The DRAM, Vol. 7(8) – Severe DUI offenders: One size doesn't fit all

September 21, 2011

*This week, the DRAM continues its series focusing on driving under the influence (DUI). This is the fourth of five issues concentrating on the body of recent DUI research. In the first three issues, **DRAM Vol. 7(5)**, **DRAM Vol. 7(6)**, and **DRAM Vol. 7(7)** we addressed DUI-related trends, methods to detect heavy alcohol consumption and recidivism, and the use of ignition interlock devices to reduce DUI behavior.*

DUI research suggests that DUI offenders exhibit an array of characteristics that distinguish them from the general population – mental health issues, personality characteristics, and criminal behavior, among others. It is tempting to conclude from this research that DUI offenders are a homogenous group characterized by these traits. However, this week the DRAM reviews recent research by Hubicka and colleagues (2010) suggesting that even among severe (i.e., defined in this study as having a BAC >=0.1 at time of arrest) DUI offenders, multiple profiles exist.

Methods

- Hubicka and colleagues (2010) recruited 163 (12% female) Swedish DUI offenders whose BAC was >=0.1 at time of arrest.
- The researchers assessed their sample using the following measures, all of which have general population norms available:
    - The Alcohol Use Disorders Identification Test (AUDIT): A screen for alcohol-related problems.
    - The Revised Neuroticism-Extraversion-Openness Personality Inventory (NEO-PI-R): Assesses five major personality traits – extraversion, agreeableness, neuroticism, conscientiousness, and openness to experience.
    - The Symptom Checklist (SCL-90): A self-report measure of psychiatric symptoms across all major domains of mental illness.
    - Researchers also collected DUI arrest records for the two years following the study.

- Researchers used cluster analysis to identify subtypes of DUI offenders grouped by personality, mental health, and alcohol use characteristics. They compared the rate of DUI relapse across these groups.

Results

- Severe DUI offenders exhibited significantly lower conscientiousness, higher agreeableness, and lower openness to experience than the general population, and scored significantly higher (i.e., higher = more problematic) than the general population on 8 of 9 mental health domains.
- Cluster analyses identified three DUI subtypes, presented in the Figure.
- Group 3, arguably the group with the highest levels of psychopathology, was significantly less likely to relapse than the other two groups.

Group	AUDIT	NEO-PI-R	SCL-90	Relapse
Group 1 (N = 104; 64%)	High level of alcohol problems	Similar to general population	Similar to general population	9.3%
Group 2 (N = 50; 31%)	**Very high level of alcohol problems**	High neuroticism, low conscientiousness	Elevated mental health problems	12.6%
Group 3 (N = 8; 5%)	**Very high level of alcohol problems**	**Very high neuroticism, low conscientiousness**	**Severe mental health problems**	0.0%

Figure. Severe DUI Offender Subtypes (adapted from Hubicka, et al., 2010). Click image to enlarge.

Limitations

- This study was conducted with severe DUI offenders in Sweden. These offenders and the Swedish general population might differ from United States' DUI offenders and general population.
- Study involvement was voluntary and required the offenders to contact the researchers proactively to participate, leading to a potential selection bias that might bias the results.
- All measures other than DUI relapse were self-report; consequently, these data are vulnerable to self-report biases.

Discussion

Though repeat or severe DUI offenders reliably exhibit elevated mental health, personality, and substance use problems, the current research suggests that these risks are not evenly distributed. Indeed, the largest group (i.e., Group 1) differed from the general population only on the extent of alcohol use problems. The two more severe subtypes also had elevated alcohol use problems; one of these was characterized primarily by high neuroticism and low conscientiousness, and the other also had multiple mental health issues. Level of problems itself was not a predictor of relapse – the group with the most problems had the lowest relapse rate. Future research needs to investigate these subtypes longitudinally to determine how DUI develops in relation to these other problems; for example, whether the Group 3 type is using alcohol to self-medicate pre-existing mental health issues, or whether the Group 2 type is exhibiting DUI as part of a more general impulsive pattern.

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What do you think? Please use the comment link below to provide feedback on this article.

References

Hubicka, B., Kallmen, H., Hiltunen, A., & Bergman, H. (2010). Personality traits and mental health of severe drunk drivers in Sweden. *Social Psychiatry and Psychiatric Epidemiology, 45*(7), 723-731.