

The Driving Age:

A Youthline Position Paper

BACKGROUND

Concern has mounted in New Zealand regarding the safety of young people on our roads. This has led to a call to raise the driving age in New Zealand from 15 to 16 amongst members of the public and MPs. This would mean the driving age is in line with other statutory rights, including the school leaving age. Although this appears to be a “common sense” approach on the surface, there is mixed evidence whether changing the driving age by one year will improve young people’s driving abilities and reduce overall crash rates for young people. Further, even if we accept that there is a legitimate reason to raise the driving age, such a move should not occur in isolation – it should coincide with an improvement to public transport, so that young people are not disadvantaged.

When young people are seen to be behaving recklessly, such as violating the terms of their driver’s license, there is often a knee-jerk reaction from some that young people are being treated too liberally, and their rights must be accordingly restricted. However, risk-taking behaviour should be understood in terms other than a desire to misbehave. Some of the current neurological theory around risk-taking is discussed below. Further, an examination of risk-taking or thrill-seeking behaviour in drivers aged 21 years and 26 years demonstrated that young men aged 21 take more risks than their older counterparts and than female drivers (Begg and Langley, 2001). Hence, issues around a culture of risky driving will not be addressed by simply increasing the age to begin learning from 15 years to 16 years – the issue extends much beyond these years.

The driving age is not an issue to consider in isolation. For example, lowering the drinking age to 18 has coincided with a 14% increase in the ratio of car accidents involving alcohol for 15- to 17-year-old males and 24% for 15- to 17-year-old females (Kypri *et al.*, 2006). This indicates that better education around alcohol use and better enforcement of drink-driving laws could be warranted. Equally important, a lack of frequent and affordable public transport limits the options of young people and makes driving a more desirable option than in many overseas countries where transport infrastructure supports much greater use of public transport and cycling.

The challenge we face is to determine what causes the high crash rate in young drivers, and how best to reduce this rate. We also need to provide transport alternatives for young people if we are to consider removing the ability of young people to drive at 15.

YOUNG DRIVER ATTITUDES & ADOLESCENT RISK-TAKING

Risk-taking behaviour is well documented in young people, as drivers (e.g. Vavrik 1997; Steinberg, 2007) and in other aspects of life (Christie & Viner, 2005; Jessor, 1998). While society frequently perceives young people as bad or reckless drivers, attitudes towards driving in young people are more complex than this and warrant deeper consideration. Some New Zealand research suggests that attitudes towards driving at ages 14 to 15 years are less risky than those at 16 to 17 years, with a particular deterioration in young males in the areas of drink driving, reckless driving and speeding (Harré *et al.*, 2000). Begg and Langley (2001) note that drivers' attitudes improve again during their mid-twenties. However, there is a period in mid-to-late teens and early twenties where driver behaviour is particularly mismatched with driving skill. Therefore, there may be a niche for more extensive efforts to change attitudes towards driving for this age group.

Advances in neuroscience have guided recent understanding of adolescent risk-taking behaviour. Adolescent behaviour correlates with increased thrill-seeking, as sensation-seeking impulses develop ahead of the cognitive systems which control these impulses (Steinburg, 2007). Reyna and Farley (2006, cited in Steinburg, 2007) found that the reasoning and risk perception skills of 15-year-olds were similar to that of adults. Hence, Reyna and Farley argue that young people do not think they are 'invincible' or 'bulletproof', as it is commonly stated (e.g. Christie & Viner, 2005). Indeed, an adolescent self-perception of invulnerability has never been demonstrated empirically (Steinburg, 2008). Steinburg (2007) argues that it is not logic, but psychosocial maturity which continues to develop post 15 years. He posits this continues to develop through to mid-twenties. This supports the findings of Begg and Langley (2001) noted above that thrill-seeking behaviour, particularly in young men, continues well beyond the age range being considered for the driving age.

While young people may not necessarily perceive themselves as immune to harm, young males in particular may be subject to 'concrete' thinking, as complex abstract thinking develops later in adolescence (Christie & Viner, 2005). Thus, young people may be less aware of, or less concerned with, risks that are not immediately apparent.

APPROACHES TO DRIVER EDUCATION

There is evidence that the traditional driver education programmes are of limited or no value in reducing crash rates (e.g. Mayhew *et al.*, 1998; Vernick *et al.*, 1999). Steinburg (2008) employed driver training alongside abstinence programmes and anti-drug programmes in schools, which may increase knowledge without substantially affecting behaviour. Traditional driver education is limited in its scope in that it typically focuses on improving the individual's technical driving skills (Williams, 2006). More comprehensive approaches are typically much more successful, and involve community-based

education which focuses on promoting positive attitudes towards driving, with as much involvement as possible from young people themselves (Williams, 2006). This is in line with principles of youth development, which encourages comprehensive and meaningful participation from young people (Ministry of Youth Affairs, 2002).

