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Serious mental illness among young adult women who use drugs in the club scene: co-occurring biopsychosocial factors

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Abstract

Young women who regularly attend nightclubs are at risk for numerous health and social consequences, including mental distress, sexual and physical victimization and substance dependence. This paper uses a biopsychosocial framework to examine co-occurring mental health problems, victimization, substance dependence, sexual risk and physical pain among a sample of young women who use drugs (N = 222) in Miami's club scene. The majority of women were under 24 years old, Hispanic, and identified as heterosexual. Almost all the women reported past 90-day use of alcohol, ecstasy/MDMA, marijuana, cocaine and prescription opioids and benzodiazepines; 32% of women reported being in a monogamous relationship while 41.9% reported having three or more sexual partners in the past 90 days; 65.3% met DSM-IV criteria for substance dependence; 60.4% met DSM-IV criteria for serious mental illness (SMI) and 59.9% were victimized as minors. Women who had SMI had higher odds of substance dependence, concurrent physical pain, three or more sexual partners in the past 90 days, childhood victimization and severe abuse-related trauma. The high levels of interconnected mental health, victimization, trauma, physical pain, substance dependence and sexual risk factors observed are underreported in the literature, as young women club scene participants appear to be more similar to other marginalized drug-involved populations than previously considered. While further research is needed, it appears these young women are in great need of outreach for primary health, mental health, HIV prevention, increased social support and substance abuse treatment services.

Keywords

Club drugs; substance use; women; sexual risk; victimization; serious mental illness (SMI); pain; social support; biopsychosocial

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Introduction

Adults with serious mental illness (SMI) engage in high rates of drug use and risky sexual behaviors that are linked to higher rates of HIV and other sexually transmitted and blood-borne infections, (Surratt, Kurtz, Chen, & Mooss, 2011). Women who use drugs are at greater risk than men of having multiple partners and unprotected sex (Meade & Sikkema, 2005), being victimized (Wechsberg, 2012), developing substance dependence and SMI, contracting HIV and sexually transmitted infections (Buttram, Surratt, & Kurtz, 2014), and having limited social support and access to health and social services (Greenfield et al., 2007; Wechsberg, 2012). With the close relationship between mental and physical health well documented (Ferro, 2016), women also report higher incidence of non-cancer chronic pain linked to psychological distress (Jamison, Butler, Budman, Edwards, & Wasan, 2010), and receiving and misusing opioid prescriptions (Parsells et al., 2008), findings that are partially attributed to women's limited access to services (Simoni-Wastila, 2000). It stands to reason, therefore, that co-occurring SMI and drug use is a complex phenomenon that must be viewed within the gendered-social-ecological context in which it occurs.

Studies have explored the intersection of drug use and sexual risk within the social context of nightclubs (Remy et al., 2013) where the risk of contracting HIV and other infectious diseases has been a cause for concern (Kelly & Parsons, 2007). Although much of this research has focused on lesbian, gay, bi-sexual, transgender and queer communities, several studies highlight the vulnerability of women in the club scene (Buttram & Kurtz, 2015).

The literature describing drug use and related health and social consequences among young adult women in the club culture is limited. While studies concerning drug use and risky sexual behaviors are prevalent, studies exploring SMI and contributing factors are less common, limiting our ability to design and implement effective interventions to mitigate risks. This study seeks to bridge the gap by using a biopsychosocial framework to examine whether SMI among young women in the club scene is linked to co-occurring substance dependence, victimization, physical pain, trauma, sexual risk and lack of social support.

Materials and methods

Data are drawn from baseline assessments conducted as part of a behavioral intervention trial for young adults who use club drugs (e.g. ecstasy/MDMA, GHB, ketamine, LSD, methamphetamine, cocaine), and misuse prescription medications (Kurtz, Surratt, Levi-Minzi, & Mooss, 2011) in the context of the electronic dance music club scene in Miami. A total of 498 participants completed baseline health and social risk assessments. For a full description of the site, inclusion exclusion criteria, recruitment and sampling procedures see Kurtz, Buttram, & Surratt, 2017. A subset of 222 women who reported recent heterosexual behavior is the focus of this paper.

