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Brigham Young University - Provo

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Relationship Between Observed Parental Optimism and Adolescent
Optimism with Parental Involvement as a Mediating Variable:
Two Wave Panel Study

Allison Ellsworth

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

James Harper, Chair
Laura Padilla-Walker
Roy Bean

School of Family Life
Brigham Young University

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ABSTRACT

Relationship Between Observed Parental Optimism and Adolescent Optimism with Parental Involvement as a Mediating Variable: Two Wave Panel Study

Allison Ellsworth
School of Family Life
Master of Science

Using coded data from parent-child interaction tasks and questionnaires, this longitudinal study examined the relationship between observed mother and father optimism and self-reported and observed optimism of their adolescent child one year later with mother and father involvement as mediators. Results from structural equation modeling indicated that while there was not a direct association between maternal optimism and child optimism, that father involvement mediated that relationship, and that father involvement further mediated the relationship between father involvement and child optimism.

Keywords: parental involvement, optimism

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Introduction

Optimism and its association with positive outcomes has become the focus of an ever-increasing body of research. Research on optimism in adults has explored its association with academic achievement, physical, social and emotional, (Scheier, Magovern, Abbot, Matthews, Owens, Lefebvre & Carver, 1989), reduced suicide ideation and attempts (Hirsch, Wolford, LaLonde, Brunk & Morris 2007), and higher-level coping skills (Nes & Segerstrom, 2006). Optimism is also associated with buffering the effects of heightened stress (Brydon, Walker, Wawrzyniak, Chart & Steptoe, 2009) and is positively correlated with emotional well-being (Matthews & Cook, 2009). Extant optimism research specific to children and adolescents has found that optimism is related to self-esteem (Puskar, Sereika, Lamb, Tusaie-Mumford & McGuinness, 1999), better health (Cassidy, 2000), and a decreased use of cigarettes, alcohol and marijuana (Carvajal, Clair, Nash & Evans, 1998). Still, while research on optimism is extensive, relatively little is known concerning its antecedents.

Parents' influence in the socialization of children is well-acknowledged (Collins, Maccoby, Steinberg, Hetherington & Bornstein, 2000; Grusec & Hastings, 2007), and social learning theory relies heavily upon the assumption that children learn from what they observe, parents being the primary socializing agents (Bandura, 1977). Researchers such as Peterson (2002) have hypothesized that parental modeling contributes to children's acquisition of optimism. It seems reasonable that observation of parents' optimism would contribute to child acquisition of optimism. This study examined optimism using observed data in order to better measure optimism as it may be perceived by the adolescent.

Parental involvement has also been found to be related to positive child outcomes ranging from academic achievement (Hill & Tyson, 2009) to decreased risk involvement, better

social outcomes (Killos, 2008), and greater happiness (Flouri & Buchanan, 2003). It has also been found that parents with positive attitudes are more likely to be more involved in the lives of their adolescents (Beitel & Parke, 1998). No research has yet explored the relationship between parental involvement, either maternal or paternal, with optimism.

The study of positive psychology places its focus on identifying and building strengths. Rather than studying areas of weakness and subsequent interventions, it operates on the assumptions that building strengths, such as optimism, and teaching people when and how to use them, will help maintain and forward good emotional health. Its focus is on preventing rather than fixing problems. According to Seligman (2002), the aim of Positive Psychology is “to catalyze a change in psychology from a preoccupation only with repairing the worst things in life to also building the best qualities in life. To redress the previous imbalance, we must bring the building of strength to the forefront in the treatment and prevention of mental illness (page 3).” Positive psychology has identified optimism as a strength area which contributes to positive outcomes.

Consistent with the Positive Psychology paradigm, this study sought to identify mechanisms contributing to adolescent optimism. Previous research has discovered that there are human strengths that act as buffers against mental illness, among which is optimism. Segilman (2002) has reported that learning optimism cuts the incidence of depression and anxiety in children and adults in half over the two years following teaching learned optimism. This study, through its contribution to understanding natural pathways to optimism, can further inform programs promoting wellness through optimism.

The purpose of this study was to examine the association between parent optimism and child optimism one year later with parental involvement as a mediating variable. More

specifically, this study examined both observed mother and father optimism and observed and self-reported optimism in the child one year later, with both mother and father involvement as mediating variables. Observed child optimism, age, gender, family size, birth order, and household income were used as control variables. This study expanded upon current literature, first, by investigating the potential role of actual observed parental optimism on child optimism; second through a longitudinal design using two waves of data, and third, by using parent, child, and partner reports of parental involvement as mediating variables. This study also contributes uniquely to literature through measuring optimism using coded observed data, rather than relying exclusively on self-report measures.

Review of Literature

Defining Optimism

Optimism is generally defined in the literature either as a generalized outcome expectancy (Scheier & Carver, 1985) or as a positive attributional style (Segilman, 1991). It is often referred to as “dispositional optimism”, referring to a generalized expectation that things in life will ultimately turn out well. Dispositional optimism is characterized by its generalizability to the entire life course rather than selective positive expectations localized around specific and proximate events.

Optimism and pessimism are often considered to be opposite ends of a bipolar continuum, and some research (Puskar, Sereika, Lamb, Tusaie-Mumford & McGuinness, 1999) has found them to be negatively correlated, whereas others (e.g. Bryant & Cvergros, 2004) found them to be independent of each other. In accordance with findings that optimism and pessimism, while related, are distinct and independent, this study focused almost exclusively on optimism.

