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Driver2020: evaluating the impact of five educational and technology-based interventions on the crash risk of newly-qualified drivers aged 17-24, in their first year of driving

Submission date
07/11/2019

Recruitment status
No longer recruiting

Registration date
18/11/2019

Overall study status
Completed

Last Edited
08/07/2022

Condition category
Other

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol
Background and study aims
Young and newly-qualified drivers are at an elevated risk of being involved in traffic crashes. Educational and training Interventions have been generally unsuccessful in improving safety in this group, or have been poorly-evaluated. The current trial seeks to evaluate five different interventions in a robust study design

Who can participate?
New drivers aged 17-24 and either just started learning to drive (less than 10 hours on-road practice) (learners), OR just passed test (within one month) (newly-qualified drivers)

What does the study involve?
The Driver2020 study is assessing whether any of five interventions can reduce the number of young drivers having collisions in their first year of driving after passing their test. There are two arms to the study.
In the learner arm, volunteer learner drivers who have just started learning are assigned at random to either receive one of three interventions (a logbook app, e-learning hazard perception training, or a classroom-based educational session) or to be in the control group for that arm.
In the newly-qualified driver arm, volunteers who have just passed their driving test are assigned at random to either receive one of two interventions (a parent-teen-mentoring agreement, or a telematics app) or to be in the control group for that arm.
Each participant completes a survey when they pass their driving test, and then again at 3, 6 and 12 months post-test. The main measure of interest is the proportion of each group that has one or more self-reported road collisions within their first year of driving. If any of the interventions are effective, we expect this proportion to be lower than in the corresponding control group

What are the possible benefits and risks of participating?
The benefits of taking part for participants will be that they are able to find out more about their own driving (through completing surveys) and in some cases (for those in the treatment groups) be able to take part in some additional interesting activities. We do not anticipate any risks of taking part

Where is the study run from?
Transport Research Laboratory (TRL), UK

When is the study starting and how long is it expected to run for?
April 2018 to December 2022

Who is funding the study?
Department for Transport, UK

Who is the main contact?
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Contact information

Type(s)
Public

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Additional identifiers

Study information

Scientific Title
Driver2020: A randomised controlled trial evaluating the impact of five educational and technology-based interventions on the crash risk of newly-qualified drivers aged 17-24, in their first year of driving after passing their practical driving test in GB

Acronym
Driver2020

Study objectives
1. A 'logbook' mobile phone app provided to learner drivers aged 17-24 in GB results in a lower proportion of such drivers who have a crash in their first 12 months of post-test driving, relative to a control group of learner drivers who do not receive the app
2. A 'hazard perception training' e-learning course (3 modules) provided to learner drivers aged 17-24 in GB results in a lower proportion of such drivers who have a crash in their first 12 months of post-test driving, relative to a control group of learner drivers who do not receive the course
3. A one-day road safety education course (with follow-up mobile phone app and materials) provided to learner drivers aged 17-24 in GB results in a lower proportion of such drivers who have a crash in their first 12 months of post-test driving, relative to a control group of learner drivers who do not receive the course and supporting materials
4. A web-based 'parent-teen mentoring agreement' provided to newly-qualified drivers aged 17-24 in GB results in a lower proportion of such drivers who have a crash in their first 12 months of post-test driving, relative to a control group of newly-qualified drivers who do not receive the web-based parent-teen mentoring agreement
5. A mobile-phone-based app which provides feedback (including rewards and punishment) on driving style provided to newly-qualified drivers aged 17-24 in GB results in a lower proportion of such drivers who have a crash in their first 12 months of post-test driving, relative to a control group of newly-qualified drivers who do not receive the app

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 04/10/2017, The TRL Ethics Mini-Panel (Crowthorne House, Nine Mile Ride, Wokingham, RG40 3GA, UK; +44 (0)1344 770801; rcuerden@trl.co.uk), ref: 11224332

Study design

Interventional randomized controlled trial

Primary study design
Interventional

Study type(s)
Treatment

Health condition(s) or problem(s) studied
Crash rate in newly-qualified drivers

Interventions
Five interventions are being evaluated. Three are being delivered to learner drivers, and two to newly-qualified drivers (who have just passed their practical driving test) in GB. In both arms of the study (learners and newly-qualified drivers) participants are allocated to a treatment group or a control group on the basis of picking (at random) one slot from a pre-populated list of available slots in all groups in that arm of the study. The slots were selected according to anticipated drop-out rates for the different interventions, thus at the point of allocation, there are more slots available for some interventions than for others.

