



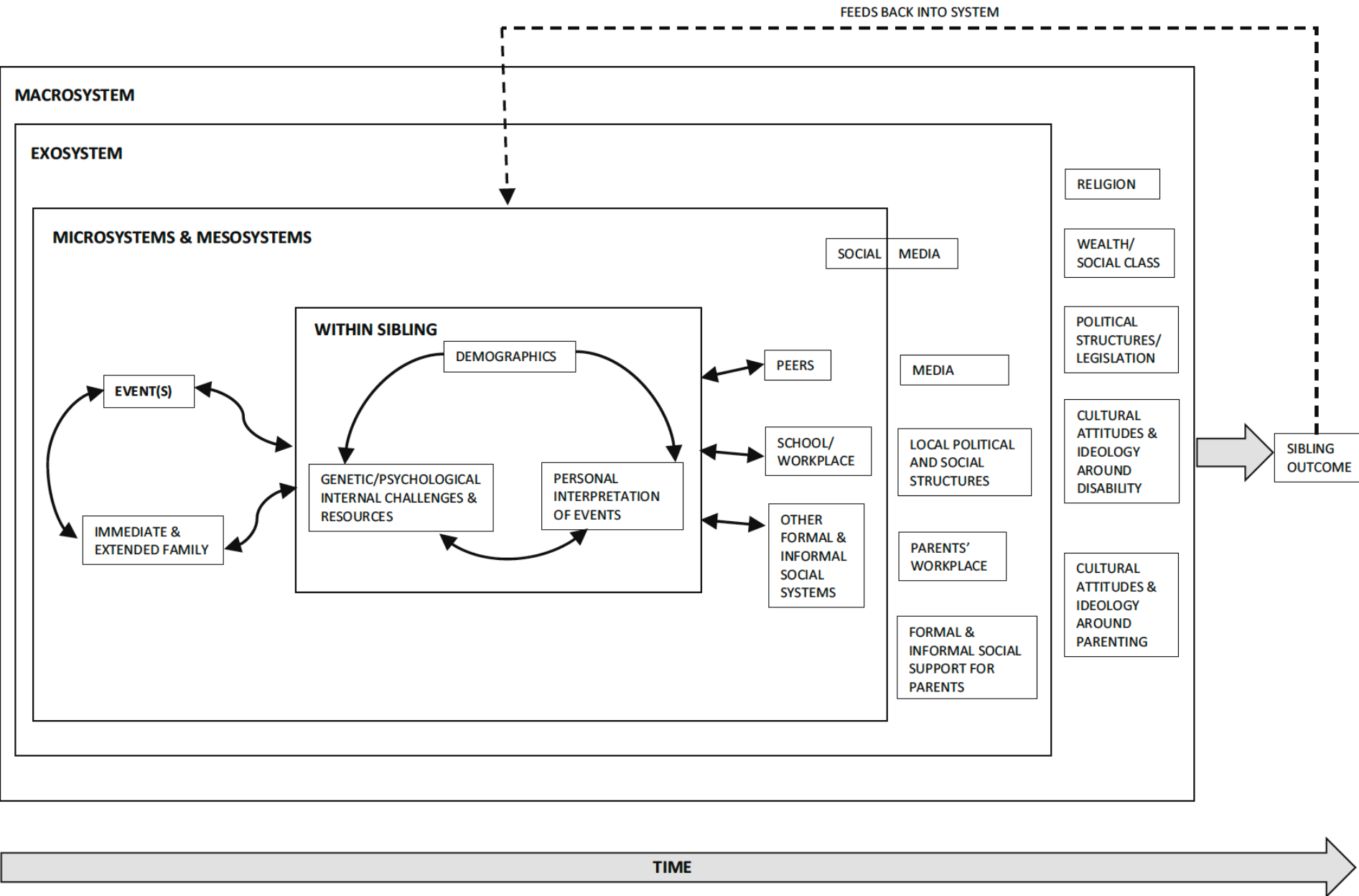
# FROM THE LAB TO THE LIVING ROOM: INVOLVING SIBLINGS OF INDIVIDUALS WITH AUTISM SPECTRUM DISORDER

CAROLYN M. SHIVERS, PH.D.



