Predictors of Cooperative and Externalizing Behaviors in Siblings of Children with Disabilities

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Background

• Increasing number of families raising children with disabilities (CWD)

• Families face unique challenges
  – quality of life
  – parenting practices and stress
  – caregiving demands

• Siblings
  – Susceptible to stressors: social impacts, parental time constraints, relationship challenges, poor outcomes
Family Systems Theory

- Interdependent
- Behavior related not only to oneself, but also to the behavior and interactions of other individuals and subsystems in the family
- Connection between variables is critical in predicting TDS outcomes

(Allen, 2007)
Predictors of Typically Developing Sibling (TDS) Outcomes

• Caregiver Burden

• Parenting Style

• Sibling Relationships
Caregiver Burden

• Different when raising a CWD
  – Parents experience increased caregiver burden when raising CWD, especially since care may be long-term

• Definition:
  – perceived stresses and impact associated with caring for a CWD

• Affected by:
  – CWD’s developmental delays, health complications, and cognitive/physical/behavioral impairments
Parenting Style

- Definition: the normative patterns of behavior and strategies parents use to socialize their children

<table>
<thead>
<tr>
<th>Parenting Characteristic</th>
<th>Authoritative</th>
<th>Authoritarian</th>
<th>Permissive</th>
<th>Uninvolved</th>
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<tbody>
<tr>
<td>Demandingness</td>
<td>High</td>
<td>High</td>
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</tr>
<tr>
<td>Responsiveness</td>
<td>High</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
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</table>
Sibling Relationships

• Integral part of child development
• First, most intense, and longest peer relationship
• Protective effect of sibling affection regardless of parent-child relationship quality
Sibling Outcomes

• Mixed in families raising a CWD and a TDS
• Negative: increased behavioral issues, social difficulties, poor academic performance
• Concerns: Missed social experiences, stigma, worry for parent and sibling, disability by association
• Positive: Helpful behaviors, self respect, empathy, kindness, involvement, cooperation, self-control
Limitations of Past Research

• Little research includes both mothers’ and fathers’ parenting style or reporting

• None that includes caregiver burden, parenting style, sibling relationships, and TDS outcomes in one model
Purpose/Aims

- Examine whether caregiver burden, parenting style, and sibling relationships in families raising a child with a disability (CWD) predict cooperative and externalizing behaviors in typically-developing sibling (TDS)
Purpose/Aims

Specifically examine:

1. Differences between mothers’ and fathers’ perceptions
2. Relationship between caregiver burden and TDS outcomes
3. Effects of caregiver burden on TDS outcomes if parenting style is added as a predictor
4. Which variable is the best predictor of TDS outcomes once sibling relationships are included
Sample

• 189 families:
  – recruited through conferences and home-based early intervention programs
  – Had at least one CWD and one TDS

• CWD:
  – Autism; 33.3% (n=63)
  – Down syndrome; 22.8% (n=43)
  – Other disabilities; 27% (n=51)
  – Multiple disabilities; 16.9% (n=32): both cognitive and physical disabilities
Procedures & Measures

• Parents completed self-report questionnaires independently
  – Mothers: demographic questionnaire
  – Both parents
    • Modified Caregiver Strain Index (Robinson, 1983)
    • Parenting Practice Report (Robinson, Mandleco, Olsen, & Hart, 1995)
    • Sibling Inventory of Behavior (Schafer & Edgerton 1981)
    • Social Skills Rating System (Gresham & Eliot, 1990)
  – Parents received a $20 gift card for participation
Modified Caregiver Strain Index

• Parents rated 13 items on how much hassle (1= *No hassle*, 4= *Big hassle*) related to caring for the CWD
  – Items summed; mean score calculated

• Example:
  – “Feeling overwhelmed at all there is to do in caring for my children.”

• Reliability:
  – Cronbach’s alphas: hassle of the burden; 0.88 for mothers and 0.86 for fathers.
Parenting Practice Report

• Parents rated their own parenting behavior on a Likert scale (1=Never) (5=Always) for each item

• Examples:
  – “I use physical punishment as a way of disciplining our child.” (authoritarian)
  – “I emphasize the reasons for rules.” (authoritative)

• Reliability: Cronbach’s alphas
  – Authoritative parenting: 0.85 for mothers and 0.89 for fathers
  – Authoritarian parenting: 0.81 for mothers and 0.87 for fathers
Sibling Inventory of Behavior

- Evaluates relationships between TDS and CWD
  - Four areas: kindness, involvement, empathy, and avoidance; (1 = never, 5 = always)
  - For each subscale, items summed; mean score calculated

- Total Sibling Relationship Score (TSRS) served as indicator of a positive sibling relationship

- Reliabilities: Cronbach’s alphas
  - TSRS; 0.95 for both parents
Social Skills Rating System

• Assesses child functioning in two broad domains:
  – social skills (cooperation)
  – problem behaviors (externalizing)

• Parents rated questions/statements about the TDS using a Likert scale ranging from 1=Never to 7=Always.

