


The impact of peer-led falls prevention education on community-dwelling older adults: A mixed methods evaluation

Linda Khong

Follow this and additional works at: <http://researchonline.nd.edu.au/theses>

 Part of the [Physiotherapy Commons](#)

COMMONWEALTH OF AUSTRALIA
Copyright Regulations 1969

WARNING

The material in this communication may be subject to copyright under the Act. Any further copying or communication of this material by you may be the subject of copyright protection under the Act.
Do not remove this notice.

**The Impact of Peer-Led
Falls Prevention Education on
Community-Dwelling Older Adults:
A Mixed Methods Evaluation**

Linda Ai Mei Khong

M Manips Therapy, BAppSc (Physio Hons), B. Business Admin

School of Physiotherapy

A thesis submitted to fulfil the
requirement for the degree of
Doctor of Philosophy

The University of Notre Dame Australia
October 2016

Author's Declaration

I affirm that this thesis contains no material previously published or written by another person, except where due reference is made in the thesis, and that it contains no work which the student has previously presented for an award of the University or any other educational institution.

Contribution by others to the journal articles that contribute to the body of this thesis are listed in the Statement of Contributors.

Linda Khong

Table of Contents

Author’s Declaration.....	ii
Table of Contents.....	iii
List of Appendices.....	ix
List of Figures.....	x
List of Tables.....	xi
Abstract.....	xiii
Publications, Presentations and Awards.....	xv
Statement of Contribution by Others.....	xvii
Acknowledgements.....	xix
Key Terms (Definitions).....	xxi
List of Abbreviations.....	xxv
Chapter 1 : Introduction.....	1
1.1 Chapter Outline.....	1
1.2 Introduction.....	2
1.3 Overview of Chapters.....	3
Chapter 2 : Review of the Literature.....	7
2.1 Scope of the Review.....	7
2.2 Defining a Fall.....	7
2.3 The Research Problem.....	8
2.3.1 Epidemiology of falls among community-dwelling older adults.....	9
2.3.2 Evidence for reducing falls among the community-dwelling older adult population.....	17
2.3.3 Section summary.....	21
2.4 Older Adults’ Engagement in Falls Prevention Programs.....	21
2.4.1 Factors influencing older adults’ engagement and uptake of falls prevention strategies: Enablers and barriers.....	23
2.4.2 Synthesis of recommendations.....	28
2.4.3 Section summary and critique of findings.....	30
2.5 Providing Education-based Interventions to Reduce Falls.....	30
2.5.1 Rationale for providing education for older adults as an intervention to reduce falls.....	31

2.5.2	Studies evaluating the provision of patient-directed education for falls prevention.....	47
2.6	Providing Peer Education for Falls Prevention	58
2.6.1	Definition of peer and peer education.....	59
2.6.2	Rationale, benefits and challenges of peer-led education in health.....	61
2.6.3	Peer education conducted for older adults in the area of falls prevention	64
2.7	Summary of Research Gap.....	76
2.8	Research Aims	77
Chapter 3 :	Research Methods	79
3.1	Chapter Outline	79
3.2	Research and Thesis Structure	80
3.2.1	Research design	80
3.2.2	Overview of research methods used	81
3.2.3	Research aims and studies in the thesis.....	83
3.3	Ethical Considerations of the Research.....	84
3.3.1	Approvals.....	84
3.3.2	Data management.....	85
3.4	Research Setting and Participants	85
3.4.1	Community organisation and partner.....	85
3.4.2	Community engagement officer.....	85
3.4.3	Existing peer-led falls prevention program and presentations in the community	86
3.4.4	Volunteer peer educators (Phase 1 Study 1).....	88
3.4.5	Community-dwelling older adults (Phase 1 Study 2)	88
3.4.6	Expert reviewers (Phase 1 Study 3).....	89
3.4.7	Quasi-experimental trial: Community groups who received the peer-led presentations (Phase 2 Study 4)	90
3.4.8	Consumer involvement in research: Role of community-dwelling older adults.....	91
3.5	Data Collection and Procedure.....	91
3.5.1	Peer educators' focus groups and semi-structured interviews (Phase 1 Study 1)	92
3.5.2	World Café community-based participatory forum (Phase 1 Study 2).....	93
3.5.3	Expert review: Mixed methods evaluation (Phase 1 Study 3)	97
3.5.4	Quasi-experimental trial of peer-led education program (Phase 2 Study 4).....	98
3.6	Data Analysis	101