# AGENDA

- Models
- Research
  - Overall research
  - Stress among siblings
  - Siblings as interventionists
- Examples and tips



# EXISTING SIBLING RESEARCH

- Many studies of “baby sibs”
- Multiple outcomes studied
- “Findings are mixed”





# Functioning Among Typically Developing Siblings of Individuals with Autism Spectrum Disorder: A Meta-Analysis

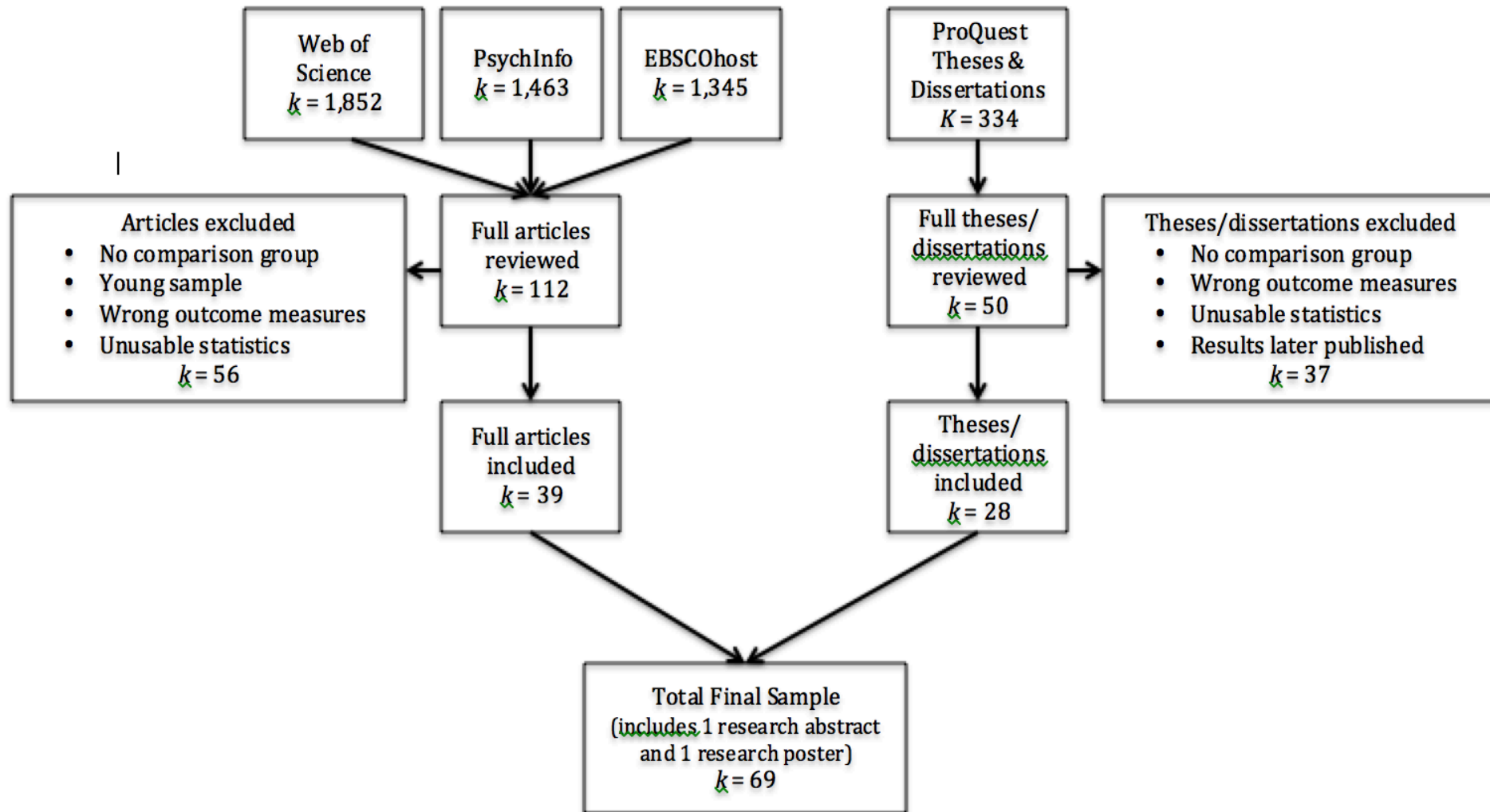
Carolyn M. Shivers<sup>1</sup> · Jeffrey B. Jackson<sup>2</sup> · Casey M. McGregor<sup>3</sup>

