

Concurrent and Longitudinal Effects of Multiple Perceptions of Teacher – Student Relationship on School Adjustment

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Benefits of Supportive Teacher- Student relationship:

- Positive school identity
- Academic engagement
- Cooperative engagement
- Peer acceptance
- Academic achievement
- Lower risk behaviors

Research findings

- Relationship holds when prior levels of outcome are controlled
- Effects are long-lasting
 - Launch effects (Hughes, Lou, Kwok, & Loyd, 2008)
 - Reciprocal causal processes
 - Stability of relationships
- Effects found for all grade levels (Pre-K to HS)

Mechanisms of Effects

- Differ by developmental period
- Younger grades: Secure base
- Older grades:
 - Peer reputation
 - academic self efficacy
 - School belonging and bonding
- All grades: More responsive instruction
 - Itskowitz, Navon, & Struvas, 1988

Measurement of TSRQ

- Differs by developmental phase
 - Teacher report for early grades
 - Student report for grades 4 and higher
 - Few studies use teacher and student (Murray, Murray, & Waas, 2008; Rey et al., 2007)
- Low correspondence between teacher and student perceptions
 - Same construct?

Trait versus source:

- Teacher perceptions of relationship conflict not distinctive from teacher perceptions of child externalizing behaviors (r s .70-.80)
- Within-source correlations between TSRQ and outcomes are likely inflated
- Child perceptions, even if less congruent with other sources, may assess an important dimension.

Study Purpose

- Examine the concurrent and longitudinal associations between measures of teacher, child, and peer reports of qualities of the teacher-student relationship and measures of child adjustment.

Hypotheses: Concurrent

- Correspondence across raters (convergent validity)
 - Greater for teacher with peer than for child with teacher or peer
 - Greater for conflict than close and warm
- Within source correlations with adjustment indices higher than cross-source correlations

Hypotheses: Longitudinal

- Stability highest for child and lowest for teacher
- Non-redundant contributions for:
 - Teacher and child reports
 - Reports of Warmth and Conflict (esp. for child)
- Pattern differs by adjustment outcome
 - Conflict-> behavioral indicators
 - Warmth -> child belonging, self efficacy

Sample

- Academically at-risk sample
- Recruitment of 784 students in first grade (3 years earlier than current study)
- Sample (N=714)
 - Attrition Analyses
 - Missing Data analyses

Sample Characteristics (N=714)

- In 318 classrooms in 47 schools
- 53% male; mean age = 8.58
- Mean IQ = 93 (SD = 15)
- Ethnicity:
 - 34% White
 - 38% Hispanic (primarily Mexican American)
 - 23% African American
 - 5% Other
- 66% economically disadvantaged
- 76% in grade 3; 24% in grade 2

Child Network of Relationship Inventory (Buhrmester & Furman, 1987)

- CFA identified 3 scales:
 - Warmth (10 items; $\alpha = .87$)
 - How much does your teacher like or love you?
 - Close (6 items; $\alpha = .80$) (proximity seeking?)
 - How much do you talk to your teacher about things that you don't want others to know?
 - Conflict (3 items; $\alpha = .79$)
 - How much does this teacher punish you?

Teacher Network of Relationship Inventory (Buhrmester & Furman, 1987)

- CFA identified 3 scales:
 - Warmth (13 items; $\alpha = .87$)
 - This child gives me many opportunities to praise him or her.
 - Close (3 items; $\alpha = .80$)
 - This child talks to me about things he/she doesn't want others to know
 - Conflict (3 items; $\alpha = .79$)
 - I often need to discipline this child

Peer ratings of support

- Peer sociometric procedures
 - All students in classroom
 - Unlimited nominations
 - “These children get along well with their teachers. They like to talk to their teachers, and their teachers enjoy spending time with them.”

Ratings of behavioral adjustment

- Teachers
 - Engagement (10 items assessing persistence, attention, and effort); alpha = .95
 - Conduct problems (5 items from Conduct scale of Strengths and Difficulties Questionnaire, Goodman, 1997); alpha .82
- Peer nominations of aggressive

Student self views

- School belonging
 - Psychological Sense of School Membership (Goodenow, 1993); 18 items; Alpha = .85
- Academic self efficacy
 - Competence Beliefs and Subjective Task Values Questionnaire; reading and math scales (Wigfield et al., 1997).

Academic Achievement

- Woodcock Johnson Tests of Achievement III; Broad Reading and Broad math (Woodcock et al., 2001)
- Spanish dominant participants were administered the Broad Reading and Broad Math of the Bateria Woodcock-Muñoz: Pruebas de aprovechamiento – Revisada (Woodcock & Munoz-Sandoval, 1996)

Preliminary Analyses: Sex

Teachers, peers, and children view teachers' relationships with girls, relative to boys, as warmer, closer, and lower in conflict. Girls report higher school belonging and are rated by others as being more behaviorally engaged and less disruptive than boys.