3.6.1	Peer educators' focus groups and semi-structured interviews (Phase 1 Study 1)	101
3.6.2	World Café community-based participatory forum (Phase 1 Study 2).....	103
3.6.3	Expert review: Mixed methods evaluation (Phase 1 Study 3)	103
3.6.4	Evaluation of peer-led falls prevention education program (Phase 2 Study 4)	104
3.7	Summary of Chapter	105
Chapter 4 :	Exploring Peer Educators' Views About How Peer-Led Falls Prevention Education Should be Provided for Community-Dwelling Older Adults – A Qualitative Study	106
4.1	Chapter Outline	106
4.2	Abstract	107
4.3	Background	108
4.4	Study Design and Methods	109
4.4.1	Study design.....	109
4.4.2	Participants and setting	110
4.4.3	Data collection and procedure.....	110
4.4.4	Data analysis	113
4.5	Findings.....	113
4.5.1	Motivations	114
4.5.2	Personal factors.....	115
4.5.3	Organisational factors	117
4.6	Discussion	119
4.7	Limitations	121
4.8	Summary of Chapter	122
Chapter 5 :	How Community-Dwelling Older Adults Would Like Falls Prevention Information Delivered: Fresh Insights from a World Café Forum.....	123
5.1	Chapter Outline	123
5.2	Abstract	124
5.3	Background	125
5.4	Study Design and Methods	126
5.4.1	Study design.....	126
5.4.2	Participants and setting	126
5.4.3	Areas of discussion for the community forum.....	127
5.4.4	World Café community forum procedure.....	128
5.4.5	Data analysis	128
5.5	Findings.....	129
5.5.1	Participant characteristics	129

5.5.2	Factors that trigger a search for falls prevention information.....	129
5.5.3	The sources and approaches to find falls prevention information .	130
5.5.4	Factors that make falls prevention information more meaningful to older adults.....	131
5.5.5	The preference for receiving falls prevention information from trustworthy sources	131
5.5.6	Interpersonal communication.....	132
5.5.7	Positive evidence-based perceptions and strategies to reduce risk of falling.....	133
5.5.8	Non-evidence-based perceptions and strategies to reduce risk of falling	133
5.5.9	Community awareness and an understanding about falls and falls prevention.....	134
5.5.10	Themes summarised in an explanatory model	134
5.6	Discussion	135
5.7	Limitations	138
5.8	Summary of Chapter	138
Chapter 6 :	Providing Community Peer-Led Falls Prevention Presentations: What do Health, Education and Falls Prevention Experts Suggest?.....	139
6.1	Chapter Outline	139
6.2	Abstract	140
6.3	Background	141
6.4	Study Design and Methods	141
6.4.1	Study design.....	141
6.4.2	Participants and setting	141
6.4.3	Methodology and instrumentation	142
6.4.4	Data analysis	144
6.5	Results and Discussion.....	144
6.5.1	Expert rating of the peer-led presentations	144
6.5.2	Key themes.....	147
6.6	Limitations	153
6.7	Summary of Chapter	154
Chapter 7 :	Design and Development of a Peer-Led Falls Prevention Education Program: A Systematic Approach with Theoretical and Practical Considerations.....	155
7.1	Chapter Outline	155
7.2	Abstract	156
7.3	Background	157
7.4	Identifying the Problem: Older Adults' Low Level of Engagement in Recommended Falls Prevention Strategies (Step 1)	158

