

Unequal Beginnings:

Evidence of a sexual risk syndemic among adolescent girls in the U.S.

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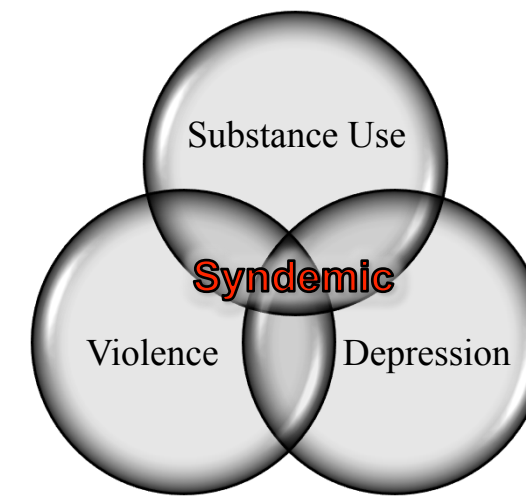
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American Public Health Association Annual Meeting
November 2015
Chicago, IL

Background

- **Syndemics** are defined as the clustering of risk factors that lead to an aggregate risk profile in specific populations¹⁻²
- One syndemic has been found to affect Latina women, with differences across various cultural & immigration factors.³⁻⁴
- Past research on syndemics have primarily focused on adult Latinas.⁵⁻⁶
- No studies have taken a *preventative* framework to explore the onset of substance use, violence, and depression as a syndemic among adolescents



Methods

- Using secondary data analysis from the Youth Risk Behavior Surveillance (YRBS) 2011, we evaluated risk profiles for N= 2,753 adolescent girls by race/ethnicity.⁷

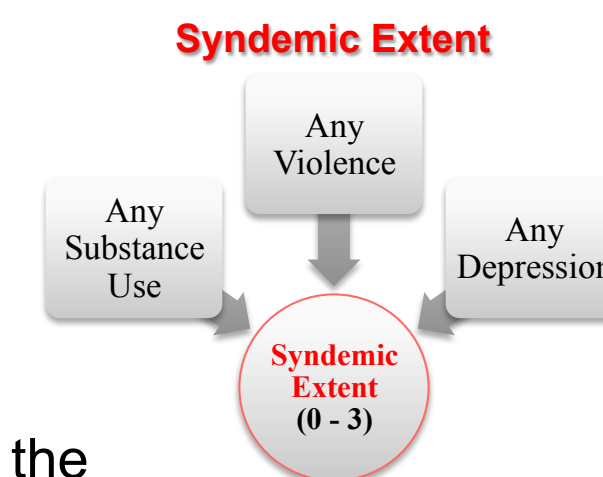
Inclusion Criteria:

- Sexually active
- Ages 14-17
- Reported race/ethnicity

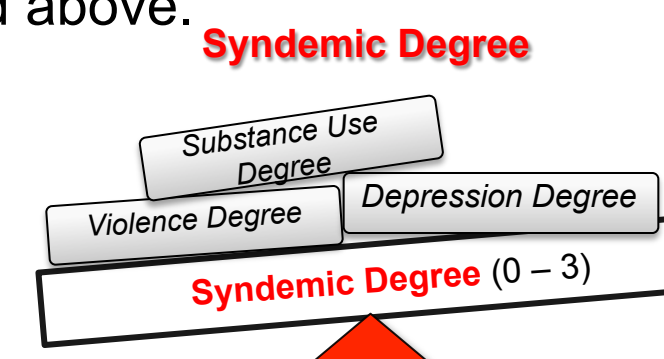
Independent Variables:

- **Substance Use** included alcohol, tobacco, & drug/marijuana use.
- **Violence** included partner violence, interpersonal violence, & physical violence.
- **Depression** included feeling sad/hopeless, considering suicide, and attempting suicide in the past 12 months.

Syndemic Extent: Syndemic extent was created to measure the number of individual factors reported by participants. This variable ranges from 0 to 3 and tallied any behavior reported (substance use, violence, and/or depression).



Syndemic Degree: Syndemic degree was created using the average severity across all individual factors reported. For substance use violence, and depression, a possible severity score of 3 was created to account for the number of behaviors in each area listed above.



