

YOUNG DRIVER SAFETY

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1. GENERATING EVIDENCE ON YOUNG DRIVER INTERVENTIONS

1.1 Introduction

Official statistics show that young drivers (aged 17-25) are disproportionately involved in road accidents across Scotland. In Scotland in 2010, 23 per cent of all driver or rider casualties were aged between 17-25, of which 1,083 drivers were male and 723 were female¹.

Scotland's Road Safety Framework to 2020² acknowledges the importance of communicating road safety messages to pre-drivers at a young age and makes a commitment to develop a guide to organising pre-driver events for secondary school pupils. The Framework also includes a commitment to look for innovative ways to target young drivers with appropriate messages about safe driving, to increase their awareness and understanding of their vulnerability and the dangers they face due to inexperience.

1.2 Young Driver Interventions

In order to respond to these commitments, a 'Road Skills Working Group' (RSWG) was set up by Road Safety Scotland (RSS) with the aim of producing a toolkit to advise and assist road safety educators in the delivery of Young Driver Interventions (YDIs), which target young people in their final year at school. It is important here to clarify what is meant by YDIs because driver education and training are broad terms encompassing a range of initiatives and are often used interchangeably despite their differences. The terms can be used to encompass classroom instruction (more common in the US), behind-the-wheel training (including skid training and control) and insight training (which communicates the need for using large safety margins). The RSWG was not concerned with classroom based pre-driver training (where advice is given as to how to get a driving instructor/pass the theory/hazard perception test etc.), nor interventions whose main focus is hands-on skills training.

The YDIs which the RSWG were concerned with can vary in content, style and size, but overall they aim to educate young people about the dangers of driving dangerously and to promote responsible attitudes and behaviour as a driver and a passenger. Most YDIs are timetabled during the secondary school day and supported by the head teacher. The target group was 5th and 6th year pupils and so represent a mix of pre and new drivers. The format

can range from large scale events following the form of 'an anatomy of a road crash' (a step by step dissection of all aspects of a road crash and everyone involved), through to smaller scale initiatives with workshops which may be held over a number of weeks. Many YDIs are held in large venues out with the school premises and others are held within the school. Many include presentations from members of the Emergency Services and road users who have been involved in road traffic accidents, or their relatives. Most YDIs focus on the key dangers of speeding, drinking and drug taking while driving, lack of seatbelt use, distraction, peer pressure from friends/passengers and the consequences of careless driving. Some use lighting and music to create an emotionally charged effect and many of them are hard hitting in style and incorporate shock tactics to portray their message.

1.3 The Road Skills Working Group

This group brought together key stakeholders with the shared aim of developing a toolkit to inform and support community partners in the delivery of YDIS. The groups included representatives from the Police, Fire and Rescue Service, Scottish Ambulance Service, Road Traffic Engineering, Transport Scotland, Scottish Government Education Directorate and an academic who specialises in young driver behaviour. The group took a three pronged approach to developing the toolkit. This included; a mapping exercise of Scottish YDIs and a review of 10 evaluations or reviews of YDIs in Scotland plus an examination of the international literature on driver training and education; and any evaluations of these which could be found. The third strand was an externally commissioned 'thinkpiece' to identify the styles of delivery, content and approach that would be most likely to have success in influencing the attitudes and behaviours of young people who are most at risk of death and serious injury on the road.

2. THE THREE PRONGED APPROACH

2.1 The Mapping Exercise

An intern, appointed through the Centre for Scottish Public Policy, completed an extensive mapping exercise of all YDIs in Scotland and developed an interactive website with details on the size and scope of each intervention in Scotland³.

2.2 The Review of Evaluations/Reviews of YDIs and the International evidence

Working concurrently with the mapping exercise, a review of the reviews/evaluations of YDIs in Scotland was conducted, in order to provide the RSWG with evidence on the extent to which evaluations and reviews of YDIs were being carried out in Scotland. It became clear that many of the YDIs in Scotland did not evaluate their interventions, or else did so in an ad hoc or

unstructured way. Many were called evaluations but were more like reviews (which is why both terms are used here).

