

WHAT DOESN'T WORK FOR YOUNG ROAD USERS AND WHY

Outlined below is a summary of the research evidence around a range of approaches that are not effective in changing the behaviour of young road users.

Fear tactics

Fear appeals are typically used to vividly show the negative health consequences of dangerous behaviours so people will be motivated to moderate their current risky behaviour and adopt safer alternative behaviours. They can be in the form of advertisements, messages, images, testimonials, discussions or experiences¹.

What does the evidence show?

- A large body of research has found that in general fear appeals do not lead to positive behaviour change^{2,3,4}.
 - Research has found that some people accept the fear appeal message, whereas others reject it^{4,5}. Those who are more likely to accept the message are not usually the ones engaging in the high risk behaviour.
 - Some research has found that fear appeals in some instances have led to an increase in risky behaviour⁶.
 - An evaluation of a school program using testimonials from road crash victims found that the program did not result in behaviour change⁷.
- Evaluations of the effectiveness of trauma ward visits show mixed results. Two reported studies have found some positive effects^{8,9}, but two other studies have found that trauma ward visits had no effect on the behaviour of those who attended^{10,11}. Due to the high costs and the impact that these programs can have on trauma ward patients, and the uncertain effects, these programs should be avoided.
 - Many reviews of programs to take young offenders to prisons have consistently shown that this approach is ineffective, and some evaluations found that those young offenders who participated were more likely to offend than those who did not¹².

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Why doesn't it work?

The main difficulty with fear appeals are that they seem to be least effective among those people who most need to change their behaviour. Less risky people who are already motivated to behave safely are more likely to accept the fear appeal message¹³.

In contrast, for some people fear appeals tend to invoke defensive mechanisms like:

- > denial ("that is not true");
- > ridiculing the message ("as if that would happen")
- > neutralising ("it won't happen to me") or
- > minimising ("that message is exaggerated").

The finding that fear appeals don't seem to be effective in changing risky behaviour among young people seems to be consistent across a range of approaches and across both offending and non-offending groups of young people.

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Skill based driver training

These programs predominantly involve driving on off-road tracks or circuits, and may also include the provision of information about traffic law, the risks of crashing and sometimes some emergency braking exercises.

What does the evidence show?

- › Systematic evaluations of driving skill based programs have all concluded that the programs have little or no positive effect on the road safety behaviour of the young people who participate in them^{1,2,3}.
- › Some off-road programs for novice drivers, especially those that include skid control training were found to either have no positive effect, or in some cases, have negative effects on those who completed them⁴.
- › Even as places for learners to master basic skills, research suggests that the best learning environment for the beginning driver is the real road system under the supervision of an experienced driver or instructor¹.

Why doesn't it work?

These programs mainly focus on driving skills. While drivers need to master basic car control skills this occurs relatively quickly. Providing too much emphasis on driving skills does not create better safety outcomes. It can lead to an increase in risky behaviours due to the perception among these young people that they are more skilled⁵.

One likely reason why these approaches are ineffective is that some of the young drivers who complete these programs feel like they were more skilled drivers than they had been previously. As a result, their confidence and level of risk taking as a driver increases leading to a greater involvement in crashes. This is especially the case for young male drivers¹.

Off-road driving programs are likely to be particularly unhelpful for higher risk groups, like young male offenders, and these groups should not be encouraged or required to attend such programs.

While there might be some value in utilising off-road facilities for learners who are in the first stage of learning to drive, it can just as safely occur in an appropriate on-road environment i.e. new housing estates, industrial estates on the weekend.

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One off events

Some communities invite young people to participate in one day events or forums. These may involve a range of speakers or personnel from emergency services, victims of road trauma, traffic offenders and other related fields to speak to students about their role and experience of road trauma. Components of the sessions may include mock road crash scenarios or the stories from traffic offenders and or crash victims or their families.

What does the evidence show?

- › A review of effective measures to reduce injury among young people concluded that lasting behaviour change and ultimately a reduction in injuries experienced by young people is beyond the scope of one-off educational programs or information sessions/presentations¹.
- › A review of crime prevention programs showed that one-off events can only ever be beneficial if they are part of an ongoing and multi-action approach to the problem and they should be delivered by trained professionals².
- › An Australian evaluation of a one day school based program designed to improve road safety attitudes and risk perceptions among senior students using presentations from police officers and road trauma victims showed disappointing results. The program had no effect on risk perception, and students who participated in the program had riskier attitudes to road safety rather than safer attitudes after completing the program³.

Why doesn't it work?

Many of these education programs and information sessions need to be fairly non-interactive given the large numbers of students that are involved. Non-interactive programs that primarily emphasise knowledge acquisition or the negative affect of unsafe behaviours are unlikely to result in behaviour change⁴.

Interactive programs that involve a discussion format to explore content have been found to be between two and four times more effective than non-interactive approaches⁵. Programs that build and increase the ability of students to act in safe ways when presented with opportunities to engage in risky behaviour allows them to develop resilience, refusal and coping skills. This is more effective than providing content or building knowledge in students. The effectiveness of such approaches relies on the program facilitators receiving appropriate and regular training⁶.

