

Neighborhood disadvantage amplifies risk of drug problems for residents with a family history of alcohol problems

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Funding Support:
R21AA018175 (Karriker-Jaffe, PI)
P30AA05595 (Greenfield, PI)

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Presenter Disclosures

Katherine Karriker-Jaffe, PhD

1. **The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:**
No relationships to disclose

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Why study neighborhood effects?

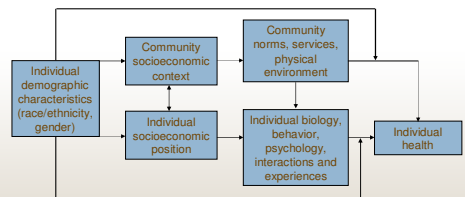
- Neighborhoods differ in social and physical resources
- Neighborhoods influence health and behavior
- Some neighborhoods are good places to live, others are not



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Neighborhood vs. individual SES



Adapted from Robert (1999). *Ann Rev Soc.* 25, 489-516.

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Relevant theories of disadvantage

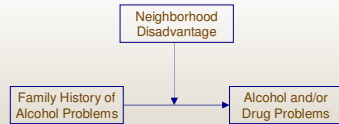
- Social exclusion, relative disadvantage
 - Stress and using AOD to cope
 - May exacerbate risk for residents with limited coping skills and resources
- Social capital, norms and networks
 - Social control of health risk behaviors
 - May exacerbate risk for residents with social networks including problem drinkers and alcoholics

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Current study

- Aim:
Determine whether family history of alcohol problems matters more in the context of neighborhood disadvantage



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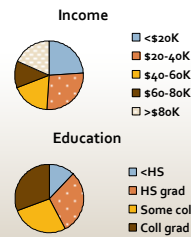
Methods

- Survey data from the 2000 and 2005 National Alcohol Surveys (N10 and N11)
 - Computer-assisted telephone interviews with RDD samples
 - Oversamples of African Americans & Hispanics and from low-population states
 - Response rates 58% (N10) and 56% (N11)
 - Post-stratification weights adjust for sampling & non-response
- Linked with 2000 US Decennial Census at the tract level



Study sample

- N = 11,399
- 64% current drinkers
- 49% men
- Average age = 44
- 71% White, 13% Hispanic, 12% African American, 4% other race/ethnicity
- 58% married
- 66% employed



Measures

- Family history of alcohol problems
 - Had both 1st and 2nd degree relatives who were problem drinkers or alcoholics
- Alcohol-related consequences past year
 - 2 or more of 15 negative consequences experienced (domains of interpersonal, work, legal, health)
- Drug problem past year
 - 1 or more of 3 problems due to own drug use (argument, losing time from work, serious health problem)

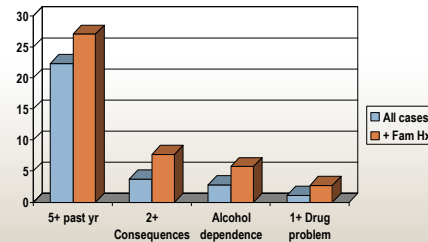


Neighborhood SES

- Disadvantage: average of 5 indicators (alpha = .90)
 - % below poverty level, % family income below 50% US median, % households without car, % adults without diploma, % males unemployed or not in labor force
- Affluence: average of 4 indicators (alpha = .94)
 - % family income over 150% US median, % people with income from secondary sources (rent, dividends), % adults with 4-year college degree, % in management and professional jobs
- Neighborhoods classified as high affluence (25% of tracts), middle-class or high disadvantage (25% of tracts)



Prevalence of problem AOD use



Analyses

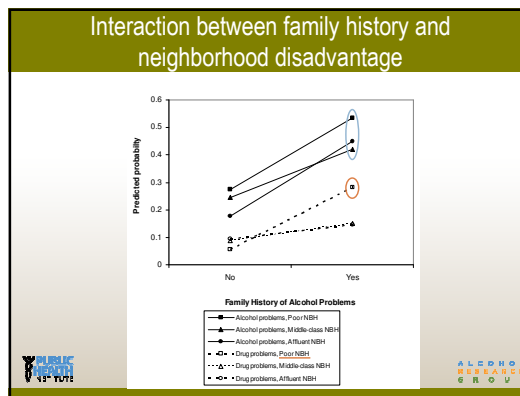
- Logistic regression using survey weights
- Multivariate models adjusted for sociodemographics
 - Sex, age, marital status, race/ethnicity, **income, education, employment**, geocoding accuracy



Results

	2+ Consequences OR (95% CI)	1+ Drug problem OR (95% CI)
Positive family history	2.23 (1.50, 3.32)**	1.88 (0.94, 3.74)*
Neighborhood SES		
Disadvantaged NBH	1.17 (0.87, 1.58)	0.63 (0.35, 1.12)
Affluent NBH	0.67 (0.48, 0.95)*	1.11 (0.64, 1.92)
Fam history * NBH SES		
FH * NBH Disadv	1.35 (0.74, 2.46)	3.53 (1.33, 9.36)**
FH * NBH Affluence	1.69 (0.86, 3.31)	0.87 (0.26, 2.86)
Nagelkerke R ²	.203	.163

* P<.10; ** P<.05; *** P<.01. All analyses controlled for age, sex, race/ethnicity, marital status, income, education, employment, survey year and precision of geocode



- ### Results Summary
- Support for moderation hypotheses for drug problems only
 - Family history → Negative alcohol consequences (OR=2.74**)
 - Family history → Drug problems only in disadvantaged neighborhoods (OR=7.15**)
 - Middle-class NBHs: OR=1.67
 - Affluent NBHs: OR=1.55

- ### Understanding the Results
- What's going on in disadvantaged neighborhoods?
 - Family history → Frequent marijuana use (unadj OR=3.98*)
 - Unrelated in middle-class NBH (OR=1.35) & affluent NBH (OR=0.86)
 - Family history → Poly-drug use (unadj OR=2.76*)
 - Stronger relationship than middle-class NBH (OR=1.67*) or affluent NBH (OR=1.77*)
 - Family history → Simultaneous AOD use (unadj OR=2.78*)
 - Stronger relationship than middle-class NBH (OR=2.25*) or affluent NBH (OR=1.40)

- ### Limitations and strengths
- Selection vs. causation
 - Alcohol dependence and downward drift¹
 - In this sample, family history not related to neighborhood SES
 - Response rates, missing heaviest drinkers
 - Census data and census geographies
 - National samples with ethnic and low-population oversamples
 - Good measures of different alcohol use patterns and problem indicators
1. Buu, et al. (2007) ACER, 37, 1545-1551

- ### Implications for prevention
- Continue to address alcohol problems in all neighborhoods, with attention to residents' family histories
 - Extend outreach to residents with a family history of alcohol problems in disadvantaged neighborhoods to combat drug problems
 - Research into mechanisms needed (Coping skills? Social support? Norms? Networks?)
 - Research into causal sequence recommended