A number of different approaches were taken in terms of the methods used to collect the data, the questions asked, the number of participants involved, when the data was collected, and so on. Most sought to ask about the strengths and weaknesses of the event and views on changes that might improve it in the future. Others sought to measure changes in attitudes and behaviours. The quality of the design differed significantly. Some funders were able to commission out the evaluations to skilled evaluators and on the whole these were more informative. Evaluations in the truer sense of the word should be looking to identify outcomes (the likely or achieved effect of an intervention's output). However, it was beyond the scope of all the reviews examined to measure behaviour change amongst young people as a result of the intervention. The review of evaluations was important in recognising the formidable barriers which exist for practitioners to doing good evaluations, in terms of training, time, budgets, and a consideration of ethical issues, many of which were in short supply.

What the reviews / evaluations did show was that the YDIs had raised awareness of the risks of dangerous driving, that they were enjoyable and that participants thought they were worth doing. However, they were not able to demonstrate whether the young people remember and act on these messages, if they believe a road traffic accident could happen to them (or just to other less fortunate or less skilful young drivers), and ultimately, if the YDIs have reduced the crash risk for the young people attending. This was not surprising. Williams and Stradling when discussing young driver education programmes at a RoSPA road safety conference in 2006 argued that that these YDIs are effective at the crucial job of raising awareness and are better than having no such intervention, which can sometimes be the alternative. Stradling argues that YDIs play a vital role in 'maintaining' responsible driver/passenger behaviour amongst the majority of young people, but do not 'convert' the 'high risk' minority of young people who are more likely to engage in risky/illegal behaviour on the roads. A reading of the evaluations/reviews of the Scottish YDIs also tends to suggest that although extremely well meaning, it is possible that the impact of these events is at best short term, and they may make no impact at all on a minority of young people.

The second part of this review looked in more detail at the international literature on different types of YDIs. There was very little international evidence to show that YDIs alone reduce the crash rate (Roberts et al, 2005). Senserrick et al (2009) argue that no link has been made between young driver education (which here is referring to one day programs which focus on the risks of dangerous driving) and motor vehicle crash reductions. Mayhew et al (1998) and Carcary et al (2001) found no support for classroom-based pre-driver training. McKenna and Poulter (2010) in their evaluation of a YDI in England (akin to the YDIs of interest to the RSWG) found that while there was a short-term change in some pre-drivers beliefs immediately after the intervention, it was small and short term, and there was no evidence of any long term effect on young driver behaviour.

The only YDI for which evidence was found of success was the 'Reduce Risk Increase Knowledge' (RRISK) programme, which operates in Australia, and has been shown to reduce the risk of a crash among young drivers by 44% (Senserrick et al, 2009). The findings are part of Australia's DRIVE study of 20,000 young drivers, and offer some evidence that a resilience focussed YDI, which takes a whole-of-community approach⁴, has had a positive effect on crash statistics.

Whilst there was a shortage of conclusive evidence on the long term impact of YDIs, the evidence review was nonetheless able to inform findings on what might 'work' (not proven to change behaviour but to have made an impact on attitudes), the potential dangers of YDIs and action points to be considered when developing a YDI (considered below in section 3).

2.3 The Thinkpiece

Road safety Scotland commissioned a 'thinkpiece' to inform the development of YDIs in Scotland. The brief was to write a report which identified the styles of delivery, content and approach that are most likely to have success in influencing the attitudes and behaviours of young people who are at risk of death and serious injury on the road.

In his paper, McKenna (2010a) highlighted the absence of evidence availability in the commissioning, development and evaluation of road safety education interventions, and so little is known as to whether such interventions are beneficial. Indeed, he suggested, it could be that they are of little lasting use or even potentially harmful.

This last point was of particular concern to the RSWG. The thinkpiece drew on the international evidence of road safety education for young drivers which shows that despite the best intentions of those who deliver it, driver education can lead to an *increase* in crash involvement (Mayhew & Simpson, 2002; Vernick et al 1999). The ways in which this could occur, he argued, are through exposure to risk, increased confidence without relevant competence and social norms⁵.