Other short-comings of this approach are that:

- › Relying on a range of external experts can be difficult, as it relies on the experts having a sound understanding of effective health promotion approaches, and being able to engage and interact with students, which requires specific training².
- › Developing and co-ordinating the event and getting students to the event is very resource intensive and limited resources could be used in more effective ways⁷.

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Driver simulation

Low grade simulators are promoted by some organisations as a road safety initiative for young people. Often using one or more computer type screens or projections, driving simulators attempt to reproduce some or all of the perceptual experiences of driving a motor vehicle.

Another very low level of simulation used in some programs involves using fatal vision goggles or 'beer goggles'. The broad aim of using these goggles is that young people potentially experience the negative intoxication effects of drinking (blurred vision, loss of balance and coordination) and ultimately change their behaviours as a result.

What does the evidence show?

- › While simulation is a commonly used training tool in aviation, the application of low level simulation as a training tool for driving has not been shown to be effective¹.
- › Research shows that driving simulators cannot faithfully reproduce all the experiences of driving a real motor vehicle on a real road in real traffic², and performance on simulators has not been directly correlated with on-road performance³.
- › It has been concluded that in most cases, using real cars on real roads is cheaper, more realistic and more effective in training terms than building and using simulators⁴.
- › An evaluation of the use of fatal vision goggles as part of a drink driving program for US College students found no change in the behaviour of the students who participated in the activity compared with those who did not⁵.

Why doesn't it work?

The limitations of driving simulators as a training tool for learner drivers is that the learners may develop a set of expectations of the behaviour of other road users based on their experiences in the simulator. Because the real-world driving environment is different to the simulator environment this inconsistency could interfere with the development of safe driving skills in the learner¹.

Using goggles to simulate the effects of being drunk can have the unintended effect of trivialising or making being drunk seem like a fun activity. For students with little experience with, highly interactive lessons may increase interest in alcohol use⁶. Such approaches may also inadvertently imply to young people that there is an expectation that all young people will at some point get drunk and act

in an unsafe manner. This has the negative effect of normalising the unsafe behaviour⁷.

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Membership or participation in car racing clubs/go carting

There are some programs that encourage young teenagers to participate in go-cart or sports car racing in controlled environments.

The rationale for these programs can vary. Some use it as a means of showing young people the power and danger of a car. Others believe that if young people can release some of their aggression on a track they will be a safer driver in real traffic conditions.

What does the evidence show?

- › Introducing children or adolescents to off-road high speed, skill based driving via go-kart or car racing clubs is not likely to enhance the safety of the children and may increase their crash risk due to increased optimism bias¹.
- › A US study showed that drivers who belonged to car clubs had higher crash and violation rates (particularly for speeding) when driving on public roads².
- › A more recent study in New Zealand examined the link between interest in motor racing and driver behaviour. It was found that young males who were more interested in legal motor sport events were more likely to engage in risky driving behaviours³.
- › An Australian study of adult males found even for mature drivers, there is an association between interest in motor racing and negative attitudes to speeding⁴.

Why doesn't it work?

Young people, particularly males, erroneously equate high levels of vehicle control skill with being a good driver. Those who feel more skilled are more likely to drive at higher speeds and be unrealistically optimistic about their chances of avoiding a crash.

Males seem to be more susceptible to the 'speeding culture' of motor racing and this attitudinal impact may influence their later speeding violations for males⁴.

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Information only approaches

Information based programs primarily present the facts about road safety, and outline the negative consequences of unsafe behaviours, in the hope of changing the behaviour of people who are already unsafe, or prevent those from becoming unsafe while they are still young.

These approaches are popular in schools, at a community level and sometimes even in offender programs.

What does the evidence show?

- › Injury prevention programs that primarily focus on providing information or knowledge to students about health behaviours have had little success in changing behaviour.
- › Research evaluations of road safety programs¹ as well as the alcohol and drug education programs in schools² have found the same results.
- › Information or education approaches, when used alone, are not effective in influencing the behaviour of traffic offenders³.

Why doesn't it work?

Some information about safe driving and the licensing system is needed among young people and the general community. However, just providing information about safety, what is safe and what is dangerous or risky does not address the range of reasons why young people engage in risky behaviours.

There are a range of underlying motivations that can influence a young person to engage in risky behaviours. They can be influenced by what is normal in their social group, whether they believe they can change their behaviours and also whether they have the social skills and strategies to resist the appeal of certain risky behaviours⁴.

One reason why just raising awareness of the risks is unsuccessful is that it appears that many adolescents are already aware of the risks of dangerous driving. Studies have shown adolescents who engaged in higher-risk activities are aware that they were at higher risk but engaged in those behaviours anyway⁵.

As such, just providing these young people with information about the risks of unsafe behaviours does not prevent them from engaging in these behaviours.

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