The interventions for learner drivers are:
1. A 'logbook' app for smartphones which encourages learner drivers to undertake more private on-road practice when learning to drive, ideally on a range of different road types and in different traffic situations. The app is downloaded by learners allocated to this condition and then used voluntarily. Also included in this group is a discounted 'learner insurance; incentive designed to make it easier for those learners without existing learner driver insurance to gather extra supervised practice with family members
2. An e-learning course on hazard perception skill. Three modules are provided for voluntary completion via a link sent in an email or text. The first of the modules is offered when the participant books their driving theory test. The second and third are offered when the participant books their practical test, and when they pass their practical test, respectively
3. A classroom-based education intervention, offered to learners on pre-set dates and locations across GB. The session takes around a day to deliver and includes a range of activities and discussion topics, as well as interaction with VR and other content focused on allowing participants to learn about the risks they face as new drivers, and working on their hazard perception skill. At the end of the course, participants are also able to download an app which prompts them to remember the various content discussed, and suggests ways in which they can help minimise their risk (for example maximising practice)

The interventions for newly-qualified drivers are:
1. A web-based 'parent-teen mentoring agreement'. This is offered at registration after test pass, and is again voluntary. The web-based materials provide a framework in which parents (or guardians) can agree limitations on driving freedoms (for example things like night driving) with their young driver, running over the initial 3-6 months of the young person's driving career
2. A smartphone-app-based behavioural feedback intervention. This app is offered for voluntary download on registration after test pass, and provides feedback and incentives that aim to mimic what is provided by similar products which are offered as part of insurance policies for this demographic. The app provides feedback on driving style, promoting driving that is within the speed limit, and lacking harsh braking, harsh cornering, and driving at night. Incentives are achievable each week (Amazon vouchers to small values), and a prize draw ticket is earned every month as long as there are not more than a single 'bad' week ('red') in terms of behaviour score

Intervention durations:
Logbook: Duration is variable – the amount of time a person takes to learn how to drive is variable, but usually between 3 and 9 months.

HP training: Duration is 3x30 minute e-learning modules, delivered at varying times during learning to drive and just after test pass.
Classroom training: Duration is a day-long classroom session, followed by variable period of app use during variable learning period.

Parent-teen mentoring agreement: Duration is designed to be 3-6 months, but is variable depending on choice.
Telematics: Duration is 12 months.

Follow up is the same for all groups. A test-pass survey is completed at test pass, then surveys are completed at 3, 6 and 12 months post-test.

Intervention Type
Behavioural

Primary outcome(s)
Proportion of each group (treatment and controls) who have one or more collision in their first year of driving post-test. This is measured at 12 months post-test (and in surveys at 3 and 6 months post-test also).

Key secondary outcome(s))
Various secondary measures are used. Measures taken at test pass, and then at 3, 6 and 12 months post-test. For each intervention, there are secondary measures associated with the intended mechanisms by which the intervention is assumed to work. These are:
1. Logbook: Amount of practice and variety of roads driven on during learning
2. HP Training: Data on theory test HP scores will be used to assess this skill, and a scale on 'hazardous situations' will be used in the post-test surveys
3. Classroom-based intervention: Survey items on driving style
4. Parent-teen mentoring intervention: Items asking about limits imposed on driving situations, and exposure to driving at night and with peer-aged passengers
5. Telematics app: Survey items on driving style

Completion date
31/12/2022

Eligibility

Key inclusion criteria
1. Aged 17-24 and either just started learning to drive (less than 10 hours on-road practice) (learners), OR
2. Aged 17-24 and just passed test (within one month) (newly-qualified drivers)

Participant type(s)
Healthy volunteer

Healthy volunteers allowed

No

Age group
Adult

Sex
All

Total final enrolment
28526

Key exclusion criteria
No access to a vehicle

Date of first enrolment
01/04/2018

Date of final enrolment
16/01/2021

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Transport Research Laboratory
Crowthorne House
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Sponsor information

Organisation
Department for Transport

ROR
https://ror.org/010mf0m52

Funder(s)

Funder type
Government

Funder Name
Department for Transport

Alternative Name(s)
Adran am Drafnidiaeth, DfT

Funding Body Type
Government organisation

Funding Body Subtype
National government

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan
The current data sharing plans for this study are unknown and will be available at a later date.

IPD sharing plan summary
Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Study website	Study website	11/11/2025	11/11/2025	No	Yes