
**A STEP TOWARDS A BROADER UNDERSTANDING OF
COMPLEX TRAUMATIZATION IN VICTIMS OF CRIME:**

**Psychological and Physical Health Impacts and
Implications for Psychological Interventions and Treatment Evaluation**

Birgit Elisabeth Pfitzer

Submitted in Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

July, 2008

School of Psychology, The University of Adelaide, South Australia

Declaration

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university 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 for this copy of my thesis, when deposited in the Adelaide University Library, to be made available for loan and photocopying.

Birgit Pfitzer

July, 2008

*To my parents Felix and Lisa Pfitzer,
for their love and trust,
and for providing the ground to go out into the world
and explore new shores.*

Acknowledgements

Having arrived at the end of this road, I would like to thank all the people who have supported me at various stages of my PhD.

First of all, I would like to acknowledge my supervisors Associate Professor Paul Delfabbro, Professor Deborah Turnbull, and Dr. John Raftery for their willingness to embark on a complex project and their inspiration throughout this time. Special acknowledgements to Paul for his calm and reassuring manner and his incredible efficiency in thoroughly scrutinizing vast amounts of written work; I would like to thank Deborah for her amazing organizational skills and her positive and motivating attitude; John's contributions were invaluable in this project and I would like to thank him for his encouragement to explore less orthodox directions, but also for his great expertise in the field of trauma.

This project would not have been possible without advice and assistance from various clinicians; I would like to acknowledge Brian Tuckfield for his wisdom, clarity and extraordinary clinical experience; Dr. Patricia Kent for her much appreciated advice on hypnotherapy and for assessing treatment integrity; Len Kling for assessing treatment integrity for the CBT group; furthermore I would like to thank Chris Wigg and all colleagues at the Centre for Treatment of Anxiety and Depression for making me and the participants feel welcome at their service, and to Chrisi Lambos, Candice Ryder, Liz McMillan and Karen Davies for conducting the clinical interviews.

There are many other people who have supported me in this endeavour; I would like to thank Dr. Ainsley Chalmers and Professor Antonio Ferrante who offered advice and assistance in relation to the measurement and analysis of biochemical markers and David Kerr and the Victim Support Service in Adelaide who have provided me with the opportunity to learn about victims of crime. Furthermore, I would like to thank my friends and my family back in Germany, as well as my new found friends in Australia, for listening and for comforting me throughout this often solitary activity. Special thanks to Ela, Rebecca, Edwina, Andrew, Jo, Neha, Donna, Peter and Angela who were always there for me, and to Gabi, Mike, and Alistair who provided me with a shelter in times of need.

Finally, I would like to thank those people who participated in this project, for their trust, courage and strength in the face of unimaginable adversity.

**A STEP TOWARDS A BROADER UNDERSTANDING OF
COMPLEX TRAUMATIZATION IN VICTIMS OF CRIME:**

**Psychological and Physical Health Impacts and
Implications for Psychological Interventions and Treatment Evaluation**

Epidemiological studies have revealed high rates of criminal victimization in the general community as well as in treatment seeking populations. As a consequence, many crime victims present with a broad range of psychological and physical health impacts which exceed far beyond the current conceptualization of posttraumatic stress disorder. Accordingly, the current project aimed at an exploration of the complex problems faced in the context of severe interpersonal violence, using a mixed methodological design within a pragmatist paradigm.

The first study (n=58) involved a quantitative exploration of the psychological and physical health problems in victims of crime as compared to a normally stressed community sample without a history of traumatization. Psychological impacts were assessed by standardized psychological measures, whereas influences on physical health were captured by an analysis of biochemical markers that reflect stress-related changes in immune functioning.

Once impacts on psychological and physical health were established, a second study (n=17) was conducted to gain a better understanding of individual stress conceptualizations. This study involved a qualitative framework analysis of semi-structured interviews with victims of crime.

The results from Study I and II informed the development of a phase oriented psychological treatment program for victims of crime, using cognitive-behavioural and hypnotherapeutic treatment components. This was followed by an outcome –and process evaluation of a combined CBT/Hypnotherapy treatment in comparison to a CBT treatment only to explore additive benefits of hypnotherapy.