On further investigation, it became clear that the literature underpinning this argument is largely drawn from America and Australia – where, in some states, young people can get their license at a younger age – and studies based on systematic reviews of 'driver education'. This term can include hands-on skills training (including skid training and control), insight training (which communicates an awareness for the need for using large safety margins), talks in high schools (about how to get a driving instructor, sitting the theory and hazard perception test etc.) or YDIs which take the approach of 'an anatomy of a road crash' and are intended to shock. It was important to try and unpick which of these types of interventions, or aspects of them, might be harmful and which of them are practiced in Scotland.

The thinkpiece, together with McKenna's subsequent paper on road safety education for the RAC Foundation making similar claims (McKenna, 2010b) was uncomfortable for the road safety community and an issue that the RSWG had to address in any toolkit it produced. The assertion that practitioners best efforts might not just be fruitless, but could in fact be causing harm was difficult for providers of YDIs to accept. The challenge for the RSWG then was to take on board this critique and incorporate the evidence in any toolkit it produced, to ensure the YDIs were not at risk of causing harm, whilst simultaneously maintaining the goodwill and momentum of the road safety community engaged in delivering YDIs.

3. THE GET INTO GEAR TOOLKIT

3.1 Introduction

The outputs from the three pronged approach raised some important questions. In particular they prompted a re-assessment of the purpose of YDIs and their objectives. The RSWG re-assessed what YDIs can practically achieve (as a one-off) and whether the expectations held of them were realistic. The group also considered the recipients of YDIs - who was being targeted and how could YDIs be delivered more effectively and with a level of consistency.

Get into Gear (GiG) became the name of the toolkit, which urges road safety educators to become qualified, undertake evaluation, make links to learning, know the stakeholder, engage with young people and involve parents. It seeks to engage young people appropriately and relevantly in the light of the recommendations in the Think Piece and the literature review. The aim of GiG is to equip young people with the skills to assess risk in the road environment and provide them with strategies to make healthy choices. The step by step 'spinner' provided as part of the GiG toolkit, shows educators how to access the background information/evidence, how to learn more and how to get resources⁶.

What follows are examples of how evidence has been used to inform the GiG toolkit. The examples are not exhaustive but rather illustrative.

3.2 Evaluation

All strands of the work outlined above showed evaluation to be pivotal in tackling the young driver problem. McKenna has argued that there is a lack of evaluative evidence of YDIs and road safety education more broadly. The review of Scottish evaluations/reviews which exist found that Scottish providers of YDIs required support, guidance and skills training on evaluation so that YDIs can be evaluated in a consistent and meaningful way.

GiG advises that evaluating a YDI is a key part of the educator's role and should be a routine aspect of all interventions. Evaluation should generate

evidence on how effective a training session has been. This is not always easy to do but there are many road safety toolkits to assist both in how to evaluate, and also what to avoid. GiG advocates that educators only use resources that have been properly evaluated. More recently, Transport Scotland is providing additional support to several providers of YDIs with evaluation, by giving educators the opportunity to have an expert researcher to work in conjunction steering and guiding the evaluation process from the outset.

3.3 Building resilience

The review of evaluations/reviews of YDIs cited Sensserick et al (2009), who argued that interventions can be divided into 'driver focussed' programs which focus on the driving risks and 'resilience focussed' programs which focus more broadly on reducing risk taking and building resilience. 'Resilience focussed' in this context means arming young people with strategies to deal with potentially dangerous situations and encouraging them to make safe decisions. Most of the large scale YDIs operating in Scotland could be described as 'driver focused', yet many of the 'evaluations'/reviews of these show that young people seek practical strategies for dealing with difficult situations that often require a maturity beyond their years. It was in fact a recommendation of one of the YDIs evaluations reviewed, that future sessions should make practical recommendations as to how to cope in a peer pressure/risky situation.

