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Sexual risk behaviours associated with unlicensed driving among young adults in Miami's electronic dance music nightclub scene

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Abstract

Literature indicates that unlicensed driving (UD) offenders report substance use risk behaviours, yet data related to sexual risk behaviours is unknown. This study examined sexual and other risk behaviours among young adults in Miami, Florida, comparing UD and non-UD offenders ($n = 498$). Compared with others, UD offenders were more likely to report group sex history, being high for sex half the time or more, purchasing sex and sexually transmissible infection history. Results suggest that locating sexual risk reduction interventions inside of the justice system would benefit UD offenders.

Research demonstrates that young adult participants in the electronic dance music (EDM) nightclub scene report alcohol and drug use (e.g. cocaine, ecstasy, prescription opioids and benzodiazepines) in addition to multiple sexual risk behaviours, including condomless vaginal and anal sex, and group sex.^{1–4} EDM nightclub scene participants also report risky driving behaviours.⁵ One such risky driving behaviour, unlicensed driving (UD), is relatively understudied. Although literature suggests a connection between UD and substance use,^{6,7} the connection between UD and sexual risk behaviours is not apparent. Given this, we examined sexual and other risk behaviours among young adult EDM nightclub scene participants in Miami, Florida, comparing UD and non-UD offenders.

Data are drawn from baseline assessments conducted between September 2011 and November 2014 as part of a substance use and sexual risk reduction intervention trial. Participants ($n = 498$) were aged 18–39 years and met the following past-90-day eligibility criteria: 1) heterosexual sex; 2) use of club drugs (i.e. cocaine, ecstasy, g-hydroxybutyric acid [GHB], methamphetamine, ketamine, lysergic acid diethylamide [LSD]) three or more times; 3) non-prescribed use of prescription medications one or more time; and 4) attendance at large EDM nightclubs once or more in a typical month.

The assessments were primarily comprised of the Global Appraisal of Individual Needs (version 5.4),⁸ which includes core sections on substance use, sexual risk behaviours, sexually transmissible infection (STI) history and arrest history. Participants reported the

Conflicts of interest

None declared.

offences for which they were ever arrested, including UD, which was dichotomised into UD arrest versus not. Measures of past-90-day substance use and sexual behaviours, and STI history were dichotomised into endorsement and not. Descriptive statistics were calculated for the variables of interest. Bivariate logistic regression models were constructed to examine differences in characteristics and behaviours between UD and non-UD offenders. All analyses were conducted using SPSS Statistics version 24 (IBM Corporation, Armonk, NY, USA).

As shown in Table 1, compared with others, UD offenders were more likely to be Black and to report group sex history, being high for sex, half the time or more, purchasing sex, and STI history. In multivariate models controlling for significant demographic variables, all significant bivariate relationships remained, with the exception of group sex history ($P < 0.031$; data not shown). No measure of past-90-day substance use was significant, likely because the sample comprised frequent and heavy substance users.

This study shows associations between UD and multiple sexual risk behaviours, which are concerning given the association between substance use and HIV and STI transmission. Moreover, it is common for group sex events to include participants from multiple high-risk populations (e.g. men who have sex with men, injection drug users) and lower risk populations (e.g. heterosexual young adults). These events serve as potential bridge environments in which HIV and STI may be transmitted across group boundaries and expose participants to greater risk.⁹

Findings from this study suggest that upon entering the justice system, UD offenders would likely benefit from interventions focused on sexual risk behaviours, in addition to substance use and driving safety. Although sexual risk reduction interventions delivered inside of the justice system have been studied,¹⁰ no apparent interventions have targeted UD offenders, whose infractions are less severe than other risky driving offences (e.g. driving under the influence) and are unlikely to be sentenced to confinement. Thus, for UD offenders, brief sexual risk reduction interventions could be delivered alongside the existing non-correctional facility justice system infrastructure (e.g. mandated safe driving education or court appearances). In addition, referrals for HIV and STI testing in these settings would assist in diagnosing unknown infections and connecting individuals to treatment.

This study has some limitations. The ability to generalise the findings to other populations is limited by the eligibility requirements and the high frequencies of reported substance use and sexual risk behaviours. All data are based on self-report, potentially leading to underreporting of socially undesirable behaviours.

Miami reports the highest HIV and syphilis prevalence rates in the USA, including among heterosexual populations, notably heterosexual Black women,^{11,12} thus identifying opportunities to reach populations at risk is a high priority. Locating adjunct sexual risk reduction interventions inside of the justice system in non-jail settings could likely be done at low cost and require little additional commitment from participants, including UD offenders. Future research should focus on developing intervention approaches for young adult UD offenders.

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Table 1
Sample characteristics and bivariate logistic regression models of unlicensed driving (N=498)

	UD Offender		Non-UD Offender		P	OR	95% CI
	N=118	23.7%	N=380	76.3%			
Demographics							
Hispanic	62	52.5%	258	67.9%	0.003	0.524	0.344, 0.797
Black	37	31.4%	67	17.6%	0.002	2.134	1.334, 3.414
White	17	14.4%	43	11.3%	0.369	1.319	0.721, 2.413
Other	2	1.7%	12	3.2%	0.167	0.34	0.073, 1.571
Female	32	27.1%	190	50.0%	0.000	0.372	0.237, 0.585
Young age (18-24)	36	30.5%	224	58.9%	0.000	0.306	0.197, 0.476
Education	95	80.5%	327	86.1%	0.145	0.669	0.390, 1.149
Substance Use ^a							
Alcohol	118	100.0%	379	99.7%	0.999		
Marijuana	115	97.5%	360	94.7%	0.229	2.130	0.622, 7.297
Cocaine (powder)	114	96.6%	347	91.3%	0.065	2.710	0.940, 7.816
Crack cocaine	31	26.3%	103	27.1%	0.858	0.958	0.600, 1.531
Ecstasy	118	100.0%	364	95.8%	0.998		
LSD	50	42.4%	187	49.2%	0.195	0.759	0.500, 1.151
Hallucinogens	66	55.9%	212	55.8%	0.978	1.006	0.664, 1.525
Methamphetamine	34	28.8%	84	22.1%	0.136	1.426	0.895, 2.274
GHB	24	20.3%	54	14.2%	0.111	1.541	0.905, 2.626
Heroin	24	20.3%	83	21.8%	0.728	0.914	0.549, 1.521
Rx benzodiazepines	114	96.6%	348	91.6%	0.075	2.621	0.907, 7.570
Rx opioids	107	90.7%	339	89.2%	0.649	1.176	0.584, 2.369
Sexual Behaviors							
Condomless vaginal sex ^a	107	90.7%	343	90.3%	0.894	1.049	0.517, 2.128
Condomless anal sex ^a	49	41.5%	150	39.5%	0.691	1.089	0.715, 1.657
Group sex history	59	50.0%	144	37.9%	0.020	1.639	1.081, 2.485
High for sex half the time ^a	103	87.3%	285	75.0%	0.006	2.289	1.270, 4.126
Traded / sold sex ^b	20	16.9%	47	12.4%	0.205	1.446	0.818, 2.556

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	UD Offender		Non-UD Offender		P	OR	95% CI
	N=118	23.7%	N=380	76.3%			
Purchased sex ^a	26	22.0%	31	8.2%	0.000	3.182	1.800, 5.624
Sexually transmitted infection history	27	22.9%	56	14.7%	0.040	1.717	1.026, 2.872

^a past 90 days;

^b past year