A primary aspect of dispositional optimism is “positive attitude” (Taylor, Kemeny, Aspinwall, Schneider, Rodriguez & Herbert, 1992), “positive reframe” (Carver et al., 1993), or “positive reinterpretation” (Brisette et al., 2002). This attribute is characterized by “putting problems in the best possible light and searching for hidden benefits and meaning when difficulties arise” (Scheier, Carver, & Bridges, 1994, p. 1072). It implies adopting a positive outlook and reframing situations in a more positive light. Rather than relying exclusively on self-report measures, in this study optimism was rated from observed verbal behavior expressing positive orientation, interpretation and outlook. Exclusive dependence on one’s self-report of optimism towards an unspecified generalized outcome fails to capture the elements of optimism that are observable to others as would be the case of children whose developing schemas and paradigms are influenced by parental modeling. Accordingly, our inclusion of expressions of parental positive orientation, interpretation and outlook, as rated by an objective observed, is able to better assess assumptions of modeling’s influence on adolescents’ optimism.

Optimism Among Adults

Optimism has found to be related to a myriad of positive social, emotional and health outcomes in adults (Segerstrom, Taylor, Kemeny & Fahey, 1998; Matthews & Cook, 2009; Schreier, 1985). Individuals with greater optimism have less stress and fewer health risks. A meta-analysis looking at the connection between optimism and health found positive health outcomes among coronary bypass surgery patients, cancer patients, and pregnant women. Optimism has also been linked with positive outcomes related to mortality, survival, cardiovascular outcomes, physiological markers, immune function, physical symptoms, and pain (Rasmussen, Scheier & Greenhouse, 2009).

In general, optimism has been found to facilitate positive social adjustment among adults and adolescents (Hirsch, et al., 2007; Lai, 2009), and maternal optimism has been found to be associated with social benefits for their children (Jones, Forehand, Brody & Armistead, 2002). In a comparative review of the effects of optimism and psychological well-being, benefits of optimism included less chronic anger/anger suppression, less loneliness, fewer perceived hassles, more positive psychological adjustment, less stress, fewer depressive symptoms, higher satisfaction with life, less negative mood, less fear, higher self-esteem, lower levels of daily stress and depression, more internal locus of control, greater positive well-being, lower anxiety, and higher job satisfaction (Scheier, Carver & Bridges, 2001). Optimism was also found to be associated with healthy coping strategies such as information-seeking, active coping and planning, positive reframing, seeking benefit, use of humor and acceptance. Through approaching difficulties in positive ways, optimists emerge from difficult circumstances with less distress. This has been referred to as the “optimistic advantage” (Scheier et al., 2001).

Optimism benefits individuals personally as well as in relational and interpersonal contexts. In particular, optimism among single African-American mothers is associated with positive parenting which, in turn, contributes to decreased prevalence of depression and delinquency in their children (Jones et al., 2002). The positive outcomes associated with optimism make it a desirable attribute for adults and children alike, which accounts, in part, for the growing interest in this field in recent years. The physical, social, and psychological well-being of children is of marked interest, and the role of parent and child optimism in yielding such positive outcomes makes it an area worthy of further investigation.

Optimism Among Children and Adolescents

While studies investigating optimism in adolescents are limited, the findings link optimism and its physical, psychological and social outcomes in adolescents which parallel findings among adults. Adolescents with optimism report better overall physical and emotional health (Cassidy, 2000; Weber, Puskar & Ren, 2010; Puskar et. al, 1999). Carvajal, Clair, Nash, and Evans (1998) found that optimism in adolescents predicted less alcohol, cigarette and marijuana use. Optimism has been found to be significantly positively correlated with active coping, planning and positive reinterpretation, and with flexible and adaptive coping strategies aimed at managing and minimizing stress, and with the decreased use of less constructive avoidant coping strategies (Scheier, Weintraub, Carver, 1986; Scheier et al., 1985; Nes & Segerstrom, 2006). Optimism in youth and children has been found to be a desirable and valuable asset individually and interpersonally.

Parent Involvement

Parent involvement has been found to predict positive child outcomes including school achievement. Studies have shown an academic advantage for students whose fathers and mothers are actively involved in their child's development of academic success and acquisition of academic skills (Hill & Tyson, 2007; Regner & Dumas, 2009; Tan & Goldberg, 2009). A recent meta-analysis of 50 studies on parental involvement during the middle-school years found that parent involvement is positively associated with achievement in school (Hill & Tyson, 2009). Involvement of fathers has also been found to mediate the relationship between parental warmth and GPA among Korean Americans (Kim & Rohner, 2002). Both father and mother involvement were found to be associated with academic achievement, with paternal involvement

being more strongly influential, indicating the role parental involvement can have in mediating parenting and positive child outcomes.

Parental behavioral involvement within the context of day-to-day family life has also been found to be beneficial to child well-being. Paternal involvement has been linked to less internalizing and externalizing problems in adolescents, and maternal involvement has been associated with increased prosocial behaviors and hope (Day & Padilla-Walker, 2009). Wysocki and Gavin (2006) found that paternal involvement is associated with impeding deterioration for teens with chronic diseases, as well as contributing to their adherence to treatment and maintaining their quality of life. When parents are involved in their child's treatment, the child experiences less pain and are more engaged in activities that preserve their well-being.

Parent involvement also mediates the relationship between low socioeconomic status and education. Father involvement has been found to be connected to several positive child outcomes. It is related to decreased risk-taking behavior (Bronte-Tinkew, Moore, Capps & Zaff, 2006), increased school achievement (McBride, Schoppe-Sullivan & Moon-Ho Ho, 2005, Killos, 2008), as well as positive social outcomes such as positive interactions with teachers and peers, and less internalizing behavior problems (Killos, 2008). Father involvement has been found to be a more positive predictor of child happiness than is mother involvement (Flouri & Buchanan, 2003); however, mothers are generally much more involved in their children's and adolescents' lives than are fathers (Finley, Mira & Schwartz, 2008).

Beitel & Parke (1998) have found that both maternal and paternal positive attitudes are connected to increased involvement. It could be deduced from their finding that optimism which includes positive attitudes is associated with increased parental involvement. The current study explored both the direct effect of parental optimism as well as the role of both father and mother

involvement as processes through which parental optimism indirectly influences development of optimism in the child.

