Familial Triadic Concordance of Home Environment and Disordered Eating

Katharine Wickel Didericksen, PhD, LMFT; Jerica M. Berge, PHD, MPH, LMFT, CFLE; Peter Hannan, MStat; Steven M. Harris, PhD, LMFT; Richard F. MacLehose, PHD, MPH; Dianne Neumark-Sztainer, PhD, MPH
Study Overview

- Research Questions and Theory
- Review of the Literature
- Methodology
- Results and Discussion
- Questions
Research Questions

- Does discordance exist within the family triads (i.e. mother, father, adolescent) when reporting on home environmental variables (i.e. family functioning, parental encouragement of adolescent dieting)?

- Is the discordance that exists among the family triads on family environmental variables associated with disordered eating behaviors (i.e. unhealthy weight control and binge eating behaviors)?
Concordance and Discordance

- Most of the adolescent literature relies on individual reporters (Maurizi, Gershoff, & Aber, 2012)

- Theoretical Context
- Concordance = Agreement
- Discordance = Disagreement
Theoretical Context

- Family systems theory
  - Relationships between family members sustain problematic behavior, rather than the individual itself
Literature Review
Eating Disordered Behaviors

- High prevalence and damaging consequences (Neumark-Sztainer, Croll, et al., 2002; Neumark-Sztainer, Story, Hannan, Perry, & Irving, 2002).

- Diagnosable in their extreme forms (APA, 2013)

- Related to anxiety, depression, and substance abuse (APA, 2013; Shapira & Courbasson, 2011)

- Associated with parent encouragement to diet, authoritarian parenting style, and low family functioning (Berge, MacLehose, et al., 2015; Meesters, Muris, Hoefnagels, & van Gemert, 2007)
Parental Encouragement of Dieting

- Dieting behaviors
  - Common among adolescents (Armstrong & Janicke, 2012; French, Perry, Leon, & Fulkerson, 1995; Fulkerson et al., 2002)
  - Predictive of body dissatisfaction and disordered eating (Meesters, Muris, Hoefnagels, & van Gemert, 2007)
  - Healthy vs. Unhealthy

- Parental Influence
  - Positive (Bauer et al., 2009; Neumark-Sztainer et al., 2003; Savage, Dinallo & Downs, 2009)
  - Negative (Bauer, Laska, Fulkerson, & Neumark-Sztainer, 2011; Armstrong & Janicke, 2012; Meesters et al., 2007)

- Lack of literature about multiple-report data
Family Functioning

- Family dysfunction (when co-occurring with negative food related experiences) is associated with increased disordered eating (Kluck, 2008)
- Positive family functioning is associated with lower body mass index and higher vegetable intake for adolescents (Berge et al., 2013)

- Little is known about multiple report data
Family Functioning- Discordance

- Discordance may indicate lower family functioning (Chi & Hinshaw, 2002; De Los Reyes and Kazdin, 2005; Ferdinand, van der Ende, & Verhulst, 2004)

- Discordant reporting in parent-child dyads
  - Lower levels of trust, poorer communication, and potential of increased feelings of alienation (Maurizi, Gershoff, & Aber, 2012)
  - Quality of parent-child relationship (regardless of who is reporting) is predictive of internalizing and externalizing behaviors among adolescents (Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Brumariu & Kerns, 2010)
Methods & Analysis
Research Questions

- **Does discordance exist within the family triads** (i.e. mother, father, adolescent) when reporting on home environmental variables (i.e. family functioning, parental encouragement of adolescent dieting)?

- **Is the discordance** that exists among the family triads on family environmental variables **associated with disordered eating behaviors** (i.e. unhealthy weight control and binge eating behaviors)?
Survey and Inclusion Criteria

- EAT 2010 (Eating and Activity in Teens 2010) and F-EAT (Families and Eating Activity in Teens)
  - Linked and population-based studies

Inclusion questions:
1. “Where does your child who participated in Project EAT live?”
   - My child lives only in my home
2. “What is your relationship with the child who participated in Project EAT?”
   - Mother or Father
Sample and Demographics

- Full sample ($N = 2793$, teens; $N = 3709$, caregivers)
- Current study sample ($n = 883$, teens; $n = 1766$, parents)
- Parents ($n = 1766$)
  - Gender/Parenting Role: Mother 50%, Father 50%
  - Race
  - Household Income
  - Education level
  - Marital status: 93.09% married