Programs that do build resilience have the potential to reduce road crashes (Senserrick et al., 2009; Ivers et al., 2006). For example, the 'Reduce Risk Increase Knowledge' RRISK programme, which operates in Australia is resilience focussed and helps young people to adopt safe behaviours, giving them strategies that encourage safe driving, like managing pressure from peers, checking how much a designated driver has had to drink and generally encouraging young people to make informed decisions about road safety⁷.

The GiG site has incorporated these findings and stresses to those delivering YDIs that rather than focussing exclusively on the driving risks for young people, young people need strategies for dealing with potentially dangerous situations and encouragement to make safe decisions. These could involve discussions during YDIs where young people contribute their own ideas around what strategies they feel might be effective in dealing with potentially risky situations.

3.4 Learning Styles

Aligned to building resilience, is educating YDI educators about learning styles and ways of presenting YDIs in a way that is participatory, collaborative and questioning. Many of the YDIs have traditionally been delivered to large groups of school children (100+) with no opportunity for interaction or questioning. The reviews of the YDIs undertaken found that there was a lack

of interaction in the way that the YDIs are delivered, with many offering no opportunity for discussion of the issues that have been raised. Similarly, many of these events are used as a one-off and there is currently little place for reflection after the YDI. It seemed that these interventions were missing an opportunity to embed learning, either on the day or soon after. The review found that Crash Magnets or other resources were rarely used after the event to support learning.

The RSWG have drawn on pedagogy literature and the Curriculum for Excellence in order to give advice on active learning. Incorporating the principles of the Curriculum for Excellence aims to enable young people to adopt practices and behaviors which increase the value for society as a whole. Get into Gear does not preach messages to young people about road safety. It makes links across learning and life experiences and employs different learning styles to keep the content lively and relevant. It urges educators to be adventurous and ensure inclusion of *active learning*, by involving young people in their own learning through group discussion, problem solving and critical thinking. It also urges practitioners to avoid giving messages to young people which are patronising and/or judgmental.

The GiG site also raises the importance of who the audience is (i.e. in terms of age group, maturity, gender, social background, driving experience etc.), encourages practitioners to consider whether certain young people might be missing out and whether more of an effort be made to include them or to find another type of YDI that might meet their needs more closely.

3.5 Training for trainers

It was identified that some educators who deliver training and awareness raising sessions with young people were not entirely comfortable with opening the topic up for discussion or hosting a debate. They were more at home delivering a presentation, showing slides and screening DVDs.

It was therefore agreed to offer a new opportunity to become qualified education partners. This would be open to all those who provide road safety education for young drivers. The new Get into Gear SQA RoSPA accredited module enables those who deliver road safety to young drivers to be fully equipped and provides the skills and knowledge for an evidence informed YDI.

The Get into Gear SQA level 6 core module is suitable for candidates with a professional or personal interest in road casualty reduction and gives candidates an opportunity to look at issues for young drivers. The outcomes require candidates to demonstrate a strong understanding of young driver issues. Candidates who achieve this unit will have the ability to lead, plan and deliver not just YDIs, but effective educational interventions aimed at young people, families, schools and communities.

Whilst uptake of the award is low at present, it is clear that in all areas of public health there is a move towards ensuring that those who engage the public should be accredited to do so. We urge those who speak to young people about road safety to undertake the SQA award. In this way they can become experts in the field and be more willing to discuss and challenge misconceptions openly with young people about, for example, Graduated Licensing Schemes, Black Box technology and involve them in thinking critically about the stereotypes that are prevalent and find their own solutions.

3.6 Continuous road safety education and realistic expectations of YDIs

McKenna's Thinkpiece noted that education measures are often of short duration. Interventions of short duration may have little opportunity to compete with more enduring pressures on an individual, such as lifestyle, peers etc. The GiG site reminds road safety educators that messages are more likely to permeate when they are re-enforced on an on-going basis through joint work with schools, colleges and youth groups and that YDIs should occur in context, not as 'one-offs' but as part of a longer term, co-ordinated, integrated, life-long, whole-of-community approach (Williams, 2006).

The GiG toolkit asserts what YDIs are likely to be able to achieve as stand alone events, and the importance of continuous education and reflection on these issues by young drivers and passengers.