Modeling and Intergenerational Transmission

The antecedents of optimism in adolescents remain largely unknown, but a potential antecedent of adolescent optimism may lie with the parents as socializing agents. Swick (1988) proposed parent modeling of optimism as one potential explanation for why children are more optimistic, but no empirical studies could be found which investigated such a relationship (Brewin, Andrews & Furnham, 1996).

According to social learning theory, parental modeling invites imitative behaviors in children. Bandura (1977) explained that “Most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action.” (p. 22). Seligman (1984) found a connection between mother and child attribution, but not between the mother and father attribution, or between the father and child attribution. A possible explanation may be that mothers are generally more involved with children in terms of quantity of time spent together.

Seligman also asserts that optimism can be taught and learned, recommending that intervention and prevention should focus on the “cultivation of optimism”. Dispositional optimism is less stable than many personality traits, potentially attributable to its responsiveness to changes from the source (Segerstrom, 2007). Furthermore, changes in dispositional optimism and pessimism are associated with socioeconomic status over time, as measured at ages three, six, twenty-four and twenty-seven (Heinonen, Rääkkönen, Matthews, Scheier, Raitakari, Pulkki, & Keltikangas-Järvinen, 2006). This somewhat contradicts the idea of optimism being

“dispositional” in nature and supports the possibility of optimism being influenced by external factors and learned through socialization, parent involvement, and parental modeling.

Hasan and Power (2002), in their study of 81 pre-teens, found that maternal depressive symptoms correlated negatively with child optimism and that moderate autonomy-granting among parents yielded the most optimistic children. Their findings did not, however, suggest a direct association between parental optimism and child optimism, but they did find that the relationship was mediated by parenting variables. However, unlike the present study, their research was based on a relatively small sample, used only self-report of optimism (Life Orientation Test) (Scheier and Carver, 1985), did not include fathers, and was cross-sectional rather than longitudinal in nature.

Jones et al. (2002), in their study of 141 African American children of single mothers, also found that maternal optimism related to positive parenting. However, maternal optimism was not found to be directly associated with child psychosocial adjustment. Optimism was deemed valuable through its contribution to positive parenting which, in turn, was found to yield child psychosocial adjustment, as evidenced by lower externalizing and internalizing problems. The role of maternal optimism was found to be a significant component in the indirect path to child psychosocial adjustment. Likewise, we hypothesized that parental involvement might similarly mediate the relationship between parental optimism and the development of child optimism.

Jackson, Pratt, Hungsberger & Pancer (2005), in their report of two longitudinal studies on optimism among adolescents and emerging adults, found that authoritative parenting was related to optimism in college students which, in turn, fostered other positive developments. They further hypothesized that these positively adjusted individuals have their optimism

reinforced and deepened by their parents' modeling. Parental optimism was found to be one of several mechanisms by which authoritative parenting facilitates self-esteem and prevents depression. This study also found that optimism was more powerfully linked to personal and social forms of adjustment than it was to academic successes. Optimism and healthy adjustment fostered by authoritative parenting are assumed to be mutually reinforcing.

Previous research has not explored the relationships between optimism and maternal and paternal involvement. However, the effects of parental optimism on positive parenting (Jones et al., 2002), relational health (Carver et al., 1993), and relationship satisfaction (Kurdek & Fine, 1991) logically lead to a hypothesis that optimistic parents may be more involved with their children which, in turn, may be related to increased optimism in children. . Parents who are optimistic about their children's positive attributes, their influence as parents, their children's futures and their families' shared futures are presumably more likely to want to be involved in their children's lives. They may be more available and willing to participate in activities with their children.

The purpose of this study was to examine the association between observed mother and father optimism and child optimism one year later with both mother and father involvement as mediating variables. Time 1 observed child optimism, age of child, gender of child, parental education, and household income were control variables.

Strengths of this study included its random sampling frame, use of longitudinal data in a two wave panel study, and the use of both observed and self-report measures for adolescent optimism. Parents' optimism was measured using observed actual behavior during a discussion-based task with the adolescent. Mother and father involvement were measured using all three respondents. The child completed measures on both parents, and each partner took the measure

once for their own involvement and then again considering their partners' involvement with their child.

Figure 1 shows both the measurement and proposed structural paths in the model. The following hypotheses were tested:

1. Observed maternal optimism will be a significant positive predictor of observed child optimism and reported child optimism one year later (when controlling for observed and reported child optimism).
2. Observed paternal optimism will be a significant positive predictor of observed child optimism and reported child optimism one year later (when controlling for observed and reported child optimism).
3. Mother involvement will be positively related to both observed and reported child optimism one year later (when controlling for observed and reported child optimism).
4. Father involvement will be positively related to both observed and reported child optimism one year later (when controlling for observed and reported child optimism).
5. Mother involvement will be a statistically significant mediator of the relationship between mother optimism and observed and reported child optimism one year later (when controlling for observed and reported child optimism in the preceding wave).
6. Father involvement will be a statistically significant mediator of the relationship between father optimism and observed and reported child optimism one year later (when controlling for previous observed and reported child optimism). Since we were not certain whether the relationship of father and mother involvement was just limited to mediation, we also tested whether mother and father involvement were moderating variables.

Method

Participants

The participants for this study were taken from Wave 2 and Wave 3 of the *Flourishing Families Project* (FFP). The FFP is an ongoing longitudinal study of family life involving families with a child between the ages of 10 and 14 at the inception of the project (M age of child = 11.29, $SD = 1.01$). Parents and the target child were interviewed in their homes at both time points, with each interview consisting of one-hour of video discussion tasks and one-and-one-half hour for completing a self-administered questionnaire. For this study, both quantitative questionnaire data and analyzed observational coding data were used, as provided by all family members (child, mother, and father).

