Increased criminal activity among people suspected of driving under the influence of alcohol or drugs. A register-based population-level study.

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Abstract

Background
Driving under the influence (DUI) has been connected in increased criminal activity in previous research. More detailed information is needed from the backgrounds and following activities of DUI offenders.

Aims
Aim of the study was to examine differences in the range of criminal activity between people who had history of driving under influence of alcohol (DUIA), drugs (DUID) and reference population with no history of DUI.

Methods
Data on arrested DUI suspects and age-sex matched reference population was linked with criminal records. Between 1992 and 2005 there were 69,990 DUIA suspects, 5,667 DUID suspects and 74,359 references. Data on crime consisted of 645,967 criminal convictions of which 6 % was committed by non-DUI reference population.

Results
At least one offence was found in 94%, 96% and 17% of DUIA, DUID and references respectively. Average number of convictions per person was 5.2, 43.3 and 0.5 registered cases respectively. Most common offences were traffic violations and crimes against property. Almost half of DUID suspects had history of violent crime.

Discussion and conclusions
DUI offenders have increased criminality in comparison to general population. Especially involvement of drugs correlates with high criminal activity. General explanation behind DUI and other crime may include substance abuse problems and low respect of law. Early substance abuse interventions should be considered as a part of crime prevention.

Introduction
Harms related to substance abuse are estimated to be very costly to the societies around the world. One of the most apparent forms of alcohol and drug abuse is driving under the influence (DUI). DUI is directly a traffic safety problem as drunk-drivers are more likely to cause accidents and fatal crashes (Drummer et al. 2004, Zador, Krawchuk & Voas 2000).

People arrested of DUI are also more likely to be risky drinkers or alcohol dependents (Portman et al. 2009, Brinkmann et al. 2002) and having more other substance abuse problems
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Societal costs of alcohol also include crime. Drunk-driving is most typically crime by itself under so called per se law. It is also linked with history of previous crime (Hubicka, Laurell & Bergman 2008, LaBrie et al. 2007, Webster et al. 2008) and subsequent criminal activity including DUI relapse (Nochajski, Stasiewicz 2006, Siskind, Schonfeld & Sheehan 2000).

Previous studies have found positive connection between drunk-driving offences to auto theft, drug trafficking, drug possession, stolen goods, assault and weapons possession (Webster et al. 2008). The link between multiple offences and crime was found stronger than for people with only single arrest (Webster et al. 2008). Also for males a link between DUI and being victim of domestic violence has been studied even this could not be found statistically significant (Muelleman, Burgess 1998).

Material and methods

The main data on DUI were results of blood tests and evidential breath tests which have been performed on people suspected of driving under the influence of alcohol (DUIA) or drugs (DUID). Blood tests have been analysed and all data have been stored at Finnish National Institute for Health and Welfare. These data include the observed blood alcohol content (BAC) and possible pharmaceuticals found in blood. These data do not include information on possible convictions of the drivers and thus the subjects should be called suspected DUI offenders.

An age-sex matched data on reference population was drawn from general population register for DUI data. The inclusion criterion for references was that they should have no record of DUI suspicion by the year their counterpart became a DUI suspect. Thus they are also matched by their entry to the data.

Both cases and their references were matched with their criminal convictions between 1970 and 2005. The crimes were classified in 8 main groups which are presented in table 1.

Suspects of DUI were grouped according to substances found in their blood. If person had history with DUI suspicion including any controlled substance, they were grouped as DUID suspects. If there were no history with other substances than alcohol they became DUIA group. Drugs were furthermore grouped to opioids, amphetamines, cannabis and benzodiazepines.

Results

Between 1992 and 2005 the data on drunken drivers included 69,990 drunk drivers with record of driving under the influence of alcohol only, 5,667 drivers with record of driving under the influence of drugs, and 74,359 age sex matched reference cases with no known record of drunk driving. Mean ages in the groups were 36 years, 31 years and 35 years respectively. In all groups there were 13% of women.
In DUIA group 94% of people had record of conviction while in DUID group 96% had a conviction and among references 17% had some kind of criminal conviction. Similarly 71%, 85% and 13% had conviction not related to traffic violations.

