Contributed articles

Resilience and youth road safety: some thoughts

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A presentation was given at the recent Australasian Road Safety Conference 2016, introducing young driver road safety issues and the potential role of resilience education as a countermeasure. The session was the Road Safety Educators Workshop, not only held on the first morning of the conference, but with an hour earlier start time than the rest of the program. The workshop was full, with standing room only for most of the morning, reflecting the breadth of interest from a wide range of educators and wider stakeholders.

Introducing youth road safety statistics, one focus was on road crashes as a persistent leading cause of death and acquired disability for youth, as well as the persistent over-representation of youth, and young drivers in particular, in fatal crashes (BITRE, 2016; AIHW, 2016). This is not only true in Australasia, but echoed globally (WHO, 2015). Moreover increased attention to non-fatal injury outcomes suggests we have achieved little change in youth crash-related serious injuries in recent years (AIHW, 2015p Centre for Road Safety, 2016). The 388 deaths in Australia and New Zealand involving young drivers and motorcyclists in 2014 (latest data available BITRE, 2016; Ministry of Transport, 2015), are coupled with thousands of serious injuries (AIHW, 2015; Ministry of Transport, 2015); beyond what should be considered an acceptable trade-off for mobility, for any road user group.

The contributing factors are many (reviewed in Johnson, 2011; Senserrick, 2013; Senserrick, 2015; Twisk, 2007). This includes risks for drivers of any age, including inexperience and more driving at night, on weekends, recreationally and in less crashworthy vehicles. But some factors increase crash risk to a much greater extent for youth than older, experienced drivers, including (even low levels of) alcohol and carrying multiple peer passengers. The stage of brain development during this period of mid-adolescence also contributes to young drivers having greater propensity to take risks, important for developing independence, but including potentially harmful risks such as speeding and text messaging. It also contributes to fatigue, anxiety, depression and strong waves of emotions; all with potential to increase crash risk.

What then could be the role of resilience and the potential role of resilience education as a crash countermeasure? Deb Zines, Road Safety Coordinator at School Drug Education and Road Aware (SDERA) and chair of the Road Safety Education Reference Group Australasia (RSERGA), kicked off the workshop challenging participants to think about their perspectives and definitions of resilience. There were many, but being able to maintain an enduring sense of wellness, with the ability to "rise above" or "bounce back" after adversity, were viewed as particularly important aspects. Dr Michael Ungar, Co-Director of the Resilience Research Centre, puts it this way: "In the context of exposure to significant adversity, resilience is both the capacity of individuals to navigate their way to the psychological, social, cultural, and physical resources that sustain their well-being, and their capacity individually and collectively to negotiate for these resources to be provided in culturally meaningful ways" (Resilience Research Centre, 2016). Further investigation of model pathways to resilience were then reported, with research findings linking low levels of resilience to an array of negative outcomes, including higher risk of leaving school at a young age, unemployment, poverty, mental health problems and harmful risk-taking taking behaviour (e.g. Hattie, 2009; Criminology Research Council, 2003; Kraft, 2003).

How then can we teach young people to be resilient and what role might this have in improving youth road safety? Resilience education focuses on empowering youth, enhancing or building strengths and competencies in relation to risk-taking generally. That is, the focus is on the individual rather than on the specific risky behaviour per se. There are many angles this can take, which draw back to classic psychological theories such as "causal attribution" and "perceived control" (Heider, 1958; Fiske, 1991): simply, whether we attribute behaviours to internal factors within our control (personality, motives, beliefs), or to external factors outside of our control (situational or environmental factors). This presentation identified many aspects of resilience that we could address with young people, which was conceptualised as their "resilience backpack" or "resilience toolkit":

- Decision making (safe choices).
- Assertive communication (straight talking).
- Help seeking (being brave, ask for help).
- Knowing your strengths.
- Optimistic thinking and persistence.
- Humour (smiley thoughts).
- Conflict resolution and negotiation (win-win or I hear you).
- Goal setting (Goldilocks goals).
- Emotional awareness and regulation (see it, feel it).
- Social awareness (develop friends).
- Empathy (kind and in your shoes).

These are all good, accessible examples for parents and anyone with a role in supporting young people. From a resilience education approach, the aim then is not just to draw young people's attention to aspects such as these, but to include a focus on the strategies they can employ to enhance and rehearse these to reduce risks. That is, it is not just the "what" and "why", but also the "how" to prevent or avoid making poor decisions to engage in risks. Traditional driver education focusing on the "what" and "why" only, such as drink driving or speeding and why they increase crash risk, for example, is not unimportant but is largely ineffective in influencing behaviour and therefore crash risk (Senserrick, 2015; Beanland, 2013). The underlying assumption is that ensuring awareness and knowledge of the risks and fostering positive attitudes alone should result in safe behaviour. The complementary assumption, therefore, is that young people have the skills and the "know how" to effect such change. Resilience education addresses this last assumption and seeks to provide youth with the "tools" they need to make safer choices in keeping with their beliefs and intentions.

The impacts of a resilience-focused education program on youth road safety were explored in 2009 as part of the DRIVE study - a cohort study with over 20,000 young drivers in New South Wales (Senserrick, 2009). Newly-licensed drivers completed a detailed survey, including questions regarding their involvement in driver education programs as a learner, and their answers were linked to police-recorded crash and offences records about two years later. Large enough numbers had participated in two particular school-based programs in order to compare the results: one a more traditional driver education program and the other a broader resilience-focused program. Comparing the outcomes of those who took part in the programs to those who did not, neither program was associated with fewer offences. However, the resilience-focused program (and not the traditional program) was associated with much lower crash involvement.

The size of the crash reduction in the study was striking. This does not mean the program reduced crashes by this large effect. DRIVE was an "observational" study over time and not designed for program evaluation – we cannot know if there was any systematic bias among those who completed the program in choosing to be in the study or not. But that a large effect was found, and not for the traditional program (with the same potential for bias), points to the potential of the resilience program to have reduced crash risk for those young drivers.

Further, around the same time as the DRIVE study, stronger evidence of the potential of resilience education to improve road safety emerged from the United States (Griffin, 2004). A "gold star" evaluation study, a randomised control trial, was conducted of a school-based program for 7th, 10th and 12th grade students. The program did not include specific focus on driver education or road safety per se, but in fact focused on alcohol and other drug misuse generally. However, by the end of high school, students who had participated in the program had fewer demerit points on their driver licence than those who did not.

Comparing the two studies, the U.S. study did not include crash records, but showed reductions in traffic offences, whereas DRIVE did not find any differences in offences, but did find crash reductions. Writing up the DRIVE study with colleagues back in 2009 for an international journal, the appeal was made for more research on this promising approach to account for these inconsistencies and draw out the true potential of resilience education (Senserrick, 2009). With the importance of resilience for youth spanning a range of health and safety risks, the implications seemed compelling. Yet several years on, a rudimentary search of peer-reviewed literature fails to find any such further evaluations.

There is a collective disappointment in the recent rising road toll in our region. For me, that this particularly includes an increase among young people, including novice drivers, is particularly tough. Reflecting on why this might be and where to focus our efforts next does not bring any ready or easy answers. There is no one answer and no one solution. Applying wider "systems thinking" to recognise there are many avenues to influencing young driver road safety, not just via traditional transport and road safety "actors" (Scott-Parker, 2016), there are multiple opportunities to increase youth resilience and we might all have opportunity to play a role. Both formal and informal resilience education, addressing the "how" and inspiring young people to build and draw on their "resilience backpack", offers a promising building block in our collective efforts to improve youth road safety.

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