

Attitudes towards driving after using cannabis alone and in combination with alcohol among young people in Melbourne

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Abstract

There is considerable debate in Australia concerning the effects of cannabis on driving and whether it has a causal role in traffic accidents. Although there is some evidence showing that cannabis impairs psychomotor performance, epidemiological studies suggest that there is no significant increase in accident risk associated with the use of cannabis alone. Cannabis used with alcohol however does appear to significantly increase accident risk. Whilst survey research has documented the proportion of people, particularly younger people, who use cannabis, there are few reports examining the frequency with which people drive while affected by cannabis. Sixty-seven cannabis users in Melbourne were surveyed and questioned at length about their patterns of cannabis and alcohol use and driving, and their attitudes regarding driving while intoxicated. Sixty percent of these participants use cannabis at least once every two days. These participants drive more frequently after using cannabis alone than after using cannabis with alcohol. In terms of the effects of these drugs on driving skills, these participants believe that cannabis with alcohol is much more dangerous than cannabis alone. The findings from this study are discussed in relation to legislative changes around cannabis and driving planned for Victoria, Australia.

Introduction

The cannabis use and driving behaviour of younger people is an important issue because this is the age when many young people experiment with cannabis use, often in combination with alcohol. In fact, over 50% of persons in this age group report ever using cannabis (1). There have been a number of driving simulator and on road studies which indicate that cannabis may affect driving skills (2, 3). There is also evidence to show that cannabis impairs performance on psychomotor tasks in a dose-dependent manner (4, 5). In addition, the driving skills of younger drivers are not as stable as experienced drivers, and therefore younger drivers (aged 18 to 25 years) are at greater risk for involvement in road traffic accidents than more experienced drivers (6, 7). It may therefore be expected that younger drivers who were under the influence of cannabis would be at a particularly increased risk of being involved in an accident.

Cannabis and driving research in Australia

There have been a number of epidemiological studies that have attempted to link cannabis and alcohol use with accident risk. The two most prominent studies have shown that drivers who use cannabis alone were no more likely to be at fault in both fatal and non-fatal accidents than drug free drivers (8, 9). The later study also found that the culpability for those drivers where the sole drug detected was Delta-9-THC, the active component of cannabis, was not

higher than for drug free drivers. Both studies found that there was a significant increase in culpability for those drivers found positive for both cannabis and alcohol. There is some recent data in Australia that does however suggest that the relative risk for drivers being fatally injured when the sole drug detected is Delta-9-THC is higher than for drug free drivers (10).

To our knowledge there has only been one sizeable survey study of drugs and driving attitudes and practices conducted in Australia. This study surveyed 815 households in the Fremantle area in Western Australia (11). The mean age of respondents was 44 years. Six percent of the people (with a driver's licence) reported having driven while affected by cannabis in the previous 12 months, and 4.1% did so with cannabis and alcohol. Eight percent of people had used cannabis in the previous week, and only 12% had done so in the previous month. Overall 9% of people believed that it was acceptable to drive while affected by cannabis, although the proportion was higher in the 15-24 year age group (30% for males, 16% for females).

There has been some research conducted in relation to the attitudes and practices of cannabis users with regard to cannabis and driving in Victoria. A focus group of 8 participants conducted on behalf of Vicroads identified a number of key themes regarding cannabis and alcohol use and driving amongst cannabis and alcohol users (12). These relate to attitudes and self-reported practices by this group in relation to driving which may produce an elevated crash risk. For example, some members of the group reported regularly driving while under the influence of a combination of alcohol and cannabis - a practice likely to lead to an increased accident rate amongst this group when compared to people who use cannabis alone (9).

While the focus group research has been important in identifying issues in relation to cannabis and driving in Victoria, it is unclear how generalised the identified patterns are. Almost all of the sample of participants reported having used other drugs such as heroin and amphetamines, which is not true of the majority of low-to-moderate cannabis users (13). Moreover, the age of the participants was higher than the age range in which the highest prevalence of cannabis use is found. It is therefore imperative to determine the extent to which the problematic patterns of cannabis use and driving identified in the focus group research apply to cannabis users in general. In particular it is important to determine the extent to which cannabis users in Victoria drive while affected by cannabis, and also to determine their attitudes towards driving after consuming cannabis - especially in combination with other drugs.

Materials and methods

The questionnaire employed in the current study was developed at Turning Point. The final questionnaire consisted of five separate sections (demographics, driving experience, drug use, cannabis use and driving, attitudes towards cannabis and driving) which explored the following issues:

- frequency of cannabis use in the last month, both alone and in combination with other drugs;
- frequency of driving after consuming cannabis, including details such as the time elapsed between consuming cannabis and then driving, the distance travelled, number of passengers, and the time of day;

- reasons why the participant chose to drive after consuming cannabis and/or other drugs.
- driving history, including duration of licence possession and number of accidents and driving-related offences; and
- attitudes towards cannabis use and driving, and beliefs about how cannabis affects driving ability.

Participants

Sixty-seven people were recruited for the current study. To be eligible to participate in this study, prospective participants were required to hold a current and valid driving licence, have consumed cannabis at least once within the month prior to interview, and be aged between 18 and 25 years.

Results

Only a few of the key results are reported here. Complete results are available in the final report (14). The data in Table 1 suggest that the sample obtained in this survey comprises of regular cannabis users, with over half of the sample using at least once every three days. The use of cannabis with alcohol was not as prevalent as the use of cannabis alone in this sample. Just over half of the participants (56.7%) reported using cannabis with alcohol only one in every four times that they use cannabis (ie: 25% of the time).

