

# Aggression and Bullying Subtypes among Young Children: Risk Factors, Assessment, and Treatment

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# Overview

- Definitions and Background
- Risk Factors for Aggression and Bullying in EC
- Intervention Efforts and Implications
- Questions/Discussion

# Definitions

- Aggression: The intent to hurt, harm or injure another person (Coie & Dodge, 1998)
- Physical Aggression: Using physical force or threat of physical acts to hurt or harm.
  - Ex: Hit, Kick, Bite, Punch, Push, Take Toys/Property from others.

# Toward a Gender-Balanced Approach

- Studies should include multiple forms of aggressive behaviors to understand problems of both boys *and* girls.
- Physical Aggression
- **Relational Aggression**: Using the removal or threat of the removal of the relationship as the vehicle of harm
  - Ex: Malicious gossip, rumors, & lies, Exclude from play/group; Ignore (Silent treatment).
    - Direct: “You can’t come to my birthday party” or “You are not my friend anymore”
    - Covert: Spreading malicious rumors through a third person

# Bullying in Early Childhood

- ✓ Aggression

- Takes several forms

- ✓ Power Imbalance

- ✓ Usually Repetition (or fear of)



CDC Uniform  
Definition

- 
- Usually Proactive (goal oriented)

# Bullying

- What is it not?
  - Not all aggression is bullying.
    - Not reactive
    - Not among friends (equal status peers)

# Bullying in EC?

- We know that Bullying does exist at the same rate in kindergarten relative to older school age children
- Bullying does exist in preschool classrooms and there is even evidence that children will take on the role of “defenders” of the victim in EC (Belacchi & Farina, 2010)



# Bullying in Early Childhood: Webisodes

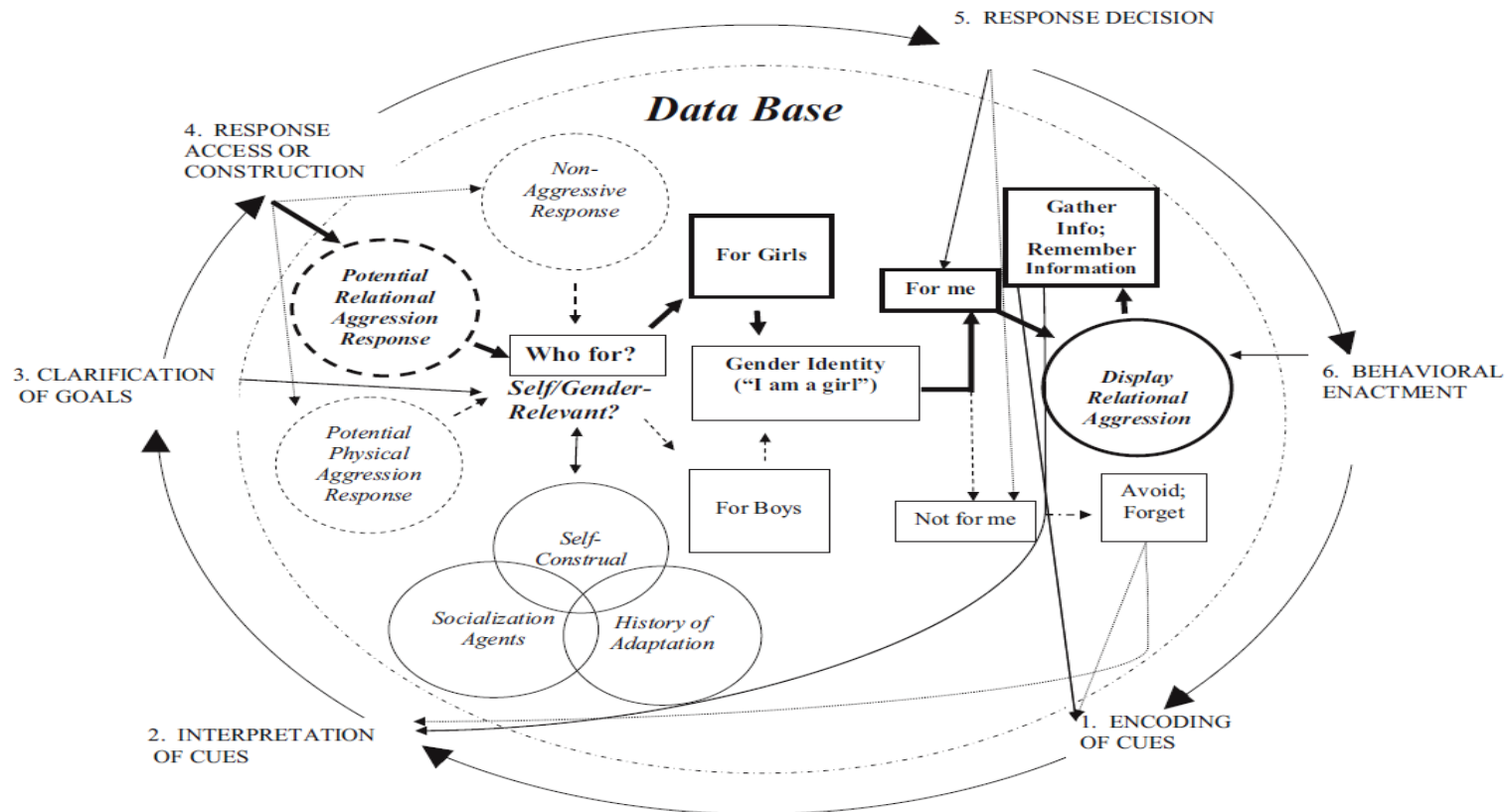
**StopBullying.gov** is an official U.S. Government Web site managed by the [Department of Health & Human Services](#) in partnership with the [Department of Education](#) and [Department of Justice](#)

