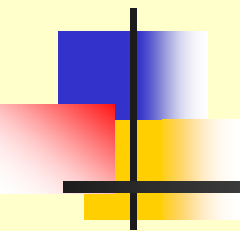


An Examination of Depression's Association with Cardiovascular Health Behaviors and Disease Risk among Urban Young Adults



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Presentation Overview

- Background and Significance
- Study Aims
- Methods, Measures and Analyses
- Results
- Implications for Research, Interventions and Policy



Background and Significance

- Cardiovascular disease (CVD) is the leading cause of death for all racial and ethnic groups in the U.S.
- Considerable interest in the biologic, environmental, behavioral and psychosocial risk factors for CVD.
- Current research examining links between affective disorders and health.
- Link between CVD and Depression; strong interest in examining the association between depression, heart healthy behaviors and subsequent CVD risk.



Study Aims

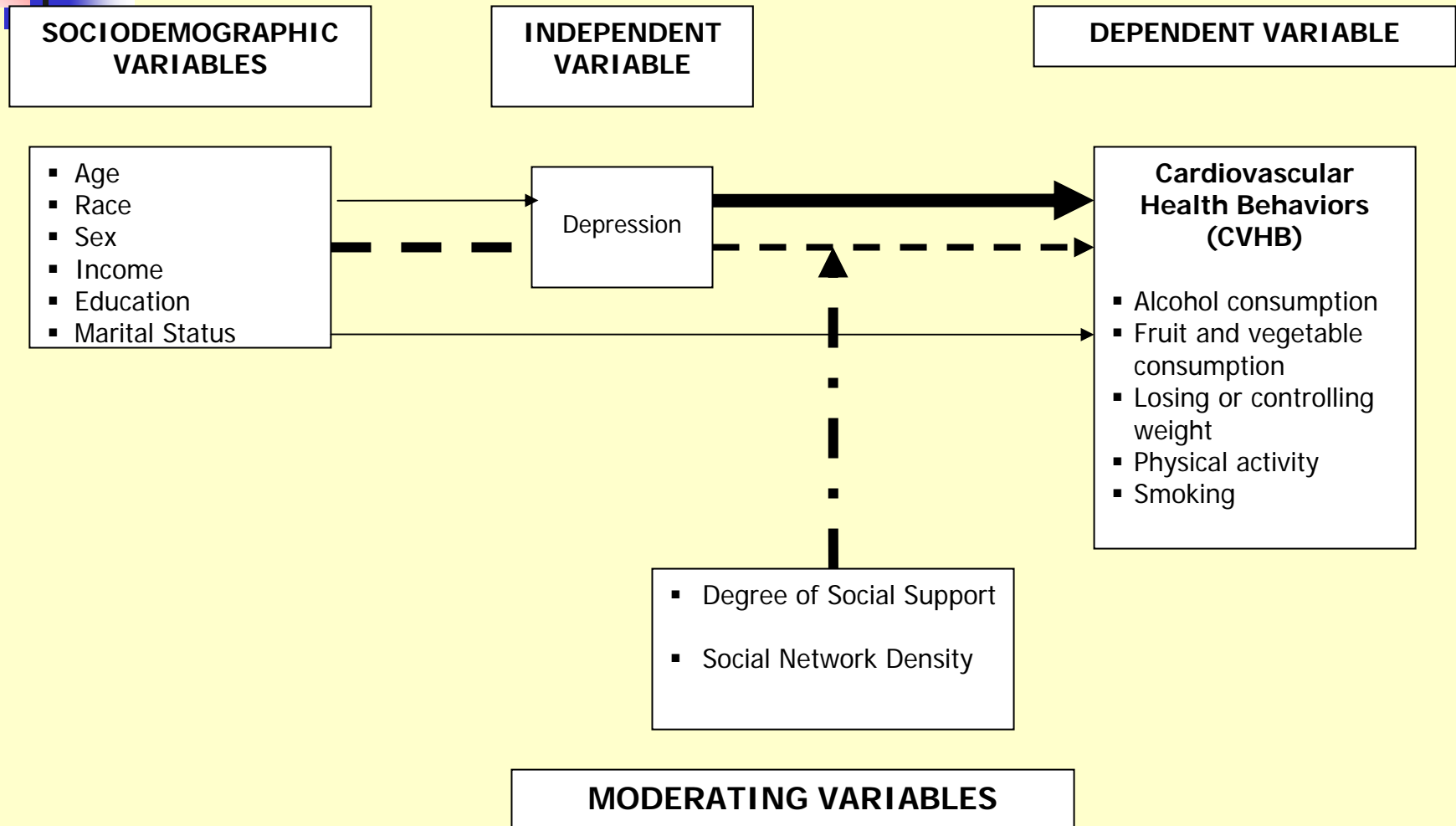
- Examine the association of depression with cardiovascular health behaviors and disease risk among urban young adults.
- Explore the possible mechanisms through which the degree of social support and social network density influence the relationship between depression and the CVD related outcome measures of interest.