Data was collected using the Global Appraisal of Individual Needs (GAIN; Dennis, Feeney, Stevens, & Bedoya, 2006) expanded to include questions on non-medical use of psychoactive prescription medications. For psychometric properties please see Kurtz et al., 2017;. SMI was measured using the self-report General Mental Distress Scale (GMDS),

which is comprised of past year DSM-IV symptoms counts for 25 items – 9 for depression (Cronbach's alpha among this sample = .87), 12 for anxiety (alpha = .88), and 4 for somatic disorders (alpha = .81). This scale is reducible to classifications indicating clinical significance (subclinical/moderate/severe) and was further dichotomized into severe (7 or more symptoms)/not severe. Substance dependence was assessed as endorsement of 3 or more DSM-IV dependence criteria (e.g. using more or longer than intended, withdrawal symptoms). Childhood victimization was assessed by an affirmative response to any of the following events prior to age 18: being attacked with a weapon; being beaten so as to cause bruises/cuts/broken bones; being forced to participate in sexual acts; being abused emotionally causing very bad feelings. Trauma related to abuse (duration/severity, type/relation of perpetrator) was queried in six dichotomous items; endorsement of three or more indicated severe abuse-related trauma. Social support was measured using the 19-item MOS Social Support Survey (Sherbourne & Stewart, 1991), which includes domains of emotional/tangible/affectionate support and positive social interaction (overall social support alpha reliability = .92). Scores were transformed to scale of 0–100 for comparison to published means and dichotomized: 17 (median) and under was considered low social support. Reporting experiencing severe physical pain in the past 90 days assessed physical pain. Past 90-day sexual risk was assessed dichotomously by (1) having 3+ sexual partners and (2) having unprotected vaginal sex with a casual partner.

Results

Descriptive statistics were calculated for variables of interest and demographics and are detailed in Table 1.

Bivariate logistic regression models examined relationships between SMI, demographics, and all independent variables. Measures exhibiting significant predictive values were included in a multivariate logistic regression model, using the backward step likelihood ratio procedure (.05 significance level cutoff). Results are detailed in Table 2. In the bivariate models substance dependence, past 90-day physical pain, having 3+ sexual partners, severe abuse-related trauma, being victimized before the age of 18 and low social support were associated with higher odds of meeting criteria for SMI, while demographics and unprotected vaginal sex were not. In the multivariate model substance dependence, past 90-day physical pain, having 3+ recent sexual partners, severe abuse-related trauma, and low social support retained their significance while childhood victimization did not.

Discussion and conclusions

Results of this study suggest that young women in the club scene are highly vulnerable, with self-reported rates of SMI far greater than rates in the general population and even substance abusing samples (Johnson, Cunningham-Williams, & Cottler, 2003). Yet the high levels of interconnected victimization, mental health, pain, substance use and sexual risk factors are underreported, as young women in the club scene appear to be more similar to other marginalized drug-involved populations than previously considered (Buttram et al., 2014; Surratt et al., 2011). Childhood sexual abuse and victimization, more commonly reported by women, are a major risk factors for psychiatric illness, drug dependence and many drug-

related consequences (Green et al., 2010; McLaughlin et al., 2010). Low social support was linked to SMI, consistent with research highlighting the multiple barriers in access to services (Greenfield, Back, Lawson, & Brady, 2010).

Women reported high rates of sexual risk behaviors similar to previous studies of substance abusing women (Meade, Kershaw, Hansen, & Sikkema, 2009). Consistent with an approach examining links between these various factors, prior studies show that abuse-related traumagenic factors were associated with poorer mental health and greater sexual risk among women (Surratt et al., 2011). These sexual risk behaviors, coupled with low social support and limited access to services, have been well-documented in populations with co-morbid SMI and substance dependence, placing this population at-risk for contracting sexually-transmitted infections (Meade et al., 2009). Employing a biopsychosocial approach, this study also explored physical pain and found that women reporting significant physical pain had nearly four times higher odds of meeting criteria for SMI, even when controlling for substance dependence. Previous studies have documented the strong link between physiological and psychological pain, particularly within the context of prescription opioid abuse (Jamison et al., 2010) and congruent with the self-medication hypothesis (Jamison et al., 2010; Khantzian, 1997). This is particularly prevalent within populations that have experienced adverse childhood events (Min, Minnes, Kim, & Singer, 2013). While this finding may not be surprising, considering the high rates of childhood victimization and prescription opioid misuse, to our knowledge this is the first study to examine physical pain as a comorbid factor linked to SMI among this population.

