a cross-sectional survey. Participants were members of a mental health carer support organisation from New South Wales, Australia.

**Results:** A high proportion of participants (n=144 total, 38.8% response rate) believed care for fruit and vegetable consumption and physical activity respectively should be provided by: mental health hospitals (78.5%, 82.7%); community mental health services (76.7%, 85.9%); general practice (81.1%, 79.2%); and non-government organisations (56.2%, 65.4%). Most participants perceived that adequate fruit and vegetable consumption (55.9%), and physical activity (71.3%) would have a very positive impact on mental health. Carers who perceived adequate fruit and vegetable consumption and

physical activity would have a positive impact on mental health were more likely to expect care for such behaviours from some services.

**Conclusions:** The majority of participants expected care for fruit and vegetable consumption and physical activity be provided by all services catering for people with a mental health condition. Findings reinforce the appropriateness for such services to provide physical health care for clients in a systematic manner.