At Time 2, this study consisted of 500 (163 single parent and 337 two-parent) families, 95% of which had complete data for Time 3 ($N = 473$). Fifty-six percent of adolescent children from single-parent families and 49% from two-parent families were female. Among two-parent families, 73% of fathers, 86% of mothers, and 80% of children were European American, 18% of fathers, 8% of mothers, and 3% of children were African American, and 9% of fathers, 6% of mothers, and 17% of children were from other ethnic groups or were multiethnic. For two-parent families, 72% of mothers and 69% of fathers had a bachelor's degree or higher. For two-parent families, 70% made more than \$50,000 per year; with 21% of two-parent mothers and 5% of two-parent fathers reporting being unemployed. Ninety-five percent of two-parent families were currently married.

Survey Procedure

Participant families for the FFP were selected from a large northwestern city and were primarily recruited using a purchased national telephone survey database (Polk Directories/

InfoUSA). Families identified using the Polk Directory were selected from targeted census tracts that mirrored the socio-economic and racial stratification of reports of local school districts. All families with a child between the ages of 10 and 14 living within target census tracts were deemed eligible to participate in the FFP. Eligible families were subsequently contacted directly using a multi-stage recruitment protocol. First, a letter of introduction was sent to potentially eligible families. Next, interviewers made home visits and phone calls to determine and confirm eligibility and willingness to participate in the study. Once eligibility and consent were established, interviewers scheduled appointments to come to the families' homes to conduct assessment interviews. Through these recruitment protocols, a total of 692 eligible families were contacted, and 423 agreed to participate.

In addition to the random selection protocol used in conjunction with the survey database, families were recruited into the study through fliers and family referral (n=77, 15%). Since the Polk Directory national database was generated using telephone, magazine, and internet subscription reports; families with lower socio-economic demographic was under-represented in the database. Incorporating limited referrals allowed for an increase in the social-economic and ethnic diversity of the sample. A total of 500 families participated in the first wave of data collection. Of these, 337 were two-parent families which made them eligible for inclusion in this study. Ninety-six percent of these families participated at Time 3 resulting in the 323 families. Of these 302 completed the video taped task, and these 302 families comprised the sample in this study.

Upon arrival of the research teams into homes, the interviewers introduced themselves and asked each member of the family to complete questionnaires about themselves and their

family. While the one parent and child were completing a videotaped parenting interaction task, the other parent (where applicable) was completing a questionnaire.

The parent and child were given a stack of cards with the instruction to read one card up at a time and discuss the question on that card. When they were done with that card, they picked up the next card. The cards were in the same order for each dyad. The interactors were not required to go through a certain amount of cards but were asked to stop when a timer went off after 12 minutes.

Coding Procedure

Coders were trained to provide a macro level rating from 1 to 9 for each of the 45 individual and interactional scales. The coders participated in 90 hours of training which included assessments covering the content of scales, and practice coding couples and parent-child dyads with individualized feedback from certified coders. The coding manual provided extensive descriptions of each scale as well as examples and non-examples for each of the codes. Coders were required to reach a minimum of 80% interrater agreement with certified coders at the Iowa Behavioral and Social Science Research Institute. One in four tapes was also reliability unaware which of their tasks were coded by two people. Interrater agreements were determined using the intra class correlation procedure recommended by the Iowa Institute for Social and Behavioral research (Choukalas, Melby, & Lorenz, 2000).

Measurement

The Iowa Family Interaction Rating Scales (Melby, Conger, Book, Rueter, Lucy, Repinski, Rogers, Rogers & Scaramella, 1998) were used for the observational coding of the marital and parent-child interactions. Positive Mood, a specific code from these scales, was used to measure father and mother optimism at Time 1 and child optimism at both Time 2 and Time 3.

Mothers, fathers, and completed questionnaires about parental involvement at both times, and the child completed an optimism questionnaire (Peterson & Seligman, 2004) at both waves. Since the optimism questionnaire was not part of the study at Time 2, Time 3 data was not included in this study. Self-report measures of optimism were not gathered.

Optimism for mothers and fathers. Positive Mood, a specific code from the Iowa Family Interaction Rating Scales (Melby et al., 1998), was used to measure parental optimism at Time 2. *Positive Mood* is defined as “the extent to which the person conveys a positive attitude and how positive the person seems to feel about self and life in general” and is predominantly verbal content-based (Melby et al., 1998, p. 43). This definition is consistent with the definition of optimism as positive attribution discussed earlier. For each observational task, a coder watched the entire task and recorded instances in which positive mood was evident. After watching the entire task, the coders considered frequency and intensity of the specific behaviors and rated each parent and the child from 1 (not characteristic at all) to 9 (very characteristic) on the 33 individual and dyadic scales, of which positive mood was one code. Each parent received one score for the task in which they were involved with the child, and each child received two positive mood ratings, one for the task with mother, and one for the task with father.

The Iowa Family Interaction Rating Scales have been shown to be reliable and valid as assessed in several studies (i.e., Melby, Conger, Ge, & Warner, 1995; Melby, Conger & Puspitawait, 1999; Melby, Ge, Conger, & Warner, 1995). In terms of convergent validity, studies have reported moderately high correlations between observational scales and reports from self and other family members (Whitbeck, Hoyt, Simons, Conger, Elder, Lorenz, & Huck, 1992). Other studies (Cui, Conger, Bryant, & Elder, 2002) reported correlations ranging from .56 to .84 between the same observational scales for different family members (i.e., mothers and

fathers) or the same person to different family members (i.e. adolescent to sibling, adolescent to parent). Using the intraclass correlation method recommended by Iowa, interrater agreement for mothers' optimism was .81 in Time 2 and .84 in Time 3. For fathers' optimism, interrater agreement was .86 in Time 2 and .90 in Time 3.