Although a multiplicity of traumatic sequelae was indicated by the results of the preceding studies, the treatment process revealed an even greater complexity of traumatization which was difficult to accommodate in the proposed treatment program. Moreover, twelve out of nineteen participants discontinued treatment, making it difficult to determine the additive benefits of hypnotherapy. A qualitative analysis of the treatment sessions was conducted to elucidate critical treatment variables with a particular emphasis on the differences between treatment completers and non-completers. The results were interpreted with respect to recently suggested theories and associated treatment approaches such as the Theory of Structural Dissociation (Van der Hart, Nijenhuis, & Steele, 2006) which may better accommodate the needs of complex trauma survivors encountered in a real world clinical practice. Furthermore, the challenges associated with interventions and treatment evaluations involving a highly complex clinical sample such as victims of crime are discussed in light of the current debate on evidence-based practice and the dilemma of providing reliable, methodologically sound evidence without compromising internal validity of the treatment.

Table of Contents

Declaration.....	ii
Dedication.....	iii
Acknowledgments.....	iv
Abstract.....	v
Table of contents.....	vii
List of Tables.....	xiii
List of Figures.....	xv
List of Appendices.....	xvi
Introduction.....	1
<i>Research into victims of crime: socio-political aspects and its influences on definitions.....</i>	<i>2</i>
<i>Impacts on definitions.....</i>	<i>3</i>
<i>Victims of Crime.....</i>	<i>3</i>
<i>Trauma.....</i>	<i>6</i>
<i>Structure of dissertation.....</i>	<i>7</i>
Chapter I – Literature Review.....	10
1.1 Victimization in the general community and in treatment-seeking samples.....	10
1.1.1 Rape, sexual assault and childhood sexual abuse.....	11
1.1.2 Intimate partner violence (IPV) in women.....	12
1.1.3 Other crimes.....	12
1.1.4 Identified problems with respect to epidemiological research in VOC.....	15
1.2 Posttraumatic illness in victims of crime.....	17
1.2.1 Psychological reactions before and beyond PTSD.....	18
1.2.1.1 Early research on the consequences of rape.....	18
1.2.1.2 General reactions to victimization.....	20
1.2.2 Posttraumatic Stress Disorder (PTSD).....	21
1.2.2.1 PTSD prevalence in victims of crime.....	22

1.2.3 Comorbidity.....	25
1.2.4 Complex PTSD.....	30
1.3. Aetiology of posttraumatic illness/theories.....	32
1.3.1 PTI from a Learning Theory Perspective.....	33
1.3.2 Socio-Cognitive Theories.....	33
1.3.2.1 Stress Response Theory.....	33
1.3.2.2 Other Socio-Cognitive Theories.....	34
1.3.3 Information Processing Theories	35
1.3.3.1 Emotional Processing Theory.....	36
1.3.3.2 Dual Representation Theory.....	38
1.3.4 Cognitive Model of PTSD.....	40
1.3.5 PTI from a neurobiological perspective.....	42
1.3.5.1 Sympathetic nervous system.....	43
1.3.5.2 HPA axis.....	44
1.3.5.3 Serotonin.....	46
1.3.5.4 Endogenous opioids.....	46
1.3.5.5 Glutamate/GABA.....	47
1.3.6 Trauma and the Central Nervous System (CNS).....	47
1.4. Impacts on physical health.....	50
1.4.1 Increased prevalence of physical health symptoms in VOC.....	51
1.4.1.1 Reported health problems after crime exposure.....	51
1.4.1.2 Reported health problems in crime survivors with PTSD.....	56
1.4.1.3 Increased utilization of health services and enhanced health care costs.....	59
1.4.2 Immunological changes in traumatic illness.....	61
1.4.2.1 Brief overview of the Immune system.....	61
1.4.2.2 Immunological changes in PTSD.....	63
1.5. Psychosocial treatments for PTSD.....	71
1.5.1 General efficacy of psychological PTSD treatments: Findings from reviews and meta-analyses.....	72
1.5.2 Evidence on the efficacy of CBT in victims of crime.....	76
1.5.2.1 Psycho-education.....	76
1.5.2.1 Exposure.....	77
1.5.2.2 Cognitive restructuring (CR).....	81
1.5.2.4 Cognitive therapies.....	83

