THE EFFECTS OF TRAUMA ON COGNITIVE BEHAVIOUR THERAPY FOR DEPRESSION AND ALCOHOL MISUSE

Kylie Bailey

B. A. (Psych) MPsyCh(Clin)

Thesis submitted for fulfilment of the award of Doctor of Philosophy (Psychiatry)

April 2013
DECLARATION

I hereby certify that the work embodied in this thesis is the result of original research and has not been submitted for a higher degree to any other University or Institution

Signed: _______________________

Kylie Bailey

Date: ________________________
ACKNOWLEDGEMENTS

I would like to start the acknowledgements with a big thank you to the Faculty of Health’s School of Medicine and Public Health (and their staff) for the support programs they offer to their PhD students. The particular program they offered that was most useful was the annual funding (i.e., the RTS funds) for PhD candidates to attend PhD-related training and conference. I would also like to acknowledge the University of Newcastle for offering the two 6 month ERF (Equity Research Fund) scholarships for women who are disadvantaged in their studies by their circumstances. Receiving this scholarship was a significant turning point for work on my PhD. Thank you University of Newcastle.

There are many people that I would like to now acknowledge, as this thesis would not have been completed if it was not for them. I would like to start by thanking Francis Kay-Lambkin who allowed my study to be included in her DAISI (Depression and Alcohol Integrated and Single-focused Intervention) project (the parent study). I would like to acknowledge the support from the wonderful staff at the University of Newcastle (in order of appearance) including: the fabulous Judy Melville; the awesome Kerry Readett and Cate D’Este; the great Trudi Pryor; and the lovely Andrea Windley. I would also like to thank the fantastic Kerry Inder whose guidance with the PhD guidelines was accurate, encouraging, and invaluable. A big thank you (also) to the brilliant Jane McDonald who has taught me template customising, as well as assisted in the final formatting of this thesis. Lesley Dawes is another fabulous person that I would like to thank for her support in the last few months of writing my thesis. Lesley, I appreciated your comments AND that YOU STOOD beside me and pointed out the light at the end of the tunnel.

I would like to acknowledge the support and contribution from my previous PhD co-supervisor (the marvellous) Rosemary Webster. Rosemary you helped
with the transition of viewing PTSD through the eyes of a clinician to that of an academic, as well as guided me with the analysis of the first study. Thank you Rosie for also linking me in with the statistical support team for the analysis of the first and most of the second study (Chapters 2 and 3). On that note, I would like to thank the most awesome and ever patient Kim Colyvas (from the statistical support team) for his statistical advice for the first two studies (Chapters 2 and 3). Kim, you are an excellent and patient teacher who explains statistics and statistical model building in plain English. I never thought that I could understand statistics until I met you. Thank you also to Patrick McElduff who replaced Rosie (when she retired) as my co-supervisor. Your knowledge, guidance and patience with the path analysis (in Chapter 3) and statistical analysis for the two treatment outcome studies (Chapters 4 and 5) are greatly appreciated. Thank you also Patrick for your clear instructions (and teaching) on data interpretation, as well as your perspectives on the data.

Most importantly, I would like to acknowledge the best supervisor that a PhD candidate could ever have, Amanda Baker. Amanda if it was not for you, I would not have undertaken a PhD. There were too many obstacles for the most part this PhD study, however, over the course of these years, you helped manoeuvre around them. You are one of the few people that I have met that has greatly influenced and changed my life. Anyone who has you as their supervisor is truly blessed.

I would also like to acknowledge the support I have had from my friends over the decades that I have known you, particularly Adrienne Coles, Megan and Philip Anderson, Philip Lovelock and his lovely wife, Donna (yes, I named you both), Sharron Gibbs, and Michelle and Woz (Warren) Chambers. So now that I am finished, I will finally have that party I have talked about since last year and
I will finally see you all again (as it has been about 12 months since I have seen you). And yes, the drinks will be on me!

Finally I started the PhD journey as a single mother with a most energetic 4 year old, as well as working full-time as a clinical psychologist for an Alcohol and Other Drug service. Many changes have occurred since then, with more recently meeting the wonderful Murray and his gorgeous son, Callum. So now my family of two is a family of four. So here is where I acknowledge the impact (i.e., being absent, sleep deprivation and subsequent forgetfulness and mood) that the latter stages of this thesis (and working fulltime) has had on my family: Murray (“How much longer is this going to take?”); my much treasured son Mitchell (“You never have time for me anymore!”); and Callum (“You are always working on that computer”).