# Bullying in the webisodes?

- ✓ Aggression
- ✓ Power Imbalance
- ✓ Usually Repetition (or fear of)

# Toward an Integrated Gender-Linked Model of Aggression Subtypes in Early and Middle Childhood

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*Figure 1.* Gender-linked model of aggression subtypes. This model is based on the Schematic Processing Model of Sex Role Stereotyping (solid squares; from “A Schematic Processing Model of Sex Typing and Stereotyping in Children,” by C. L. Martin and C. F. Halverson, 1981, *Child Development*, 52, p. 1121. Copyright 1981 by the Society for Research in Child Development. Adapted with permission) and the Social Information-Processing Model of Children’s Social Adjustment (from “A Review and Reformulation of Social Information Processing Mechanisms in Children’s Social Adjustment,” by N. R. Crick and K. A. Dodge, *Psychological Bulletin*, 115, p. 74. Copyright 1994 by the American Psychological Association. Adapted with permission). Portions of the original models are not shown for ease of communication. Components in italics are additions to the models.

# Developmental Antecedents: Examples

- Temperament
  - Surgency/Extroversion (Russell et al., 2003)\*
  - Impulsivity/Hyperactivity (Ostrov & Godleski, 2008)
- Social-Cognitive
  - Language (Mixed findings; see Bonica et al., 2003; Estrem, 2005)\*
  - HAB (e.g., Crick et al., 2002)
- Parent-Child
  - Attachment Patterns (Casas et al., 2006)\*
  - Parenting Styles: Psychological Control, Authoritarian, Material Coercion (see Brown et al., 2007\*; Casas et al., 2006; Nelson et al., 2006\*)
- Sibling Rx
  - Stauffacher & DeHart (2006)
  - Ostrov et al. (2006)
- SES
  - McNeille-Choque et al., 1996\* & Bonica et al., 2003\*
  - Dhami et al. (2005)\*: Poverty for girls predicted increases in Rvict (during 1<sup>st</sup> grade)
- Media
  - Ostrov et al., (2007, 2013)

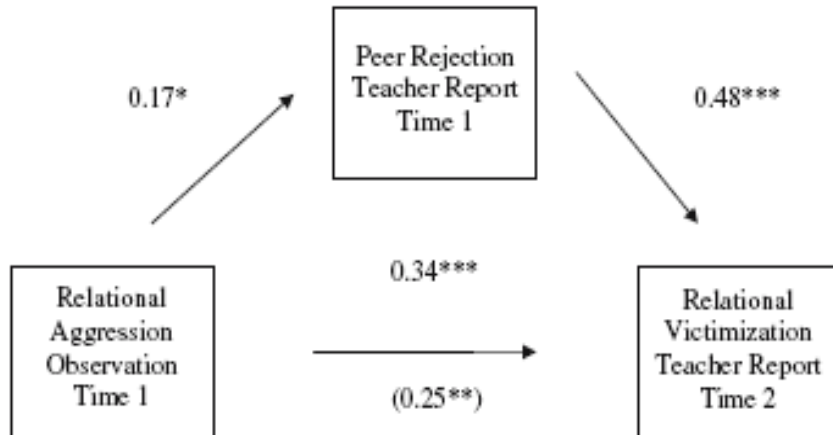
\* Concurrent

# Process or mechanisms of change

- How do we become aggressive or victimized?
- Social Process Model suggests that children become victimized by becoming rejected by our peers and that makes them an easy target (Boivin et al., 2001; see also Bierman, 2004).

