

Parents Matter: Parental Education, Parenting and Child Well-Being

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Parental Cognitive Stimulation and Child Outcomes

- Cognitive stimulation in the home positively affects many child outcomes:

Academic achievement (Baharudin, 1998; Bradley et al., 2001)

Reading proficiency (Barton, 1992; Hofferth & Sandberg, 2001; Kuo et al., 2004)

Tests of intelligence (Bradley & Caldwell, 1984)

Approaches to learning (Fantuzzo, 2004; Gottfried, 1998)

Self-control and fewer externalizing problems (Bradley & Corwyn, 2005)

Non-Cognitive Parenting Practices and Child Outcomes

- Negative attitudes toward parenting and related non-cognitive parenting behaviors such as the establishment of routines also influence children's development
- Harsh discipline practices have been linked to an increase in externalizing behavior problems, poor school adjustment and academic performance (Dodge, 1993; Pettit et al., 1997); and spanking inversely predicts language and reading achievement (Bradley et al., 2001)
- Conversely, positive inductive discipline such as calm discussion and reasoning is associated with better academic performance and school adjustment (Deater-Deckard, 1998; Pettit et al., 1997)

Current Research Gaps

- The majority of studies that examine the relationship between parenting practices and child outcomes are cross-sectional; thus they do not examine the long-term effects of parenting practices on child development
- Few studies have employed a comprehensive approach to study a range in both parenting practices and child outcomes using a nationally representative sample of children over time

Study Goals

- To use a nationally representative sample of children to examine the relative influence of a comprehensive range of parenting practices on three child outcomes (reading, externalizing behaviors, and approaches to learning) over time

Early Childhood Longitudinal Study Kindergarten Cohort (ECLS-K)

- Nationally representative sample over 22,000 kindergartners from over 1,000 kindergartens
- Follows children longitudinally from kindergarten entry in fall of 1998 through fifth grade
- The ECLS-K incorporates:
 - Parent report
 - Teacher and school administrator reports
 - Direct assessments of children

Hypotheses

1. Parental education will predict cognitive stimulation in the home and related parenting practices more strongly than it will predict non-cognitive aspects of parenting
2. Parenting practices related to cognitive stimulation will predict academic outcomes of children more strongly than social/behavioral outcomes

Hypotheses cont.

3. Parental attitudes towards parenting and other non-cognitive related parenting practices will predict social/behavioral outcomes of children more strongly than academic outcomes
4. Approaches to learning will be equally influenced by both cognitively and non-cognitively stimulating parenting practices
5. While parenting practices are important pathways by which parental education influences child outcomes, they will not fully mediate this relationship

Analytic Sample

- Our analytic sample included 12,247 children who were first-time kindergarteners in 1998-1999 who participated in the follow-up during the spring of their 3rd grade year, and from whom parent interview data were available

Measures: Parenting Behaviors

(Fall and Spring Kindergarten, Spring of 1st Grade)

- Cognitively Stimulating Parenting practices
 - Cognitive stimulation
 - Lessons and activities
 - Exposure to books
 - Computer usage
- Non-cognitively Stimulating Parenting practices
 - Negative attitudes towards parenting
 - Family routines
 - Positive communication
 - Absence of negative discipline

Measures: Child Outcomes

(Spring of 3rd grade)

- Reading

Item Response Theory (IRT) scores of reading ability in 3rd grade

- Externalizing behaviors

Teacher assessment of how often child argues, fights, gets angry, acts impulsively, disturbs ongoing activities, and talks during quiet study time

- Approaches to learning

Teacher assessment of child's attentiveness, task persistence, eagerness to learn, learning independence, flexibility, and organization

Measures:

Sociodemographic Controls

- Child's age at kindergarten entry
- Gender
- Disability
- Low-birthweight
- Parent education
- Family structure
- Maternal age
- Income-to-poverty ratio
- Primary language at home
- Total number of children in household
- Urbanicity of child's neighborhood
- Parent health

Analytic Strategy

- Structural equation modeling was used to test our hypotheses regarding the associations between parenting practices and children's outcomes
- Maximum likelihood was used as the method of estimation
- To evaluate model fit, we used four conventional indices:
 - The Comparative Fit Index (CFI) (Bentler, 1990)
 - The Non-normal Fit Index (NNFI)
 - The Incremental Fit Index (IFI)
 - Root mean square error of approximation (RMSEA) (Browne, 1993)

