

# Social and Environmental Predictors of Resilience among Young Adult Multidrug Users in Miami's Nightclub Scene

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## Background

- The modern all-night dance club culture is found in nearly all major cities, but is especially popular in tourist destinations. Since the 1990s Miami has become an international destination for parties, sexual tourism and club drug use. Miami's South Beach has become a center for club culture, setting trends that are emulated and replicated in the U.S., Europe, and Latin America.
- Club drugs are common in these settings, with substances varying over time, but generally include MDMA (ecstasy), powder cocaine, ketamine, methamphetamine, gamma-hydroxybutyric acid (GHB), and LSD. The attraction to these substances is the increased stamina which enables participants to dance all night, in addition to the intoxicating, euphoric, disinhibiting and sometimes hallucinogenic effects that are said to enhance the nightclub experience (see Kurtz et al. 2012).
- The tendency to mix numerous substances puts these nightclub participants at high risk for health problems, HIV transmission risk, criminal justice involvement, and mental distress, such as depression, anxiety, or suicidal ideation.
- Resilience theory posits that people are able to exhibit positive outcomes despite experience of risk factors and that people can recover from exposure to risk in order to generate and maintain good health.
- Ungar (2008) has extended resilience literature by demonstrating that one's social environment also influences the resilience process by providing resources or supports that foster resilience.



## Purpose and Methods

**Purpose:** The purpose of this analysis is to present preliminary measures from a randomized intervention trial that sought to reduce substance use and HIV transmission risk among young multidrug users in Miami's nightclub scene. The present examination is focused on the potential linkages between social environment and measures of resilience.

**Methods:** Data from 263 participants are presented. Participants were recruited through respondent-driven sampling and randomized to one of three arms: Computer-Assisted Personal Interview (CAPI), an Audio-Assisted Computer Self-Interview (ACASI), or a wait-list control. Data presented combine both CAPI and ACASI study arms, as no data have yet been collected from the control arm.

**Eligibility:** (1) reported sex with a partner of the opposite gender during the past 90 days, (2) used "club drugs" (cocaine, ecstasy, LSD, GHB, ketamine or methamphetamine) at least 3 times and misused or abused prescription medication (ex. OxyContin; Xanax,) at least 3 times during the last 90 days, and (3) between ages of 18-39.

**Eligibility:** Participants were interviewed using a modified version of the Global Appraisal of Individual Needs (Dennis et al. 2002) structured interview, which included measures of demographics/environment, substance use, mental health, and sexual risk behaviors. The instrument also included a modified version of the Connor-Davidson Resilience Scale (CD-RISC; Connor and Davidson 2003).

## Analysis

All analyses were conducted with SPSS version 20.

- A modified version of the CD-RISC was dichotomized at the 33<sup>rd</sup> percentile as 1=high resilience scores (upper two-thirds) vs. 0= low resilience scores (lower one-third).
- All variables measuring satisfaction with family, friends, community, or living situation were dichotomized as 1=very or somewhat satisfied vs. 0=very or somewhat dissatisfied.
- Neighborhood rating was dichotomized as 1=excellent / good vs. 0=fair / poor.
- Trust people in the neighborhood was dichotomized at 1=a lot or some vs. 0=not at all.
- Religious service attendance was assessed by asking participants how often they attend religious service: 1=any amount of attendance vs. 0=never.
- Volunteer activity was assessed by asking participants how many times they volunteered in the past 90 days: 1=one or more times vs. 0=none.

## Sample Characteristics

### Baseline characteristics young adult multidrug users in Miami N=(263)

	N	%		N	%
<b>Demographics</b>			<b>Social Environmental Factors</b>		
Caucasian or White	42	15.9%	Emotional support satisfaction – family	203	77.2%
African American or Black	51	19.4%	Emotional support satisfaction – friends	213	81.0%
Hispanic	160	60.8%	Relationship satisfaction – family	173	65.8%
Other race/ethnicity	10	3.8%	Relationship satisfaction - friends	218	82.9%
Female	96	36.5%	Satisfaction with living situation	176	66.9%
Age (mean; SD)	25.8 (5.7)		Satisfaction with connection to community	179	68.1%
High school education	220	83.7%	Positive neighborhood ranking	152	57.8%
<b>Risk Factors</b>			Trust people in your neighborhood	97	36.9%
Severe mental distress (past year)	131	49.8%	Religious service attendance	149	56.7%
DSM-IVR substance dependence	146	55.5%	Volunteer	69	26.2%
Physical abuse before age 18	99	37.6%	<b>Resilience</b>		
Arrest history	177	67.3%	High resilience (33 <sup>rd</sup> percentile)	181	68.8%

## Results

### Logistic regression models of social and environmental predictors of high levels of resilience (N=263)

	Bivariate models			Multivariate model		
	P	OR	95% CI	P	OR	95% CI
<b>Emotional Support Satisfaction</b>						
Family	0.000	3.725	2.035, 6.819	0.298	1.584	0.666, 3.769
Friends	0.000	7.090	3.599, 13.968	0.003	3.645	1.551, 8.566
<b>Relationship Satisfaction</b>						
Family	0.001	2.433	1.415, 4.192	0.586	0.788	0.334, 1.859
Friends	0.000	3.389	1.742, 6.597	0.854	0.914	0.351, 2.381
<b>Social Environment Characteristics</b>						
Satisfaction with living situation	0.000	3.632	2.086, 6.324	0.035	2.137	1.054, 4.336
Satisfaction with connection to community	0.000	4.704	2.672, 8.282	0.020	2.239	1.133, 4.422
Positive neighborhood rating	0.007	2.072	1.218, 3.526	0.920	1.033	0.545, 1.958
Trust people in your neighborhood	0.000	4.053	2.125, 7.732	0.005	2.816	1.366, 5.806
<b>Activities</b>						
Religious service attendance	0.190	1.518	0.813, 2.833			
Volunteer	0.577	1.162	0.686, 1.969			



## Discussion and Conclusions

This analysis examined the social and environmental factors that influence individual resilience among a sample of multidrug-using young adults in Miami. Many of the individuals in the sample reported previous or current risk factors including severe mental distress, substance dependence, childhood abuse and history of arrest.

Bivariate logistic regression models reveal that satisfaction with emotional support from family and especially friends are associated with high resilience scores. The same is true for satisfaction with family and friend relationships. Social environment measures also significantly predicted high resilience scores. These included satisfaction with one's living situation, connection to the wider community, living in a positive neighborhood and trusting people in one's neighborhood. Activities that were hypothesized to be associated with a high resilience score, religious attendance and volunteer activity were not significant.

Using the significant predictors from the bivariate models, we created a multivariate model to predict high levels of resilience. Satisfaction with emotional support from friends, satisfaction with one's living situation, satisfaction with one's connection to the wider community, and trusting people in one's neighborhood were all significant predictors of high resilience.

These results suggest that social and environmental factors do influence individual resilience. Case studies and qualitative work with adolescent populations have demonstrated similar findings (see Kolar et al. 2011), however there is no apparent literature examining social environment and resilience among adult populations, especially heavy substance users. Thus, our results fill this gap. Moreover, our findings suggest that increasing individual capacity to overcome risk may be enhanced by supportive relationships and good living situations and community characteristics.

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