3.7 How GiG has incorporated the evidence on harm

GiG ensures that the providers of YDIs are informed and aware of the potential ways in which the literature has suggested that YDIs could cause harm. It has been suggested that this could happen through early licensure, fostering over confidence, creating social norms or glamorising risk taking behaviour. Providers of YDIs who use GiG, should be able to demonstrate that they are aware of these issues and have taken every effort to avoid running interventions which might incorporate features that could inadvertently promote messages that could be harmful to young people in any way.

GiG contains information for educators about sensationalising tactics and 'fear appeals' and gives advice as how to avoid doing this in a YDI^{viii}. The communication that risky behaviours are frequent and 'normal' may produce exactly the opposite effect to that intended. Telling young drivers that young drivers drive too fast, take unnecessary risks, show off to their friends and peers, or watch each other doing foolish things in cars on 'YouTube' places the young person under some pressure to do likewise, whatever their initial inclinations. Get into Gear discourages this approach to engaging young people. Social norms are identified and educators given strategies for avoiding them.

Evidence suggests that sensationalising, shocking images of injuries and scare tactics are not effective in changing young driver behaviour and may in

fact be counterproductive in some cases, where young people are attracted to risky and dangerous behaviour (McKenna, 2010b). Get into Gear urges educators to keep this in mind when designing a YDI. This will help to create a training session that allows young people to self reflect, rather than scaring them or inadvertently encouraging risk taking.

Interventions which provide details on the process of obtaining a license, give practice on the theory test items or offer practice in a car/skid training, may actually increase the likelihood of young people taking their driving test and getting their license earlier than would have been the case had they not experienced the intervention. Exposure to risk and early licensure are perhaps concerns levelled more at classroom based road safety education initiatives, rather than the YDIs of focus here. However, some YDIs contain elements of these, and so the GiG site also presents the evidence on this and advises of the potential harm caused by using driving simulators, for example, in a YDI^{ix}.

3.8 The role of parents

One of the interventions that McKenna suggested in his Thinkpiece was Parent teen agreements. McKenna argued that parents are an important and probably relatively untapped resource for safety and that parents can help guard against risks such as exposure to risk and help increase their child's driving experience.

GiG provides evidence on the importance of the role of parents in reducing unsafe driving by teenagers, to road safety educators. It gives examples of interventions for parents which can operate in tandem with YDIs. GiG contains details of how to communicate key messages to parents, including; setting boundaries at the start of the learning to drive process, drawing up a contract and allowing the young driver to have ample supervised driving experience.

4. Conclusions

This paper outlines the evidence-informed approach adopted to improving the delivery of one Road Safety initiative, that of Young Driver Interventions. It highlights the role of using evidence to consider what *could* work in the absence of robust evaluations which tell us what *does* work. It included the challenge of using this evidence - which was at times unexpected and difficult for those delivering young driver interventions to accept - to inform and develop the toolkit, while keeping practitioners on board. The result is an evidence-informed toolkit which it is hoped, will play a part in improving young driver safety in Scotland.

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Notes

1 Table 18b. Reported Road Casualties Scotland, 2010.

2 www.scotland.gov.uk/Resource/Doc/274654/0082190.pdf

3 <http://www.road-safety.org.uk/driving/young-drivers/young-driver-interventions/>

4 A whole-of-community approach is a co-ordinated community-based programme which includes strong graduated licensing laws, skills and insight training, insurer education programmes (with discounts for safe driving) and well publicised programmes involving parents and police working together with as much input as possible from the young drivers (Williams, 2006).

5 Social norms are when communications may include an inadvertent message that produces exactly to opposite effect to that intended (Cialdini, 2003)

6 <http://www.getintogear.info/step-by-step/step-by-step-spinner/>

7 <http://www.sciencealert.com.au/news/20091210-19978.html>

8 <http://www.getintogear.info/experienced-ydi-educators/where-it-can-go-wrong/sensationalising/>

9 <http://www.getintogear.info/experienced-ydi-educators/where-it-can-go-wrong/exposure-to-risk/>