

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.

**EXPLANATORY STYLE AND DEPRESSION:
THE ROLE OF ACTIVITY**

A thesis presented in partial fulfilment of the requirements for the degree of

Doctor of Clinical Psychology

at Massey University, Albany, New Zealand.

Rachel Helen Findlay

2011

Dedicated to my parents

Howard Anthony and Sheila Elizabeth Findlay

For your continual love and support

And to my late grandmother

Lily Irene Findlay (Erb)

For teaching me that

“Every little bit helps...”

Abstract

Learned helplessness theory and its subsequent reformulation propose that a pessimistic explanatory style renders an individual vulnerable to depression. A large body of literature has supported this association within various samples and utilising a range of methodologies. No prior study has explored explanatory style and depression among a New Zealand sample of clinically depressed adults. Furthermore, no prior research has examined the role of activity level or activity type in relation to these variables. Given the importance of behavioural activation in recovery from depression, Study 1 aimed to bridge this gap. The sample consisted of 29 adult clients diagnosed with Major Depressive Disorder (MDD) and receiving a 20 session protocol of Cognitive Behaviour Therapy (CBT) as part of *The Depression Study*; a treatment outcome study conducted at Massey University, Albany, Auckland, New Zealand. Data were derived from intake assessment scores for explanatory style and depression severity, as measured via the *Attributional Style Questionnaire* (ASQ) and *Beck Depression Inventory–Second Edition* (BDI-II) respectively. Data were also derived from several activity level and activity type indices formulated for Study 1 by the use of information contained within activity charts; a tool used for a between-session task (homework) conducted early in CBT. Study 1 supported an association between a pessimistic explanatory style and depression severity and provisional support was found for the proposed model of the current project, implicating the role of activity among interactions between explanatory style and depression. In collecting data for Study 1 it became apparent that an adaptation to the activity chart may yield greater information particularly with regard to activity type, such as the extent to which social interaction occurred. Study 2 of the current research project aimed to compare the original activity chart with the adapted chart, by grouping *The Depression Study* clients according to whether they completed the original ($n = 15$) or the adapted ($n = 8$) activity chart, and comparing the data obtained. Mann-Whitney U tests confirmed that the adapted chart was more successful in collecting information regarding social interaction and ratings for mastery and pleasure. It is suggested that the adapted chart could be more beneficial in contrast to the chart typically used in CBT to date; this advantage could extend across both research and clinical settings for the examination of client activity.

Acknowledgements

I would first like to thank my primary supervisor, Dr. Jennifer Stillman, who has consistently made herself available throughout the entire time periods during which I worked on my MSc and DClinPsych theses. I would also like to thank my second supervisor, Associate Professor Paul Merrick, for all of his support and useful guidance in relation to my DClinPsych thesis and my clinical training in general. I feel fortunate to have had such approachable supervisors with a wealth of knowledge to share.

I am grateful to Dr. Nik Kazantzis, for his supervision during the earlier stages of this research, and for the added CBT training, experience, and clinical supervision that I gained as a member of *The Depression Study*. I would also like to thank Robyn Vertongen, who was my clinical supervisor throughout this involvement.

I would like to extend my appreciation to Associate Professor Mandy Morgan, for her understanding and support in recent months. I would also like to thank Associate Professor John Spicer, for his recent advice and guidance.

I am grateful for the fellow therapists of *The Depression Study* who I shared many ideas and experiences with, in particular Carol Osborne and Jeanne Daniels. I would also like to thank Margo Munro, a consistently helpful and valuable member of the research team. My utmost gratitude is extended to the participants of *The Depression Study*, for being willing to participate, complete numerous questionnaires, and share their experiences with their therapists, thus allowing the research to happen.

I am very appreciative of all the family, friends, and colleagues who have helped me in some way during my time conducting this research. A special thank you is extended to my partner, Lee Tomkins, for his unwavering support at a time when it was most needed. I am also very grateful to one of my dearest friends, Claire Toomey, for always understanding and knowing how, and when, to best support me. I would like to thank Bevan and Rachael Thomson, for helping me with printing, having me to stay, and for always listening. Finally, I would like to thank my previous manager, Alison Kirkpatrick, for her selfless kindness and understanding.