Our study has several limitations. Mental distress symptoms were self-assessed; caution is warranted when generalizing the prevalence of psychological distress in our study compared to studies utilizing clinician-administered interviews. The ability to generalize the findings may be limited by the study eligibility requirements requiring recent substance use (though the sample of women are representative of the racial/ethnic makeup of the county). Finally, the ability to draw causal inferences between is limited by the cross-sectional design. Despite these limitations, it would appear that this out-of-treatment population is in great need of tailored outreach for primary health, mental health and substance abuse treatment services. Research and intervention development should be based on approaches that consider this multifaceted milieu and incorporate a biopsychosocial approach that takes into account biological, psychological and social-structural components (Griffiths, 2009).

Targeted, trauma-based, culturally sensitive multi-level interventions are crucial; mental health outreach efforts, HIV prevention, and interventions specifically targeted to increase social support may be useful. This population appears to be largely disconnected from substance abuse and mental health treatment services, and integration of educational materials, motivational interviewing and other brief interventions into primary care settings, emergency rooms and community clinics should be considered.

Future studies may consider employing gender-based analyses, as many significant differences have been found between men and women that correlate with SMI, substance use, sexual risk behaviors and treatment outcomes. Gender-based analyses are crucial if we are to understand some of the structural issues surrounding young adult club drug use in

general and the significant role gender plays in this culture in particular, and design appropriate, feasible and effective interventions to reduce risks associated with drug use and risky sexual behavior.

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Table 1

Demographics, drug use, sexual behaviors, health and social risk factors of young adult women multidrug users (*N* = 222).

	N	%
Demographics		
Ages 24 and younger	129	58.1
Race/ethnicity		
Hispanic/Latino	140	63.1
Black/African American	50	22.5
White/Caucasian	26	11.7
Other race/ethnicity	6	2.7
Heterosexual identity	130	58.6
More than a high school education	118	53.2
Past 90-day drug use		
Alcohol	220	99.1
Ecstasy	214	96.4
Marijuana	213	95.9
Cocaine	203	91.4
Other hallucinogens	111	50.0
LSD	93	41.9
Crack cocaine	63	28.4
Heroin	44	19.8
Methamphetamine	42	18.9
GHB	35	15.8
Rx sedatives	203	91.4
Rx opioids	202	91.0
Rx stimulants	118	53.2
Rx antipsychotics	64	28.8
Rx antidepressants	56	25.2
Injection drug use	29	13.1
Past 90-day sexual behaviors		
Monogamous relationship 4+ months	71	32.0
Unprotected vaginal sex – casual partner	139	62.6
3+ sexual partners	93	41.9
Health and social risk factors		
DSM IVR substance dependence	145	65.3
Physical pain high (past 90-days)	86	38.7
Victimized before age 18	133	59.9
Severe abuse-related trauma	107	48.2
DSM IVR severe mental illness	134	60.4

Table 2

Bivariate and multivariate logistic regression models predicting SMI of young adult women multidrug users ($N = 222$).

	Bivariate			Multivariate		
	OR	**95% CI**	***p***	**OR**	**95% CI**	***p***
Age	1.103	.959, 1.069	.652			
Race/ethnicity[a]						
Black/African American	.752	.391, 1.448	.394			
White/Caucasian	.689	.296, 1.603	.388			
DSM IVR substance dependence	10.481	5.494, 19.992	**<.001**	7.374	3.544, 15.346	**<.001**
Physical pain high (past 90-days)	4.922	2.598, 9.325	**<.001**	3.709	1.797, 7.653	**<.001**
3+ sexual partners (past 90-days)	4.069	2.225, 7.440	**<.001**	2.070	1.053, 4.069	**.035**
Severe abuse-related trauma	3.860	1.781, 8.363	**.001**	3.367	1.674, 6.772	**.001**
Victimized before age 18	3.787	2.143, 6.691	**<.001**	1.241	.452, 3.408	.675
Low social support	2.543	1.271, 5.091	**.008**	4.634	1.642, 13.081	**.004**
Unprotected vaginal sex (past 90-days)	.487	.936, 2.833	.085			

[a]Reference Category – Hispanic/Latino.