1.5.2.5 Mixed / more comprehensive CBT approaches.....	83
1.5.2.5 Anxiety management.....	84
1.5.3 Hypnotherapy.....	85
1.5.3.1 Early applications of Hypnosis	86
1.5.3.2 Contemporary findings on Hypnosis.....	90
1.6. Summary of the Literature Review findings.....	99
Chapter II - Setting the Stage: Methodological Framework.....	100
2.1 Rationale for mixed methodology approach.....	100
2.1.1 The war of paradigms.....	100
2.1.2. Pragmatism as a new paradigm.....	102
2.1.3 The development of mixed methods.....	103
2.1.4 Relevance of a mixed methodology approach.....	104
2.1.5 Principal research questions.....	105
2.2 Process evaluation: a model for an integration of mixed methods.....	108
2.2.1 Rationale for the use of a process evaluation.....	108
2.2.2 Description of the process evaluation components.....	109
2.3 Settings and research context.....	111
2.3.1 Description of research settings.....	111
2.3.2 Sociopolitical/legal context.....	112
Chapter III - The Relationship between Biochemical Markers and Psychological Functioning in Victims of Crime: A Pilot Study.....	113
3.1 Background rationale.....	113
3.1.1 The relationship between trauma, stress, PTSD and physical disease.....	113
3.1.2 Biochemical markers as indicators of physical health.....	114
3.1.3 Lymphocytic 5'-Ectonucleotidase (NT) and The Oxidative Model.....	115
3.2 Hypotheses.....	121
3.3 Methods.....	122
3.3.1 Participants.....	122
3.3.2 Measures.....	127
3.3.2.1. Standardized psychological measures.....	127
3.3.2.2 Biochemical measures.....	132
3.3.3 Procedure.....	134

3.4 Results.....	135
3.4.1 Health behaviours.....	135
3.4.2 Psychological results.....	140
3.4.4 Biochemical measures.....	143
3.4 Discussion.....	156
3.4.1 Psychological results.....	156
3.4.2 Biochemical results.....	158
3.4.2.1 Markers indicating a proinflammatory process.....	158
3.4.2.2 Markers indicating a prooxidant state.....	163
3.4.3 Clinical significance of the results.....	168
3.5 Limitations.....	169
3.6 Implications for research and practice.....	171
Chapter IV - Individual Stress Experiences in Victims of Crime.....	173
4.1 Introduction of pre-determined themes.....	173
4.1.1 Impacts beyond psychological and physical illness.....	173
4.1.2 Traumatic stress versus other stress.....	175
4.1.3 Meaning of crime.....	176
4.3 Goals and research questions.....	176
4.4 Methods.....	177
4.4.1 Introduction to Framework Analysis.....	177
4.4.2 Participants.....	178
4.4.3 Apparatus.....	179
4.4.4 Procedure.....	179
4.5 Framework analysis.....	179
4.6 Elaboration of themes.....	182
4.7 Summary and discussion.....	208
4.7.1 Individual stress conceptualizations.....	208
4.7.2 Coping strategies.....	209
4.7.3 Meaning of the crime experience.....	210
4.7.4 Motivation to take part in this research.....	211
4.8 Implications of findings for psychological treatment.....	211
4.9 Limitations.....	212

Chapter V – Description of a Combined CBT/Hypnotherapy Treatment

for Victims of Crime.....	214
5.1 CBT treatment components.....	215
5.1.1 Psychoeducation.....	215
5.1.2 Exposure.....	216
5.1.3 Cognitive restructuring (CR).....	217
5.1.4 Anxiety management.....	219
5.2 Hypnosis.....	220
5.2.1 Contemporary conceptualizations of hypnosis in trauma treatment.....	220
5.2.2 Clinical implications for hypnotherapeutic trauma treatment.....	222
5.2.3 General principles of hypnotherapy.....	224
5.3 Description of the conducted treatment program.....	227
5.3.1 Pursued treatment goals in the three phases of treatment.....	228
5.3.2 Treatment contents of the combined CBT/Hypnotherapy program.....	231