# META-ANALYSIS

- Are typically-developing siblings of individuals with ASD more likely to have poor social, emotional, psychological, or behavioral outcomes than other neurotypical populations?

# META-ANALYSIS

- Statistical synthesis of existing quantitative results
  - Effect size-based
  - Studies must have a comparison group
    - Must provide sufficient data (sample size, statistical results, etc.)
  - Effect size (*Hedges' g*) is calculated for each study based on sample size, spread of data, and strength of original result





# OUTCOMES AND MODERATORS

## ■ Outcomes

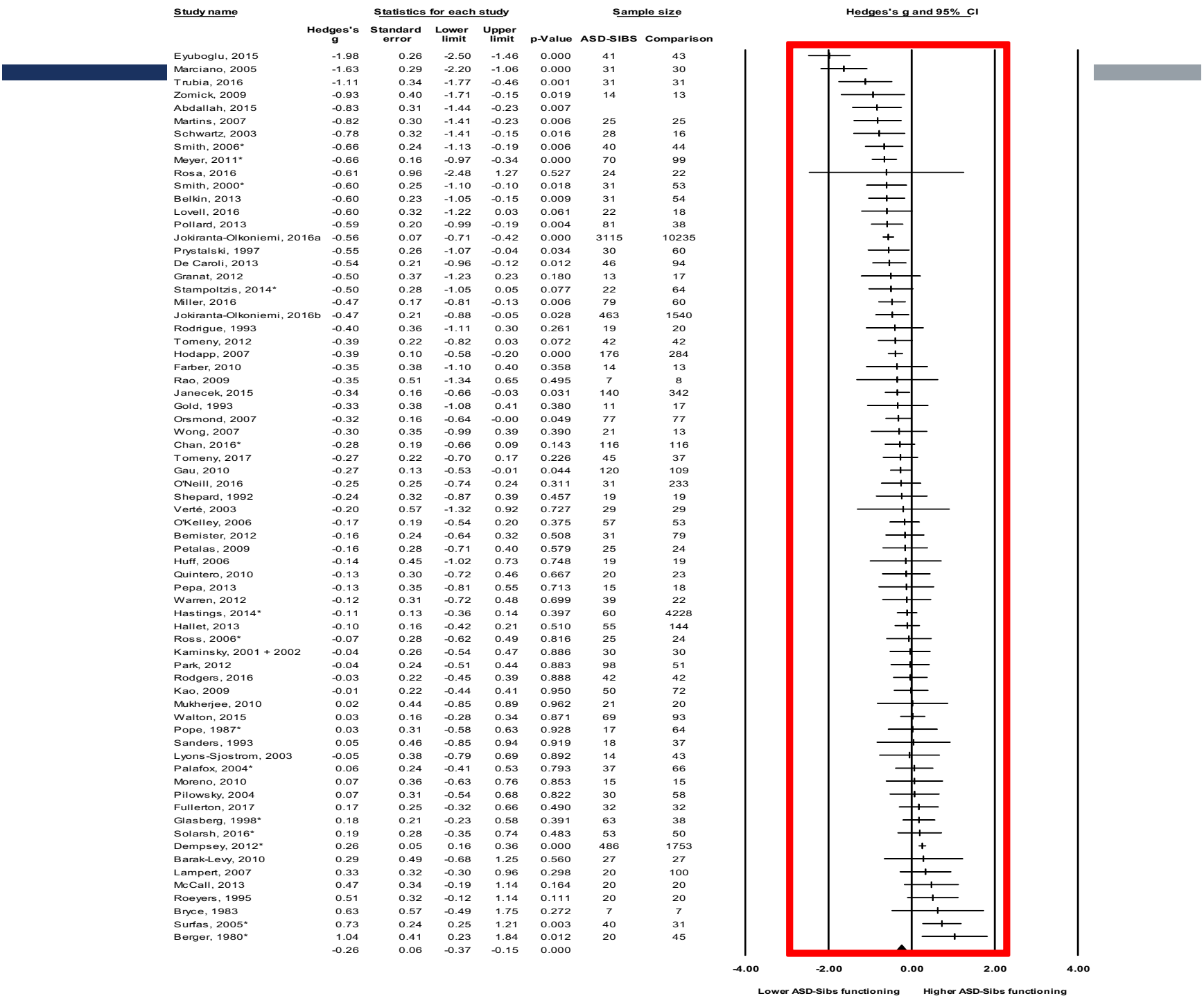
- Adjustment
- Behavior problems\*
- Beliefs
- Coping
- Family functioning
- Psychological functioning\*
- Sibling relationship
- Social functioning