Child optimism. Child optimism was measured in two ways both at time 2 and time 3. A latent variable called *child-reported optimism* was created using 10 items from Peterson and Seligman's hope/optimism scale (Peterson & Seligman, 2004). Peterson & Seligman's hope/optimism scale was completed by children at both Times 2 and 3. It includes 10 items to which children responded using a five-point Likert scale ranging from 1 (very much like me) to 5 (very much unlike me). Examples of items were "I always look on the bright side" and "I expect the best". The summed scores were not used, but instead the 10 items were used to create a latent variable. Confirmatory factor analysis showed that the 10 items all loaded on one factor with loadings ranging from .57 to .92. In terms of reliability, past research reports Cronbach's alpha reliability coefficients ranging from .70 to .86 (Peterson & Seligman, 2004), with a Cronbach's alpha of .86 for this sample.

Two other variables called *observed child optimism with mother* and *observed optimism with father* were measured using the codes of positive mood for the child's behavior in the task with mother and for the child's behavior in the task with father. Initially, we had intended to create a latent variable for child optimism with observed child optimism with mother and with father and self reported child optimism as the three indicators, but factor loadings indicated that these should be treated as three separate variables. For observed child optimism, the same procedure was used as described above for coding mother and father optimism except that the child's behavior was rated from 1 to 9 once for optimism in the task with mother and secondly,

for optimism in the task with father. At Time 2, interrater reliability for *positive mood/optimism* was .80 for the task with mothers and .86 for the task with fathers. At Time 3, interrater reliability was .88 for the task with mothers and .83 for the task with fathers.

Parent involvement. Mother involvement and father involvement were measured using the Inventory of Father Involvement (Hawkins, Bradford, Palkovitz, Christiansen, Day, & Call, 2002). Since this measure asks respondents to answer how often, from 1 (never) through 5 (very often), they participate in eight different activities with their child, and the activities are such that either mother or father could do them, so we asked mothers to complete the same measure regarding their involvement with their child. In addition, each parent was asked to respond to the eight activities in terms of their perception of their partner's involvement with their child. Children were also asked to respond how often father participated with them in each of the 8 activities and then how often mother participated with them in each of the 8 activities. Sample activities included, "Help your child with homework?" and "Read books or magazines with your child?" Answers to the eight items were summed to yield a score that ranged from 8 to 40 with a higher score indicating greater mother or father involvement in the child's life. Three summed scores were obtained for mother involvement including mother's self report of her involvement, father's perception of mother's involvement, and child's report of mother's involvement, and all of these were used as indicators to create a latent variable called mother involvement Time 3. Similarly, three summed scores were used to create a latent variable for father involvement at Time 3.

Hawkins et al. (2002) examined construct validity by correlating the inventory's nine factors with conceptually related items included elsewhere in the questionnaire. For example, one scale, "Discipline and Responsibility" was found to be correlated significantly with another

questionnaire item regarding rule and limit-setting ($r=.61, p<.001$). They also found that the measure differentiated involvement of divorced fathers and married biological fathers as the authors predicted. Factor analysis also confirmed that the items loaded as expected. Factor loadings in the sample were .73, .63, and .57 for mother involvement and .79, .80, and .68 for father involvement. Wave 2 Cronbach's alpha coefficients were found to be .64 for mother self report, .66 for father report on mother, and .83 for child report on mother, .76 for father self report, .76 for mother report on fathers, and .83 for child report on father. The coefficients for wave 3 were similar ranging from .70 to .83.

Results

Several steps were involved in the analysis of the data. First, means and standard deviations were calculated for all variables. Next, confirmatory factor analysis was used to determine factor loadings for the proposed latent variable (child optimism) at Time 2 and Time 3. The loadings for the three variables (child reported optimism, observed optimism with mother, and observed optimism with father) were not high enough at Time 2 (.16, .45, and .62, respectively) or Time 3 (.14, .32, .44) to keep them as indicators of one latent factor, a common occurrence between observed and self-report data (Lorenz, Melby, Conger & Zu, 2007). Accordingly, three separate outcome variables were created: Optimism Child Reported Time 3, Observed Optimism Child with Mother Time 3, and Observed Optimism Child with Father Time 3. The self report of the child at Time 2, observed optimism with mother at Time 2, and observed optimism with father at Time 2 were also split out into three control variables.

As shown at the bottom of Table 1, the means for observed optimism were very similar for both fathers and mothers, and for both sons and daughters, indicating minimal differences based on gender of parent. T-tests showed that there were no significant differences between

fathers and mother and between sons and daughters. The means for self-report of child optimism at Time 3 were lower than at Time 2, but were consistent across daughters and sons. Reports of parental involvement had comparable means among the three indicators for each parent.

Table 1 shows correlations for all variables in the model. Observed mother optimism at Time 2 was significantly correlated with observed optimism of the child in both parenting tasks at Time 2 (.43 $p < .001$, .25 $p < .001$). Observed mother optimism at Time 2 was significantly correlated with both mother and child reports of mother involvement at Time 3 (.17 $p < .05$, .17 $p < .05$). Observed father optimism in Time 2 was found to be significantly correlated with the child's observed optimism in the father-child task at Time 2 (.35 $p < .001$) and was significantly associated with the child's observed optimism in both mother-child and father-child tasks at time 3 (.24 $p < .001$, .24 $p < .001$). It was also found to be significantly associated with father involvement at Time 3 as reported by all three family members (.20 $p < .01$, .19 $p < .05$, .25 $p < .001$). Children who were observed as optimistic in the mother-child task at Time 3 were similarly found to exhibit optimism in the father-child task at Time 3 (.21 $p < .05$).

Figure 2 shows the standardized beta coefficients for all paths in the saturated model. The fit indices showed that the hypothesized mediation model fit the actual data quite well with X^2 being nonsignificant (91.33, $df=86$, $p=.17$) and CFI=.99 with RMSEA=.02.