Chapter VI - Evaluation of the Effectiveness of a Combined CBT/Hypnotherapy

treatment of Complex Trauma: A Process – and Outcome Evaluation.....	258
6.1 Rationale for a combined CBT/Hypnotherapy treatment.....	258
6.1.1 Efficacy and limitations of CBT based treatment programs.....	258
6.1.2 Hypnotherapy treatment.....	261
6.2 Process evaluation.....	263
6.2.1 Usefulness of a process evaluation in the current project.....	264
6.3 Research questions/hypotheses.....	267
6.3.1 Hypotheses addressed in the outcome evaluation.....	267
6.3.2 Research questions addressed in the process evaluation.....	267
6.4 Methods.....	269
6.4.1 Participants (Sample).....	269
6.4.2 Measures.....	276
6.4.3 Procedure.....	284
6.5 Results Outcome Evaluation.....	286
6.5.1 Changes in psychological measures.....	286
6.5.2 Individual changes in psychological measures before/after treatment.....	290

6.5.3 Differences between the CBT and the CBT/Hypnotherapy group.....	298
6.5.5 Differences in perceived stress, expectancies and treatment credibility.....	304
6.5.6 Treatment fidelity.....	307
6.6 Discussion.....	307
6.6.1 Improvement in psychological measures.....	308
6.6.2 Improvement in the combined CBT/Hypnotherapy condition.....	309
6.6.3 Dropouts.....	311
6.6.4 General methodological limitations.....	315
6.6.4 Concluding remarks.....	317
Chapter VII - Framework Analysis: Differences between Completers and Non-completers.....	319
7.1 Framework Analysis of the treatment process.....	319
7.2 Major themes of the Framework Analysis.....	322
7.3 Summary and discussion.....	355
7.3.1 Focal themes.....	355
7.3.2 Differences between completers and non-completers.....	358
7.3.3 Theory of Structural Dissociation: A model for complex traumatization.....	361
7.3.4 Application of the Theory of Structural Dissociation to the current findings	365
7.4 Implications for further treatment.....	368
7.5 Conclusion.....	371
Chapter VIII - Conclusions and implications.....	372
8.1 Summary and conclusions.....	372
8.2 Integration of findings.....	374
8.3 Implications for research and evidence based practice.....	379
8.4 Final reflections - Where to from here?.....	381
References.....	385
Appendices.....	428

List of Tables

Table 2.1	Key process evaluation components.....	109
Table 3.1	Comparison of gender and education between VOC/Control group.....	124
Table 3.2	Cronbach α coefficients for psychological measures.....	131
Table 3.3	Summary of examined biochemical markers.....	133
Table 3.4	Comparison of health behaviours between VOC/Control group.....	136
Table 3.5	Comparison of physical activities and no. of cigarettes between VOC and Control group.....	137
Table 3.6	Comparison of reported health problems between VOC/Control group.....	139
Table 3.7	M (SD) psychological scores by group.....	141
Table 3.8	Differences in biochemical measures between VOC/Control group.....	145
Table 3.9	Spearman correlations between biochemical and psychological results across both groups.....	147
Table 3.10	Pearson correlations between biochemical and psychological results across both groups.....	148
Table 3.11	Significant Spearman correlations between biochemical and psychological results in VOC.....	150
Table 3.11	Significant Pearson correlations between biochemical and psychological results in VOC.....	151
Table 3.12	Comparison of M, SD in biochemical markers depending on PTSD severity.....	152
Table 3.13	Comparison of M, SD in biochemical markers depending on PTSD severity.....	153
Table 3.14	Logistic regression: Psychological scores as predictors of membership in the VOC group.....	155
Table 3.15	Overview of Th1 and Th2 responses.....	160
Table 4.1	Five stages of data analysis in the framework approach.....	178
..		
Table 4.2	Preliminary conceptual framework.....	181

List of Tables (continued)