Adolescents ($n = 883$)
- Gender: 46.32% Male, 53.11% Female
- Race: 27.9% White, 13.9% Black/African American, 21.5% Hispanic/Latino, 27.6% Asian American, 8.6% Other
- Grade: Middle School 46.32%, High School 53.11%
- Unhealthy weight control behaviors
  - Yes 40.77%
- Binge eating behaviors
  - Yes 13.93%
Measures

Family Functioning
- Family Assessment Device (Epstein, Baldwin, & Bishop, 1983; Miller, Epstein, Bishop, & Keitner, 1985)

Eating Disordered Behaviors
- Unhealthy weight control behavior
  - “Have you done any of the following things in order to lose weight or keep from gaining weight during the past year?”
- Binge eating behavior
  - “In the past year, have you ever eaten so much food in a short period of time that you would be embarrassed if others saw you (i.e. binge eating)?”

Parental Encouragement of Dieting
- Adolescents
  - “My [mother] encourages me to diet to control my weight.”
- Parents
  - “To what extent do you encourage your child to diet to control his/her weight?”
    - Not at all, a little bit, somewhat, or very much
Statistical Analysis

- We fit 2 separate Poisson regression models
  - Estimates relative risks of each dichotomous outcomes
  - Models were adjusted for the adolescent’s sex, race, grade level, BMI percentile, and parental socioeconomic status
Results & Discussions
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<th>Encouragement of Dieting</th>
<th>Frequency (n)</th>
<th>Unhealthy Weight Control Behavior</th>
<th>Binge Eating</th>
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Discussion : Encouragement of Dieting

- Adolescents in **concordant triads** (where all agreed that encouragement of dieting was happening) were more **likely to engage in eating disordered behaviors**.

- Adolescents in **discordant triads** (where at least one or two triad members agreed that encouragement of dieting was happening and the others disagreed) were **more likely to engage in unhealthy weight control behaviors**.

- Previous literature shows that parental encouragement of adolescent dieting is associated with increased preoccupation with food (Armstrong & Janicke, 2012) and higher disordered eating behaviors (Meesters et al., 2007) in adolescents.

- **Extend prior research** by showing that if even one family member believes parental encouragement of dieting is occurring it may increase the risk of adolescent eating disordered behaviors.
Discussion: Family Functioning

- Significant findings emphasize the **importance of concordance on high family functioning**.

- Concordant triads with high family functioning had adolescents who reported disordered eating behaviors as compared to discordant triads where adolescents endorsed low family functioning and both parents endorsed high family functioning.

- **Consistent with previous literature** in that higher family functioning is associated with less disordered eating in adolescents (Berge et al., 2014), and lower family functioning is associated with more disturbed eating attitudes and higher levels of body dissatisfaction in adolescents (Blackmer, Searight, & Ratwik, 2011; Kluck, 2008).

- Findings **extend previous literature by supporting Family Systems Theory** which indicates that family-level behaviors can positively or negatively influence individual level behaviors (e.g., binge eating; Bateson, 1972; von Bertalanffy, 1968).
Considerations

STRENGTHS

- Large, socioeconomically and ethnically/racially diverse, population-based sample and the high response rates
- Collection of unique independent self-reports of mothers, fathers, and adolescents
- Triadic reporting and analyses has rarely been done in large population-based studies.

LIMITATIONS

- Limited survey questions that all three family members answered
- Did not include parent modeling of unhealthy weight control behaviors
- Limit on the precision of results (small group size)
- Associations for binge eating were relatively imprecise (i.e., large confidence intervals)
- Limits for external validity with different family structures
Implications

RESEARCH

- Multi-report data may be useful for future research
  - Improving the understanding of unhealthy weight control behaviors and binge eating among adolescents in the home environment
  - Findings from the current study suggest that having a single member of the family report about home environment factors may not be enough.

PRACTICE

- Promote high family functioning, discourage parental encouragement of dieting
- Promote open communication (Treasure & Schmidt, 2013)
- The Maudsley method works to improve parental communication and perspective taking
  - Supportive multi-family member approaches and discourages parental encouragement of dieting (Treasure, Smith, & Crane, 2017)
- Family-Based Treatment may be a way to support parents
Questions?

References


References