Results for Hypotheses 1 & 2

The first hypothesis regarding observed maternal optimism predicting observed child optimism was not supported for either sons or daughters ($\beta=.03$, $\beta=.04$; $\beta=.06$, $\beta=.11$) indicating that mother optimism at Time 2 was not found to be significantly related to the child's optimism in interactions with either parent at Time 3. The second hypothesis that observed paternal

optimism at Time 2 would predict observed child optimism with both parents at Time 3 was confirmed for both sons and daughters ($\beta=.18$ $p<.05$; $\beta=.22$ $p<.01$; $\beta=.20$ $p<.01$; $\beta=.33$ $p<.001$).

Results for Hypotheses 3 & 4

The third hypothesis, which addressed mother involvement at Time 3 being positively related to child optimism at Time 3, was only supported in relation to child self-report data ($\beta=.49$ $p<.001$; $\beta=.57$ $p<.001$), but not with observed data ($\beta=.12$, $\beta=.06$; $\beta=.12$, $\beta=.11$). The fourth hypothesis, which addressed father involvement Time 3 being positively related to child optimism at Time 3, was supported for both sons and daughters in relation to child's self-report of optimism ($\beta=.24$ $p<.001$; $\beta=.38$ $p<.001$) but was only supported for sons when looking at observed optimism with mothers ($\beta=.20$ $p<.01$) and with fathers ($\beta=.21$ $p<.01$).

Results for Hypotheses 5 & 6

To test whether or not mediation was significant, Sobel tests were conducted for several relationships. First, mother involvement was a significant mediator between observed mother optimism Time 2 and child self reported optimism at Time 3 (5.92, $p<.001$). Father involvement at Time 3 was a significant mediator between observed mother optimism at Time 2 and child reported optimism (2.09, $p<.05$), observed child optimism with mother (2.82, $p<.01$), and observed child optimism with father (2.03, $p<.05$) all at time 3. Lastly, father involvement Time 3 was a significant mediator in the relationship between observed father optimism Time 2 and child reported optimism (5.79, $p<.001$), observed child optimism with mother (4.65, $p<.001$), and child optimism with father (2.09, $p<.05$), all at Time 3. While mother optimism at Time 2 was not directly related to any of the outcome variables at Time 3, it appears that it was indirectly related to all three outcomes via the path through father involvement.

Discussion

The study produced several significant findings. Paternal optimism was found to be significantly associated with the adolescent's observed optimism one year later, whereas maternal optimism was not. There was also evidence to support parental involvement as a mediating variable between father optimism and self-reported adolescent optimism. Further, father involvement was found to mediate the relationships of both father and mother observed optimism at Time 2, and self-report and observed optimism of the adolescent at Time 3. The implications of these findings will be explored below.

Optimism

Hasan and Power (2002) found that maternal optimism as measured by the Life Orientation Test (Scheier & Carver, 1985) was not a significant predictor of children's optimism. Because parental optimism was measured by actual observation of a parent child discussion task, the author hypothesized that the mother's optimism exhibited during the task would be related to the child's optimism because of the mother's social modeling of optimistic behavior. This hypothesis would be consistent with Bandura's Social learning Theory (Bandura, 1977). Results failed to confirm this hypothesis. It may be that this relationship was not supported due to the presence of competing modeled behavior in other daily interactions. Many mothers' primary interaction with adolescents is as a teacher, caretaker, and disciplinarian, a role in which parents may not dominantly be seen as focusing on the positive. Youth may observe behaviors of mothers in the home in which mothers are not focusing on tasks. Further, mothers who work may be less relaxed and not as available to spend quality time because they have the added pressure of the "second shift" of attending to domestic responsibilities (Hochschild & Machung,

1989). It may also be that the optimism demonstrated in a discussion task was not representative of mothers' optimism in general.

Father optimism was found to significantly predict adolescents' optimism a year later, supporting the initial hypotheses. This may be attributable to a social learning perspective, especially if fathers' shared time with their children is spent primarily in relationship-building activities such as reading, rough-and-tumble play, and otherwise sharing quality time together. The impact of father optimism on youth optimism may also indicate unique contributions of fathers in their involvement in the lives of adolescents. It may also be that having father optimism variables in the same model obscured the relationship between mother and child optimism because the correlations between observed mother and child optimism were as high as the correlations between observed father and child optimism.

Mother Involvement

Mother involvement was found to be associated with adolescent self-reported optimism but not with observed child optimism. The relationship between parent involvement and child optimism has not been previously addressed in literature. This study's findings indicated that mothers' level of involvement in their children's life impacts the children's outlook on the future. Self-report measures measure how the adolescent view life and the future generally. When mothers were involved in their lives, those perspectives were more positive. Observed data was more indicative of the child's here-and-now experience and the expression of such positive orientations. It is possible that the incongruence between expressions of optimism in the observed interaction tasks is a reflection of other aspects of the mother-child relationship.

Another part of the explanation for this finding may relate to the role mother involvement has on the child's confidence in themselves, as well as their sense of self-efficacy. Bandura

(1977) has linked personal efficacy, a belief that how a person chooses act, with the ability to achieve desired outcomes. Personal efficacy assumes that the person has human agency in which they see themselves as having influence in bringing about a desired outcome intentionally. If an adolescent feels that they can make of their lives and futures what they want, that accompanying sense of empowerment and hope will contribute to positive feels about the life they can create and enjoy.

Father Involvement

Father involvement was also found to be significantly correlated to self-reported adolescent optimism. Father involvement was found to uniquely contribute to observed optimism among sons, but not daughters. This distinction suggests that fathers fulfill a role that mothers typically do not, especially in relation to young males. This gendered difference may be attributable to the nature of the father-son relationship or to the nature of the interaction between fathers and sons versus fathers and daughters. Other studies have shown that father involvement is associated with behavioral outcomes for sons and social and emotional outcomes for daughters (Sarkadi, Kristiansson, Oberklaid & Bremberg, 2008), indicating that fathers contribute uniquely to children based on child gender.