Table 5.1	Comparison of the treatment techniques in the CBT and CBT/Hypnotherapy group.....	230
Table 5.2	Comparison of CBT and Hypnotherapy mechanisms.....	257
Table 6.1	Demographic characteristics in the combined CBT/Hypnotherapy group and the CBT group.....	272
Table 6.2	Differences in clinical symptoms between the combined CBT/Hypnotherapy group and the CBT group at baseline.....	273
Table 6.3	Differences in comorbidity between the combined CBT/Hypnotherapy group and the CBT group.....	274
Table 6.4	Comparison of index crimes between the CBT and CBT/Hypnotherapy group.....	275
Table 6.5	Crime characteristics in the combined CBT/Hypnotherapy group and the CBT group.....	276
Table 6.6	Standardized psychological measures.....	277
Table 6.7	Administration of standardized measures.....	283
Table 6.8	Means and SD of trauma measures pre/post treatment.....	287
Table 6.9	Means and SD of depression, anxiety and anger measures pre/post treatment.....	289
Table 6.10	Reliable Change Indices for PCL-C, CAPS and BDI-II.....	294
Table 6.11	Comparison of demographic/crime characteristics between treatment completers/non-completers.....	301
Table 6.12	Crime characteristics in the combined CBT/Hypnotherapy group and the CBT group.....	302
Table 6.13	Differences in clinical symptoms between completers and non-completers at baseline.....	303
Table 6.14	Differences in comorbidity between completers and non-completers at baseline.....	304
Table 7.1	Initial conceptual framework including pre-determined and emergent themes..	321
Table 7.2	Indexed themes.....	322
Table 7.3	Levels of Structural Dissociation.....	364

List of Figures

Figure 2.1	Sequential Mixed Method Design.....	106
Figure 2.2	Overview over research process.....	107
Figure 2.3	Relationship between process evaluation key variables.....	110
Figure 3.1	Two mechanisms for controlling immune response.....	118
Figure 3.2	Possible pathways for an increased susceptibility to infections and coronary heart disease.....	119
Figure 3.3	Participant flow Study I.....	124
Figure 3.4	Distribution of crime types.....	126
Figure 3.5	Years elapsed since crime incident.....	126
Figure 3.6	Frequency of medication intake in victim and control group.....	138
Figure 3.7	Bio-Psycho-Immunological Framework.....	161
Figure 3.8	Proposed psycho-bio-immunological process in PTSD.....	165
Figure 6.1	Overview over participant numbers throughout the study.....	271
Figure 6.2	CAPS severity scores in treatment completers before/after treatment.....	291
Figure 6.3	PCL scores in treatment completers before/after treatment.....	291
Figure 6.4	BDI-II scores in completers before, during and after treatment.....	292
Figure 6.5	Clinical significance of the CAPS results in treatment completers.....	296
Figure 6.6	Clinical significance of the PCL results in treatment completers.....	298
Figure 6.7	CAPS Re-experiencing, - Avoidance and Hyper-arousal symptoms for participant 3.....	299
Figure 6.8	Number of dropouts in CBT and CBT/Hypnotherapy group.....	300
Figure 6.9	Comparison of indicated stress levels in completers/non-completers.....	305
Figure 8.1	Preliminary model of complex traumatization in VOC.....	378

List of Appendices

Appendix A	Participant information sheet study I.....	428
Appendix B	Eligibility protocol for victims of crime.....	430
Appendix C	Eligibility protocol for control group.....	432
Appendix D	Demographic characteristics.....	435
Appendix E	Spearman correlations biochemical/psychological measures.....	438
Appendix F	Pearson correlations biochemical/psychological measures.....	439
Appendix G	Influences of depression severity.....	440
Appendix H	Influences of overall stress severity.....	441
Appendix I	Participant information sheet interview.....	442
Appendix J	Semi-structured interview questions.....	443
Appendix K	Participant information sheet treatment study.....	445
Appendix L	Recruitment sources.....	448
Appendix M	Crisis protocol.....	449
Appendix N	Interview questions in session 1.....	450
Appendix O	Participant evaluation treatment session.....	452
Appendix P	Homework Review.....	454
Appendix Q	Therapist self evaluation.....	456
Appendix R	Treatment integrity protocol CBT/Hypno.....	458
Appendix S	Treatment integrity protocol CBT.....	462
Appendix T	DSM-IV criteria for PTSD.....	466
Appendix U	Reliable change indices treatment study.....	467