Predictors of the Development and Maintenance of Posttraumatic Stress Disorder Following a Motor Vehicle Accident: A Path Analytic Approach

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BA (Psych) Hons I

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

Doctor of Philosophy (Clinical Psychology)

The University of Newcastle

April 2012

Declaration

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Acknowledgments

I would like thank Dr Rosemary Webster who, until her retirement in 2011, was the principal supervisor of the research reported in this thesis. Rosemary's continual support, her clinical expertise, meticulous attention to detail, and guidance has been invaluable. I would like to sincerely thank Professor Mike Startup for his guidance, editorial support and research expertise. Thank you Ms Emma Bence for allowing me to share your office, and for providing, on occasion, a pleasant distraction. A very special thank you to my gorgeous wife Bianca, and two children James and Carmen, for your understanding, unwavering support and encouragement throughout my candidature…thanks !

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Abstract

Motor vehicle accidents (MVAs) are ubiquitous events that often result in psychological distress. Identification of factors associated post-MVA psychopathology is important from a treatment perspective to reduce the burden on individual and community resources. The main aim throughout this thesis was to investigate the influence and interaction of pre, peri, and post-trauma factors on the development and maintenance of Posttraumatic Stress Disorder (PTSD) and, in doing so, address some of the inconsistent findings from previous studies. The sample (n = 337, 54% female) comprised hospital accident and emergency attendees who completed a self-report postal screening survey approximately 1-month post-accident, follow-up surveys at 3-months (n = 128, 63% female) and 6-months (n = 58, 65% female) and a structured clinical interview at 9-months post-MVA (n = 51, 63% female). A path analytic approach, which facilitates the use of multiple dependent variables and mediation models, was used to investigate the proposed sequential interaction of pre, peri, and post-MVA factors on the development and maintenance of PTSD following an MVA.

Results from the Phase 1 component of the study showed the important role of previous emotional vulnerability factors, and highlighted the mediating role of peritraumatic dissociative experiences, in the presence of extreme fear due to increasing levels of accident severity, on initial post-MVA distress. An exploratory component of this phase of the study showed that participants who were more fatigued at the time of the accident were more likely to experience peritraumatic dissociation.

Results from Phase 2 showed that interrelated premorbid psychological factors and exposure characteristics independently predicted peritraumatic dissociation which, in turn, contributed to initial post-trauma distress and subsequent PTSD symptom severity. Participants who experienced initial sadness (partly influenced by prior emotional problems) in the first month following MVA, and physical disability at 3-months (influenced by injury severity and initial sadness), were at greater risk for depression as well as PTSD symptom severity, which suggests a partial shared vulnerability. The consumption of alcohol at hazardous levels was evident at 3-months post-accident, however, this was not associated with post-MVA psychopathology. Results indicated that experiencing an MVA did not increase the likelihood of alcohol usage since participants were drinking at hazardous levels before their MVA. An exploratory component of this phase of the study revealed that altered awareness (a peritraumatic dissociative response) was predictive of PTSD and symptom severity.

The Phase 3 study highlighted the influential role of subjective appraisal of injury severity and emotional response in maintaining the perception of physical disability. Results also provided evidence that those participants who felt anxious and fearful at 1-month, had sustained physical disability, and who continued to dissociate, were at greater risk of PTSD. At 6-months post-MVA an increase in the consumption of alcohol at hazardous levels was associated with severity of PTSD symptoms. Results suggest that a change in drinking patterns reflects a form of maladaptive coping in response to distressing intrusions. A neurotic predisposition was a vulnerability factor for acute dissociation, but not for PTSD at either 3 or 6-months post-accident, increased levels post-MVA suggest that neuroticism may be a consequence rather than a cause of PTSD.

The Phase 4 component of the study showed that for the majority of MVA survivors with PTSD, symptoms had remitted at 9-months. This phase of the study also provided evidence, central to contemporary cognitive models of PTSD, that internally driven negative appraisals of self played a prominent role in maintaining PTSD.

This thesis has demonstrated that the development and maintenance of PTSD following an MVA are influenced by a complex interaction of, and between, pre, peri, and post-MVA factors. These results have provided support and extend previous findings in the identification of factors associated with post-trauma psychopathology. The identification of vulnerabilities for those at risk could reduce much personal suffering, and in the process reduce the long term psychological costs of experiencing a MVA. The clinical and theoretical implications of findings as well as consideration of the direction for future research are discussed.