Father involvement has been found to offer significant contributions to child well-being, independent of mother involvement. Research has shown that father involvement tends to have a stronger effect on offspring happiness than does mother involvement. However, when measuring effects of father involvement on happiness, no differences were found in its effects on sons compared to daughters (Flouri & Buchanan, 2003).

The role of father involvement on observed optimism in sons may be related to both the nature of father-son interaction, as well as the proportion of time spent positively involved

throughout their daily interactions. Fathers have been found to be more likely to engage in rough and tumble play and other forms of physical, fun and stimulating interaction than mothers.

Further, many working fathers are more likely to spend a high proportion of their father-child time engaging with their child in positive ways, and less time acting as a caregiver and manager.

In this study, father involvement was further found to mediate the relationship between parent optimism and child optimism a year later, relative to both mother and father optimism.

This is yet another evidence of unique contributions of the father to child outcomes.

The father's mediating role between mother optimism at Time 2 and adolescent optimism at Time 3 may be associated with mothers who adopt the role of gatekeeper (Fagan & Barnett, 2003). Mothers who are more encouraging of father involvement are more likely to have fathers who are both positive and present in the home and in their children's lives. De Luccie (1995) found that much of the frequency of father involvement was explained directly by maternal mediators. He found that the more important father involvement was to mothers, and the more satisfied mothers were with their spouse's involvement in their children's lives, the more likely she was to be satisfied in their marriage and in other spheres of life. When mothers value and encourage father involvement, there is higher satisfaction in many layers of the family ecology. This more pleasant and comfortable family climate, in turn, may contribute to adolescents seeing, experiencing, and expressing optimism.

Limitations and Future Directions

Limitations of this study should be acknowledged. The nature of the discussion tasks elicited more present-centered positive mood comments than generalized positive outcome expectancies for the future. While coded verbal expressions capture underrepresented aspects of optimism, this may prove to be a limitation in that it excludes the most commonly measured

aspect of optimism, namely, positive expectations for the future. Also, both self-report and observed measures would have been used for mothers and fathers as well as their children in order to provide a more comprehensive understanding of optimism, but questionnaires related to optimism were not administered to the parents.

Another limitation of this study relates to its generalizability to certain populations. This sample represented some diversity, especially African American families, but Latino and Asian families were underrepresented limiting generalizability to those family forms without further research.

Future research is needed to explore how parental optimism impacts children in non-traditional family forms. The impact of parental optimism on children and adolescents in single-parent families, in the child's relationship with a nonresidential parent, or where parents are cohabiting have yet to be explored.

Future research might also investigate the overlap and distinctions between verbal expression of optimism and a generally positive attitude. These appear to be overlapping but distinctive variables that impact children and outcomes in differing ways. Research on antecedents to the acquisition of optimism in adolescents is also needed. One area of research may be to study the role of marital quality on parental involvement and adolescent optimism.

Implications for Family Life Educators and Couple and Family Therapists

Implications exist for family life educators and clinicians. The findings of this study point to the need to further involve parents in the lives of their adolescents, involvement that should start in the home, and can be extended to the therapy.

Family life educators can use these findings to inform the creation and integration of programs that focus on facilitating parent involvement as well as parent optimism. Optimism

has been found to be something that can be learned (Seligman, 1990). Proactive and prevention programs that facilitate such qualities should be included in parent education starting before parents have children. The programs should then be revisited during their children's childhood and adolescence. Policy and programs that target encouraging father availability and involvement in the lives of their children should be advocated. Programs, targeted at parents, and particularly fathers, should assist in helping parents and prospective parents to prioritize and develop skills that will foster parental involvement.

There is also relevance for clinicians who are presented with an adolescent as an identified patient. Many adolescents who present in therapy have depressive symptoms inclusive of low affect, and poor self-esteem (Mowder, Miller & Lawton-Smith, 1987). Optimism has been found to buffer symptoms of depression (Chang, Wang, Li & Liu, 2011) and facilitating optimism can be a subgoal of treatment. It may be that including fathers in the therapy is especially important for sons who suffer from these problems. Findings from this study would suggest that intervening by stressing to fathers how important their expressed optimism is in the life of their child would be important. Such interventions should include promoting the presence and involvement of parents both in and outside of the therapy room. Inviting parents to be part of the treatment unit, and focusing on fostering quality time together between the teen and parents, and particularly the father, can help forward treatment success. Promoting optimism in both the adolescent and in parents can take place within the therapy setting, with homework assignments that invite their continuation in other spheres of life. Through using therapy as a forum for catalyzing a shift toward optimism, treatment and change can be enhanced.

