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# Young novice drivers and the risky behaviours of parents and friends during the Provisional (intermediate) licence phase: A brief report



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#### ABSTRACT

*Purpose*: While there is research indicating that many factors influence the young novice driver's increased risk of road crash injury during the earliest stages of their independent driving, there is a need to further understand the relationship between the perceived risky driving behaviour of parents and friends and the risky behaviour of drivers with a Provisional (intermediate) licence.

*Method:* As part of a larger research project, 378 drivers aged 17–25 years (M = 18.22, SD = 1.59, 113 males) with a Provisional licence completed an online survey exploring the perceived riskiness of their parents' and friends' driving, and the extent to which they pattern (i.e. base) their driving behaviour on the driving of their parents and friends.

*Results:* Young drivers who reported patterning their driving on their friends, and who reported they perceived their friends to be risky drivers, reported more risky driving. The risky driving behaviour of young male drivers was associated with the perceived riskiness of their fathers' driving, whilst for female drivers the perceived riskiness of their mothers' driving approached significance.

Conclusions: The development and application of countermeasures targeting the risky behaviour of same-sex parents appears warranted by the robust research findings. In addition, countermeasures need to encourage young people in general to be non-risky drivers; targeting the negative influence of risky peer groups specifically. Social norms interventions may minimise the influence of potentially-overestimated riskiness.

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#### 1. Introduction

Novice drivers in motorised countries are typically young drivers, and they are disproportionally-represented in road crash fatality and injury statistics. In Queensland, Australia, in 2010, 13.4% of the licensed population was aged 17–24 years (Department of Transport and Main Roads DTMR, 2011. In the 12 months to 26 May 2013, drivers aged 17–24 years contributed 22.0% of the fatalities on Queensland roads (approximately three quarters were male), and 28.4% of the road toll resulted from crashes involving a young driver aged 16–24 years (DTMR, 2013).

It is well-recognised that independent licensure remains the most-risky driving phase for the young novice driver, and

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non-compliance with road rules during this licence phase contributes to this increased crash risk. As such, the nature and mechanisms of influence upon the risky behaviour of young novice driver continue to be investigated (e.g. Shope, 2006, 2010; Simons-Morton et al., 2005), and in particular, the role of these influences on the behaviour of the young novice driver during the earliest stages of independent driving. A variety of factors have been found to be associated with the risky driving behaviour of young novice drivers, including the characteristics of: the young novice driver themselves which may (e.g. anxiety, depression, Scott-Parker et al., 2011a, 2012a) or may not (e.g. age, gender, Romano et al., 2008; sensation seeking propensity, Jonah, 1997) be amenable to change; the vehicle they drive (e.g. Williams et al., 2006); and their journey (Williams et al., 2011).

The majority of the research regarding social factors which are associated with young novice driver behaviour has focused upon the peer network. Peers can be a model of behaviour to be imitated, thereby encouraging risky driving as, developmentally, young novice drivers are vulnerable to the negative influences of their peers and are susceptible to a need for social approval from

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these peers (Arnett, 2002). Importantly for road safety, engaging in risky behaviours which are subsequently reinforced by intergroup rewards such as greater popularity and improved social standing (Rhodes et al., 2005; Williams et al., 2007) can increase the likelihood and magnitude of the riskiness of these behaviours. Male drivers in particular report greater pressure to-and more discomfort in refusing to-engage in risky driving behaviours (Suls and Green, 2003). Perceptions of friends' riskiness appear to be key: for some young drivers, the perceived risky on-road behaviour of friends is a significant predictor of their risky on-road behaviour (Taubman-Ben-Ari et al., 2004). In addition, more perceived risky modelling by friends has been found to predict greater willingness to engage in, and more self-reported, risky driving behaviour (Taubman-Ben-Ari and Katz-Ben-Ami, 2012).

Other research has focused upon the social influence of parents. In addition to being the predominant driving supervisors of the young Learner driver (Scott-Parker et al., 2011b), from the earliest ages parents are models of (un)safe driving behaviours. The influence of these models through the independent Provisional licence phase can be observed in the behaviour of the young novice, with evidence suggesting the risky driving of the young novice is associated with parental risky driving (e.g., Brookland et al., 2009; Catchpole and Styles, 2005; Chen et al., 2008; Ferguson et al., 2001; Fleiter et al., 2010; Prato et al., 2009, 2010; Wilson et al., 2006), and the driving of same-sex parents in particular (Taubman-Ben-Ari et al., 2005). Similarly, perceptions of parent riskiness appear to be central: young drivers who perceive their parents as being safe driving models have reported being safer, less-aggressive, drivers than those young drivers who reported their parents were not safe driving models (Taubman-Ben-Ari and Katz-Ben-Ami, 2012).