Graduated driver's license systems are well-recognised as an agent to reduce crashes. In the United States, Morrisey et al. (2006) found that stringent graduated systems reduced fatal accidents amongst young drivers by 19%. New Zealand's graduated system has the elements of a stringent system, as it includes a learner's period, and a restricted period with limitations on passengers and night time driving.

ENFORCEMENT

More strict enforcement of driving restrictions for adolescents may improve driving behaviour. Steinberg (2008) found that driving decisions made by adolescents were affected by the presence of their friends. In fact, adolescents were twice as likely to take risks when driving with friends as when alone, while the presence or absence of friends had no effect on adult risk-taking behaviour. Further, Chen et al. (2000) demonstrated that the risk of death increased for 16- and 17-year-old drivers with each additional passenger, by studying fatal crashes in the United States. This indicates that crash rates could be reduced by simply making greater efforts to ensure the existing conditions of a restricted driver's licence are being met.

Similarly, Transit New Zealand's (2008) statistics for fatal crashes between 2003 and 2007 indicate that 15-24 year-old drivers are two and a half times more likely than others to have been driving too fast for the conditions. This is by far the largest disparity in the factors contributing to fatal crashes between drivers under 25 and those 25 and over. Better enforcement of the speed limit may therefore also aid in reducing road fatalities in young people.

YOUTHLINE'S POSITION

Young people are prone to sensation-seeking and risk-taking activities and may make impulsive decisions without consideration of the consequences. Neuroscience is providing an understanding of this phenomenon; currently, it appears that risk-taking is the result of a lack of impulse control rather than a sense of being 'bulletproof'. For this reason, behaviour may be difficult to modify using traditional approaches.

Risk-taking behaviour is not unique to 15-year-olds; raising the driving age by one year is not a singular move which will improve this – in fact 16- and 17-year-olds have more risky attitudes towards driving than 14- or 15-year-olds, and risky behaviours are also widespread in drivers aged 19-24.

The current status quo of skills-based driver education (e.g. defensive driving courses) is of limited value in reducing crash rates. However, moving past the focus on technical skills towards a community approach to driver education may improve road safety outcomes. Further, young people need to be involved in the design of such approaches.

Adults also need to model good, defensive driving skills to young people.

As a whole, society needs to provide good quality alternatives to driving, such as regular and cheap public transport options to support people to make good choices.

REFERENCES

- Begg, D. & Langley, J. (2001). Changes in risky driving behavior from age 21 to 26 years. *Journal of Safety Research*, 32, 491–499.
- Chen, L., Baker, S.P., Braver, E.R., & Li, G. (2000). Carrying passengers as a risk factor for crashes fatal to 16- and 17-year-old drivers. *JAMA*, 283, 1578-1582.
- Christie, D., & Viner, R. (2005). Adolescent development. *British Medical Journal*, 330, 301-304.
- Harré, N., Brandt, T., & Dawe, M. (2000). The development of risky driving in adolescence. *Journal of Safety Research*, 31, 185–194.
- Jessor, R. (1998). *New perspectives on adolescent risk behavior*. Cambridge: Cambridge University Press.
- Kypri, K. et al. (2006). Minimum purchasing age for alcohol and traffic crash injuries among 15- to 19-year-olds in New Zealand. *American Journal of Public Health*, 96, 126-131.
- Mayhew D.R., Simpson, H.M., Williams, A.F., & Ferguson, S.A. (1998). Effectiveness and role of driver education and training in a graduated licensing system. *Journal of Public Health Policy*, 191, 51–67.
- Ministry of Youth Affairs (2002). *Youth Development Strategy Aotearoa*. Wellington: Ministry of Youth Affairs.
- Steinburg, L. (2007). Risk taking in adolescence: new perspectives from brain and behavioral science. *Current Directions in Psychological Science*, 16(2), 55-59.
- Steinberg, L. (2008). A Social neuroscience perspective on adolescent risk-taking. *Developmental Review*, 28, 78–106.
- Vavrik, J. (1997). Brief report: Personality and risk-taking: a brief report on adolescent male drivers. *Journal of Adolescence*, 20, 461-465.
- Vernick, J.S., Li, G. and Gielen, A.C. 1999. Effects of high school driver education on motor vehicle crashes, violations, and licensure. *American Journal of Preventive Medicine*, 16 (1S), 40-46.
- Williams, A.F. (2006). Young driver risk factors: successful and unsuccessful approaches for dealing with them and an agenda for the future. *Injury Prevention*, 12(Suppl 1), i4–i8.