## ■ Moderators

- Comparison group
- Reporter
- Sample age
- Nationality
- Report status
- Measure type

# OUTCOMES

- Behavior problems
  - Measured continuously
    - Internalizing
    - Externalizing
    - ADHD/hyperactivity
- Psychological functioning
  - Measured diagnostically (often Yes/No)
    - ADHD
    - Anxiety/depression
    - Behavior problems



# RESULTS

- Overall, ASD-Sibs had:
  - More internalizing problems
  - More negative beliefs about disability
  - Higher levels of ADHD, anxiety/depression, and externalizing behavior symptoms
  - Poorer sibling relationships
  - Poorer social skills

# NOTES

- "On average" does not mean "for everyone"
- Many studies did not include information on age, gender, or other potentially meaningful characteristics
- Studies did not examine causes of these outcomes

*Original Article*



# **Self-reported stress among adolescent siblings of individuals with autism spectrum disorder and Down syndrome**

**Carolyn M Shivers, Casey McGregor and Ashlea Hough**

Autism

1–11

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# METHODS

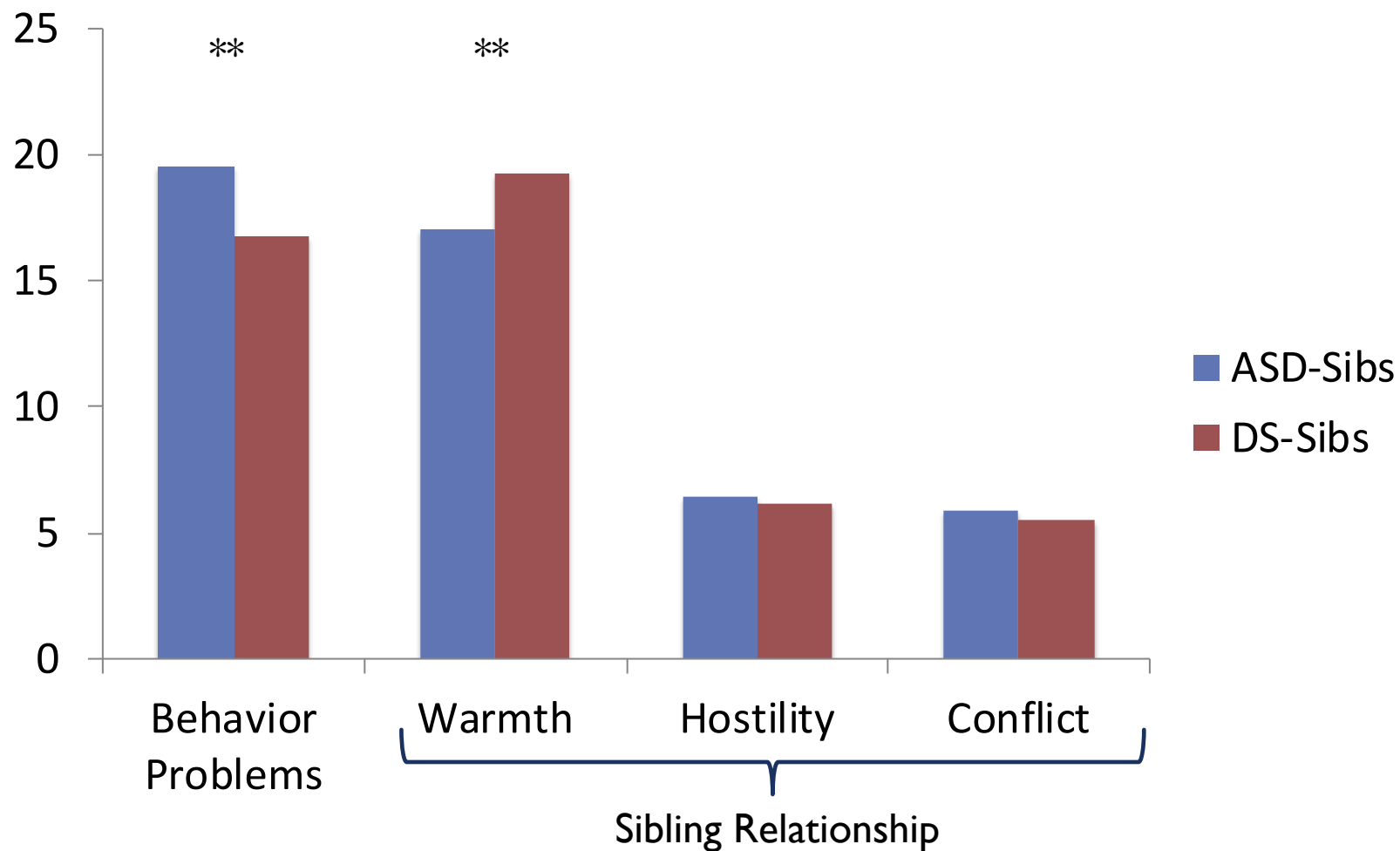
- Online survey
  - Overall stress
  - Specific sources of stress
    - Academics, extracurricular activities, social life, significant other, family, brother/sister, general environment, personal health
  - Perceived social support
  - Sibling relationship
  - Behavior problems of the child with ASD