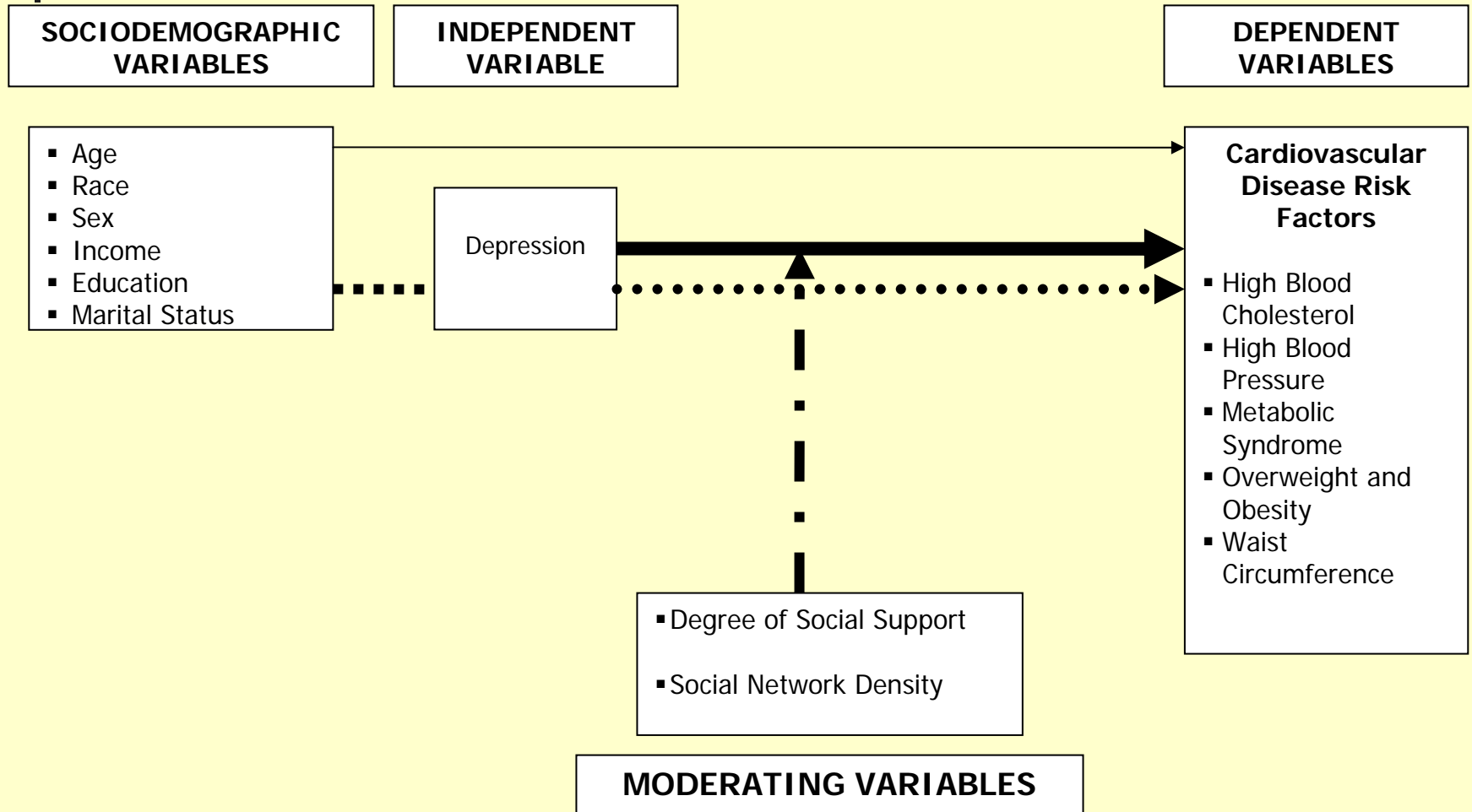
Methods, Measures and Analyses

- Design: Secondary data from cross-sectional study, Project Heart 4
- Setting: High school students and High School graduates of two Baltimore City magnet high schools
- Subjects: N=215 [Respondents (n=194): Adults ages 18-29 years]
- Analyses: Descriptive statistics, bivariate analyses (T and χ^2 testing) and multiple logistic regression.

Analytic Framework 1: Phase One Data Analyses



Analytic Framework 2: Phase Two Data Analyses





Results

- Depression rate was 36% as measured by the CES-D.
- Overall, metabolic syndrome rate was 17.0%.

Clinical Identification of the Metabolic Syndrome – Any 3 of the Following:

Risk Factor	Defining Level
Abdominal obesity Men Women	Waist circumference >102 cm (>40 in) >88 cm (>35 in)
Triglycerides	≥ 150 mg/dL
HDL cholesterol Men Women	<40 mg/dL <50 mg/dL
Blood Pressure	≥130 /85 mmHg
Fasting glucose	≥110 mg/dL

Source: National Heart, Lung and Blood Institute, National Cholesterol Education Program, Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III)

Results: Bivariate Analyses

(T and R^2 Testing)

- Depressed were significantly more likely to:
 - Smoke cigarettes ($p=.02$)
 - Consume greater servings of dairy products ($p=.01$)
 - Not engage in strenuous physical activity ($p=.07$); and
 - Not participate in weight loss/control efforts ($p=.10$).