7.5	Assessing the Problem (Step 2).....	158
7.6	Forming Possible Solutions and Using These for the Design and Development of the Peer-led Falls Prevention Education Program (Step 3)	161
7.6.1	Development of the peer-led falls prevention education program.	161
7.6.2	Development, content and structure of the workshop to train new peer educators.....	162
7.6.3	Resources developed for use by the facilitator of the workshop....	164
7.6.4	Resources developed for self-directed learning by the peer educators	165
7.6.5	Development of the peer-led falls prevention presentation	166
7.7	Evaluating the Selected Behaviour Change Intervention (Peer-led Falls Prevention Education Program) (Step 4).....	170
7.7.1	Questionnaire outcome measures.....	170
7.7.2	Establishing validity and reliability of the questionnaire.....	171
7.7.3	Test-retest reliability of the questionnaire.....	173
7.7.4	Pilot trial of the questionnaire.....	173
7.8	Other Considerations.....	174
7.8.1	Program fidelity	174
7.8.2	Structure in reporting the program.....	176
7.9	Summary of Chapter	177
Chapter 8 :	Can Peer Education Improve Beliefs, Knowledge, Motivation and Intention to Engage in Falls Prevention Strategies Amongst Community-Dwelling Older Adults?	178
8.1	Chapter Outline	178
8.2	Abstract	179
8.3	Background	180
8.4	Study Design and Methods	180
8.4.1	Study design.....	180
8.4.2	Participants and setting	181
8.4.3	Recruitment of participants.....	181
8.4.4	Control conditions.....	181
8.4.5	Intervention	183
8.4.6	Data collection and procedure.....	184
8.4.7	Data analysis	186
8.4.8	Sample size	187
8.5	Results	187
8.6	Discussion	196
8.7	Limitations	197

8.8	Summary of Chapter	199
Chapter 9 :	Research Summary, Recommendations and Conclusion	200
9.1	Chapter Outline	200
9.2	Introduction	201
9.3	Summary and Synthesis of Findings	202
9.3.1	Phase 1: Key stakeholders' perspectives about falls prevention information and education	203
9.3.2	Phase 2: Design, development and evaluation of a new peer-led falls prevention education program.....	206
9.4	Strengths of the Research.....	208
9.5	Limitations and Challenges of the Research	212
9.6	Implications for Practice	215
9.7	Recommendations for Future Research	215
9.8	Conclusion.....	217
	References.....	218

List of Appendices

Appendix A : Ethical Approval	273
Appendix B : Support from Community Organisation.....	278
Appendix C : Search Strategy and Summary of Factors Influencing Older Adults’ Engagement and Uptake of Falls Prevention Strategies (Systematic Review)	281
Appendix D : Summary of included Studies: Providing Falls Prevention Education for Older Adults (Systematic Review)	286
Appendix E : ICCWA Falls Prevention Brochure: Nine steps to Stay on Your Feet....	293
Appendix F : Focus Group Interview Guide (Phase 1 Study 1) (<i>Chapter 4</i>)	295
Appendix G : Semi-structured Interview Guide: Follow-up (Phase 1 Study 1) (<i>Chapter 4</i>)	297
Appendix H : World Café Publicity: Flyer (Phase 1 Study 2) (<i>Chapter 5</i>)	298
Appendix I : World Café Briefing Notes for Table Facilitators (Phase 1 Study 2) (<i>Chapter 5</i>)	300
Appendix J : World Café Evaluation Form (Phase 1 Study 2) (<i>Chapter 5</i>)	304
Appendix K : World Café Community Forum Conference Poster (Phase 1 Study 2) (<i>Chapter 5</i>)	306
Appendix L : Expert Review Questionnaire (Phase 1 Study 3) (<i>Chapter 6</i>).....	307
Appendix M : Briefing for Experts: Slides (Phase 1 Study 3) (<i>Chapter 6</i>).....	313
Appendix N : Participant Questionnaire (Phase 2 Study 4) (<i>Chapter 8</i>)	320
Appendix O : Peer-led Falls Prevention Education Program: Training Workshop (<i>Chapter 7</i>)	326
Appendix P : Peer-led Falls Prevention Education Program: Guidebook for Peer Educators (<i>Chapter 7</i>)	353
Appendix Q : Peer-Led Falls Prevention Education Program: Fidelity Checklist for use by Community Organisation or Peer Educators (<i>Chapter 7</i>).....	396

