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Intergenerational and Partner Influences on Fathers' Negative Discipline

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Abstract

Recent studies have found significant but relatively modest associations in parenting across generations, suggesting additional influences on parenting than experience in the family of origin. The present prospective, cross-generational study of at-risk men (Oregon Youth Study) focuses on fathers' negative discipline practices with their 2- to 3-year-old children. The theoretical model is based on a dynamic developmental systems approach to problematic family functioning, which points to the importance of developmental systems, including family risk context and key influential social interactional systems, and emphasizes influence that is directly pertinent to the outcome of interest. Path modeling indicated that the men's poor and harsh discipline practices were predicted by partners' problem behavior (substance use and antisocial behavior) and negative discipline practices, as well as by poor discipline experienced in the family of origin, men's own problem behavior, ages at which they became fathers, and family socioeconomic status were controlled. Findings indicate the importance of focusing on influence dynamics across parents.

Keywords

three generations; discipline; mothers; fathers; dynamic developmental systems

It has long been assumed that many of the parenting behaviors we employ with our children were learned from our own parents (Caspi & Elder, 1988). Until recently, however, most evidence regarding this association came from retrospective studies (Covell, Grusec, & King, 1995; Olsen, Martin, & Halverson, 1999) or from studies in which one agent reported on more than one generation (e.g., Chassin, Presson, Todd, Rose, & Sherman, 1998; Chen & Kaplan, 2001). A number of recent studies using long-term prospective data sets with multiagent, multimethod designs have found significant associations between the parenting experienced as a child and the parenting practices later employed in the family of procreation. Notably, however, these associations have been relatively modest (Belsky, Jaffee, Sligo, Woodward, & Silva, 2005; Capaldi, Pears, Patterson, & Owen, 2003; Conger, Neppl, Kim, & Scaramella, 2003; Hops, Davis, Leve, & Sheeber, 2003; Smith & Farrington, 2004; Thornberry, Freeman-Gallant, Lizotte, Krohn, & Smith, 2003).

The fact that the intergenerational association for parenting is limited when subjected to rigorous testing indicates that there are influences on parenting in addition to experiences in the family of origin. The availability of prospective intergenerational data allows for the opportunity to identify factors that influence early adults' parenting over and above the behavior modeled by their parents. The present study builds on a prior study (Capaldi et al., 2003) examining intergenerational continuity in parenting for an at-risk sample of young men (the Oregon Youth Study, OYS) by testing a theory-driven model of factors that may influence

fathering beyond the parenting that men experienced in the family of origin. A number of developmental researchers have indicated the need to consider the roles of both context and key social systems in influencing the dynamics of the development of antisocial behavior (Dishion & Patterson, 2006; Dodge et al., 2006; Thornberry & Krohn, 2001). We have synthesized aspects of these approaches in dynamic developmental systems theory (Capaldi & Kim, 2007), which emphasizes the need to focus on the influence of key proximal social systems on risk behavior and psychopathology, that vary by developmental stage. We developed this approach to help explain the dynamics of domestic violence (Capaldi, Shortt, & Kim, 2005), but have extended this to the study of partner influences on the persistence and desistance of men's crime in adulthood (Capaldi, Kim, & Owen, 2007). These studies support the hypothesis that, in early adulthood, romantic partners are a major source of social influence for individuals in such relationships. Similarly, the influences of the fathers' partners (i.e., the child's biological mother) through the women's contributions to family risk context and parenting behaviors are posited as critical to men's parenting behaviors.

Despite efforts made nearly two decades ago to highlight fathering, developmental research generally has neglected the role of fathers (Phares, Fields, Kamboukos, & Lopez, 2005). The present study focuses on fathers' ineffective and harsh discipline practices during the early years of their children's lives. Early childhood is an important period for studying harsh and ineffective parenting practices, both because rapid developmental changes present the need for new parenting tactics and because children show relatively high levels of problem behaviors such as temper tantrums, aggression, and defiance at this age (Tremblay et al., 1999). Thus, it may be a time when parenting is open to influence. Paternal poor and harsh discipline practices are of particular interest, as fathers often share in discipline of the child or have primary responsibility for discipline, particularly for more serious infractions (Holland, 1994). Further, poor and harsh discipline has been associated with a range of problematic outcomes for youth, including conduct problems and delinquency (Patterson, Dishion, & Reid, 1992).