Aggression → Peer Rejection → Peer Victimization

# Relational Aggression ↔ Relational Victimization



Note. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

Fig. 1 Peer rejection as a mediator of relational aggression and future relational victimization

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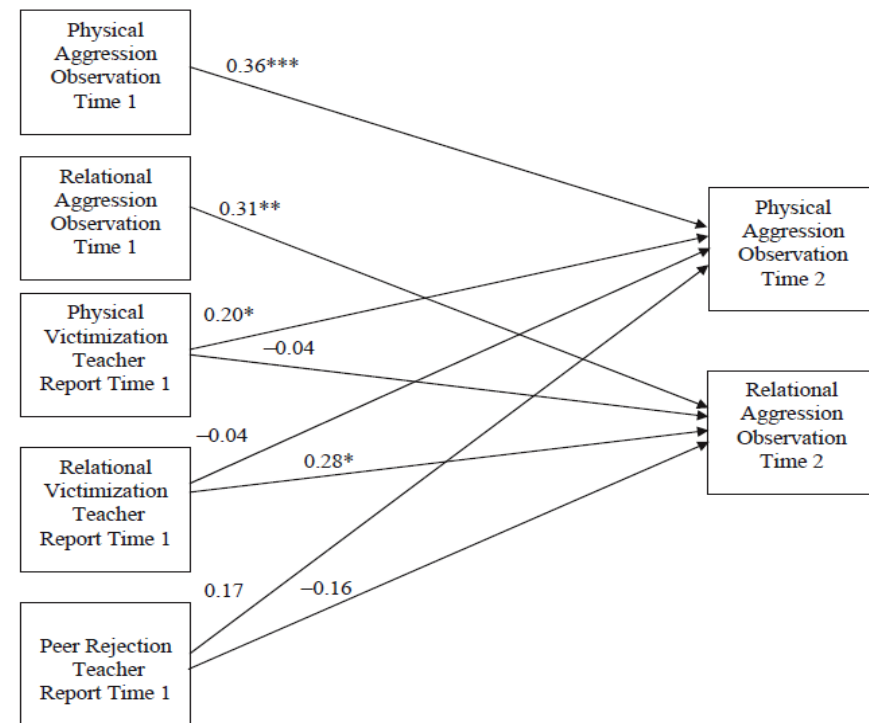


Figure 1. Path analysis model predicting changes in observed physical and relational aggression.

Note. Standardized path coefficients are shown. Covariance paths (see text) and disturbances, as well as the covariate age, are not shown for ease of communication. The model fit was acceptable,  $\chi^2(5) = 6.36$ ,  $p = .27$ ; root mean square error of approximation = .053, standardized root mean square residual = .037, comparative fit index = .99.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

# Home-School Link

- Good evidence suggesting that home environment matters a great deal!
- Casas et al. (2006, JACP)
  - Authoritarian → RAGG (boys & girls)
  - Psych Control → RAGG (girls)
- Sibling Rx and aggression at school (Ostrov et al. 2006, JADP)
- Parent-child conflict and aggression at school (Ostrov & Bishop, 2008, JECP)

# Power Rangers Study

Boyatzis et al. (1995) *Child Study Journal*

- Investigated effects of "The Mighty Morphin Power Rangers," on children's aggressive behavior.
- 26 boys and 26 girls (aged 5-11 yrs) were shown the Power Rangers or assigned to a control group.
  - The number of aggressive acts by each child was recorded in a 2-min interval.

## Results:

- Ss who watched Power Rangers committed more aggressive acts per interval than did controls.
- For every aggressive act by control Ss, there were 7 by Power Rangers Ss.
- Boys committed more aggressive acts than girls.