# SAMPLE

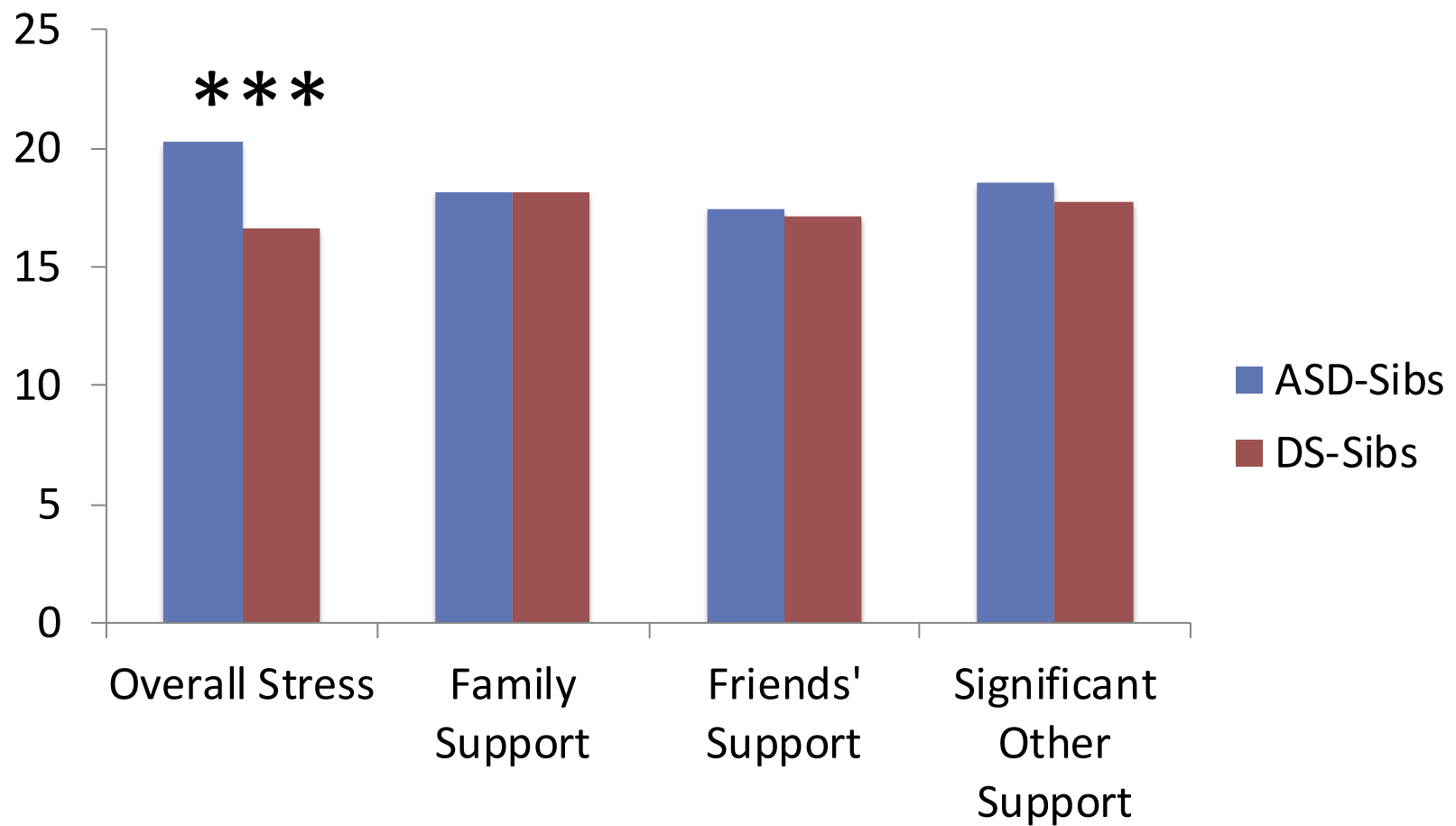
- Adolescents aged 12-18
  - 116 ASD Sibs (mean age = 15.00)
    - Brother/sister mean age = 14.78
  - 99 Down syndrome Sibs (mean age = 14.87)
    - Brother/sister mean age = 11.82