Preliminary Analyses: African American Status

- African American status is associated with teacher perceptions of lower warmth and higher conflict, with child perceptions of greater teacher warmth, closeness, and conflict, with greater teacher- and peer-reported externalizing problems, and with lower reading and math achievement. African American children report higher reading self-efficacy than do non-African American children
- Evidence of positive reporting bias

Correspondence across raters on measures of relationship

| | 1 | 2 | 3 | 4 | 5 | 6 |
|--------------|-------------|-------------|-------------|-------------|------------|-------------|
| 1 t-warm | | | | | | |
| 2 t-close | .48 | | | | | |
| 3 t-conflict | -.56 | <i>-.09</i> | | | | |
| 4 c-warm | .08 | .08 | <i>-.09</i> | | | |
| 5 c-close | .02 | .07 | <i>-.03</i> | .62 | | |
| 6 c-conflict | -.25 | <i>-.08</i> | .43 | -.14 | .06 | |
| 7 peer sup | .29 | .13 | -.27 | <i>.09</i> | <i>.04</i> | -.18 |

Bold: p<.01
Italics: p<.05

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Concurrent Correlations between relationship and adjustment

| | T warm | T close | T confl | C warm | C Close | C confl | P Sup |
|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| t-conduct | -.55 | <i>-.11</i> | .80 | .01 | .07 | .37 | -.23 |
| t-engage | .65 | .26 | -.59 | <i>.11</i> | .03 | -.28 | .36 |
| peer agg | -.31 | <i>-.06</i> | .52 | <i>-.10</i> | <i>-.05</i> | .30 | -.21 |
| c belong | .14 | .13 | -.18 | .59 | .41 | -.29 | .04 |
| math SE | <i>-.04</i> | <i>-.05</i> | .02 | .16 | .13 | <i>-.09</i> | <i>-.06</i> |
| read SE | <i>-.03</i> | <i>-.02</i> | .08 | .18 | .13 | <i>-.07</i> | .05 |
| WJ Read | <i>.10</i> | .00 | -.16 | .01 | <i>-.07</i> | -.18 | .07 |
| WJ Math | .14 | .03 | -.19 | <i>-.02</i> | -.16 | -.23 | .07 |

Bold: $p < .01$; *italics:* $p < .05$

Cross Year Stability or Relationship Ratings

| | |
|-------------------|------------|
| T-Warm | .34 |
| T-Close | .17 |
| T-Conflict | .61 |
| C-Warm | .36 |
| C-Close | .49 |
| C-Conflict | .47 |
| Peer Support | .39 |

| | Belong | Math SE | Read SE | Math | Read |
|-------------|---------|----------|----------|----------|----------|
| | β | B | B | β | β |
| Outcome | .21*** | .31 *** | .39 *** | .81 *** | .84 *** |
| Gender | .03 | .12 ** | -.04 | -.03 | .01 |
| Af. Amer. | .09* | .02 | .04 | -.08 *** | -.07 ** |
| Peer Sup | .06 | .00 | -.04 | -.02 | .02 |
| T Close | -.06 | .06 | .03 | -.02 | .003 |
| T-Warm | .11+ | .14 * | .13 + | .07+ | .02 |
| T-conflict | .05 | .06 | .12 + | .08 * | .01 |
| C-Close | .15*** | .04 | -.05 | -.02 | -.06 * |
| C-Warmth | .03 | .13 ** | .07 | .03 | .05 + |
| C-Conflict | -.17*** | -.05 | -.06 | -.06 * | -.03 |
| Model 1 Rsq | .123*** | .122 *** | .168 *** | .700 *** | .776 *** |
| Model 2 Rsq | .171*** | .174 *** | .192 *** | .706 *** | .780 *** |

+ P<.10; * p < .05; **p<.01; ***p<.001

| Time 1 predictor | T-ENG | T Conduct | Peer aggression |
|------------------|----------------|----------------|-----------------|
| | β | β | B |
| MODEL 1 | | | |
| Outcome | .39*** | .48 *** | .27 *** |
| Gender | -.08 + | .08 * | .34 *** |
| Af. Amer. | -.06 | .10 * | .04 |
| MODEL 2 | | | |
| Peer Sup | .07 + | -.06 + | -.02 |
| T Close | -.07 | .07 | .03 |
| T-Warm | .05 | -.10 | -.08 |
| T-conflict | -.04 | -.02 | .15 + |
| C-Close | -.04 | .00 | .03 |
| C-Warmth | -.06 | .03 | .01 |
| C-Conflict | -.09* | .09 + | .06 |
| | R ² | R ² | R ² |
| Model 1 | .271*** | .394 *** | .287 *** |
| Model 2 | .295*** | .407 *** | .317 *** |

Summary

- Child reports are important even though they do not overlap with teachers or peers
- Teachers show little distinction between relationship conflict and child externalizing behaviors;
- Teacher perceptions of conflict are more child-driven than are teacher perceptions of warmth and close
- Teachers' perceptions of warmth and close are less distinct ("halo effect") than are children's perceptions

Summary, Continued

- Teacher Warmth and conflict contribute in similar but opposite ways to adjustment outcomes; their contributions are largely redundant
- Close may suggest a dependent relationship, at least for some children.
- Some children may have inflated perceptions of relatedness; when are positive perceptions a risk?
- A configural approach to assessing teacher-student relationships may be useful.