List of Figures

Figure 2.1	Flowchart of Articles Screened, Evaluated and Included in the Review of Enablers and Barriers in Falls Prevention (Community-Based).....	25
Figure 2.2	Flowchart of the Search and Selection for Articles Included in the Review of Providing Falls Prevention Education for Older Adults.....	49
Figure 2.3	Flowchart of the Search and Selection of Articles Included in the Review of Peer-Led Falls Prevention Education Studies.....	67
Figure 3.1	Mixed Methods Design of Research.....	81
Figure 3.2	Structure of the Thesis.....	83
Figure 4.1	Research Design for Exploring the Perceptions of Peer Educators About Delivering Falls Prevention Education to Community-Dwelling Older Adults.....	109
Figure 4.2	Conceptual Framework Describing Peer Educators' Perceptions of the Mechanism of how they Deliver the Falls Prevention Message to Older Adults.....	114
Figure 5.1	Explanatory Model of Older Adults' Preferences regarding Facilitating Engagement and Uptake of Falls Prevention Information.....	135
Figure 6.1	Five Key Themes for the Effective Delivery of a Falls Prevention Presentation: A Framework Based on Expert Recommendations.....	147
Figure 7.1	Overview of the Process Used to Design the Peer-Led Falls Prevention Education Program.....	162
Figure 7.2	Process Undertaken to Train New Peer Educators to Deliver Peer-Led Falls Prevention Education Program.....	166
Figure 7.3	Steps Taken to Establish Validity and Reliability of the Proposed Research Outcome Questionnaire.....	172
Figure 8.1	Flow Diagram of the Recruitment of Participants and Data Collection Process for Study 4.....	189
Figure 8.2	Categorisation Matrix: Participants' Knowledge of Falls Prevention Strategies Identified from Their Qualitative Responses.....	194

List of Tables

Table 2.1	Summary of Included Studies on Factors Influencing Older Adults' Engagement and Uptake of Falls Prevention Strategies.....	26
Table 2.2	Quality Assessment of Included Qualitative Studies	27
Table 2.3	Synthesised Summary of Older Adults' Views and Recommendations Derived from the Studies in Table 2.1	29
Table 2.4	Summary and Comparison of Four Theories: Insights to Determinants of Behaviour Change for Falls Prevention	37
Table 2.5	Summary of the Research of Knowles & Associates, Wlodkowski, Merriam & Bierema Applied to Falls Prevention Education	42
Table 2.6	Bloom's Knowledge Dimension Applied to Falls Prevention Education	43
Table 2.7	Studies Providing Falls Prevention Education for Older Adults in the Community	54
Table 2.8	Theories and Principles Applied in the Design of Hospital-Based Falls Prevention Education Trials and Effectiveness of Their Outcome Measures	57
Table 2.9	Definitions of the Characteristics of Peers and Peer-Led Interventions in the Literature	59
Table 2.10	Benefits, Justification and Rationale for Peer-Led Education in Health from Studies Involving Younger Populations	61
Table 2.11	Search Strategy Conducted in the Process of Systematic Review (Peer-Led Falls Prevention Education Studies).....	65
Table 2.12	Inclusion and Exclusion Criteria of Studies in Systematic Review (Peer-Led Falls Prevention Education)	66
Table 2.13	Evaluation and Rating of the Previous Peer-Led Falls Prevention Studies for Community-Dwelling Older Adults	68
Table 2.14	Overview of Previous Peer-Led Falls Prevention Studies for Community-Dwelling Older Adults.....	71
Table 3.1	Overview of the Research Methods Used in the Research Project	83
Table 3.2	Falls Prevention Community-Based Participatory Forum Using the World Cafe's Seven Principles	95
Table 4.1	Demographic Profile of the Focus Group Participants.	111
Table 6.1	Experts (n=10) Rating of the 3 Presentations Against Each Criterion (n=30)	145
Table 6.2	Expert Reviewers' Levels of Agreement for Each Domain of the Questionnaire	147
Table 6.3	Delivery of Peer-Led Falls Prevention Presentation to Community-Dwelling Older Adults: Experts' Recommendations	152