# RESULTS



# RESULTS



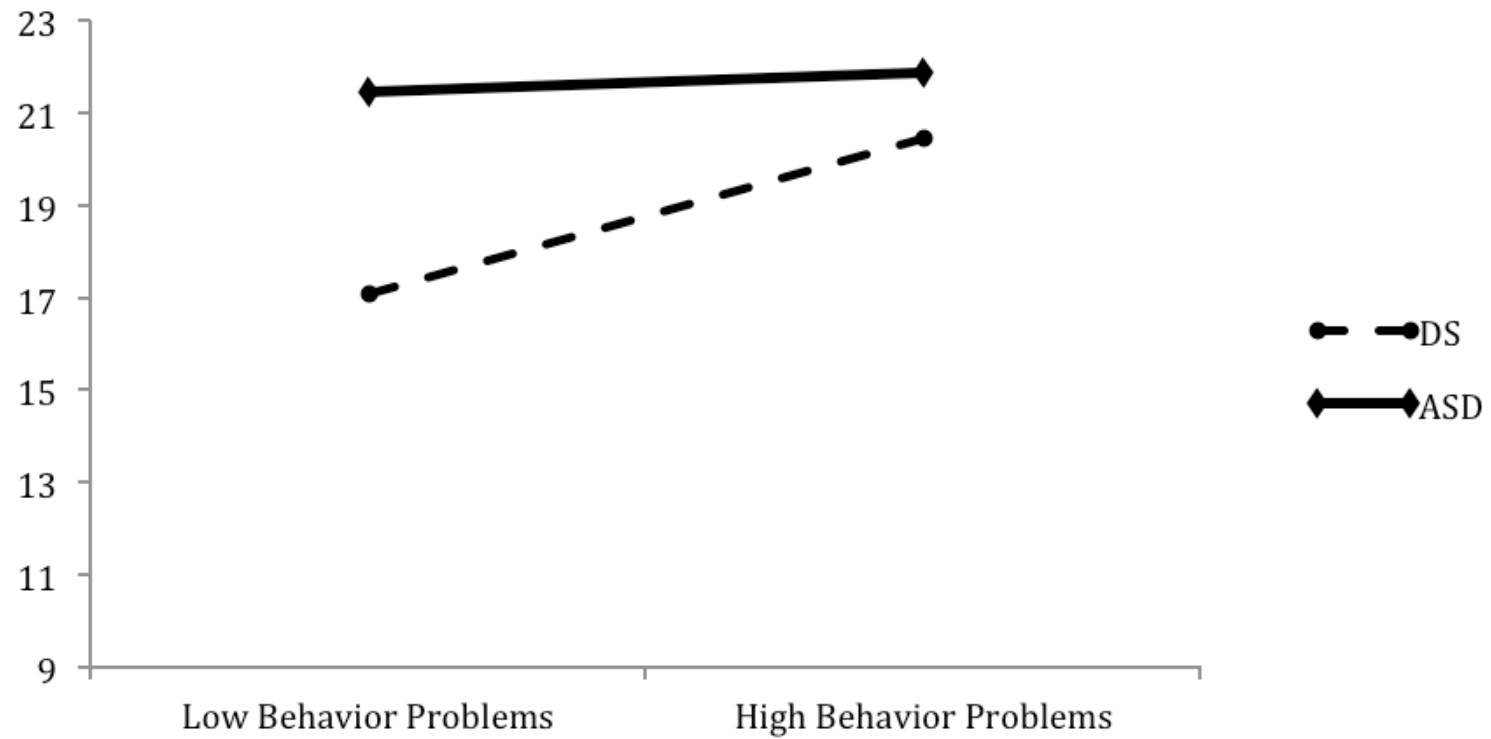
## INDIVIDUAL STRESSORS

- ASD-Sibs reported more stress due to their brother/sister
- DS-Sibs reported more stress due to extracurricular activities
- Both groups reported the highest levels of stress due to academics

## TOTAL MODEL

- Brother/sister behavior problems were related to higher stress
- Family support was related to lower stress
- \*\*Group membership was related to stress