Table 1 presents the numbers of convictions, convictions per person and distribution of convictions according to the type of crime and DUI status. While most crime is committed by DUIA group it is evident that criminal activity accumulates to DUID group who have eight times more convictions per person than DUIA suspects and ninety times more convictions compared to the reference population.

All DUI suspects had a peak of convictions within the year the DUI took place. This is probably because DUI arrest might bring out several other charges such as reckless driving, resisting law enforcement, possession of illegal drugs or possession of stolen goods. While examining one year and three year periods before and after the suspected DUI, both DUIA and DUID suspects had fewer convictions in the time period preceding the DUI suspicion than the time period following. While this can partly be due to data restrictions such as data entry point being suspected first DUI (i.e. there should be no DUI before that) also other type of crime increased, especially within DUIA group while within DUID and references the figures were more stable.

Crimes were furthermore examined according to the drugs found from blood. With DUID cases there were 1,219 people classified as opioid users, 1,675 amphetamine users, 623 cannabis users and 1,830 benzodiazepine users. Highest crime per person was found from opioid and amphetamine groups, 68 and 59 crimes per person respectively. Cannabis and benzodiazepine users had significantly lower figures, 32 and 21 crimes per person which were still much higher than from the DUIA group.

While examining one-year and three-year periods before and after DUI suspicions there was increasing number of convictions in DUIA and DUID groups while the number was steady among the references. The increase was found in opioid and amphetamine users in both 1-year and three-year periods while there was no change in cannabis and benzodiazepine groups in one-year period and some decrease in three-year period.

Table 1 – Total convictions, convictions per person and distribution of convictions by crime type and DUI history

<table>
<thead>
<tr>
<th></th>
<th>Convictions</th>
<th>Per person</th>
<th>Percentage within group</th>
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<tbody>
<tr>
<td></td>
<td>DUIA</td>
<td>DUID</td>
<td>Ref</td>
</tr>
<tr>
<td>Number of people</td>
<td>69,990</td>
<td>5,667</td>
<td>74,359</td>
</tr>
<tr>
<td>A Crimes against property</td>
<td>86,202</td>
<td>96,549</td>
<td>13,773</td>
</tr>
<tr>
<td>B Crimes against life and health</td>
<td>21,381</td>
<td>8,422</td>
<td>4,974</td>
</tr>
<tr>
<td>C Sexual crimes</td>
<td>515</td>
<td>90</td>
<td>182</td>
</tr>
<tr>
<td>D Crimes against public authority and</td>
<td>6,158</td>
<td>4,834</td>
<td>1,256</td>
</tr>
</tbody>
</table>
Among suspected DUI offenders there is increased criminal activity which is more than DUI convictions only. Most crimes are committed by those who drink and drive but there clearly exists a hard core of criminal activity formed by drugged drivers. High number of crime in both DUIA and DUID groups are signals of possible marginalization which is furthermore supported by increasing number of crime after the DUI suspicions. Connections between socio-economic position and crime DUI and crime in general have been well established (Aaltonen 2013, Impinen et al. 2011, Karjalainen, Blencowe & Lillsunde 2012). It can be speculated that the problems might be escalating among some DUI offenders as there is continued crime and health problems (Impinen et al. 2010, Karjalainen et al. 2009a) and high...
Increased criminal activity among people suspected of driving under the influence of alcohol or drugs. A register-based population-level study which also suggest a severe alcohol and drug dependency among this population. Criminal and traffic policies alone cannot cope with the entire problem and wider approach with social and healthcare interventions are needed for DUI offenders.

References

Aaltonen, M. 2013, Socioeconomic Differences in Crime and Victimization: A Register-Based Study, National Research Institute of Legal Policy.


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