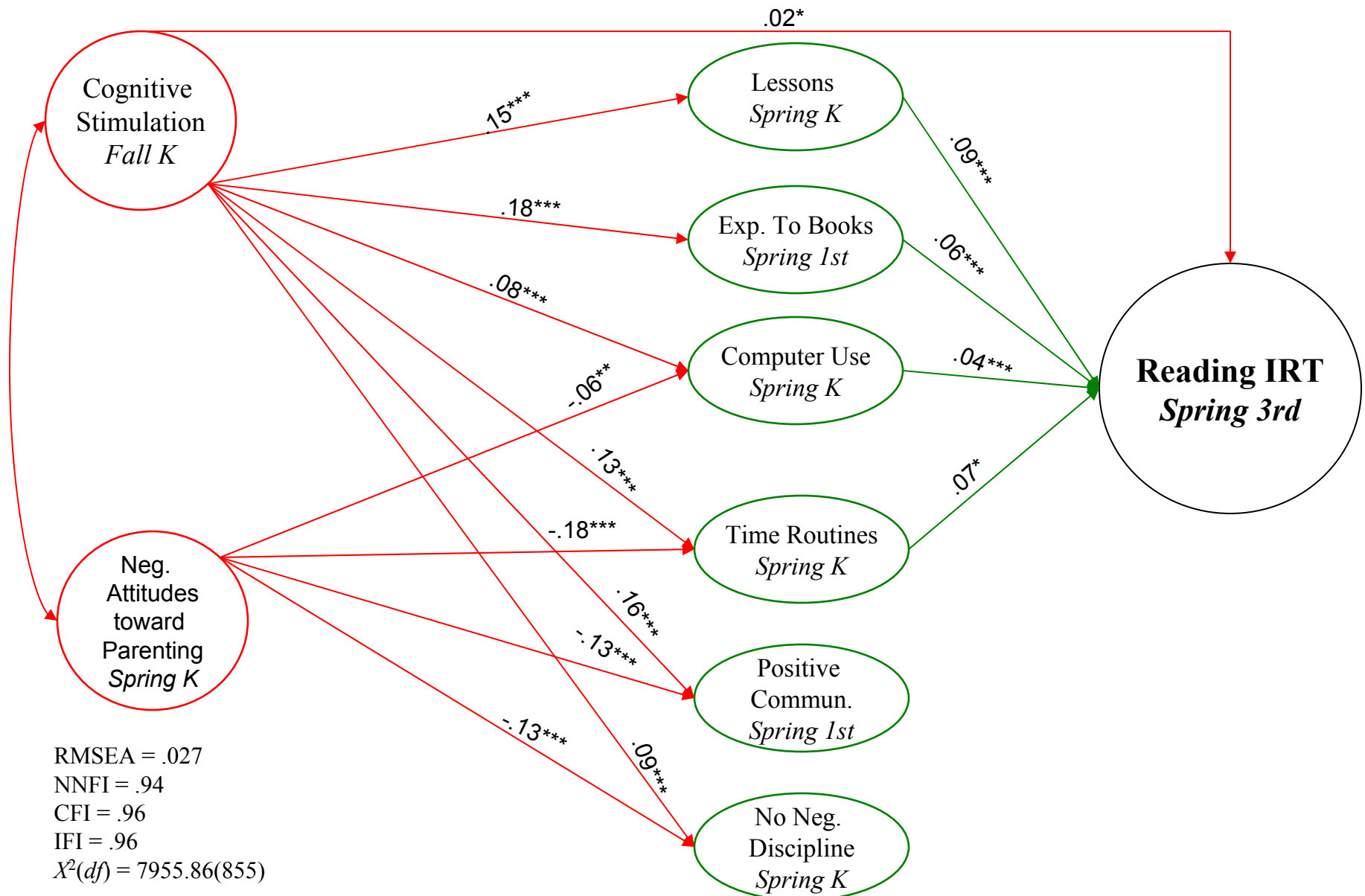
Results: Structural Equation Models

- Confirmatory factor analyses supported the measurement portion of our model
- All observed variables loaded significantly on their respective latent variables ($p < .05$)
- All models had an RMSEA below .05, an IFI and NNFI at or above .95 and a NNFI at or above .94, indicating a well-fitting model

Results: Education and Parenting

- Parent education is more strongly related to cognitive stimulation, lessons and extracurricular activities, exposure to books and computer usage than socio-emotional aspects of parenting
- However, there are still significant direct paths from parent education to socio-emotional aspects of parenting such as absence of negative discipline strategies