Table 7.1	Summary of Feedback from Key Stakeholders Conducted in Phase 1 and Literature Review.....	160
Table 7.2	Mapping of the Theoretical Frameworks and Adult Learning Principles to Address Identified Barriers to Engagement in Falls Prevention	168
Table 7.3	Fidelity Considerations and Application for the Peer-Led Falls Prevention Education Program.....	174
Table 7.4	Reporting of the Education Program Using the Template for Intervention Description and Replication (TIDieR) (Hoffman et al., 2014)	176
Table 8.1	Training Sessions Undertaken to Prepare Peer Educators of Existing and Contemporary Programs to Deliver Peer-led Falls Prevention Education Presentations	182
Table 8.2	Test-Retest Reliability Agreement (per Participant Questionnaire item) Across Two Occasions, as Indicated by Kappa and Percentage Agreement	187
Table 8.3	Intraclass Correlation Coefficient for Test-Retest Agreement of the Outcome Mean Score Measures via Questionnaire	188
Table 8.4	Participants' Baseline Characteristics.....	190
Table 8.5	Participants' Responses at Baseline, Post-Presentation and at One Month Follow-Up.....	192
Table 8.6	Final GEE Models and Parameter Estimates for Each Behaviour Change Outcome	193
Table 8.7	Participants' Knowledge of Falls Prevention Strategies and Measures Identified in Their Plan	195
Table C.1	Search Strategy Conducted for the Systematic Review: Enablers and Barriers.....	281
Table C.2	Summary of Studies: Factors Influencing Older Adults' Engagement and Uptake of Falls Prevention Strategies (Enablers and Barriers) – Expanded Version.....	282
Table D.1	Search Strategy Conducted for the Systematic Review: Falls Prevention Education for Older Adults	286
Table D.2	Studies Investigating Falls Prevention Education for Older Adults in the Community – Expanded Version	287

Abstract

Older adults are not optimally engaged in falls prevention strategies. Peer education may be an approach to improving engagement and uptake of falls prevention strategies by community-dwelling older adults. However, empirical research regarding this approach has been inconclusive. Accordingly, the primary aim of this research was to design a peer-led falls prevention education program and evaluate its impact on community-dwelling older adults' beliefs, knowledge, motivation, and intention to engage in falls prevention strategies.

This research was a mixed methods study conducted in two phases. Phase 1 comprised three concurrent studies. These aimed to elucidate the issues regarding falls prevention education and information from key stakeholders and to inform the research in Phase 2. The aims of Phase 1 were, first; to seek key stakeholders' perspectives in order to gain a better understanding of the role of peer educators in falls prevention, second; to garner views about community-dwelling older adults' preferences for seeking and receiving falls prevention information, and third; to seek expert evaluation and opinion about the peer educators' presentations of falls prevention education for community-dwelling older adults.

Feedback from peer educators and expert reviewers indicated that peer education was a feasible and potentially effective approach to deliver education about falls prevention, but that the education should be presented in a personalised manner and incorporate adult learning principles and behaviour change theory. Older adults also suggested that practical strategies and information should be presented in a positive and respectful manner. Their prior experience of falling was found to be an important mediator to receptivity to falls prevention messages. Based on the findings of Phase 1, Phase 2 involved the design, development, implementation and evaluation of a new contemporary peer-led falls prevention education program. A longitudinal quasi-experimental trial (n=232) was conducted to compare the effectiveness of the presentation with the existing program, using a purpose-developed questionnaire.

Peer-led falls prevention education significantly increased older adults' beliefs that falls prevention measures would be useful, their knowledge about falls prevention strategies and intention to take measures to reduce their risk of falling. Older adults who received the contemporary program were significantly more likely to develop a clear action plan to engage in specific measures to reduce their risk of falling compared to the control group. Future research should investigate how well-designed peer education programs contribute to improving older adults' engagement in falls prevention.

Publications, Presentations and Awards

Some of the work included in this thesis has been published or submitted for publication or has been presented at conferences.

Publications

Khong, L., Farrington, F., Hill, K. D., & Hill, A-M. (2015). “We are all one together”: Peer educators' views about falls prevention education for community-dwelling older adults - a qualitative study. *BMC Geriatrics*, 15(28), 1-10. <http://dx.doi.org/10.1186/s12877-015-0030-3>

Khong, L., Bulsara, C., Hill, K. D., & Hill, A-M. (2016). How older adults would like falls prevention information delivered: Fresh insights from a World Café forum. *Ageing and Society*, 1-18. <http://dx.doi.org/10.1017/S0144686X16000192>

Bulsara, C., **Khong, L.**, Hill, K. D., & Hill, A-M. (2016). Investigating community perspectives regarding preferences for falls prevention education using a World Cafe approach. *Journal of Community Psychology*, 44(7), 937-944. <http://dx.doi.org/10.1002/jcop.21816>

Khong, L.A.M., Berlach, R. G., Hill, K. D., & Hill, A-M. (2017). Can peer education improve beliefs, knowledge, motivation and intention to engage in falls prevention amongst community-dwelling older adults? *European Journal of Ageing*. <http://dx.doi.org/10.1007/s10433-016-0408-x>

Manuscripts Submitted

Khong, L.A.M., Berlach, R. G., Hill, K. D., & Hill, A-M (in press). Community peer-led falls prevention presentations: What do experts suggest? *Journal of Primary Prevention*.

