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Feelings of vulnerability and effects on driving behaviour – A qualitative study



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ABSTRACT

Feelings of vulnerability in driving can be considered an emotional response to risk perception and the coping strategies adopted could have implications for continued mobility. In a series of focus groups with 48 licensed drivers aged 18–75 years, expressions of vulnerability in driver coping behaviours were examined. Despite feelings of vulnerability appearing low, qualitative thematic analysis revealed a complex array of coping strategies in everyday driving including planning, use of 'co-pilots', self-regulation, avoidance and confrontive coping, i.e. intentional aggression toward other road users. The findings inform future intervention studies to enable appropriate coping strategy selection and prolong independent mobility in older adults.

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1. Introduction

Feelings of vulnerability as a driver go beyond worries about driving. They reflect emotions about potential susceptibility to harm and can be thought of as an affective response to perceived risk (Klein, Harris, Ferrer, & Zajac, 2011). Given that risk judgements vary between individuals (Millstein & Halpern-Felsher, 2002), it is likely that emotional responses to risk will similarly vary. The aim of this study is to examine whether emotional responses to risk affect driver coping functions and constrain driving or mobility behaviour. If this is the case, then theory based interventions could potentially educate drivers to recognise and overcome such feelings. If drivers are selecting inappropriate, emotion focused (affective) coping strategies such as unnecessary avoidance (over-regulation), modifications to their driving through the adoption of more positive, cognitive (instrumental), coping strategies such as pre-journey planning or vehicle modifications, may assist them to gain confidence, drive more safely and cope in situations they may have avoided previously.

This study begins with the premise that feelings of vulnerability affect normal driving behaviour. A number of studies have demonstrated that females are more likely than males to restrict or self-regulate their driving (Bauer, Adler, Kuskowski, & Rottunda, 2003; Charlton et al., 2006; Donorfio, D'Ambrosio, Coughlin, & Mohyde, 2008). The reasons for these gender differences are unclear. However, anxiety (Gwyther & Holland, 2012) and risk sensitivity (Ulleberg & Rundmo, 2002) are likely factors.

In a study of young Norwegian drivers, Ulleberg and Rundmo (2002) noted that a group of predominantly female (84%), low risk drivers reported high levels of anxiety and significantly overestimated their risk of being injured in a collision, while Gwyther and Holland (2012), established a link between anxiety and unnecessary driving avoidance or 'over-regulation'.

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These findings suggest that some drivers are comparatively more sensitive to risk than others and this may influence their coping strategy selection.

Driver coping behaviour has been widely studied in relation to stress (Matthews, 2002), fear (Taylor, Deane, & Podd, 2002) and anxiety (Clapp et al., 2011). Since feelings of vulnerability can be conceptualised by such feelings, it is likely that the coping strategies adopted will be similar.

Transactional models of driver stress (e.g. Lazarus & Folkman, 1984; Matthews, 2002) suggest that personality and environmental factors affect cognitive processes, generating subjective stress symptoms and impairing driving performance. Reliability studies (Lajunen & Summala, 1995; Matthews, Desmond, Joyner, Carcary, & Gilliland, 1997) have established three dimensions of driver stress: alertness, aggression and dislike of driving.

- (a) Alertness describes an inclination toward risk awareness and hazard scanning. This is an adaptive, rational response to driving stress (Matthews, Dorn, & Glendon, 1991) and is characterized by observation and planning which are highly desirable characteristics for safe driving.
- (b) Aggressive driving incorporates anger and risk-taking behaviours. When aggression is used in response to stress, it is known as 'confrontive coping' (Matthews, 2002) and includes behaviours such as shouting, gesticulating and tailgating. Confrontive coping is a risky driving behaviour and has been associated with a higher rate of vehicle collisions (Dula & Ballard, 2003; King & Parker, 2008)
- (c) Dislike of driving can be conceptualised by feelings of anxiety and low confidence. In terms of coping, it leads to driving avoidance (Ehlers, Hofmann, Herda, & Roth, 1994) as well as disconnection from the driving task and a tendency to become distracted and display attention gaps (Matthews et al., 1997; Taubman-Ben-Ari, Mikulincer, & Gillath, 2004).

Traditionally, the terms avoidance and 'self-regulation' have been used interchangeably in driving research with avoidance being particularly prevalent in challenging circumstances, e.g. unfamiliar routes/poor weather/heavy traffic (Baldock, Mathias, McLean, & Berndt, 2006; Charlton et al., 2006). However, self-regulation encompasses a broader spectrum of behaviours including restrictive practices such as trip combining and reduction in mileages (Charlton et al., 2006; Marottoli & Richardson, 1998), active planning strategies including route planning and vehicle adaptations (Molnar, Eby, Scott Roberts, St. Louis, & Langford, 2009) and collaborative strategies such as taking a passenger to assist with navigation and hazard spotting tasks (Shua-Haim, Shua-Haim, & Ross, 1999; Vrkljan & Millar Polgar, 2007).

Research shows that avoidance is particularly prevalent in anxious drivers, inexperienced drivers and older drivers (Baldock et al., 2006; Charlton et al., 2006; Gwyther & Holland, 2012). Ultimately, avoidance of the stressor can lead to giving-up driving altogether. While many drivers retire from driving at a suitable time, it is widely reported that a substantial number stop prematurely with recent estimates of 30% stopping before they need to (Lang, Parkes, & Fernandez Medina, 2013), risking a range of detrimental consequences including loneliness and depression (Marottoli et al., 2000; Oxley & Whelan, 2008). It is well established that female drivers consistently give up driving earlier and in better health than their male counterparts (Charlton et al., 2006; Hakamies-Blomqvist & Siren, 2003; Siren & Hakamies-Blomqvist, 2005) which may be linked to greater anxiety as noted previously, and contributing to older women's greater isolation and all the implications that has for health, quality of life, and social care requirements.

1.1. Study aims

The purpose of this study was (1) to examine the prevalence of feelings of vulnerability in drivers across the lifespan but specifically in women, and (2) to delineate the types of coping strategies adopted in response to those feelings.

There are many possible psychosocial factors involved in discussing driver behaviour, perceived vulnerabilities and reactions to these. In order to explore and understand the relationship amongst such factors, a wholly qualitative approach is adopted. It is felt a quantitative approach is unhelpful and unnecessarily reductive at this stage of knowledge and understanding on the topic. It was not the intention to pick one variable, but to examine a wide variety of psychological variables and their effect in a social context and allow participants to shape and develop narratives on the stressor and coping practices. It was important that the stressors were developed in a bottom-up manner, originating from the participants themselves.

Focus groups were chosen as the most appropriate method of data collection in order to undertake a preliminary exploration of the topic (Krueger, 1988) and to elicit salient beliefs about vulnerability. Certainly, judgements about risks vary between individuals (Millstein & Halpern-Felsher, 2002) and driving behaviour varies between sub-groups of drivers. (e.g. Musselwhite, 2006). Thus, it was expected that the focus groups would generate rich qualitative data and a deeper understanding of the behavioural variation between sub-groups of drivers than would be available using a quantitative method alone (Nagy Hesse-Biber & Leavy, 2006).

The focus group setting helps facilitate a discussion allowing people to build on each other's responses, helping to illuminate new concepts and place their responses within social protocol and norms. Further, this study contributes to the growing body of work using a discursive approach to driving behaviour and transport safety (Dorn & Brown, 2003; Musselwhite & Haddad, 2010a, 2010b; Natalier, 2001; O'Connell, 2002; Rolls & Ingham, 1992).

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