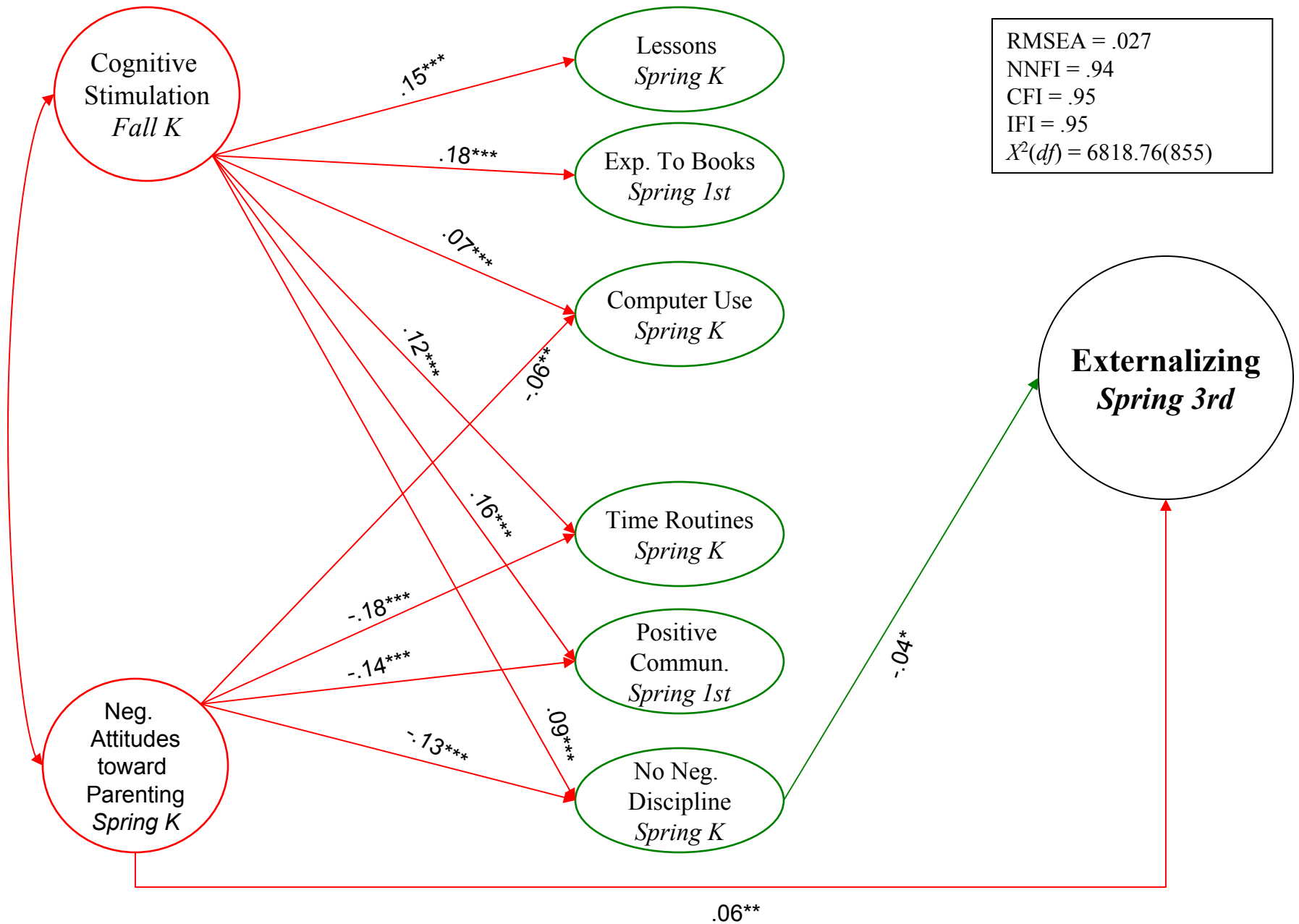
Figure 1: SEM model: The impact of parenting practices on children's reading IRT score



Results: Reading

- Parenting practices related to cognitive stimulation including lessons and activities, exposure to books, and computer use were the strongest predictors of reading
- Children with more regular time routines for bedtime and mealtime had better reading ability in 3rd grade
- Negative attitudes toward parenting was *indirectly* related to reading through computer usage and time routines. As negative attitudes of parents' increased, the time a child spent using a computer and the number of time routines decreased, resulting in poorer reading ability in 3rd grade