Thank you to everyone who has assisted and supported me during my PhD – your kindness will never be forgotten.
CONTENTS

Declaration ..................................................................................................................ii
Acknowledgements ................................................................................................... iii
Abstract ...................................................................................................................... 1
Chapter 1  Introduction ..............................................................................................7
  1.1  Overview ...........................................................................................................7
  1.2  Traumatic Events ............................................................................................8
  1.3  Traumatic Events and Symptoms of Posttraumatic Stress Disorder, Major Depressive Disorder and Alcohol Use Disorder ................................................................. 10
    1.3.1  Assaults .....................................................................................................10
    1.3.2  Combat .....................................................................................................11
    1.3.3  Serious Accidents ....................................................................................11
    1.3.4  Natural Disasters ....................................................................................11
    1.3.5  Childhood Trauma ..................................................................................12
  1.4  Posttraumatic Stress Disorder, Major Depressive Disorder and Alcohol Use Disorder - Symptoms and Diagnostic Criteria ................................................................. 13
    1.4.1  Posttraumatic Stress Disorder ..................................................................13
    1.4.2  Depression and Major Depressive Disorder .............................................16
    1.4.3  Alcohol Use Disorders .............................................................................17
  1.5  Posttraumatic Stress Disorder – Major Depressive Disorder and Posttraumatic Stress Disorder – Alcohol Use Disorder Comorbidity ............................................. 18
    1.5.1  Posttraumatic Stress Disorder – Major Depressive Disorder .............. 19
    1.5.2  Posttraumatic Stress Disorder – Alcohol Use Disorder ....................... 19
    1.5.3  Major Depressive Disorder – Alcohol Use Disorder ............................ 19
  1.6  Psychosocial Treatments ..................................................................................20
    1.6.1  Cognitive Behaviour Therapy .................................................................20
    1.6.2  Cognitive Behaviour Therapy for Posttraumatic Stress Disorder ..........22
    1.6.3  Cognitive Behaviour Therapy for Depression ........................................23
    1.6.4  Cognitive Behaviour Therapy for Alcohol Use Disorder ..................23
    1.6.5  Integrated Cognitive Behaviour Therapy ...............................................24
    1.6.6  Posttraumatic Stress Disorder and Non-Trauma Focused Cognitive Behaviour Therapy ................................................................................................................. 25
  1.7  Thesis and DAISI Project ..................................................................................26
  1.8  Summary and Conclusions ..............................................................................27
Chapter 2  PTSD Comorbidity Prevalence ............................................................... 29
  2.1  Overview ..........................................................................................................30
  2.2  Introduction ......................................................................................................31
    2.2.1  Posttraumatic Stress Prevalence ............................................................31
    2.2.2  PTSD, Depression, Alcohol after Exposure to Dysfunctional Parenting ................................................................................................................................. 31
    2.2.3  PTSD and Depression ..............................................................................32
2.2.4 PTSD and Alcohol ................................................................. 33
2.2.5 PTSD and Multiple Comorbidity ........................................... 34
2.3 Methods ................................................................................. 35
2.3.1 Participants ................................................................. 35
2.3.2 Procedure ............................................................... 35
2.3.3 Measures ................................................................. 35
2.3.4 Statistical Analysis ....................................................... 36
2.4 Results .................................................................................. 37
2.4.1 Sample Description ....................................................... 37
2.4.2 Relationships with Parental Dysfunction ......................... 40
2.4.3 Relationships with PTSD and PTSD Symptom Clusters ...... 42
2.5 Discussion .............................................................................. 43
2.6 Conclusions ............................................................................ 46
Chapter 3 Assauls and PTSD, Depression and Alcohol Symptoms 48
3.1 Overview ................................................................................. 48
3.2 Introduction ............................................................................ 48
3.2.1 Sexual Assaults ........................................................ 49
3.2.2 Physical Assaults ........................................................ 50
3.2.3 Dysfunctional Parenting ............................................... 50
3.2.4 Personality Disorders .................................................. 51
3.2.5 Summary ................................................................. 51
3.2.6 Current Study ............................................................ 52
3.3 Methods ................................................................................ 52
3.3.1 Participants ................................................................. 52
3.3.2 Measures ................................................................. 53
3.3.3 Procedure ................................................................. 56
3.3.4 Statistical Analysis ....................................................... 56
3.4 Results ................................................................................. 59
3.4.1 Sample Characteristics .................................................. 59
3.4.2 Stage 1: Spearman’s rho Correlations and Regressions of Sexual and Physical Assault Variables .......... 60
3.4.3 Stage 2: Path Analysis for SA and PAG ......................... 62
3.4.4 Exposure to Multiple Assaults ....................................... 64
3.5 Discussion .............................................................................. 66
Chapter 4 The Effects of Severe PTSS and PTSD on Depression and/or Alcohol CBT Outcomes 71
4.1 Overview .................................................................. 71
4.2 Introduction ...................................................................... 72
4.2.1 Prevalence of PTSD Comorbidity ................................. 72
4.2.2 Effects of PTSD Comorbidity on Depression and Alcohol Treatment Outcomes ........................................ 73
4.2.3 Effects of Severe PTSS/PTSD on Non-Trauma Focused Treatment 74
Chapter 5  The Effects of Assault Number and Type on Depression and Alcohol CBT Treatment Outcomes .............................................. 97
  5.1  Overview ........................................................................ 97
  5.2  Introduction ................................................................. 98
      5.2.1  Psychological Sequelae Following Exposure to a Traumatic Event 98
      5.2.2  Treatment for Sexual Assault .............................. 99
      5.2.3  Treatment for Physical Assault .......................... 100
      5.2.4  Summary ......................................................... 101
      5.2.5  Current Study ................................................... 101
  5.3  Methods ....................................................................... 102
      5.3.1  Participants ..................................................... 102
      5.3.2  Measures ......................................................... 103
      5.3.3  Procedure ....................................................... 104
      5.3.4  Interventions ................................................... 105
      5.3.5  Statistical Analysis .......................................... 105
  5.4  Results ....................................................................... 107
      5.4.1  Sample Characteristics ...................................... 107
      5.4.2  Baseline Characteristics .................................... 108
      5.4.3  Treatment Allocation, Retention, and Follow-up Assessment
             Attrition ........................................................ 111
      5.4.4  Treatment and Follow-up Outcomes for the Assault Groupings 113
  5.5  Discussion ................................................................... 115
  5.6  Summary ...................................................................... 120
  5.7  Clinical Implications ..................................................... 121
5.8 Conclusion .................................................................................................................. 121

