



Temperament, peer rejection, and nurturing parenting in childhood anxiety: A moderated mediation model

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Disclosures

- No disclosures



Temperament and child anxiety

- Link between fearful temperament and childhood anxiety
 - Behavioral Inhibition (Degnan & Fox, 2007; Degnan, Almas, & Fox, 2010)
 - Children displaying BI are at increased risk for anxiety and internalizing disorders
- Mechanisms through which inhibited children develop anxiety disorders
 - Peer Victimization
 - Parenting



Peer victimization

- Peer victimization is common in inhibited children
 - More likely withdrawn
 - Less socially competent than peers
 - Easy targets for bullies
- Excluded children are at risk for development of anxiety disorders
- Few previous studies



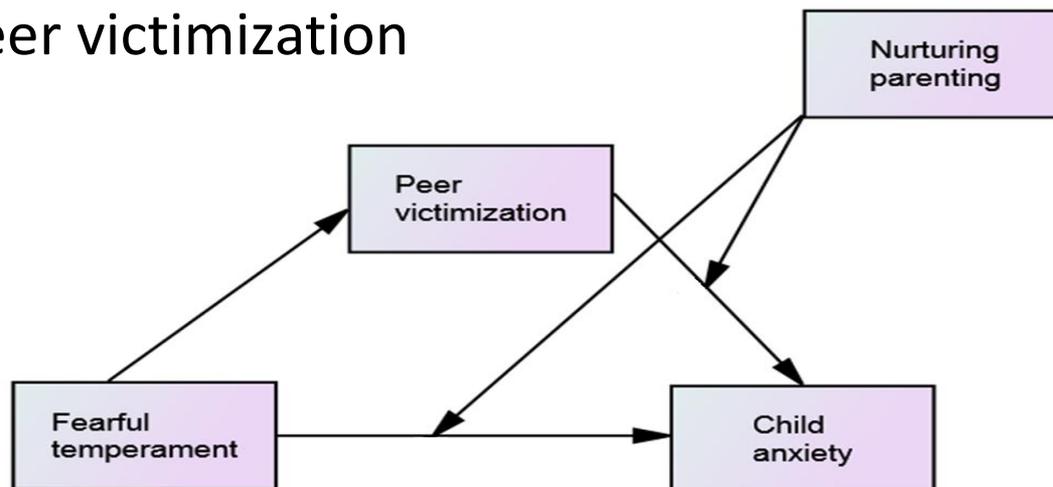
Parenting

- Negative parenting behaviors influence anxiety development in inhibited children
 - Control, rejection, modeling
- Supportive strategies may protect children from developing anxiety
 - Acceptance, warmth, nurturance
 - Endorsing social exploration and activity
- Nurturing parenting may decrease effects of peer victimization



Hypothesized model

- Hypotheses:
 - 1). Peer victimization would mediate the relation between temperament and anxiety
 - 2). Parental nurturance would moderate the relation between temperament and anxiety
 - 3). Nurturance would moderate the mediating effect of peer victimization



METHOD AND RESULTS



Sample

- 124 parent-child dyads
- Parents
 - 26 to 65 years old ($M = 40.0$)
 - 91% female
 - 88.7% married
 - 72.1% family income above \$50,000
- Children
 - 7 to 12 years old ($M = 8.7$)
 - 93.5% Caucasian
 - 56.5% male



Measures

- Child anxiety: Beck Anxiety Inventory for Youth ($\alpha = .86$)
- Temperament: Temperament in Middle Childhood Questionnaire ($\alpha = .76$)
- Peer victimization: Peer Relations Questionnaire ($\alpha = .84$)
- Nurturing parenting: Parenting Dimensions Inventory – Short Form ($\alpha = .73$)



Correlations and descriptives

	1	2	3	4
1. Child Anxiety (BAI-Y)	-	.31**	.43**	-.15
2. Fearful Temperament (TMCQ)		-	.19*	-.15
3. Peer Victimization (PRQ)			-	-.16
4. Nurturing Parenting (PDI-S)				-
Mean	12.56	2.46	2.56	31.40
SD	7.46	.67	.42	3.60
Range	1 – 35	1 – 3.89	2.24 – 4.36	21 – 36