# Media and Aggression during Early Childhood

Ostrov, Gentile & Crick (2006) Social Development

- 76 preschoolers (38 girls)
- Observations of Pagg and Ragg (4 times)
- Media Exposure parental surveys (T2)
- Results:
  - Children watched on average 11.83 hrs/wk
    - Most TV was educational
  - For girls hours watching TV correlated with Ragg
  - Educational Media associated w/future Ragg for girls
  - Educational Media associated w/future dec Pagg for all kids
  - Parental monitoring associated with decreased in future physical aggression

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# Media Exposure, Aggression and Prosocial Behavior During Early Childhood: A Longitudinal Study

Jamie M. Ostrov, *University at Buffalo, The State University of New York*, Douglas A. Gentile, *Iowa State University and National Institute on Media and the Family*, and Nicki R. Crick, *University of Minnesota, Twin Cities Campus*      *Social Development*, 15, 4, 2006

- Relational Aggression is modeled at high rates on many “educational programs”. Modeling the content & not learning lesson at the end of the show

# Evaluating the effect of educational media exposure on aggression in early childhood<sup>☆</sup>

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*Journal of Applied Developmental Psychology* 34 (2013) 38–44

- 47 children in early childhood
- 3 time points
- Observations of Aggression at Times 1 & 2
- Teacher Reports of Aggression at Times 1 & 2
- Parent Reports of Aggression at T3
- Parent Reports of Media Exposure at Times 1 & 2

## The New York Times

2/18/13

# Ostrov et al. (2013)

- EMI predicts increases in relational aggression
  - Observations
  - Teacher Reports
- EMI predicts increases in relational aggression over 2 years later
  - Parent Reports

**Table 2**

Hierarchical multiple regressions: Associations between educational media exposure and aggressive behavior at Time 2.

Outcome, step, predictors	$\beta$	$F, \Delta F$	$R^2, \Delta R^2$
<b>I. Relational aggression T2 (O)</b>			
1. Gender	.06	$F(5, 33) = 1.25, n.s.$	.159
Age	.20		
SES	-.07		
Relational aggression T1 (O)	.28		
Physical aggression T1 (O)	.07		
2. EME T1 (parent report)	.34*	$\Delta F(1, 32) = 4.41, p = .04$	.102
<b>II. Physical aggression T2 (O)</b>			
1. Gender	-.28	$F(5, 33) = 4.51, p = .003$	.406
Age	-.24		
SES	.16		
Relational aggression T1 (O)	.37*		
Physical aggression T1 (O)	.35*		
2. EME T1 (parent report)	.14	$\Delta F(1, 32) = 0.94, n.s.$	.017
<b>III. Relational aggression T2 (TR)</b>			
1. Gender	.28	$F(5, 29) = 7.38, p < .001$	.560
Age	-.05		
SES	-.18		
Relational aggression T1 (TR)	.42*		
Physical aggression T1 (TR)	.30		
2. EME T1 (parent report)	.25*	$\Delta F(1, 28) = 4.11, p = .05$	.056
<b>IV. Physical aggression T2 (TR)</b>			
1. Gender	.05	$F(5, 29) = 5.48, p = .001$	.486
Age	-.06		
SES	.11		
Relational aggression T1 (TR)	-.03		
Physical aggression T1 (TR)	.69**		
2. EME T1 (parent report)	.07	$\Delta F(1, 28) = 0.27, n.s.$	.005

**Table 3**

Hierarchical multiple regressions: Associations between educational media exposure and aggressive behavior at Time 3.

Outcome, step, predictors	$\beta$	$F, \Delta F$	$R^2, \Delta R^2$
<b>V. Relational aggression T3 (P)</b>			
1. Gender	.21	$F(5, 17) = 2.37, n.s.$	.41
Age	-.29		
SES	-.34		
Relational aggression T1 (P)	.22		
Physical aggression T1 (P)	.16		
2. EME T1 (parent report)	.49*	$\Delta F(1, 16) = 7.06, p = .017$	.18
<b>VI. Physical aggression T3 (P)</b>			
1. Gender	.08	$F(5, 18) = 3.63, p = .019$	.50
Age	.02		
SES	-.15		
Relational aggression T1 (P)	-.11		
Physical aggression T1 (P)	.69**		
2. EME T1 (P)	.17	$\Delta F(1, 17) = 0.80, n.s.$	.02

# AAP Recommendations

Gentile et al (2005) Pediatrics

- 1) Parents should discourage TV viewing for children < 2 years of age and should encourage more interactive activities that promote proper brain development, such as talking, playing, singing, and reading together
- 2) Parents should limit children's media time (with entertainment media) to no more than 1 to 2 hours of quality programming per day for older children
- 3) Parents should monitor programming, view with their children and adolescents, and encourage alternative forms of entertainment, such as reading, athletics, hobbies, and creative play

# In Conclusion & Take Home Points

- Media content and amount matters in the development of children
  - Both media violence and educational media may impact aggression (depends on what type of aggression we consider)
- Not all educational media is a problem
  - Must be careful about placement of the lesson
  - Appropriate labels on programs
  - Active parental mediation may help during viewing
- Work to limit exposure and foster healthy alternatives