Chapter 6 Assessment and Treatment Guidelines for Posttraumatic Stress Disorder, Depression, and Alcohol in Health Care Settings ........................................ 123

6.1 Overview ..................................................................................................................... 123

6.2 Introduction ............................................................................................................... 124

6.3 Assessment ............................................................................................................... 126

6.3.1 Assessment of Traumatic Event Exposure and Posttraumatic Stress Disorder ........................................................................................................ 126

6.3.2 Assessment of Depressive Symptoms .................................................................. 129

6.3.3 Assessment of Alcohol Misuse ............................................................................ 131

6.4 Treatment Guidelines ............................................................................................. 133

6.4.1 Guidelines for Treatment of Posttraumatic Stress Disorder ......................... 133

6.4.2 Treatment Guidelines for Major Depressive Disorder .................................. 134

6.4.3 Treatment Guidelines for Alcohol Use Disorders .......................................... 136

6.4.4 Integrated Treatment Guidelines ........................................................................ 137

6.5 Summary of the Four Studies .................................................................................. 138

6.5.1 Summary of the Baseline Studies (Chapters 2 and 3) ........................................ 138

6.5.2 Summary of Treatment and Follow-up Assessment Studies (Chapters 4 and 5) ......................................................................................................................... 140

6.5.3 Proposed Additions to Assessment Guidelines ............................................... 143

6.6 Proposed Treatment Guidelines .............................................................................. 149

6.6.1 Additional Comorbidity Treatment: Transdiagnostic ...................................... 152

6.6.2 Further Research ................................................................................................. 153

6.7 Conclusion ................................................................................................................. 155

Chapter 7 References ..................................................................................................... 156

Appendices ....................................................................................................................... 181

TABLES

Table 2.1 Trauma events, PTSD and symptoms scores in a sample with co-existing depression and alcohol use problems (N = 221) ......................................................... 39

