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UNDERSTANDING DRIVING-RELATED FEAR

A thesis presented in partial fulfilment of
the requirements for the degree of
Doctor of Philosophy
in Psychology at
Massey University

JOANNE ELIZABETH TAYLOR

2002
To my family, who have travelled this road with me, and some of whom I hope will have a go at reading this thesis so they can see what it is I've been doing all this time.
ABSTRACT

Driving-related fear (DRF) has been investigated predominantly through research on the psychological consequences of motor vehicle accidents. There is a small but growing literature documenting the characteristics of DRF within a broader population. These few studies have described DRF as diagnostically complex and difficult to characterise in terms of clear anxiety disorders. Particularly problematic is the frequent presence of many different foci of fear and fear cognitions that are typically used to distinguish the various anxiety disorders. In addition, driving skills in those who report DRF has been a neglected issue in previous studies. The central aim of the present study was to conduct a comprehensive examination of the clinical characteristics of those who report DRF. Such an investigation would help to generate a clearer understanding of the nature of DRF and subsequently inform approaches to assessment and treatment.

The present research comprised two separate studies. Study One aimed to ascertain the need for more comprehensive research by comparing the characteristics of drivers who were fearful as a result of a motor vehicle accident (MVA) with those who developed their DRF through other means. Participants were 85 media-recruited volunteers who reported some degree of DRF. Questionnaire data provided information on the types of concerns and expectations while driving, as well as various measures of anxiety and fear severity. There were few prominent differences between those who attributed their DRF to an MVA and those who reported some other reason for their fear. In addition, the data suggested useful preliminary subtypes of DRF that would benefit from further research attention.

Study One then provided the impetus for Study Two, which entailed a more comprehensive investigation of the clinical characteristics and subtypes of DRF, as well as an examination of the role of driving skills in DRF. Study Two involved a quasi-experimental approach to the analysis of data from media-recruited driving-fearful and control groups each comprised of 50 participants. The control group was matched by average age and years of driving experience. All participants completed an initial questionnaire that provided demographic data as well as information about driving
history and DRF. Various self-report measures of anxiety, fear, and avoidance behaviour were included in the initial questionnaire. Subsequently, those participants who met selection criteria underwent a diagnostic interview, further self-report questionnaires, and a practical driving assessment. Measures of self-rated and instructor-rated participant anxiety and driving skill were completed in conjunction with the driving assessment, mainly to ascertain the potential impact of test anxiety on the assessment results.

Fearfuls were characterised by the reported severity of DRF when compared with controls. Helpseeking behaviour was not reflected in the relatively high levels of fear, anxiety, and avoidance behaviour reported by the fearful group. This was of particular concern given that almost half of the fearfuls met diagnostic criteria for at least one anxiety disorder. Social concerns (i.e., the perceptions of others) as a focus of fear were evident throughout the assessment, and fearfuls rated a higher likelihood of being involved in an MVA than controls, as well as higher levels of concern about the negative reactions of other drivers and injuring other people while driving. Subtypes of DRF were identified and will be an important focus for future research. In what is thought to be the first investigation of driving skills in DRF, the practical driving assessment found that fearfuls made more errors than controls. However, the pattern of errors was identical for both groups, indicating that fear and anxiety may affect the number rather than the type of errors made. The relationship between DRF and driving skills was discussed and then placed within the context of broader theories of driver behaviour.

While the present research has served to further the understanding of DRFs and, in particular, has provided a starting point for understanding the role of driving skills in such fears, many avenues for future research are suggested. Additional studies will help to further clarify the findings of the present research, and to develop more clearly the kinds of practical and clinical recommendations that form the basis of efficient and effective treatment for DRF.
ACKNOWLEDGEMENTS

Although my name is on the cover, there are in fact many people who have contributed to making this thesis happen. I would like to take this opportunity to acknowledge those people behind-the-scenes.

Special acknowledgement must be made to the participants, who brought this piece of work to life. They endured my relentless need to be organised to the nth degree as well as the practical procedures of being a participant in this study. I appreciate the time they took out of their busy lives and the lengths they went to take part.

In expressing thanks to my supervisors, Professor Frank Deane and Dr John Podd, I recall the original proposal for this research which was for a very ambitious treatment outcome study. Thankfully, I had the wisdom and guidance of my supervisors who helped me to realise that I needed to be finished after four years, not forty. It’s amazing how ambitious (yet often impractical) that ideas can be at that early stage.

A special thanks to Frank for energising me to do this project, for supervising my research with gusto for the last six years, and for responding quickly without fail to my many e-mails. I am also grateful for Frank’s persistent encouragement to publish publish publish - I’m glad I gave in and I’ll never forget those marathon meetings where we hashed out the punchline.

Thanks to John for being so supportive and willing to take on supervision of the project when Frank crossed the ditch. I enjoyed his unique combination of humour and academic standards, and was especially grateful for his statistical input.

I acknowledge the financial support of the Land Transport Safety Authority, Transport Research and Educational Trust Board (of the Chartered Institute of Transport), Massey University Research Equipment Fund (grant 1-0575-99025A), and Psychology Graduate Research Fund (grant 0575-18971A). Thanks to the Land Transport Safety Authority for also arranging and funding translation of the article by Strohbeck-Kühner (1999).
A number of individuals helped immensely with the practical side of the project in terms of helping to organise and carry out data collection. In particular, thanks must go to the Palmerston North and Wellington branches of A1 Driving School for their expertise in completing the practical driving assessments. Thanks to Michael and Wayne Young, the driving instructors who gave their time to discuss and carry out the driving assessments. Thanks also to their wives Denise and Christine Young, who made bookings and also endured my need to be organised.