Khong, L.A.M., Berlach, R. G., Hill, K. D., & Hill, A-M. Design and development of a theory-informed peer-led falls prevention education program to translate evidence into practice: A systematic approach. Submitted for publication and under peer review.

Presentations

Khong, L., Hill, K. D., & Hill, A-M. (2013). *Peer-led falls prevention education: Does it work? Review of literature*. Paper presented at 11th Australasian Injury Prevention & Safety Promotion Conference, Fremantle, WA.

Khong, L. (2014). *Peer-led community falls prevention programme: Peer educators' perspectives*. Symposium conducted at the Institute for Health Research, Fremantle, WA.

Hill, A-M., Farrington, F., Hill, K. D., & **Khong, L.** (2015). *Peer-led community falls prevention program: Peer educators' perspectives*. Paper presented at the SCGH Grass-Roots Falls Festival, Perth, WA.

Khong, L., Farrington, F., Hill, K. D., & Hill, A-M. (2015). *Peer-led community falls prevention program: Peer educators' perspectives*. Paper presented at the World Confederation of Physical Therapy Congress, Singapore. *Physiotherapy*, 101, e744. <http://dx.doi.org:10.1016/j.physio.2015.03.3609>

Bulsara, C., **Khong, L.**, Hill, K. D., & Hill, A-M. (2015). *Using a World Café community forum to explore preferences of seniors about seeking and receiving falls prevention health-related information*. Poster presented at the 9th Health Services and Policy Research Conference and New Zealand, Melbourne, VIC.

Awards

Received the Australian Postgraduate Award (APA) scholarship from The University of Notre Dame Australia for undertaking the research doctorate. Was awarded a joint-scholarship with the Australian Government's Collaborative Research Networks (CRN) program.

Member of the winning team at the inaugural Australian-French 24-hour Entrepreneurship Challenge (2-3 June 2016), open to all doctoral candidates in Australia. This is facilitated by the Australian Academy of Science and supported by the French Embassy in Australia; the Department of Industry, Innovation and Science; The Australian National University; and the Australian and French business communities. A two-week sponsored study tour to France to visit top biomedical innovation research incubators and start-ups (7 to 20 September 2016).

Accredited titled Gerontological Physiotherapist in Australia since 2013.

Statement of Contribution by Others

The studies in this thesis were undertaken between May 2013- August 2015 through the School of Physiotherapy at The University of Notre Dame Australia and the Institute for Health Research in collaboration and partnership with Injury Control Council of Western Australia (ICCWA). The research was developed by the doctoral candidate Linda Khong in association with her supervisors and ICCWA. Linda Khong participated in all aspects of the research from initial stage of development of research questions, data collection, data analysis, drafting and authorship of the manuscripts included in this thesis. Her supervisors and several co-authors contributed to the studies as detailed below.

Associate Professor Anne-Marie Hill was the principal supervisor providing constant intellectual guidance and expertise throughout the doctoral candidate's research process. Anne-Marie contributed to all stages of all the studies included in this thesis ranging from initial study concept and design of each study to data analysis and editorial advice in the drafting of each manuscript as well as the thesis. Anne-Marie, through Collaborative Research Network funding, provided the main funding for this research.

Professor Keith Hill was the co-supervisor, providing constant intellectual guidance and expertise throughout the doctoral candidate's research process. Keith also contributed some funding to the research and contributed to all stages of all the studies in this thesis.

Adjunct Professor Richard Berlach was one of the supervisors, providing intellectual guidance and expertise especially pertaining to the educational aspects of the research and to the thesis. Richard was the key contributor to the conception of the expert review questionnaire in Study 3 (Chapter 6) and mentored the doctoral candidate over the development of the Guidebook that formed part of the intervention.