* $p < .05$, ** $p < .001$



Mediating effect of peer victimization

	Effect		Path	β	t	p
a		Temperament	Peer victimization	.19	2.10	.03
b			Peer victimization	.40	4.82	< .001
c	Total effect	Temperament	Child anxiety	.31	3.41	< .001
c'	Direct effect	Temperament	Child anxiety	.23	2.78	.006
a*b	Indirect effect	Peer victimization	Child anxiety	.08	-	< .05

Note. Direct effect (c') controls for effect of peer victimization. Indirect effect (a*b) controls for effect of temperament

- Indirect effect produces 95% bias-corrected bootstrap confidence interval:[0.018 to 1.80]

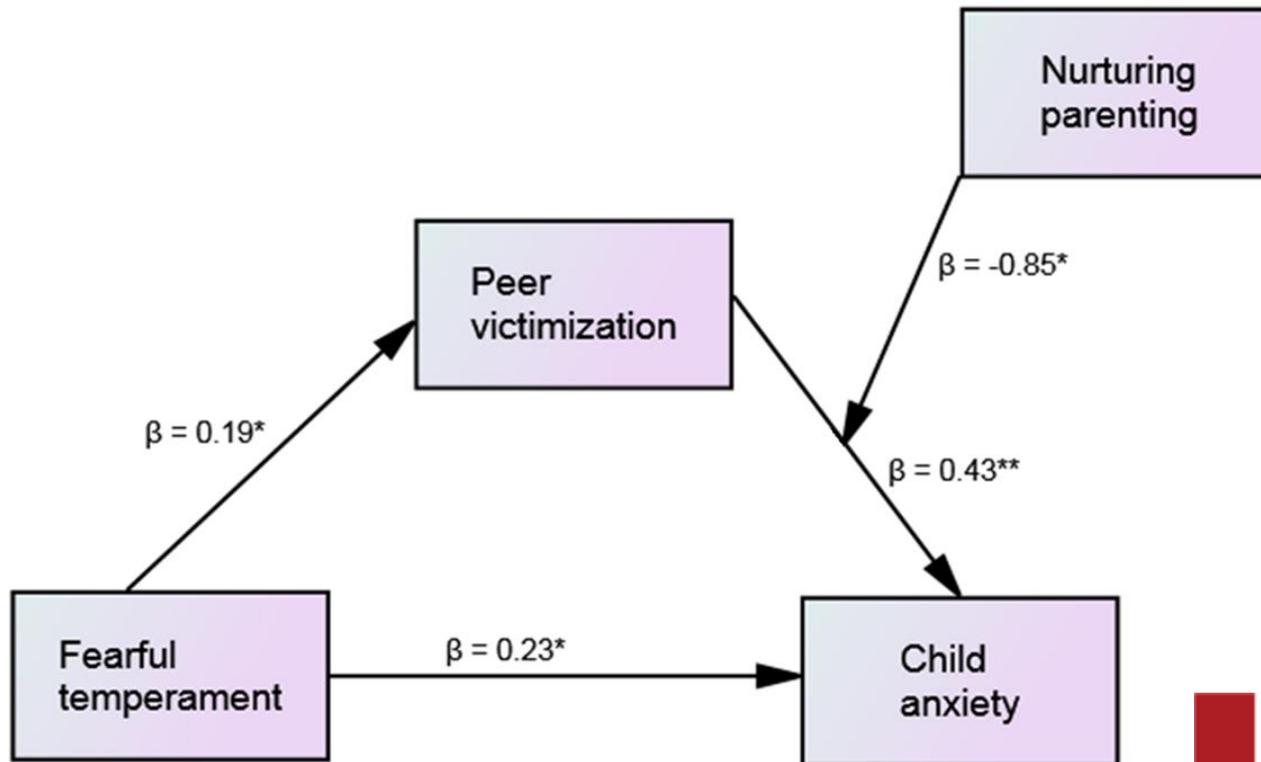


Moderating effect of nurturing parenting

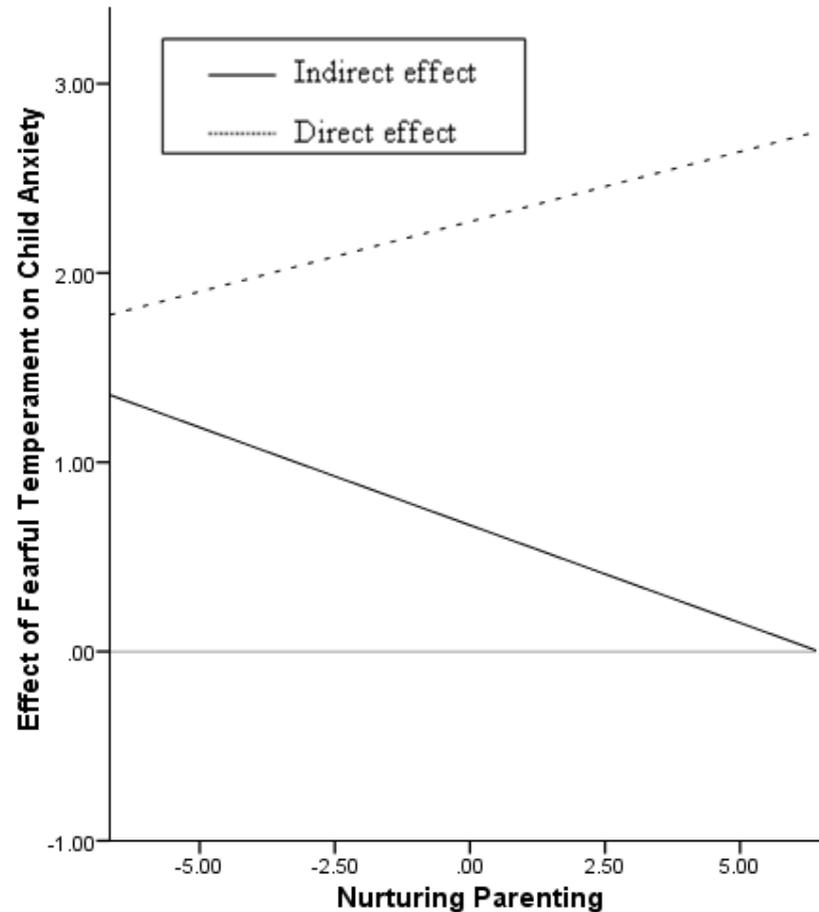
- Ordinary least squares (OLS) regression model predicting child anxiety from fearful temperament, nurturing parenting, and their product
 - $\beta = 0.58, t(123) = .78, p = .435$
- OLS regression model predicting child anxiety from peer victimization, nurturing parenting, and their product, including fearful temperament as a covariate.
 - $\beta = -0.85, t(123) = -2.02, p = .046$
- Simple slopes analysis



Moderated mediation model



Conditional indirect and direct effects



Nurturing parenting represents the mean centered variable.



CONCLUSIONS



Hypotheses

- 1). Peer victimization partially mediated the relation between temperament and anxiety
- 2). Nurturing parenting did not moderate the relation between temperament and anxiety
- 3). Nurturing parenting did moderate the indirect effect of peer victimization on child anxiety



Limitations

- Cross-sectional data
- Sample characteristics
- Parent and child self-report measures
- Concordance between parenting and child behavior problems



Peer victimization

- Peer victimization may be one mechanism through which inhibited children develop anxiety
 - Inhibited children may be at risk of peer victimization
 - Significant sources of variance remain



Parenting

- High levels of nurturing parenting may not be protective for inhibited children
 - Consistent with previous research (Kiff, Lengua, Zalewski, 2011; Sentse et al., 2009)
- Nurturing parenting may maintain symptoms of anxiety in inhibited children
 - Family Accommodation
- Benefit in specific context, rather than broadly applied



Parenting in victimized children

- Nurturing parenting may reduce distress associated with peer victimization
 - Buffer impact of peer rejection
 - Allow reengagement with social environment
- Parent behaviors and peer relations interdependent
 - Unique relations when examined simultaneously