• Reliably: Cronbach’s alphas
  – Mothers: externalizing 0.81 and cooperation 0.79
  – Fathers: externalizing 0.77 and cooperation 0.84
Analysis

• Descriptive Statistics
• MANOVAS
• Correlation
• Multiple Hierarchical Regression
## Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mothers’ Ratings</th>
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<td>M</td>
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<td>0.25-2.00</td>
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</table>
MANOVAS

• Analysis:
  – Type of disability, gender of the CWD, and gender of TDS

• Results:
  – No significant differences in maternal or paternal ratings of sibling externalizing or cooperation by disability type or CWD gender.
  – The only significant MANOVA finding was mothers rated female siblings ($M = 1.31$) significantly more cooperative ($F = 2.89; p = 0.005$) than male siblings ($M = 1.13$).
Results: Correlations
Externalizing

<table>
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<tr>
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</table>

* $p < 0.05$ (2-tailed)  ** $p < 0.01$ (2-tailed)

- **Less** TDS externalizing behaviors with authoritative parenting, positive sibling relationships
- **More** TDS externalizing behaviors with higher caregiver burden, authoritarian parenting
Results: Correlations
Cooperation

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<tr>
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* $p < 0.05$ (2-tailed)  ** $p < 0.01$ (2-tailed)

- **Less** TDS cooperation with higher caregiver burden, authoritarian parenting
- **More** TDS cooperation with authoritative parenting, positive sibling relationships
Hierarchical Regression: Externalizing

<table>
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<tr>
<th>Model</th>
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<td><strong>Father</strong></td>
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<td>-.30**</td>
<td></td>
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- Model 1: Caregiver burden significant
- Model 2: Authoritarian parenting is a significant predictor of externalizing behaviors
- Model 3: Sibling relationships added, authoritarian parenting and sibling relationships significant

* $p < 0.05$ (2-tailed)  ** $p < 0.01$ (2-tailed)
Model 1

Caregiver Burden

+ 

TDS Externalizing
Model 2

Authoritarian Parenting

Caregiver Burden +

TDS Externalizing

Authoritative Parenting -
Model 3

Authoritarian Parenting
+  
Authoritative Parenting
−

Caregiver Burden
+

Sibling Relationship
−

TDS Externalizing

BYU College of Nursing
Hierarchical Regression: Cooperation

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- Model 1: Caregiver burden significant
- Model 2: Parenting styles were added, authoritative parenting became significant predictor
- Model 3: Sibling relationships were added, became the lone significant predictor
Model 1

Caregiver Burden

TDS Cooperation
Model 2

- Authoritarian Parenting
- Caregiver Burden
- Authoritative Parenting

TDS Cooperation

BYU College of Nursing
Model 3

- Authoritarian Parenting
- Authoritative Parenting
- Caregiver Burden
- Sibling Relationship

TDS Cooperation

+ = Positive
- = Negative
Discussion

- Increased caregiver burden is associated with negative TDS outcomes

- Parenting Style:
  - Authoritarian Parenting ➔ Externalizing
  - Authoritative style ➔ Cooperation
  - Caregiver burden insignificant

- Positive sibling relationships:
  - most consistent predictor of both TDS outcomes
Limitations

- Convenience sampling
- Same geographical area
- Predominantly Caucasian, middle-class, two-parent, well-educated homes
- Cross-sectional
Future Research

- Larger more diverse sample
- Different geographical areas
- Follow longitudinally
- Effects of caregiver burden on parenting style (interaction term of caregiver burden and parenting style)
- Effects of TDS behavior on caregiver burden (TDS outcomes as predictors of caregiver burden)
Implications

• Positive sibling relationships were most predictive of TDS behaviors based on reporting by both parents

• Educate parents and providers
  – How to foster positive sibling relationships with CWD
  – Family-based intervention programs should include TDS
Sibling Relationships Matter

Thank You!

Questions?