Table of Contents

Abstract	iii
Acknowledgements	iv
List of Tables	x
List of Figures	xi
LITERATURE REVIEW	1
INTRODUCTION AND OVERVIEW	1
CHAPTER 1: Definition, History, and Theories of Explanatory Style	2
Major Depressive Disorder: Definition, prevalence, and assessment.....	2
The learned helplessness theory.....	4
The reformulated learned helplessness theory	7
Terminology of explanatory style	8
Optimism and pessimism: Definition and research approaches	8
Related constructs	11
Summary	12
CHAPTER 2: Explanatory Style and Depression; Empirical Support	13
Empirical support with child and adolescent populations	14
<i>Predictions of the reformulated learned helplessness theory</i>	14
<i>The development of explanatory style</i>	17
Empirical support with tertiary student populations	17
<i>Predictions of the original learned helplessness theory</i>	18
<i>Predictions of the reformulated learned helplessness theory</i>	18
Empirical support with adult populations	19
<i>Predictions of the original learned helplessness theory</i>	19
<i>Predictions of the reformulated learned helplessness theory</i>	21

CHAPTER 3: Explanatory Style Research; Useful Considerations	28
Explanatory style for negative versus positive events	28
Alternative explanations	30
Methodological limitations in explanatory style research	32
<i>Design issues in published research.....</i>	<i>32</i>
<i>Categorisation of depression.....</i>	<i>33</i>
<i>Measurement of causal attributions or explanatory style</i>	<i>34</i>
<i>Measurement of life events</i>	<i>36</i>
<i>Potential confounding factors</i>	<i>36</i>
Overall conclusions of explanatory style research.....	37
CHAPTER 4: Cognitive Behaviour Therapy for Depression.....	41
The common objective of cognitive approaches.....	41
Cognitive therapies versus cognitive behaviour therapies	41
Beck's Cognitive Therapy	43
<i>History of development.....</i>	<i>43</i>
<i>Overview of the approach</i>	<i>44</i>
<i>Cognitive theory and practice</i>	<i>45</i>
Summary	48
CHAPTER 5: The History and Value of Behavioural Activation.....	49
Behavioural interventions in CBT	49
Definition, history, and theories of behavioural activation.....	49
Behavioural activation as a component of CBT for depression.....	52
Empirical support for behavioural activation.....	53
<i>Comparisons of cognitive behaviour and behavioural therapies.....</i>	<i>53</i>
<i>Summary and critique of the component analyses</i>	<i>56</i>
<i>Follow-up data of the component analyses: Relapse prevention</i>	<i>58</i>
Summary	60
CHAPTER 6: Behavioural Activation in the Context of Activity Type	61
Engagement in pleasant activities	61
Engagement in mastery-inducing activities	62
Client beliefs and individual differences	63
Engagement in social interaction	64

Induced mood and activity type choices	65
Quantity versus quality in the efficacy of behavioural activation	66
Summary	68
CHAPTER 7: Cognitive Mechanisms of Change.....	69
Empirical support for cognitive mechanisms of change	69
Explanatory style change via CBT.....	74
Mechanisms of change: Important considerations.....	76
Summary	78
THE PRESENT STUDIES.....	79
CHAPTER 8: Study 1 Aims and Rationale	79
Overall aim and rationale	79
Proposed framework	80
Compatibility of theories	81
Specific aims and rationale	84
<i>Path 1 in the model</i>	84
<i>Path 2 in the model</i>	85
<i>Path 3 in the model</i>	86
<i>Paths 1 and 2 in the model</i>	88
Summary	92
CHAPTER 9: Study 1 Method	93
Overview of data collection	93
Therapist training and monitoring.....	93
Participants.....	95
<i>Recruitment and screening</i>	95
<i>Description of sample</i>	96
Treatment	98
Data collection	99
Measurement instruments	99
<i>Explanatory style</i>	99
<i>Depression severity</i>	103
The use of activity charts in clinical practice.....	105

The use of activity charts in the present study	106
The measurement of activity level	108
<i>Time in activity (Duration)</i>	108
<i>Range of activities (Variety)</i>	109
<i>Frequency of activity changes (Frequency)</i>	110
<i>Example of activity level indices</i>	111
The measurement of activity type.....	112
<i>Active and passive</i>	112
<i>Social and nonsocial</i>	112
<i>Mastery and pleasure frequency</i>	113
<i>Mastery and pleasure magnitude</i>	113
Summary of methodology.....	114
CHAPTER 10: Study 1 Results	115
Overview of data treatment.....	115
Preliminary analyses: Detection of outliers	116
Data analysis approach.....	118
Results.....	120
<i>Aim 1</i>	120
<i>Aim 2</i>	123
<i>Aim 3</i>	125
<i>Aim 4</i>	127
CHAPTER 11: Study 2.....	134
Background to the present study.....	134
<i>Overview</i>	134
<i>Rationale, aim, and hypotheses</i>	134
Method	136
<i>Study variables</i>	137
Results and preliminary discussion.....	138
<i>Social interaction</i>	138
<i>Activity chart completion quality</i>	138
DISCUSSION.....	140
CHAPTER 12: Discussion of Specific Findings	140