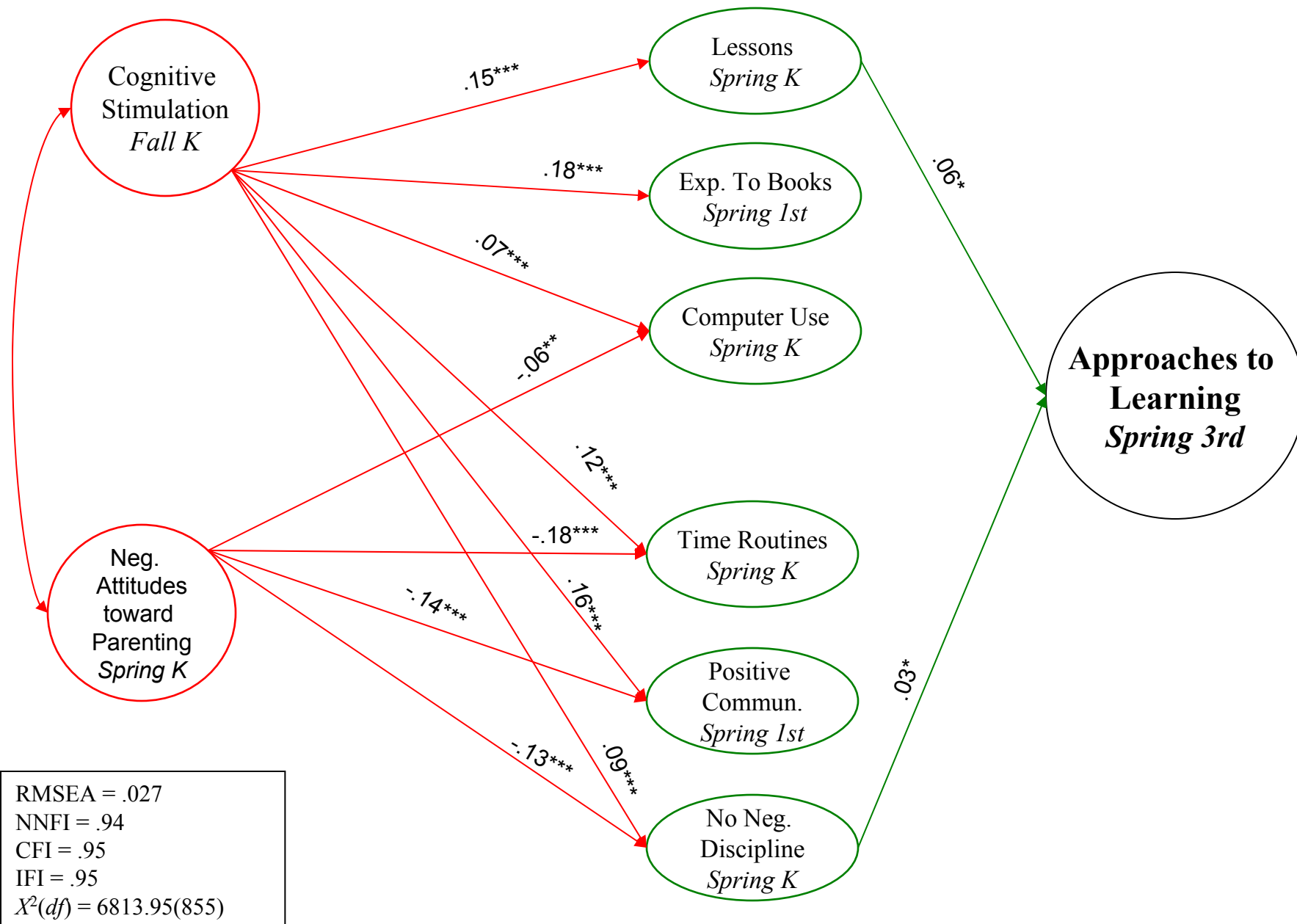
Figure 2: SEM model: The impact of parenting practices on children's externalizing behavior



Results: Externalizing Behaviors

- Few parenting behaviors predicted externalizing behaviors in third grade
- The absence of negative discipline was directly and inversely related to externalizing behaviors suggesting that use of negative discipline in kindergarten was related to more externalizing behavior in 3rd grade
- None of the cognitively stimulating parenting practices significantly predicted externalizing behaviors

Figure 3: SEM model: The impact of parenting practices on children's approaches to learning



Results: Approaches to Learning

- Approaches towards learning was influenced by both cognitive and non-cognitive aspects of parenting
- Participation in extracurricular lessons and activities and the absence of negative parenting *directly* influenced a child's approach to learning
- Cognitive stimulation *indirectly* influenced approaches to learning through extracurricular activities and lessons
- Cognitive stimulation *indirectly* influenced negative attitudes toward parenting through discipline

Conclusions

- Parenting practices in earlier elementary school years affect later child outcomes
- Parenting practices related to cognitive stimulation in the home were stronger predictors of reading than were non-cognitive parenting practices
- Few non-cognitive parenting practices affected externalizing behaviors and approaches to learning suggesting that there may have been more important factors unaccounted for in the present study
- The strongest predictor of externalizing behaviors was negative attitudes towards parenting, suggesting that there are long term consequences of living in such an environment
- Approaches to learning was most strongly affected by enrolling children in extracurricular lessons and activities; therefore, simply having books in the home may not be sufficient for gains in child outcomes

Implications

- Results of this study should facilitate more targeted interventions for children's academic and social outcomes including:

Encouraging children's participation in extracurricular lessons and activities

Educating parents on the lasting effects of their parenting practices such as their ability to provide a cognitively stimulating environment, discipline strategies, and attitudes on their children's academic and social outcomes

Research in the service of children



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