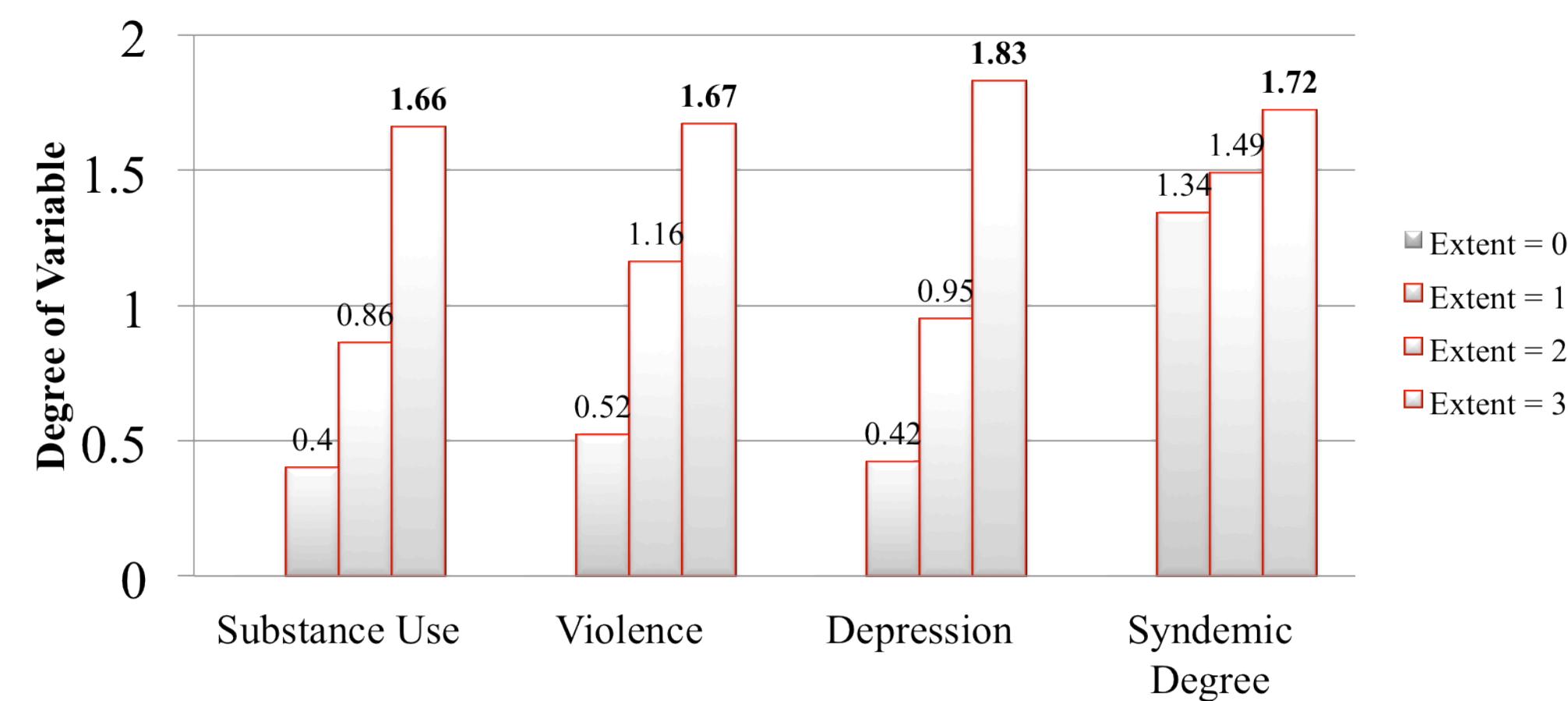
These severity scores were summed and averaged to obtain an mean score of severity across the syndemic. Syndemic degree had a possible range of 0 indicating no severity and 3 indicating high severity.

Dependent Variables

- **Multiple sex partners:** Participants reporting 2≤ sexual partners in the last 3 months. (Yes/No)
- **Condom Use at last sex:** Whether participant used a condom during their last sexual encounter. (Yes/No)
- **Drugs/Alcohol at last sex:** Whether participant used drugs or alcohol during their last sexual encounter (Yes/No)

Results

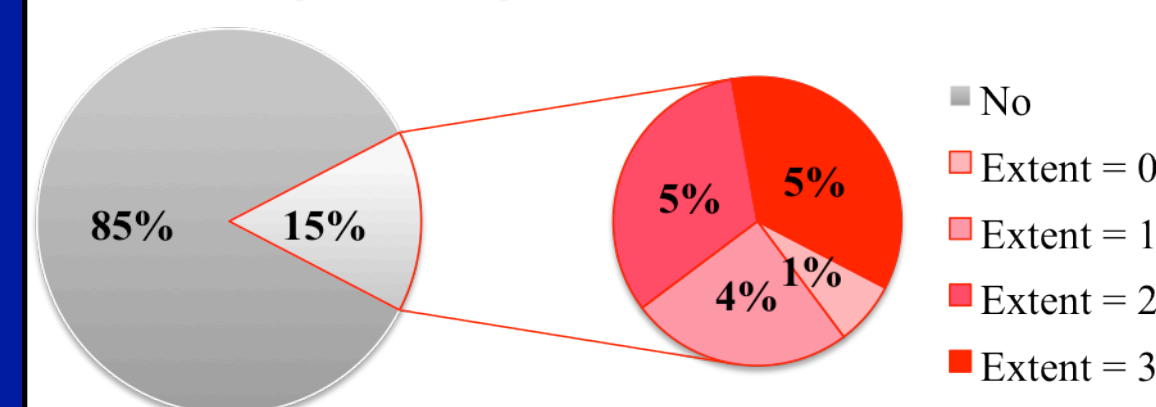
Degree of Individual Factors by level of Syndemic Extent