# Assessment Considerations

- Bullying vs. Aggression
  - Our measures must explicitly examine components of bullying.
- Continue to develop measures for studies that examine the developmental antecedents of bullying and bullying behaviors among young children

# Ostrov et al. (2009) ECRQ

- Design:
  - Randomly Assigned to **Intervention** (9 classes, 202 children) vs. **Control** (9 classes, 201 children)
- 6 weeks (and now 8 weeks)
- Focus on both +/- Behavior
- **Reinforcement of Behavior**
  - Interventionist & Puppet in room (DAP)
    - “Identify good friendship skills” in other children
    - Clarified weekly skills to monitor comprehension
  - Participatory Activities & Concept Activities



# Treatment Fidelity

- Content checklists: 100% of material was covered in each session
- Process evaluations: (7 point scale from 1 “Superior” to 7 “Inadequate”)  
M = 1.78 (SD = .44)
  - Interventionists were rated as “warm, developmentally appropriate, with good pacing and high levels of child engagement”

# Findings: Evaluations

**Table 2**  
Descriptive statistics for teacher and interventionist evaluations

	M	S.D.
<b>Teacher Evaluations</b>		
The program was entertaining for the children	4.54	.69
The interventionist was knowledgeable and skilled in handling program topics and content	4.45	.69
The program was developmentally appropriate for my classroom	4.36	.81
The children in my classroom benefited from the program	4.45	.82
I would recommend this program to other teachers in my school	4.55	.69

# Comparing Rates of Behavior

**Table 1**  
Descriptive statistics

	Pre-test			Post-test		
	M	S.D.	Range	M	S.D.	Range
<b>Relational Aggression Observation</b>						
Intervention	6.55	2.79	3-10	3.78	2.64	1-7
Control	5.00	3.12	0-9	4.78	3.86	0-11
<b>Physical Aggression Observation</b>						
Intervention	7.89	4.59	4-19	4.33	1.58	2-6
Control	6.78	3.67	1-13	5.89	5.55	1-18
<b>Relational Victimization Observation</b>						
Intervention	5.78	3.07	2-11	4.00	2.45	0-7
Control	4.67	3.35	0-10	3.67	3.08	0-10
<b>Physical Victimization Observation</b>						
Intervention	8.22	3.60	5-17	5.00	3.81	0-12
Control	5.22	2.86	1-8	4.56	3.08	2-11
<b>Prosocial Behavior Teacher-Report</b>						
Intervention	24.63	3.25	21-31	26.25	3.01	23-30
Control	26.33	3.67	22-32	26.44	4.61	19-32

# UB Intervention Study

- Findings

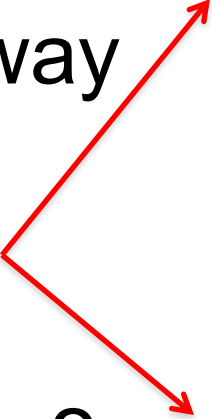
**Table 4**  
Descriptive statistics and effect sizes for change score analyses (intervention effects)

	M	S.D.	Cohen's <i>d</i>
Relational Aggression Observation Change Score			
Intervention	-2.78	3.67	-.88
Control	-.22	3.11	
Physical Aggression Observation Change Score			
Intervention	-3.56	4.39	-.54
Control	-.89	5.46	
Relational Victimization Observation Change Score			
Intervention	-1.78	2.82	-.23
Control	-1.00	3.81	
Physical Victimization Observation Change Score			
Intervention	-3.22	5.07	-.91
Control	-.67	3.28	
Prosocial Behavior Teacher-Report Change Score			
Intervention	1.63	2.50	.54
Control	.11	3.10	

# Strategies: Lessons Learned from Intervention Work

- Behavioral Reinforcement
  - DAP
  - Catch them being good
- Monitor yourself!
  - Biases?
  - Fair?
- Give them leadership roles in classroom
- Identify triggers & try to “engineer” the room away from triggers
- Make sure room rules are not inc problems

# Lessons Learned (cont.)

- Is your room structured in a way to support aggression?
  - Supervision style?
    - Know hot spots
    - Avoid “picnic table” supervision—be engaged!
  - Physical (Proactive)
    - Limited Resources
  - Relational
    - Social Exclusion at Centers
- 

# General Conclusion

- Intervention is warranted
  - Evidence-based interventions are only beginning but suggest promising effects
- Bullying exists in young children & requires our collective attention

# Questions/Discussion





# Thank you!

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- Recent publications available at:  
<http://wings.buffalo.edu/psychology/labs/SocialDevLab/home>