



## Exploring psychology

### *Cannabis and driving*

#### **Narrator**

It's well known that alcohol affects our ability to drive. It's a major road safety issue. Drink driving is decreasing but the incidents of driving and drug taking is on the increase and the effects are little understood so the Transport Research Lab is assessing the effect of illegal drugs, in this case cannabis, on driving.

#### **Rob Tunbridge**

We're looking at cannabis because we've just completed a three year study of drugs in fatalities and we found compared with a study we did ten years ago there's been a dramatic increase in illicit drug use by a factor of about five or six and the majority of that illicit use is cannabis.

#### **Narrator**

It's a sophisticated protocol, a double blind, placebo controlled, crossover design.

#### **Barry Sexton**

We first used a double-blind trial because it's; this first means that the participants didn't know what dose there were receiving. The double element means that the person giving them the dose and anyone else associated with them closely in the trial also didn't know what they were receiving thereby they couldn't contaminate them in sense by influencing them in some way.

#### **Narrator**

In one trial they were given a placebo, which looks real that has the active ingredient in cannabis called THC removed.

#### **Barry Sexton**

The placebo controlled element is very important because people know they're part of an experiment. They are being given something. They don't know what they're being given. They're going to maybe react in a particular way. They maybe think they're getting something and they're give them nothing and they still react then this might look like an effect, so you do want to compare them against giving them nothing.

#### **Narrator**

The crossover design gives another level of control.

#### **Barry Sexton**

The crossover trial in this context was used because we wanted to bring people in to give them four different doses of cannabis. People vary hugely between themselves and very less within themselves particularly with the sort of activities that are involved, driving type activities, other laboratory experiments, so we want a control for that source of variation. We want to reduce the variation so we use them as their own controls and to do that we bring them in four times and we call that a cross-over trial. The participants are allocated to one of three groups, and the groups being defined depending upon the dose order, in other words participants in the first group would have taken a placebo on the first visit, the low dose on the second visit and the high dose on the third visit. Participants in the second group might have started with a low dose and participants in the third group with a high dose for example. Choosing participants for this sort of trial has got several tricky elements. First and foremost we couldn't afford to use people who are naïve in terms of smoking cannabis. Use of naïve people would be totally inappropriate. They have to be users basically but of course cannabis

isn't, or smoking of cannabis or possession of cannabis at least is an illegal act so you're looking for people who on a day-to-day basis, well at least a weekly basis in our terms, were conducting an illegal act. That's slightly tricky in terms of finding them. You can't just put an advert in the paper or something. So what do you do? Virtually everybody you know will know somebody who probably uses cannabis so that's the sort of route we took.

**Barry Sexton (talking in meeting)**

So you think from the ethics committee point of view that would completely acceptable.

**Man (in meeting)**

They'll want to see the way that we propose to run the study. Who is going to be smoking what and when and how we're going to monitor it. They're going to want to see that we're taking some, some safeguards to ensure the health of the volunteers, making sure that they won't come to any harm from smoking, but I mean they shouldn't do because they're already smoking the stuff.

**Narrator**

The researchers also screen participants to prove they were regular cannabis users and were not taking other illegal drugs. Once selected participants were monitored over the course of the experiment.