Chapter 4

Associate Professor Fiona Farrington was one of the authors of the paper in the chapter and contributed to the development, conceptualisation and design of Study 1, a qualitative study. Fiona guided the doctoral candidate with data interpretation, concepts and coding of the focus groups and interviews. Fiona also contributed to the interpretation of the results and reviews of the manuscript.

Chapter 5

Associate Professor Caroline Bulsara was one of the authors of the paper in the chapter. Caroline was instrumental with the conceptualisation of the World Café approach (methodology) of Study 2, a community participatory research forum. She was the main facilitator at the forum and provided expert guidance for this study including coding and data interpretation. Caroline also contributed to reviews of the manuscript.

Acknowledgements

*“Appreciation is a wonderful thing.
It makes what is excellent in others belong to us as well.”*

– Voltaire

This research was funded through the Australian Government’s Collaborative Research Networks (CRN) program as part of the Healthy Ageing stream of research being conducted by Associate Professor Anne-Marie Hill.

Firstly, I would like to thank my supervisors Associate Professor Anne-Marie Hill, Professor Keith Hill and Professor Richard Berlach for providing excellent and invaluable support, guidance and encouragement throughout the research process. I appreciate the time and effort you made to provide feedback and to share your insights. I have gained so much with your mentorship at every stage of the research.

Participants of the research, older adult community groups and especially ICCWA peer educators. I thank you for your sustained interest, dedication and enthusiasm, this research was only possible with your contribution.

Librarians at the Royal Perth Hospital (Martin Curry and Alex Petrie) and Curtin University especially Diana Blackwood. I am grateful for your support with my research and thank you for sharing your expertise with me so readily and promptly.

ICCWA’s staff especially Alexandra White and Juliana Summers. I thank you for excellent your support in my PhD journey. Your insights, experience and rapport with the community-dwelling older adults and community-based groups were invaluable for this research.

Institute for Health Research staff especially Professor Max Bulsara and Dr Paola Chivers. Both your enthusiasm and love of statistics were so infectious. Thank you for your expert guidance, I found analysis of the quantitative data in this research so fun and exciting.

Associate Professor Caroline Bulsara and Associate Professor Fiona Farrington. Your expertise in qualitative research methods, public health, health promotion and consumer involvement research made a significant contribution in this research. Love it.

The University of Notre Dame Australia's School of Physiotherapy and Sir Charles Gairdner Hospital. I am grateful for your help with administrative matters during the course of my work and research.

The University of Notre Dame Australia's Research Office's staff Dr Marc Fellman, Dr Kate Howell, Lorraine Mayhew, Anys Price and Richard King for your wonderful support whenever I needed help.

Hollywood Functional Rehabilitation Clinic colleagues especially Dr Brendan Joss and Nadine Gillman. Thank you for your support and assistance during the course of my research including pre-testing trials.

My friends Shanthi Kumarasamy, Sylvia Chua, Linda Ong and my alumni class of 1981, Michelle Strother-Hamilton, June Seow, Amy Finlay-Jones, Josephine Ratna, Christine Smith, Jan He Zhang, Chris Lewis, Frank Zhao, Mahnaz Zarshenas, Himanshu Gupta, Asmidawati Ashari, Vishnu Khanal, Vinicius Cavalheri, Beatrice Oliveira, Margaret Sealey, Kenny Lee, Judy Wilson, Vivienne Travlos, Amanda Timler, Laila Mola-Gampfer, Colin King, Belinda Lee, Rena Teo, Ivelynd Yong, Nigia Halim, Wai Keat, Mario Tobing (graphics designer for the guidebook) and Michael Done (*Format My Thesis*). I am grateful for all of your kindness in readily sharing your knowledge and spending time to help me in countless ways.

Finally, my family (Mother, sister Marie and brother Adrian) and my husband Andrew Towler whose unwavering support and steadfast belief that I can do it, I dedicate this to you.

Key Terms (Definitions)

Definition of older adult

For this research, an older adult was defined as someone 60 years and above. This chronological cut-off age definition accords with the definition by previous peer-led falls prevention education programs and other research studies (Deery, Day, & Fildes, 2000; Garner, Kempton, & Van Beurden, 1996; Gillespie et al., 2012).

Definition of community-dwelling

For this research, community-dwelling older adults were defined as those living at home or residences that do not provide residential health-based care or rehabilitative services such as retirement villages (Gillespie et al., 2012). This excludes those older adults living in residential care facilities or older adult populations in hospitals.