Table 2.2 Spearman’s rho correlations for parental dysfunction with PTSD, depression, general functioning and alcohol variables in a sample of co-existing depression and alcohol use problems (N = 221) ................................................................. 42

Table 3.1 Demographic characteristic information for the No Trauma, Trauma Experienced, and the SA and PAG Groups ........................................................................... 60

Table 4.1 Baseline demographic and clinical characteristics ........................................ 83

Table 4.2 Trauma groupings by treatment allocation sample size and percentages ................................................................................................................................. 84
Table 4.3 Mean change scores over the five follow-up assessment occasions for the three trauma groupings ................................................................. 86

Table 4.4 PTSS severity at baseline and at the 3 month (post baseline) assessment for the No PTSD and PTSD groups .......................................................... 87

Table 4.5 Changes in PTSD diagnosis and Criteria for Intrusion, Avoidance and Hyperarousal Symptom Clusters at 3 month follow-up, compared to baseline 88

Table 5.1 Demographic characteristics at the baseline assessment for SA (and number of SA event types) compared to No SA ........................................ 109

Table 5.2 Demographic characteristics at the baseline assessment for PAG (and number of PAG event types) compared to No PAG .................................... 111

Table 5.3 Sample size and percentage for assault groups by treatment allocation .................................................................................................................. 112

Table 5.4 Treatment outcomes (change scores) for SA vs No SA and PAG vs No PAG, over the five assessment occasions ......................................................... 114

Table 6.1 Appropriate PTSD screeners for primary and other health care treatment settings ............................................................................................................. 128

Table 6.2 Summary of key baseline assessment findings for PTSS, PTSD, SA and PAG ........................................................................................................ 140

Table 6.3 Summary of key treatment findings for PTSS, PTSD, SA and PAG .......................................................... 143

Table 6.4 Screening question(s) for PTSD, MDD, and AUD that are appropriate for health care treatment settings ................................................................. 145

Table 6.5 Summary of key assessment recommendations .......................................................... 149

Table 6.6 Summary of proposed treatment recommendations for severe PTSS, PTSD, SA or PAG presentations that require further investigation ..................... 154

FIGURES

Figure 1.1 The revised cognitive model: The process of cognitive conceptualisation in response to negative thinking ................................................. 21

Figure 2.1 Flow chart of participant assessment and classification process ...... 38

Figure 3.1 Flow chart of participant assessment and traumatic event group allocation ........................................................................................................ 59

Figure 3.2 SA Path Analysis Model: Effects of SA and Maternal Neglect on PTSS, depressive symptoms, and alcohol dependence .................................. 63
Figure 3.3 PAG Path Analysis Model: Effects of PAG and Paternal Neglect on PTSS, depressive symptoms and alcohol dependence ................................................. 64
Figure 4.1 Flow chart of participant assessment and classification process........ 82
Figure 4.2 Average drinks consumed per week for Severe PTSS compared to Mild PTSS from baseline, over the five assessment occasions ......................... 89
Figure 4.3 Average global functioning scores for Severe PTSS compared to Mild PTSS from baseline, over the five assessment occasions .................................. 89
Figure 5.1 Flow chart of participant assault group allocation ......................... 108
Figure 6.1 Stepped-care treatment for depression ........................................ 136
Figure 6.2 Primary and other health care settings: PTSD-MDD-AUD assessment flow chart................................................................. 146
Figure 6.3 Alcohol and Other Drug settings: PTSD-MDD-AUD assessment flow chart......................................................................................... 147
Figure 6.4 Mental Health settings: PTSD-MDD-AUD assessment flow chart ... 148
ABSTRACT

Posttraumatic stress disorder (PTSD) has been found to commonly co-occur with depression and alcohol use problems (including alcohol use disorders). PTSD when present with depression and/or alcohol use problems has also been found to exacerbate the comorbid symptoms. Despite the high comorbidity with (and the impact of) PTSD on depression and alcohol use problems, people presenting to services for treatment for depression and/or alcohol use tend not to be screened or treated for PTSD. Therefore, it is unknown what the effects of having PTSD on CBT treatment for depression and/or alcohol use problems are. Therefore, this thesis identifies and discusses prevalence rates of trauma exposure and PTSD in community and treatment seeking populations for depression and alcohol misuse. The impact of experiencing different traumatic event types on posttraumatic stress symptoms (PTSS), depression, and alcohol misuse are also explored. The effects of also having PTSD and/or experiencing particular traumatic event types on cognitive behaviour therapy (CBT) for depression and/or alcohol use disorders (AUD) is further explored. Finally, assessment and treatment recommendations (that are based on the findings of this thesis) for PTSD comorbidity in non-PTSD treatment settings, are proposed.

