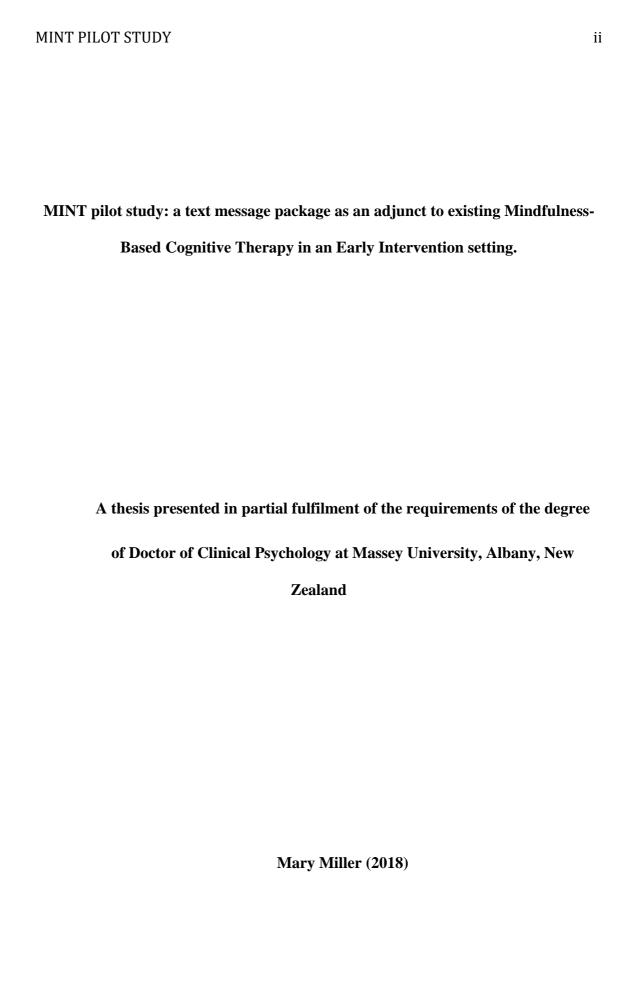
Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

MINT PILOT STUDY i

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only.

The thesis may not be reproduced elsewhere without the permission of the Author.



MINT PILOT STUDY iii

Abstract

Background: Mindfulness-Based Cognitive Therapy (MBCT) is being used in an increasing number of settings including Early Intervention (EI) for psychosis services. People with psychotic symptoms face difficulties including compliance problems with home-based practice, which may affect the utility of MBCT. This study aimed to examine whether text message technology could be used as an adjunct to support home-based practice. Method: A single case multiple baseline design was used to assess the mindfulness text message intervention (MINT) in 11 participants. Results: There was a statistically significant increase of group mean total practice time per week of 7.1 minutes from the baseline to post-intervention phase, with a medium effect size. There were no statistically significant results for change in mindfulness skills or depression and anxiety symptoms. Discussion: Text messages can be used as an adjunct to support home-based practice in an EI setting. The amount of home-based practice required to produce an improvement in clinical outcomes is unclear. Future studies may explore the variation between participants found and the use of MINT in other settings.

MINT PILOT STUDY iv

Acknowledgements

Firstly, I would like to thank Auckland District Health Board for allowing me to conduct the research within its service. Specifically, thank you to Jeremy Clark who first showed interest in assisting with the trial, through his work in the Early Intervention service, St Lukes. I am very grateful to Dr Celeine Wills and Averil Abbott who also joined as clinicians from the Early Intervention service. This research would not have been possible without their enthusiasm, time and energy.

Secondly, thank you to my supervisors, Dr Heather Kempton, Associate

Professor Paul Merrick, and Dr Tatiana Tairi, for the time and expertise that they added to my work. Additional thanks to Massey University for access to the post-graduate research fund, which helped support the technical delivery of the intervention.

Thirdly, I would like to thank the clinical psychology students, past and present, who really know what this journey is like and who can offer support and insight from the 'inside'. A very big thank you to Dr Marion Roberts for your wisdom and for providing valuable insights. Thank you so much to Richard Macfarlane for your Word wizardry. A special thanks to the best study buddy Joanna Macfarlane.

Next I would like to acknowledge the role of my mindfulness community (the New Zealand sangha, Sister Shalom and Dharma Gaia) and the Eastwest yoga teachers and students. These practices really helped keep body and soul together while I worked through my thesis.

