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Revisiting the concept of the 'problem young driver' within the context of the 'young driver problem': Who are they?



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ABSTRACT

For decades there have been two young driver concepts: the 'young driver problem' where the driver cohort represents a key problem for road safety; and the 'problem young driver' where a sub-sample of drivers represents the greatest road safety problem. Given difficulties associated with identifying and then modifying the behaviour of the latter group, broad countermeasures such as graduated driver licensing (GDL) have generally been relied upon to address the young driver problem. GDL evaluations reveal general road safety benefits for young drivers, yet they continue to be overrepresented in fatality and injury statistics. Therefore it is timely for researchers to revisit the 'problem young driver' concept to assess its potential countermeasure implications. This is particularly relevant within the context of broader countermeasures that have been designed to address the 'young driver problem' Personal characteristics, behaviours and attitudes of 378 Queensland novice drivers aged 17-25 years were explored during their pre-, Learner and Provisional 1 (intermediate) licence as part of a larger longitudinal project. Self-reported risky driving was measured by the Behaviour of Young Novice Drivers Scale (BYNDS), and five subscale scores were used to cluster the drivers into three groups (high risk n = 49, medium risk n = 163, low risk n = 166). High risk 'problem young drivers' were characterised by greater self-reported pre-Licence driving, unsupervised Learner driving, and speeding, driving errors, risky driving exposure, crash involvement, and offence detection during the Provisional period. Medium risk drivers were also characterised by more risky road use than the low risk group. Interestingly problem young drivers appear to have some insight into their high-risk driving, since they report significantly greater intentions to bend road rules in future driving. The results suggest that tailored intervention efforts may need to target problem young drivers within the context of broad countermeasures such as GDL which address the young driver problem in general. Experiences such as crash-involvement could be used to identify these drivers as a preintervention screening measure.

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1. Introduction

1.1. The 'young driver problem' or the 'problem young driver'

Two conceptualisations of the young driver and their crash risks can be found in the extant road safety literature: the 'young driver problem' and the 'problem young driver' (Crettenden and Drummond, 1994). The 'young driver problem' concept recognises the elevated crash risk of the entire cohort of young drivers as

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evidenced by their overrepresentation in road crashes and the fatalities and injuries arising from these crashes. To illustrate, in Australia in 2011, 17–25 year olds comprised 12.9% of the nation's population, but constituted 21.9% of the road crash fatalities (Bureau of Infrastructure, Transport and Regional Economics, 2012). In comparison, the concept of the 'problem young driver' assumes that a *sub-sample* of young drivers, rather than the young driver population as a whole, presents the greatest road safety challenge, and this is suggested to be through their preparedness to engage in risky driving behaviour (Senserrick, 2006). To demonstrate, 2.5% of young novice drivers in South Australia between July 1998 and June 2001 were detected for a speeding offence during the first 6 months of driving with a Provisional license, and their speeding offences were found to predict future speeding offences and future road crashes (Kloeden, 2008). Further, in Queensland in

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2009, 24,885 traffic offences were recorded for drivers aged 17–25 years with a Provisional 1 (see Section 1.2) licence. Of these drivers, 64.6% had no driving offence history (74.5% of female drivers; 60.1% of male drivers), whilst 15.3% had at least two prior offences (9.0% of female drivers; 18.2% of male drivers) (DTMR, 2012). Accordingly, it appears that there is a noteworthy proportion of young drivers who repeatedly undertake risky driving behaviour. Therefore this paper focuses on the 'problem young driver' within the broader context of the 'young driver problem'.

Reliably identifying 'problem young drivers' has to date proved to be a challenging task for researchers for a variety of reasons, including the lack of an operational definition and membership-criterion (e.g., single- vs. multiple-crash involved) and high rates of false-positives (that is, non-problem drivers identified as problem drivers) in the analyses (Crettenden and Drummond, 1994). Notwithstanding these limitations, some gender-related patterns have emerged such that males appear over-represented in the most high risk driver groups. In addition, for young novice drivers in general, sensation seeking propensity (Jonah, 1997), and psychological distress, including anxiety and depression (Scott-Parker et al., 2011b), have been found to be associated with more on-road risky driving behaviour.