Definition of a fall

For this research, a fall was defined as “an unexpected event which results in a person coming to rest on the ground or floor or other lower level” (Lamb et al., 2005, p. 1619).

Definition of peer education

Peer education has been described as an “umbrella” term (Shiner, 1999, p. 557) used to describe a range of interventions and learning approaches where both the educator and the peers share an affinity with a characteristic such as age or experience.

Café table facilitator

A facilitator who stays at each table of community members at the community forum.

COM-B model, TDF and BCT

The COM-B model is the central model of behaviour of the Behaviour Change Wheel theory (Michie, van Stralen, & West, 2011). It is an acronym for Capability, Opportunity and Motivation impacting on behaviour. The COM-B model hypothesises that behaviour is influenced by the three core constructs of capability, opportunity and motivation, and any required change in health behaviour will be dependent on changing any of these constructs (Michie, West, Campbell, Brown, & Gainforth, 2014). The Theoretical Domains Framework (TDF) (Cane, O'Connor, & Michie, 2012) is an expansion of the COM-B model's concepts. Behaviour change technique (BCT) is an observable, replicable "active component of an intervention designed to change behaviour" (Michie et al., 2014, p. 234; Michie, Fixsen, Grimshaw, & Eccles, 2009). BCT is the mechanism applied to change behaviour in an intervention (Michie et al., 2014).

Community forum

A gathering of diverse members of the community with the aim of participation and discussion around the target topic.

Contemporary peer-led falls prevention program

A newly-developed program designed by the research team. It consisted of a peer-led falls prevention presentation, a workshop to train new peer educators and resources to support the program. This is elaborated on in Chapter 7 of this thesis.

Expert

A person who possesses the context knowledge, cognitive skills, tacit knowledge, insight and higher-order pattern recognition required in effective problem analysis.

ICCWA

Injury Control Council of Western Australia <https://www.iccwa.org.au>. A not-for-profit community organisation that currently runs programs for the community including education in falls prevention for older adults in the Perth metropolitan areas.

Speaker's kit

This is a resource kit that contains a DVD, video-tape and booklet that the peer educators bring to show the audience at their talks.

COTA

Council on the Ageing Australia, or branch. e.g. COTA Western Australia <http://www.cotawa.org.au>. A membership-based organisation of older Australians whose aim is to make a difference through education and advocacy including in the area of health. COTA Australia is the peak national organisation representing the rights, needs and interests of older Australians.

Carers WA

Carers Association of WA <http://www.carerswa.asn.au> is a non-profit, community-based organisation and registered charity organisation that represents carers' interests in the Western Australia community. It is a peak body recognised by both the State and Federal governments as the voice of family carers.

Curtin FM Radio

Curtin FM Radio <http://curtinfm.com.au/> is a community-based network broadcasting from the campus of Curtin University. The station caters to a mature audience that favours music from the 50s, 60s and 70s, throughout Perth metropolitan area and internet.

Health Consumers Council of WA

Health Consumers' Council of WA (HCC) <http://www.hconc.org.au/home> is an independent voice to raise awareness and advocate for health consumers' rights in Western Australia.

National Seniors Australia WA

National Seniors Australia <http://nationalseniors.com.au> is a consumer lobby for older Australians and advocates on issues of importance to senior Australians and identifies trends in ageing.

Probus Clubs

Probus clubs <https://probuswa.wordpress.com/> are for retired or semi-retired business or professional people. Probus clubs can be found world-wide and were formed with the aim of providing fun, fellowship and intellectual stimulation amongst active seniors.

List of Abbreviations

ADL	Activities of Daily Living
AIDS	Acquired Immunodeficiency Syndrome
BCT	Behaviour Change Techniques
CASP	Critical Appraisal Skills Program
CINAHL	Cumulative Index to Nursing and Allied Health Literature
COM-B Model	Capability, Opportunity, Motivation-Behaviour Model
DVD	Digital Video Disc
EMBASE	Excerpta Medica database
GEE	Generalised Estimating Equation
HIV	Human Immunodeficiency Virus
ICC	Intraclass Correlation Coefficient
ICCWA	Injury Control Council of Western Australia
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
RCT	Randomised Controlled Trial
TDF	Theoretical Domains Framework
WA	Western Australia