Lastly, and most importantly, a huge thank you to my family and friends for your support and encouragement. Ruben Miller for being a wonderful husband with a forensic eye for detail, and Bibi and Miles for the unconditional love and playfulness when I needed it most.

v

Table of contents

Chapter 1 - Mindfulness Based Cognitive Therapy	3
The origins of Mindfulness Based Cognitive Therapy	3
Mindfulness Based Cognitive Therapy	5
Evidence for the efficacy of MBCT	14
Summary	19
Chapter 2 – Mindfulness Based Cognitive Therapy and clients with psychotic	
symptoms	. 20
Mindfulness and meditation	20
Mindfulness Based Cognitive Therapy and psychotic symptoms	21
Summary	31
Chapter 3 – Home-based practice	. 32
Defining 'home-based practice'	32
The theory of why home-based practice is important	33
Evidence that MBCT home-based practice improves outcomes	34
Compliance with home-based practice	38
Potential barriers to home-based practice compliance for clients with psychotic	
symptoms	43
Possible means of supporting home-based practice compliance for clients with	
psychotic symptoms	44
Summary	45
Chapter 4 - Text messages as a way of supporting home-based practice	. 47
Text messaging technology	47
Text messaging research	49

Mechanisms through which text messages may increase home-based practice	2
compliance	57
Summary	61
Chapter 5 – The current study and intervention development	64
Rationale for the current study	64
Hypotheses	66
Development of the intervention	67
Chapter 6 – Method	71
Research design	71
Study design	75
Treatment context	75
Participants	76
Procedure	78
Measures	80
Data analysis strategy	84
Ethical considerations	91
Chapter 7 – Results	94
Section 1 - Group data	94
Section 2 - Individual data	107
Section 3 - Additional data	129
Chapter 8 - Discussion	132
Section 1 – Discussion of results compared to hypotheses	132
Section 2 – Areas of interest from the study	133
Section 3 – Strengths and limitations	146

MINT PILOT STUDY	vii

Section 4 - Conclusions and future directions	49
---	----

List of tables

Table 1. Demographic information
Table 2. Items on the PHQ-481
Table 3. Effect size percentiles for NAP
Table 4. Total practice group data95
Table 5. Group CAMS-R data
Table 6. PHQ-4 group scores
Table 7. PC01 total practice
Table 8. PC01 PHQ-4 scores
Table 9. PC04 total practice
Table 10. PC04 PHQ-4 scores
Table 11. PC06 total practice
Table 12. PC06 PHQ-4 scores
Table 13. PC07 total practice
Table 14. PC07 PHQ-4 scores
Table 15. PC08 total practice
Table 16. PC08 PHQ-4 scores
Table 17. PC09 total practice
Table 18. PC09 PHQ-4 scores
Table 19. PC10 total practice
Table 20. PC10 PHQ-4 scores
Table 21. Participant ratings for MINT
Table 22. Participant survey responses

MINT PILOT STUDY ix

List of figures

Figure 1. Brinley plot graph86
Figure 2. Brinley Plot of A1B1 change for group total practice. Total practice in
minutes is shown on both axes. A1 is shown on the x-axis and B1 on the y-axis96
Figure 3. Brinley Plot of A1A2 change for group total practice. Total practice in
minutes is shown on both axes. A1 is shown on the x-axis and A2 on the y-axis96
Figure 4. Time series for group total practice
Figure 5. Brinley plot of A1B1 change for the CAMS-R. The CAMS-R score is shown
on both axes. A1 is shown on the x-axis and B1 on the y-axis102
Figure 6. Brinley plot of A1A2 change for the CAMS-R. The CAMS-R score is shown
on both axes. A1 is shown on the x-axis and A2 on the y-axis
Figure 7. Brinley plot of A1B1 change for the PHQ-4. PHQ-4 scores are shown on both
axes. A1 is shown on the x-axis and B1 on the y-axis105
Figure 8. Brinley plot of A1A2 change for the PHQ-4. PHQ-4 scores are shown on both
axes. A1 is shown on the x-axis and A2 on the y-axis
Figure 9. PC01 total practice
Figure 10. PC01 PHQ-4 scores.
Figure 11. PC04 total practice
Figure 12. PC04 PHQ-4 scores.
Figure 13. PC06 total practice
Figure 14. PC06 PHQ-4 scores
Figure 15. PC07 total practice
Figure 16. PC07 PHQ-4 scores
Figure 17. PC08 total practice
Figure 18. PC08 PHQ-4 scores.

MINT PILOT STUDY x

Figure 19. PC09 total practice	123
Figure 20. PC09 PHQ-4 scores.	125
Figure 21. PC10 total practice.	126
Figure 22. PC10 PHQ-4 scores.	128