Some research has examined the personal characteristics of the general young driver population in an attempt to identify problem young drivers. For example, Ulleberg (2002) considered the sensation seeking propensity, trait aggression, anxiety, altruism, and normlessness (conceptualised as a belief that behaviours do not necessarily have to be socially sanctioned) of 2498 drivers aged 18-23 years who had held a licence for at least 3 months. The young drivers also completed seven items from the Driving Anger Scale and self-reported their crash involvement. Six clusters of drivers were identified according to their combination of personal traits; however only five groups could be clearly identified, including two high- and three low-risk groups. In general, the two high-risk groups reported greater sensation seeking propensity and driving anger (that is, a greater tendency to become angry in response to traffic circumstances), more risky driving attitudes, crash-involvement, and driving in excess of posted speed limits, compared to the three low-risk groups. In addition, Wundersitz (2007) examined the characteristics of 270 university undergraduate psychology students aged 17-21 years who held a Provisional drivers' licence and identified four clusters according to personality, hostility and aggression, and driving-related aggression. The high-risk cluster reported more detected offences and greater crash involvement, and greater sensation seeking than the low-risk clus-

Other research has examined self-reported driving behaviours to identify problem young drivers. For example, a longitudinal sample of 1135 Victorian drivers aged 19–20 years who had held a Learner or Provisional licence for an average of nearly 21 months were grouped into three clusters of increasing risk according to their engagement in behaviours such as speeding by up to 10 kilometres per hour (km/h), driving whilst tired, and driving whilst not wearing a seatbelt (Vassallo et al., 2007). The low-risk group comprised nearly two-thirds of the sample with 39% being male; the high-risk group comprised 7% of the sample and 77% were male. The high-risk group also reported significantly more speeding violations and crash involvement than the low-risk group, which was subsequently confirmed through official Police records (Vassallo et al., 2008).

Thus far in the literature there appears to be a consensus that a problem young driver population exists; however there is no agreement regarding the specific characteristics – sociodemographic, attitudinal, behavioural or other – identifying this group. This lack of consensus may have contributed to the limited attention given to the consideration, development, implementation and evaluation of

countermeasures specifically targeting this risky subgroup. In contrast, the broader young driver problem is readily recognised and has prompted countermeasures such as graduated driver licensing.

1.2. Graduated driver licensing

Difficulties associated with identifying the sub-group comprising problem young drivers, in addition to the heightened risk experienced by all young drivers, have led to the introduction and refinement of broad countermeasures such as graduated driver licensing (GDL) programs. Of relevance to this research, the GDL programme in Queensland, Australia, was considerably enhanced in July 2007. Key changes included a longer Learner period (increased from 6 to 12 months, Learner age decreased from 16.5 to 16 years) with a minimum of 100 h of supervised driving practice (minimum of 10 at night) recorded in a logbook. Learners must be supervised at all times. After passing the practical driving assessment, Learners progress to a Provisional 1 (P1) (intermediate) licence which must be held for a minimum of 12 months (Queensland Transport, 2007). 1

GDL evaluations reveal that the most restrictive programs produce the greatest road safety benefits, for the youngest novice drivers in particular (Masten et al., 2011). It is noteworthy, however, that young drivers continue to be overrepresented in road crash, injury and fatality statistics, suggesting that interventions targeting particular groups of young novice drivers may be required in addition to broad countermeasures such as GDL. Further, it appears that a stalemate may have been reached in the considerable young driver road safety benefits associated with the current structure of broad interventions such as GDL programs (Williams, 2011), suggesting the need for specific interventions targeting 'problem young drivers' to augment GDL programs. As such, identifying just who to target, and when, appears to be the most promising direction for achieving further improvement in young driver road safety. Some way of reliably identifying these high-risk groups is therefore required, and recent research conducted by the authors (e.g., Scott-Parker et al., 2011b, 2012a,b,d, 2013) and others (e.g., Begg et al., 2010; Senserrick et al., 2010) are promising in this regard. Therefore whilst broad countermeasures such as GDL merit continued application and refinement, it is timely that the concept of the problem young driver - within the broader construct of the young driver problem – be revisited. Of particular interest is establishing what personal characteristics, attitudes and/or behaviours, if any, could be used to effectively identify problem young drivers. Determining such indicators could also be helpful in identifying when and which interventions need to be used to target the young problem driver if further advances in reducing the burden of young driver crashes are to be made.

1.2.1. Study aims

A considerable stumbling block to address the problem young driver has been how to best identify them. Therefore, this research was designed to bring some consensus to the question of 'who is

¹ It is noteworthy that GDL in the Queensland-context does not have a 'wait-out' option as such, in contrast to the majority of GDL programs in the North American context which have a finite age limit. Whilst a few concessions are made for drivers aged over 25 years (herein referred to as 'older drivers') who have a Learner licence (principally the 100-h logbook requirement is a *voluntary* component rather than a *compulsory* requirement), older drivers must hold their Learner licence and their Provisional 1 licence each for a minimum of 1 year, which is exactly the same requirement as for younger drivers. A time concession for the Provisional 2 licence phase is granted to older drivers, such that rather than holding this licence for a minimum 2 year period before advancing to an unrestricted Open licence, older drivers hold their Provisional 2 licence for a 1 year period. Accordingly Queensland's GDL is unlikely to lead to a 'delay in risk' which has been identified in some jurisdictions in the United States (e.g., see Males, 2007).

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