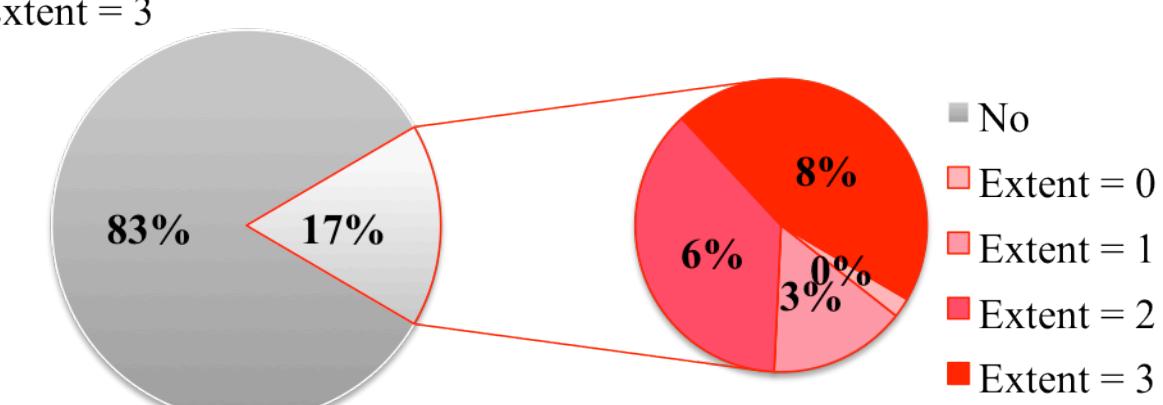
Individual Variables

- Overall, 28.7% of the sample reported one syndemic factor, 33.1% reported two factors, and 22.3% reported a full syndemic.
- By race/ethnicity, Latinas (24.9%) and Other race/ethnicity (25.8%) had the highest percent experiencing the full syndemic, while Black adolescents had the lowest (13.8%).
- Regarding severity, for one syndemic factor, the average degree was only 1.34, while the average syndemic degree for the full syndemic was 1.72, showing degree increases with extent.