Study 1: Findings and tentative conclusions.....	140
<i>Path 1</i>	141
<i>Path 2</i>	142
<i>Paths 1 and 2</i>	143
<i>Path 3</i>	147
Differential associations across indices	148
<i>Activity level indices: Explanatory style versus depression severity</i>	148
<i>Explanatory style indices: Negative versus positive events</i>	150
Summary and conclusions of Study 1 findings.....	152
Study 2: Findings and conclusions.....	153
CHAPTER 13: General Discussion.....	156
Conceptual overlap and alternative explanations.....	156
Limitations of the research.....	160
Implications for mental health	167
<i>Implications for clinical practice</i>	167
<i>The importance of continued clinical research</i>	170
Suggestions for future research.....	171
Concluding comments.....	175
REFERENCES.....	177
APPENDICES.....	204
APPENDIX A: Original Activity Chart.....	205
APPENDIX B: Adapted Activity Chart.....	208
APPENDIX C: Variable Descriptions.....	211
APPENDIX D: Descriptive Statistics of Study 1 Variables/Indices.....	212
APPENDIX E: Summary Table of Significant Study 1 Correlations.....	213

List of Tables

Table 1	Demographic characteristics of <i>The Depression Study</i> participants.....	97
Table 2	Intercorrelations (r) between ASQ subscales in the present study and those of Hjelle et al. (1996) and Peterson et al. (1982).....	102
Table 3	Pearson's product-moment and Spearman's Rho correlation coefficients and significance values, between activity level indices and explanatory style indices.....	121
Table 4	Pearson's product-moment and Spearman's Rho correlation coefficients and significance values, between depression severity and activity level indices.....	123
Table 5	Pearson's product-moment and Spearman's Rho correlation coefficients and significance values, between depression severity and explanatory style indices.....	125
Table 6	Pearson's product-moment and Spearman's Rho correlation coefficients and significance values, between activity type variables and explanatory style indices.....	128
Table 7	Pearson's product-moment and Spearman's Rho correlation coefficients and significance values, between depression severity and activity type variables.....	132
Table 8	Median recording percentages and Mann-Whitney U test statistics and exact significance values as a function of activity chart completed.....	139

List of Figures

Figure 1	The proposed model; the reciprocal relationship between explanatory style, activity, and depression severity.....	81
Figure 2	Example of Beck's <i>Five Part Model</i> , displaying the interrelationships between cognitions, behaviour, emotions, and physiology.....	83
Figure 3	Example segment of a typical activity chart, with one cell completed with an activity, mood rating, and mastery rating, for illustrative purposes.....	105
Figure 4	Example of a hypothetical activity chart, partially completed with example activities, for illustrative purposes.....	111
Figure 5	Scatterplot showing the association between the <i>Duration</i> activity level index and the <i>Positive Events</i> explanatory style index.....	122
Figure 6	Scatterplot showing the association between the <i>Duration</i> activity level index and the <i>Overall Composite</i> explanatory style index.....	122
Figure 7	Scatterplot showing the association between the <i>Variety</i> activity level index and depression severity.....	124
Figure 8	Scatterplot showing the association between the <i>Frequency</i> activity level index and depression severity.....	124
Figure 9	Scatterplot showing the association between the <i>Negative Events</i> explanatory style index and depression severity.....	126

Figure 10	Scatterplot showing the association between the <i>Positive Events</i> explanatory style index and depression severity.....	126
Figure 11	Scatterplot showing the association between the <i>Overall Composite</i> explanatory style index and depression severity.....	127
Figure 12	Scatterplot showing the association between the <i>Pleasure Frequency</i> activity type variable and the <i>Positive Events</i> explanatory style index.....	129
Figure 13	Scatterplot showing the association between the <i>Mastery Magnitude</i> activity type variable and the <i>Positive Events</i> explanatory style index.....	130
Figure 14	Scatterplot showing the association between the <i>Pleasure Magnitude</i> activity type variable and the <i>Positive Events</i> explanatory style index.....	130
Figure 15	Scatterplot showing the association between the <i>Pleasure Magnitude</i> activity type variable and the <i>Overall Composite</i> explanatory style index.....	131
Figure 16	Scatterplot showing the association between the <i>Pleasure Magnitude</i> activity type variable and depression severity.....	132