Results: Multivariate Analyses

(Multiple Logistic Regression (MLR) Modeling)

- MLR analyses (Outcome: Cardiovascular Health Behaviors):
 - The odds of (reference group: non-depressed)
 - smoking cigarettes (OR=.34)
 - consuming greater servings of dairy products (OR=.41)
 - fried foods (OR=.41); and
 - engaging in mild physical activity (OR=2.25) **was significantly higher for depressed individuals.**

- MLR analyses (Outcome: CVD Risk Factors):
 - The odds of (ref. group: non-depressed):
 - Having lower HDL cholesterol levels **was significantly higher for depressed women (OR=.37).**

- Moderation did not occur in any of the models.



Strengths

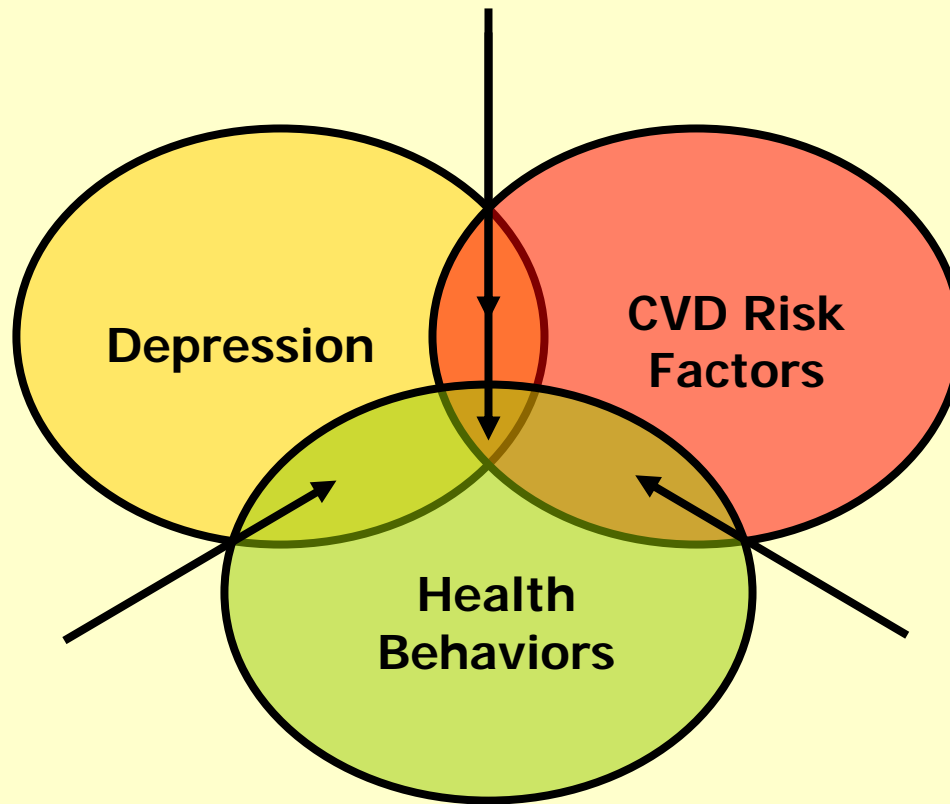
- Provides:
 - Insights into the CVD risk factors in a high risk group of underserved young adults
 - Insights into depression levels among a population where the literature is currently limited
 - Valuable information on the prevalence of selected heart healthy behaviors
 - Insights on the influence of social support and social network density on depression's relationship with selected CV health behaviors and disease risk factors



Limitations

- Cross-sectional study design
- Not generalizable to all young adults
- Limited statistical power
- Threats to the validity of study results:
 - Self-reported measures
 - Social desirability of responses
 - Non-random distribution of unmeasured participant characteristics

Depression and CVD: Implications for Interventions, Research and Policy





Implications for Research, Interventions and Policy

- **RESEARCH**

- Valuable contribution where existing research is limited on an understudied urban population.
- Research of this nature needs to be particularly sensitive to the cultural issues specific to partnering with these communities.

- **INTERVENTIONS**

- Need for primary prevention initiatives (i.e. clinical trials) targeting adolescents and young adults at risk or who have been diagnosed with depression and/or metabolic syndrome.
- Many will require incentives to participate.
- History of mistrust held by the population by both the public health and medical communities.



Implications for Research, Interventions and Policy

■ **POLICY**

- Development of future initiatives for diagnosis and treatment of depression and promotion of cardiovascular health.
- Establishment of community-based and health system policies in partnership with community coalitions, health departments, city governments and the food industry.
- Empowerment of communities to increase political will in an effort to promote sustainability of community-based public health programming.



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THANK YOU