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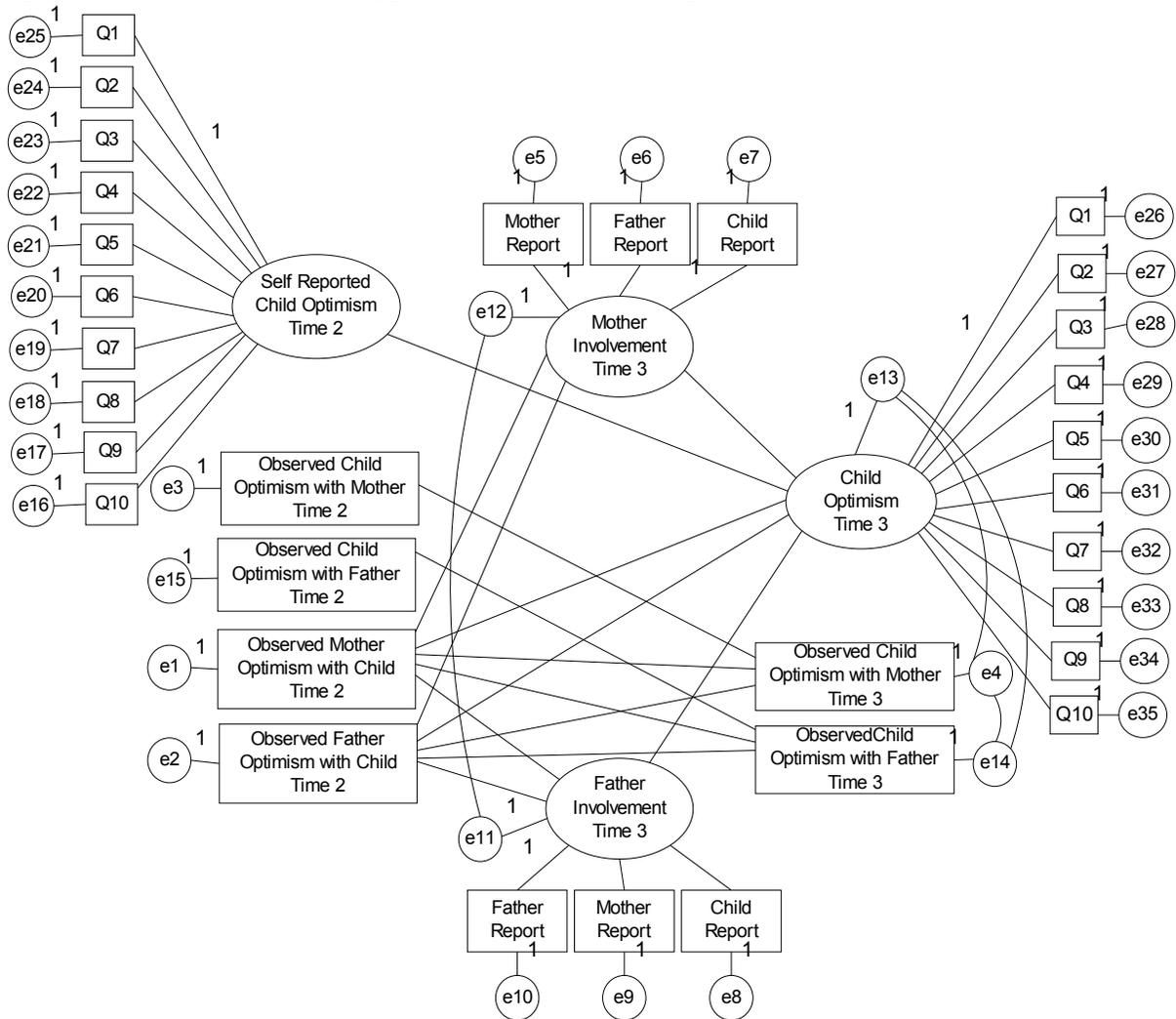
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Table 1. Correlations, Means, and Standard Deviations for All Measured Variables.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Optimism T1														
1.Observed Mother Optimism T2	1.0	.14	.48***	.23**	.04	.07	.15	.06	.17*	.19*	.17*	.20**	.04	.20**
2.Observed Father Optimism T2	.17*	1.0	.10	.41***	.05	.23**	.31***	.15	.02	.01	.15	.19*	.16	.19*
3.Observed Child w/ Mother T2	.43***	.09	1.0	.42***	.04	.16	.09	.14	.04	.10	.27***	.27***	.07	.27***
4.Observed Child w/Father T2	.25***	.35***	.25***	1.0	.13	.16	.09	.19*	.04	.01	.17*	.14	.03	.14
5.Child Self Report T2	.04	.17*	.10	.01	1.0	.02	.03	.61***	.27***	.11	.30***	.34***	.20**	.34***
Optimism T2														
6.Observed Child w/Mother T3	.08	.24***	.04	.12	.01	1.0	.27***	.06	.04	.01	.11	.16	.01	.16
7.Observed Child w/ Father T3	.02	.24***	.04	.13	.02	.21**	1.0	.04	.05	.07	.14	.13	.02	.13
8.Child Self Report T3	.03	.18*	.08	.06	.56***	.03	.03	1.0	.18*	.20**	.43***	.48***	.12	.48***
Mother Involvement T3														
9.Mother Self Report	.17*	.14	.01	.09	.02	.21*	.17*	.03	1.0	.27***	.38***	.29***	.58***	.29***
10.Father's Report of Mother	.15	.09	.07	.03	.06	.03	.05	.17*	.36***	1.0	.31***	.17*	.12	.17*
11.Child's Report	.17*	.14	.23**	.18*	.21**	.04	.08	.32***	.13	.34***	1.0	.81***	.20**	.81***
Father Involvement T3														
12.Father Self Report	.11	.20**	.17*	.08	.24**	.05	.10	.22**	.07	.15	.78***	1.0	.32***	.77***
13.Mother's Report of Father	.02	.19*	.01	.10	.12	.24**	.20*	.21**	.46***	.02	.06	.29***	1.0	.33***
14.Child's Report	.11	.25***	.07	.08	.24**	.05	.10	.23**	.07	.15	.77***	.59***	.29***	1.0
Mean for sons	4.37	4.09	3.58	3.61	3.56	4.89	4.51	2.37	4.08	4.12	3.96	3.89	3.83	3.89
S.D. for sons	1.45	1.42	1.39	1.13	.66	1.10	1.29	.60	.43	.42	.64	.66	.58	.66
Mean for daughters	4.37	4.38	3.95	4.17	3.75	5.22	4.60	2.26	4.07	4.06	4.03	3.87	3.85	3.88
S.C. for daughters	1.43	1.47	1.37	1.43	.59	1.18	1.51	.60	.44	.54	.62	.68	.55	.69

Note: Correlations for daughters in top and for sons on bottom. *p<.05, **p<.01, ***p<.001

Figure 1. Measurement and Hypothesized Structural Equation Model.



Note: Correlations between the error terms for the exogenous variables are not shown, but they will be included in the analysis.