I wish to thank the support staff at Palmerston North campus as well as staff at Security for organising parking for participants. Special thanks to Linda Jones who helped with the setup of the project and data collection at Wellington campus in a statistically significant way. Millie was also a gem for organising parking at Wellington campus.

Thanks to those who freely provided their consultation in helping me to develop and refine my ideas, including Darryl Harwood, Darren Walton, and Jacqui Triffitt. Special thanks to John Spicer and Ted Drawneek for helping to make statistics doable and even slightly exciting. Pallant's (2001) book was extremely helpful in this regard. Thanks to Mei Wah Williams who helped in the coding of narrative self-reported fear responses.

I wish to acknowledge the assistance of prominent researchers in the area, Professor Anke Ehlers and Dr Stefan Hofmann, for corresponding with me and sending vital material about their work on driving phobias.

Thanks also to the following authors of various articles with whom I corresponded: Drs Steven Taylor, Richard McNally, Klaus Kuch, Martin Antony, Harald Merckelbach, Ronald Kleinknecht, Richie Poulton, Tian Oei, Walton Roth, Lucas Van Gerwen, Jo Borrill, Elaine Iljon Foreman, and Peter Strohbeck-Kühner, as well as Professors George Curtis, Issac Marks, and Øivind Ekeberg. Thanks to Professor Marks for giving me permission to use the Fear Questionnaire in Study Two (personal communication, April 22, 1999).
Finally, thanks to my family and friends who provided support throughout the process of completing this thesis. Thanks to Mum and Dad for encouraging me even though they often proclaimed having no idea what I was doing. Thanks to Nanna (I finally spelt it right!) for her continued encouragement and support, and to my sister, Nicole, for understanding the world of academia and promising to read my thesis. Thanks to Greg, for his tolerance and support, and to Odie, Olive, and Oscar for their unconditional love and cuddles.
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The 20th century will go down in history as a time of incredible change and technological progress. One 20th century phenomenon has transformed the way we live, possibly more than any other - the mass production and wide availability of motor vehicles.

Cars, trucks, and motorcycles have given us freedom of movement, quick and reliable transport and the ability to move goods easily from one place to another. The direct and indirect contribution of automobiles to the global economy is immeasurable.

Unfortunately, the age of the car has also been the age of the car crash. And the trauma of crashes is measurable. Today there are an estimated 700,000 killed world-wide every year.

Like most countries, New Zealand has been hit hard by road crashes. Since the first known fatal crash in Christchurch in 1908, an estimated 32,700 people have lost their lives on our roads. (“The 20th century road toll”, 1999, p. 4)

The above quote succinctly captures the double-edged nature of the invention of the automobile, by highlighting the major economic advancements enabled by such an invention that are coupled with the introduction of fatalities and injuries associated with travel in an automobile.

As at March 12th, 2002, the road toll stood at 82, with 437 killed in the last year on our roads (Land Transport Safety Authority, n.d.). Such statistics are reflected in the wealth of research on survivors of MVAs, which has comprehensively investigated the psychiatric, psychological, social, legal, medical, and cognitive (amongst others) sequelae of MVAs, as well as issues for assessment and treatment (e.g., see Blanchard & Hickling, 1997).
In an attempt to understand the causes of MVAs, researchers have studied an exhaustive array of human factors, including mood, aggression, risk-taking behaviour, fatigue, stress, age, gender, brain injury, drug-taking behaviour, and psychiatric symptomatology (Little, 1970; Shinar, 1978). Anxiety is another factor that has been studied in relation to driving, although has featured more frequently as a consequence (such as post-traumatic stress disorder) than a cause of motor vehicle accidents.

More recently, researchers have begun to document the presence of anxiety, fears, and phobias related to driving in samples not selected solely for their post-MVA status (Ehlers, Hofmann, Herda, & Roth, 1994; Taylor & Deane, 1999). Furthermore, preliminary research by Taylor and Deane (2000) found a lack of differences between those with MVA- and non-MVA-related driving fears on various measures of fear severity. In light of this finding, Taylor and Deane called for a more comprehensive investigation of DRF. The present research aims to answer this call.

As part of this answer, driving skills are raised as an area to be assessed that has been notably absent from previous research on DRF. This focus necessitates a review of the literature on general theories of driving as well as theory and research on the relationship between anxiety and driving. The intention in reviewing this material is to provide a context for the present study, which is particularly important given the novel consideration of driving skills. This further required an exploratory and descriptive focus to driving skills in the present study.

It was considered important in the first instance to gain detailed information about driving skills in a group of people with DRF, and that this information could then be used, in combination with further studies, to develop a theoretical position on the relationship between driving-related fear and driving performance, based on a collection of research rather than a single study. While the present study therefore did not intend and was not designed to expound a theory about this relationship, attempts were made to locate and integrate the results with existing research and theory.
Finally, various abbreviations are used throughout this thesis. Those for driving-related fear (i.e., DRF), motor vehicle accident (i.e., MVA), and standard deviation (i.e., SD) remain consistent throughout. Abbreviations for psychometric measures are initially presented in relation to the particular measure and are reiterated in later sections for ease of reading. Data are presented rounded to two decimal places, except for some of the results of factor and cluster analyses in which output is given to three decimal places.