Multiple Sex Partners: Breakdown by level of Syndemic Extent



Drugs/Alcohol @ Last Sex: Breakdown by level of Syndemic Extent



Condom Use @ Last Sex: Breakdown by level of Syndemic Extent

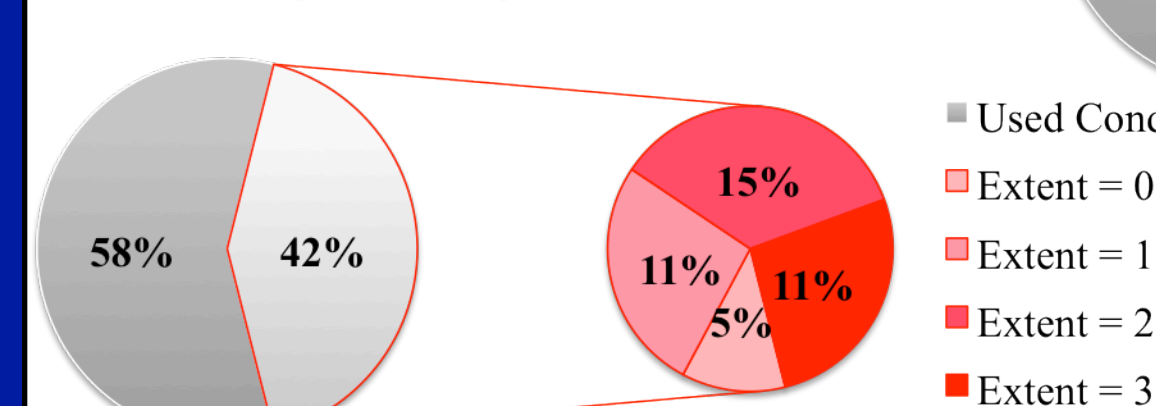
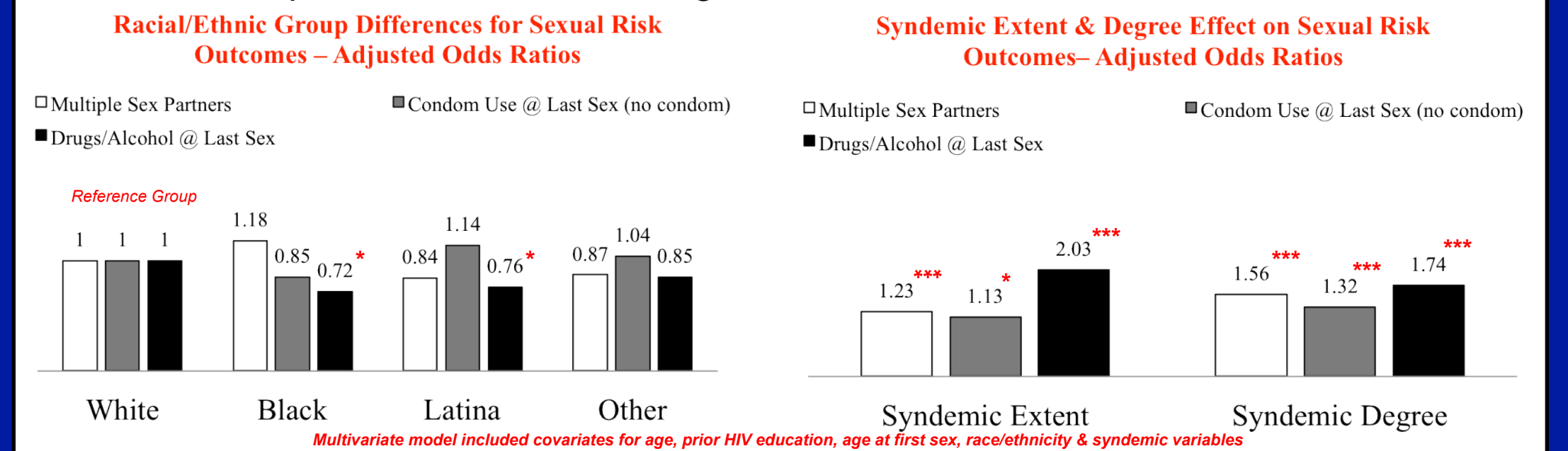


Table 1 – Bivariate Associations, Syndemic Extent & Degree-Predicting Sexual Risk Outcomes

Independent Variables	Dependent Variables		
	Multiple Sex Partners (past 3 months)	No Condom Used @ Last Sex	Drugs/Alcohol Used @Last Sex
Syndemic Extent	1.54*** (1.38, 1.72)	1.31*** (1.21, 1.42)	2.46*** (2.17, 2.78)
Syndemic Degree	1.94*** (1.68, 2.25)	1.50*** (1.35, 1.67)	2.65*** (2.28, 3.08)

1 P<0.10
* P<0.05
** P<0.01
*** P<0.001

- Controlling for age, HIV education, and age at first sex, multivariate logistic regression was used to model all sexual risk outcomes with race/ethnicity and syndemic extent & degree as predictors.
- Both syndemic extent and syndemic degree were significantly associated with multiple partners (OR=1.23; P<0.01/OR=1.56; P<0.001), not using a condom at their last sexual encounter (OR=1.13; P<0.05/1.32; P<0.001), and using drugs/alcohol at last sexual encounter (OR=2.03; P<0.001/OR=1.74; P<0.001).
- Both Black (OR=0.72; P<0.05) and Latina (OR=0.76; P<0.05) race/ethnicity showed a protective effect for drug/alcohol use at last sexual encounter.



- We also found a **significant interactions** between syndemic extent X syndemic degree (P< 0.01), syndemic extent X Black race/ethnicity (P <0.05), and syndemic degree X Black race/ethnicity (P<0.05) for multiple sex partners.

Syndemic Extent

White Black

OR = 1.00 (Ref) OR = 2.18*

Multiple Sex Partners

Syndemic Degree

White Black

OR = 1.00 (Ref) OR = 2.10*

Multiple Sex Partners

Conclusions

- Participation in multiple syndemic factors occurs early in life.
- Both syndemic extent and degree are associated with sexual risk during adolescence
- Black adolescents are particularly affected by this syndemic, specifically increasing their likelihood of having multiple sex partners.
- Black adolescents had the lowest reported rate of syndemic extent, but experienced the greatest effect by syndemic factors.
- Future research should continue to explore sexual risk outcomes as they relate to sexual risk syndemics to fully understand the onset and burden of syndemics during adolescence.

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