# STRESS BY BEHAVIOR PROBLEMS



J Autism Dev Disord  
DOI 10.1007/s10803-014-2222-7

ORIGINAL PAPER

# **Sibling Involvement in Interventions for Individuals with Autism Spectrum Disorders: A Systematic Review**

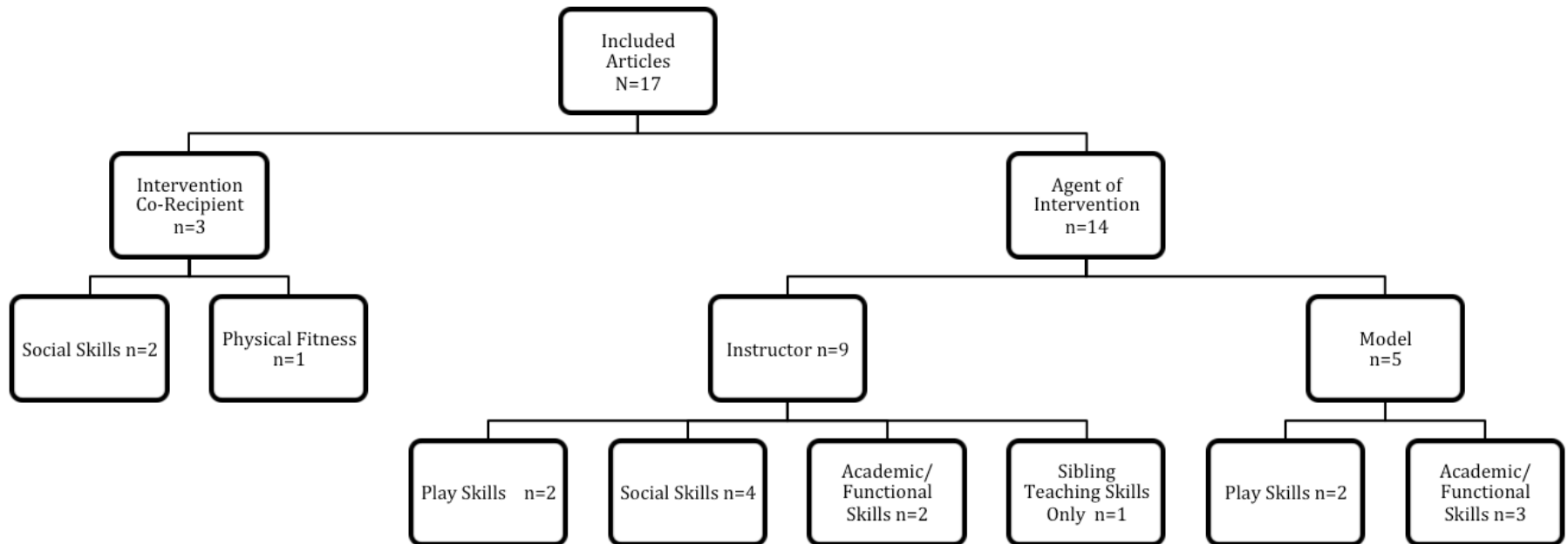
**Carolyn M. Shivers · Joshua B. Plavnick**

# SIBLING INVOLVEMENT IN INTERVENTIONS

- Interventions for the sibling
  - Not rigorously studied
- Interventions for the child with ASD
  - 17 peer-reviewed studies since 1977



# SIBLING INVOLVEMENT IN INTERVENTIONS





# SIBLING INVOLVEMENT IN INTERVENTIONS

- Outcomes for individuals with ASD
  - 15 out of 17 reported improvements in the targeted skills
- Outcomes for the sibling
  - 9 reported sibling outcomes
  - Only 3 reported non-procedural outcomes
- No replication



# EXAMPLES AND TIPS

# EXAMPLES

- Younger brother, age 7
  - “You’re still gonna hang out with me, right?”
- Younger brother, age 15
  - “The way our family functions...is more tailored to her”
- Mom (older son, age 10)
  - “We wanted his life to be as normal as possible”

# SUGGESTIONS

- Talk!
  - Don't assume you know what the sibs want
- Plan ahead
  - All transitions for everyone can be challenging – make sure you discuss expectations
- Take care of yourself
  - Parent-focused parentification can be challenging (Tomeny, Barry, Fair, & Riley, 2017)

# THANK YOU

- Study participants and their families
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# QUESTIONS?