Table 1: The number of days since participants used cannabis alone.

| Response | Frequency | Percent |
|----------------------------|-----------|---------|
| Used on day of interview | 10 | 14.9 |
| Used 1-3 days ago | 30 | 44.8 |
| Used 4-10 days ago | 14 | 21.0 |
| Used 11-20 days ago | 6 | 9.0 |
| Used more than 20 days ago | 7 | 10.5 |

Table 2: The number of days participants had driven after using cannabis alone and cannabis with alcohol in the previous six months.

| Days driven in last 6 months | Cannabis alone (%) | Cannabis with alcohol (%) |
|------------------------------|--------------------|---------------------------|
| 0 | 4.4 | 42.5 |
| 1-10 | 32.4 | 42.5 |
| 11-30 | 17.4 | 10.0 |
| 31-100 | 17.7 | 2.5 |
| 101-180 | 28.1 | 2.5 |

Table 2 clearly shows that these cannabis users drive much more frequently after using cannabis alone than after using both cannabis and alcohol, which is perhaps not surprising

given that these participants did use cannabis alone more often than using it with alcohol. Nonetheless the differences in the frequency of driving between cannabis alone and with alcohol are still quite striking.

Attitudes towards driving after using cannabis alone

The majority of the sample (58%) indicated that they believed that cannabis does affect their driving ability, and 34% believed that it does not. Only a small number of people (6%) do not drive after using cannabis. One-third (34%) of participants indicated that cannabis increases their accident risk.

Although 58% of people reported that they believed cannabis does affect their driving ability, 80% of this group stated that cannabis did have negative effects on their driving ability. Typical negative responses included; slowed reaction times, being paranoid, getting confused and forgetting, changes in attitudes, reduced alertness, and getting startled easily and getting a big fright when something unexpected happens. Interestingly, 20% of the people who said that cannabis does affect their driving ability indicated that cannabis actually had a positive effect. Typical responses included; increased awareness, I become more alert because I'm used to it, cannabis doesn't produce specific decrements in skill, it makes me concentrate more, I overcompensate for being paranoid and stoned, and so it makes me drive slower (and therefore with less risk).

Another interesting finding was that 79% of the participants said they would be prepared to be driven by a friend who was under the influence of cannabis. These cannabis users do not generally perceive the use of cannabis and driving to be a risky behaviour.

Attitudes towards driving after using cannabis with alcohol

In contrast to the responses for the question about cannabis alone, the overwhelming majority of people felt that cannabis with alcohol did affect their driving ability (85%). It is pertinent to note that all of the people who felt that cannabis with alcohol affected their driving indicated that these were negative effects on their driving ability. The types of negative effects that cannabis with alcohol was reported to have upon driving were; decision making skills were not up to par, combination of effects produced gross intoxication, people are usually 'out there' after taking both together, and feeling like I don't have much control.

Interestingly though, while many comments concerned the effects of cannabis in combination with alcohol, almost everybody indicated that it was the consumption of alcohol that was the reason why cannabis and alcohol affected their driving, rather than being an interaction between the two. For example; alcohol gives a false sense of security, alcohol affects me much more than cannabis, and alcohol has a worse effect.

Just over half of the participants (52%) indicated that they would not be driven by a friend who was under the influence of cannabis and alcohol, and only 37% responded in favour of this behaviour. These attitudes regarding cannabis and alcohol are quite different from those for cannabis alone.

Discussion

The results from this pilot study clearly indicate that young people in Melbourne do use cannabis and drive. Sixty-percent of this sample use cannabis and drive at least monthly, and

a quarter do so on a daily basis. The people surveyed in the present study also reported that cannabis alone was quite a safe drug for driving. Only a minority of people indicated that cannabis alone impaired their driving, and driving while affected by cannabis was done very regularly. The lack of concern for the effects of cannabis on driving is also highlighted by other findings, such as;

- many people do not leave any time between using cannabis and then driving,
- the majority of people plan to drive after using cannabis,
- approximately 80% of people surveyed indicated they would be prepared to be driven by others who were affected by cannabis only,
- approximately half of the participants said driving while affected by cannabis should be allowed (in the legal sense), and
- approximately half of the people said that they would not change their cannabis use and driving behaviour if the legislation proposed by the Parliamentary Road Safety Committee was introduced, ie: if there was a means by which drivers could be prosecuted for driving while under the influence of cannabis (15).

The people surveyed in the current study, however, appear to be more aware of the road safety dangers of cannabis used in combination with alcohol. These people very rarely drive while affected by both cannabis and alcohol, but more importantly they indicated that this combination did impair their driving skills, and the majority indicated that they would not be prepared to be driven by others who were affected by both drugs.

The findings from this pilot survey are equivocal from a road safety viewpoint. Cannabis used with alcohol does increase accident risk, and so it is cause for concern that 15% of the sample reported driving in this situation 10 times or more in the past six months. The encouraging finding is that there is evidence of the awareness of the risks of this behaviour, and that a substantial proportion of the sample avoid this situation. The majority of people surveyed in this study appear to be aware of the increased risk associated with cannabis use in combination with alcohol, and they seem to be quite responsible by avoiding driving in these circumstances. The findings that most young people are not concerned about the potential risks associated with using cannabis (alone) and driving will be a significant cause for concern if future studies confirm that cannabis impairs driving ability and increases accident risk.

Whilst the findings of this pilot study do provide some insight into the behaviours and attitudes of young people towards cannabis use and driving, we are going to extend upon these findings with a larger sample of 625 young cannabis users who are recruited in a manner that ensures a broader representation of occasional, recreational users. Further exploration of cannabis use patterns is vital to fully inform the development of both policy and education campaigns in the area of drugs and driving. The present study has been useful for developing the methodology for conducting this type of research in Victoria and demonstrates the potential value of applying the survey to a larger, broader spectrum of young cannabis users.

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