Chapter 1 provides a literature review on the prevalence of traumatic event exposure, and rates of PTSD, major depressive disorder (MDD), and AUD in community and clinical populations. Diagnostic criteria for PTSD, depression, and AUD are reviewed, along with models of how these disorders develop and are maintained. The issue of PTSD comorbidity is discussed, with a focus on the current comorbidity perspective to expand from a dual diagnosis (i.e., PTSD-MDD and PTSD-AUD) to a multiple comorbidity framework (such as PTSD-MDD-AUD). CBT therapies are identified as an evidence-based treatment for PTSD, depression, and substance/alcohol use as a single disorder. Emerging
research into integrated treatments for the dual disorders of PTSD-MDD, PTSD-AUD, and MDD-AUD are also reviewed. The issue of the possible effects of a three-way comorbidity of PTSD-MDD-AUD is raised as there is no available research on the effects of having PTSD when seeking CBT treatment for depression and alcohol misuse.

Chapter 2 has been published in a peer reviewed paper (Bailey, Webster, Baker, & Kavanagh, 2012) and explores traumatic exposure (including dysfunctional parenting), PTSS severity and PTSD in people seeking treatment for co-existing depressive symptoms and alcohol misuse problems. We found that trauma experiences and PTSD are highly prevalent in depression and alcohol misuse populations, with most of the participants in this study reporting traumatic event exposure (71.6% n = 159), and over a third with current PTSD (38.0%, n = 84). Contrary to other studies, there were no gender differences in rates of traumatic exposure, number of traumatic events, and PTSD. More severe PTSS and PTSD were associated with: childhood neglect; earlier depression onset; more severe depression and alcohol problems; and lower general functioning. On the basis of this study it was recommended that, traumatic event exposure, PTSS severity and PTSD should be assessed and addressed among people seeking treatment for co-existing depression and alcohol problems. As this chapter has already been published and the expression ‘we’ used throughout that article, the expression ‘we’ has been retained in this thesis for continuity. However, the work contained in this thesis of solely that of the author of this thesis.

Chapter 3 explored the effects of assault types (including dysfunctional parenting) on PTSS, MDD, and alcohol use misuse. We found that sexual or physical assault is more likely to be associated with more severe symptoms of depression or alcohol dependence, compared to having no trauma experiences
or being involved in a serious accident or natural disaster. We also found that there may be an assault-symptom pathway that differs for sexual assault and physical assault. For sexual assaults, depression severity was predictive of alcohol dependence. For physical assault, alcohol dependence severity was predictive of depressive symptoms. The assault-symptom pathway may be further supported by the finding that depression onset reduced from 29 (no sexual assault) to 14 years when three different sexual assault types were reported. In regards to physical assault, weekly alcohol consumption levels were found to increase from 58 drinks (for no physical assault) to 139 drinks per week when three physical assault event types were reported. The recommendation from this study was that additional research is required to confirm the assault-symptom pathway proposal as well as investigate the effects of past assault exposure on non-PTSD focused treatments. Further research is required to investigate the relationships between sexual assault and experiencing maternal neglect as a child, and physical assault and experiencing paternal neglect when a child.

Chapter 4 explored the effect of having severe PTSS and PTSD in a treatment-seeking population who received CBT treatment for depression and alcohol misuse. In this study most of the assessment instruments (for depression and alcohol) were administered at baseline and 3, 6, 12, 24, and 36 months post baseline. As per Chapter 2, the analysis tested for differences between the three trauma groupings of No Trauma, No PTSD, and PTSD. Differences between participants reporting Mild and Severe PTSS were also tested. All follow-up analyses were adjusted for baseline symptoms including gender, days in treatment, and antidepressant medication. This study found that participants with Severe PTSS or PTSD can respond well to treatment for depression and/or alcohol misuse. PTSS severity and rates of PTSD also significantly reduced for the PTSD group at the 3 month follow-up when compared to baseline.
Therefore it is recommended that screening for PTSS severity and including trauma-focused interventions in treatment may further improve symptom reduction in people with co-existing PTSS/PTSD, depression and alcohol misuse.

