



# Is There an Association Between Disordered Eating Behaviors & Suicide Ideation Among Adolescent Females Sampled in The National Longitudinal Study of Adolescent Health Wave II?



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## SCOPE OF THE PROBLEM



### YOUTH SUICIDE

- 3rd leading cause of deaths, 15-19 y<sup>1</sup>.
- 2004, 39% of 6th graders reported feeling depressed or sad most days in the year<sup>13</sup>.
- For this study, suicide ideation (SI) is defined as one's wish or threat to die<sup>13</sup>.

### DISORDERED EATING BEHAVIORS

- 2003, 1/12 high school females reportedly vomited or took laxatives to lose or control their weight<sup>2</sup>.
- 15% do not meet the clear DSM criteria for ED<sup>7</sup> - important to examine disordered eating.
- For this study, disordered eating behavior (DEB) is defined as engaging in one or more following behaviors; excessive dieting and/or exercising, vomiting, ingesting diet pills, and ingesting laxatives.



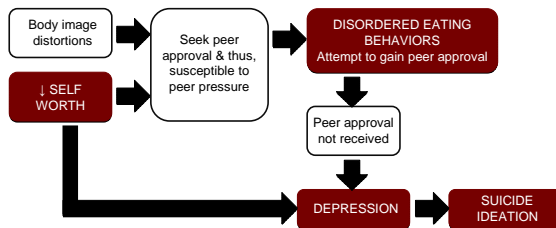
### CO-MORBIDITY OF SUICIDE & EATING DISORDERS

- Greater risk of suicide ideation<sup>4,9</sup>
- Suicide attempts are more prevalent among females with abnormal eating behaviors and strongly correlated with impulsiveness<sup>9</sup>.
- Strong associations between DEB, SI, and suicide attempts<sup>10</sup>.

## STUDY AIMS

- **Primary** – Association between suicide ideation and disordered eating behaviors among adolescent females?
- **Secondary aim** – Association between an index of suicide and disordered eating behaviors among adolescent females?
- Previously addressed, however prior studies had not controlled for depression and self-worth, or their sample was not a representative sample of US adolescents<sup>10</sup>.

## EMPIRICAL MODEL – BASED ON JESSOR'S PROBLEM BEHAVIOR THEORY



Jessor's problem-behavior theory suggests all behavior is the result of person-environment interaction<sup>3</sup>.

## METHODS

### DATA SOURCE

- National Longitudinal Study of Adolescent (Add Health).
- Examines health-related behaviors of adolescents and their outcomes in young adulthood.
- Data collection: Wave I (baseline), II (2 years later), III (6 years later).
- Representative sample of 7<sup>th</sup> to 12<sup>th</sup> graders, 1994-2000.
- Weighted data set
- Data were collected via questionnaires administered in schools and by in-home interviews.
- Audio-CASI software used for suicide and other sensitive questions.

### STUDY PARTICIPANTS

- Wave II
- 6,963 adolescent females, 15-17 y
- Have all Wave II weights available
- Linked Wave I and Wave II variables for: race/ethnicity, and parental education

### DESIGN

- Cross-sectional study uses Wave II Add Health data to examine for associations between suicide ideation and disordered eating behavior among adolescent females.

### MEASURES

#### Suicide:

- Suicide ideation
  - Question: "During the past 12 months, did you ever seriously think about committing suicide?"
  - Responses: yes, no, don't know
- Index of suicidal behaviors
  - Based on a range of suicide behavior questions that reflected increasing suicide risk (ideation, # of attempts, medical attention sought out for attempt) (Thompson & Eggert, 1999).
  - Score range: 0-5 (5 = most severe)

*Disordered eating behaviors: "Underlined responses included in the disordered eating behaviors variable"*

#### Trying to lose weight:

- Question: "Are you trying to lose weight, gain weight, or stay the same weight?"
- Responses: lose weight, gain weight, stay the same weight, not trying to do anything about weight, don't know
- Weight controlling behavior:
  - Question: "During the past 7 days, which of the following things did you do in order to lose weight or to keep from gaining weight?"
  - Responses: dieted, exercised, made self vomit, took diet pills, took laxatives, other
- Extremely low body fat:
  - BMI < 17 + diet and/or exercise (Granillo et al., 2003)

### STATISTICAL ANALYSIS

- Correlation coefficients and odds ratios ; multivariate logistic regression
- Correction for sample selection and design effects<sup>8</sup>
- Covariates (depression, self-worth, race/ethnicity, parental education, age, height, & weight)
- Comparison groups:

- Group I = Suicide ideation (SI) & disordered eating behaviors (DEB)
- Group II = SI only
- Group III = DEB only
- Group IV = Neither SI nor DEB

## RESULTS

### OVERALL SAMPLE OF FEMALES:

- Mean age – 16 years
- Mean height – 64 inches (5ft. 4in.)
- Mean weight – 132 pounds
- Suicide ideation – 13%
- Mean index suicide behaviors – 0.22
- Trying to lose/keep from gaining weight – 46%
  - Dieting – 78%
  - Exercise – 49%

### COMPARISON GROUPS:

- Age:
  - Oldest females – DEB only (Group III)
  - Youngest females – SI only (Group II)
- Highest depression score – SI and DEB (Group I)
- Lowest self-worth score - SI and DEB (Group I)

### ASSOCIATIONS:

- No significant association between suicide ideation and disordered eating behaviors
- Suicide ideation and depression – strongest prior to controlling for depression
- Significant correlations were found among:
  - Depression
  - Self-worth
  - African American

## CONCLUSIONS

- Contrary to previous research, we found adolescent females who exhibit disordered eating behaviors were not at an increased risk for suicide ideation when depression and self-worth are controlled for.
- Females who reported suicide ideation and disordered eating behaviors had ↑depression and ↓self-worth scores.
- Unique role: depression and self-worth
- Weak association between DEB and suicide ideation, may be due to DEB not being severe enough to indicate a diagnosable eating disorder
- Unexpected finding – African American, protective factor

## PUBLIC HEALTH IMPLICATIONS

- Professionals – should incorporate screening for depression into their assessment and care plans when working with adolescent females.
- Better understanding of adolescent suicide and disordered eating behaviors, informing policy and prevention models that address adolescent suicide and eating disorders.

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