The social influence of parents, however, within the context of the social influence of the peer network requires further consideration, and this will be done in the context of the Australian graduated driving environment. As such the study aims were to examine the relationship between perceived riskiness of parents and peers' driving behaviour, the extent to which the young driver patterns their driving behaviour upon the driving behaviour of their parents and peers, and the self-reported risky driving behaviour of the young driver during the Provisional licence phase.

#### 2. Method

#### 2.1. Participants

Drivers (n=378, 113 males) aged 17–25 years (M=18.22, SD=1.59, Mode=17, Median=18) who had held a Provisional 1<sup>1</sup> (P1) drivers licence for 6 months completed an online survey as part of a larger research project.

#### 2.2. Procedure and design

Every Learner driver in the state of Queensland, Australia, who passed their practical driving assessment and progressed from a Learner to a P1 driver's licence April through June 2010 was offered the opportunity to participate in a larger longitudinal research project. A total of 9393 drivers of all ages were eligible to participate, and 1333 drivers aged 17–38 years chose to complete the

online Learner Survey (an overall 14.4% response rate, however, the response rate for drivers aged 17-25 years could not be calculated due to privacy restrictions). Six months later the hyperlink for the Provisional Survey was sent to the Learner Survey participants. Two reminders were also sent, and the retention rate between surveys was 34.4%<sup>2</sup>. It is noteworthy however that the Learner and Provisional driver samples reflected the geographic distribution of the state of Queensland's population, with 61.8% of the Learner and 62.9% of the Provisional sample participants residing in inner city areas (which contain 60.0% of the state's population), and 2.2% of the Learner and 1.7% of the Provisional participants residing in remote areas (which contain 2.0% of the state's population) (Commonwealth Department of Health and Aged Care, 2001). Both surveys offered incentives including the opportunity to win petrol vouchers and/or cinema tickets. The online survey tool was created in KeySurvey Enterprise Online Survey Software.

#### 2.3. Measures

Participants reported their age (years) and gender in both surveys. Perceptions of overall driving riskiness were measured by the three-part item 'How risky a driver: was your Mother/Father/were your friends when you were a Provisional driver?' (1 never risky, 7 always risky) (herein referred to as risky). Patterning was measured by the item 'How much did you base your first six months of driving without a supervisor: on your Mother's/Father's/friends' driving?' (1 not at all, 7 all of it) (herein referred to as pattern)<sup>3</sup>. Self-reported risky driving was measured by the Behaviour of Young Novice Drivers Scale (BYNDS) (1 never, 5 nearly all the time) comprising subscales of transient violations (e.g. exceeding posted speed limits), fixed violations (e.g. driving after drinking alcohol), risky driving exposure (e.g. carrying friends as passengers at night), misjudgements (e.g. misjudging the speed exiting a main road), and driver mood (e.g. driving faster if in a bad mood) (Scott-Parker et al., 2010) (44 items,  $\alpha$  = 92; skewness = .37; kurtosis = .34)<sup>4</sup>.

#### 2.4. Statistical analyses

Bivariate correlations were used to explore the strength of association between the study variables: between continuous variables utilised Pearson's product moment correlation (r); between continuous and dichotomous variables utilised point biserial correlations  $(r_{pb})$ . There was no missing data. For the hierarchical multiple regression, a minimum sample size of  $n \ge 50 + 8m$  (m = number of independent variables) (Tabachnick and Fidell, 1996) is required for a preferred power of 80% and to detect a medium effect size of .20. Sample size requirements were met. Analyses were conducted using PASW version 21.0.

#### 3. Results

#### 3.1. Descriptive analyses

Very few novices perceived their mother's (1.1%; reported by 1.8% of male and 0.8% of female participants) and father's (5.9%;

<sup>&</sup>lt;sup>1</sup> In Queensland, Australia, the novice driver progresses from a Learner licence to a Provisional (intermediate) licence upon successful completion of a practical driving assessment. The Provisional licence period is divided into two stages. The first stage, Provisional 1, must be held for a minimum one year duration and has a number of restrictions, such as passenger limits of one peer passenger between the hours of 11pm and 5am, excluding family members. After passing an online hazard perception test, the novice driver progresses to a Provisional 2 (P2) licence which must be held for a minimum two year duration (Queensland Transport, 2007).

 $<sup>^2</sup>$  A comparison of the sociodemographic characteristics of the 792 novices who did not complete the Provisional Survey with the 378 who did revealed that those who participated in both surveys were significantly more likely to be female and studying (p < .001).

<sup>&</sup>lt;sup>3</sup> Likert scores of 5, 6 and 7 were collapsed to represent 'a risky driver' and 'did pattern'.

<sup>&</sup>lt;sup>4</sup> All variables, including the BYNDS composite score, were logarithmically-transformed to rectify violations of normality (e.g., BYNDS skewness=.99, kurtosis=1.31), which also rectified the non-linearity and hetersocedasticity of the variables.

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