Chapter 5 highlighted that although exposure to sexual and physical assault is common in mental health and substance using populations, screening for assaults in treatment settings is frequently overlooked. Therefore, this study explored the effect of sexual and physical assault on PTSS, depression, alcohol misuse, and global functioning after receiving depression and/or alcohol CBT treatment. As per Chapter 4, all treatment outcomes were assessed at baseline and again at 3, 6, 12, 24, and 36 months, post baseline. We found that participants who were exposed to sexual and physical assaults can respond to MDD and/or AUD CBT interventions. We also found differences based upon the assault type the participant was exposed to. For sexual assaults, we found that participants reported similar mean changes in symptom scores and attended (on average) the same amount of treatment sessions as those participants who had not been sexually assaulted. For physical assault exposure, delays in depressive symptom improvement upon treatment completion may occur. Compared to participants who had not experienced physical assault, participants reporting physical assault were more likely to experience poorer comorbid symptom outcomes at 12 month follow-up. If two physical assault types were experienced, participants spent significantly less time in treatment, attending (on average) only two treatment sessions, and they were less likely to be prescribed antidepressant medication. Based on these findings, it is recommended that assault type and number of assault experiences be screened for and considered in treatment formulation within treatment settings.
The final chapter (Chapter 6) reviewed the available treatment guidelines for PTSD, MDD, AUD, and sexual and physical assaults. In this review it was identified that these guidelines are based on evidence in the context of a single or dual disorder(s). It was also identified that the guidelines did not address multiple comorbidities (i.e., three or more disorders). To provide a rationale for addressing gaps in existing guidelines and the literature, the findings of the studies in this thesis are then summarised. Based on these findings and in conjunction with current treatment guidelines, recommendations for PTSD-MDD-AUD and assault presentations were made.

The first recommendation made is for the assessment of PTSS in non-PTSD settings. The proposed assessment process would be to utilise a stepped-care approach and commences with the patient being asked one or two screening questions for PTSD. If the question(s) were answered affirmatively, then a psychometrically sound, brief PTSD screening questionnaire would follow. If PTSD symptoms are identified as moderate or severe, then further assessment and possible referral to a specialist health care worker or service is advised.

Treatment recommendations are also made in the final chapter. One recommendation is for appropriate health care workers in non-PTSD (i.e., primary/health care, mental health, and alcohol and other drug) treatment settings to be trained in trauma-focused interventions. This training would also include how to identify PTSS and when to refer the patient on to more specialist health care workers and services (such as sexual assault services). Based on the findings presented in this thesis, it is further recommended that presentations of severe PTSS or PTSD with MDD-AUD should be offered integrated PTSD-MDD-AUD treatment. It is recommended that patients reporting a history of sexual assault should initially focus on PTSS and depression, while patients
reporting a history of physical assaults should first focus on AUD and then PTSS.

Limitations of the studies included in this thesis have been individually reviewed in Chapters 2 - 6. The limitations that are repeatedly highlighted across all the chapters include the parent study targeting treatment for depression and/or alcohol misuse populations, such that not all subjects had a history of PTSD. Therefore the results of these studies may not be reflective of a PTSD or an assault population. Small sample sizes may have also affected the findings, as some analyses were not conducted in some of the chapters (4 and 5) due to issues of power. In Chapters 3 and 5, the findings for the impact of sexual assault on symptoms and treatment may be biased by gender, due to the significantly higher proportion of females reporting sexual assault compared to males. Analysis was further restricted for paternal neglect due to large amounts of missing data (Chapter 5).

Given the above limitations, the findings of this thesis thus need to be viewed with caution. Further research is required to confirm the findings of the individual studies as well as for the proposed assessment and treatment recommendations made in Chapter 6. In particular, research is strongly recommended into the effects of parental neglect on assault exposure and experiencing psychiatric symptoms when an adult. Another research area that is particularly recommended is on determining whether there is an assault-symptom pathway for sexual and physical assault, and if treatment of these assault symptoms needs to be sequenced in a particular order. Another important research area is to investigate the benefits of screening and treatment of PTSS in patients who present for treatment for depression and alcohol misuse.