Figure 1 illustrates the theoretical pathways of transmission of poor discipline practices based on the dynamic developmental systems model. This approach is highly related to some previous multilevel theoretical models (e.g. Bronfenbrenner, 1986), but places more emphasis on the issue of which social systems are the most influential at differing life stages, and the importance of considering both contributions to risk context and specific rather than more general aspects of influence. Within the dynamic developmental systems approach, we emphasize influence that is directly pertinent to the outcome of interest. A variety of studies document the influences that mothers' psychological characteristics, behaviors toward their partners, and attitudes about fathers' roles have on various aspects of fathering, such as involvement, role satisfaction, and destructive parenting (De Luccie, 1996; Florsheim & Smith, 2005; Grossman, Pollack, & Golding, 1988; McBride et al., 2005; Simons, Whitbeck, Conger, & Melby, 1990). However, prior research does not directly address the question of whether partners' parenting impacts fathers' parenting practices, nor does it account for other important influences, including parents' risk behaviors and childhood experiences. In contrast, we considered the influence of partners' prior developmental risk and discipline practices on men's discipline.

The cumulative developmental risks of each young parent are posited to be critical features of family risk context. Parents' past and current problem behavior is expected to be an important marker of their developmental risk and the risk context experienced by their offspring. Antisocial behavior and negative parenting practices are intimately associated across generations. Specifically, poor and harsh parenting practices have been found to predict adolescent antisocial behavior (Dishion, French, & Patterson, 1995), which shows significant stability into adulthood (Wiesner, Kim, & Capaldi, 2005); and adult antisocial behavior has been found to predict harsh and inconsistent discipline and poor supervision of the subsequent generation (Capaldi & Clark, 1998; Patterson & Capaldi, 1991), as well as problem behavior

in the subsequent generation via negative discipline (e.g., Patterson & Dishion, 1988). Adolescent antisocial behavior has been identified recently as a potential mediator in the transmission of parenting practices (e.g., Capaldi et al., 2003; Hops et al., 2003).

The links between *adolescent* antisocial behavior and later poor parenting have been established (Patterson & Capaldi, 1991; Serbin & Karp, 2003; Simons, Wu, Johnson, & Conger, 1995) and, in general, implicate the myriad developmental failures associated with problem behavior (e.g., Capaldi & Stoolmiller, 1999), as well as an accumulating burden of risk that young parents carry as they form families of procreation. Furthermore, the risk that problem behavior confers to parents and children may be compounded through the well-documented phenomenon of assortative partnering (e.g. Kim & Capaldi, 2004; Smith & Farrington, 2004). Thus, the problem behaviors of both parents should be taken into account when examining how family-risk context influences parenting.

Low socioeconomic status (SES) is another important risk context linked with poor parenting practices. Lower income parents have fewer community resources, are subject to greater instability and daily stress, live in more deprived and risky neighborhood and family circumstances, and are less able to make use of instrumental and emotional support (e.g., Ceballo & McLoyd, 2002; Conger, Ge, Elder, Lorenz, & Simons, 1994). Numerous studies link the stresses of economic hardship, as well as the community circumstances associated with low SES, with the full spectrum of negative parenting outcomes (e.g., Conger et al., 1992). Lower SES also co-occurs with other potential influences on poor parenting, such as antisocial behavior (Larzelere & Patterson, 1990) and teenage parenthood (Fagot, Pears, Capaldi, Crosby, & Leve, 1998).

Premature entry into fatherhood may be another key feature of developmental and contextual risk that negatively influences men's parenting. Younger fathers may be less skilled as parents than are older fathers, as suggested in research comparing adolescent and adult mothers (e.g. Becker, 1987; Berlin, Brady-Smith, & Brooks-Gunn, 2002). It is unknown how much risk may be due to young fatherhood per se versus selection factors for young fatherhood, such as lower SES, higher risk backgrounds, poor academic skills, adolescent alcohol and substance use (Pears, Pierce, Kim, Capaldi, & Owen, 2005), and antisocial behavior (Jaffee, Caspi, Moffitt, Taylor, & Dickson, 2001). However, early fatherhood has been shown to confer additional subsequent risk to men (e.g., economic risk; Sigle-Rushton, 2005), even after accounting for powerful selection effects on early parenthood. Thus, in the present study the unique effects of age at first fatherhood were examined over known co-occurring risk factors that are predictive of poor parenting practices.

In the present study, it is predicted that maternal discipline would be significantly associated with paternal discipline practices. Although our focus was not on partner's influences on change over time, this predicted positive association can be considered change relative to what would be predicted from other potent influences (e.g., parenting experienced in the family of origin). Partner influence is expected as parents may alter their parenting style and disciplinary interventions to become coordinated and consistent with those of their partner. Social learning mechanisms may partially account for why individuals utilize the same practices that their partners use. Individuals may receive varying levels of support in parenting from their partner and be directly influenced by their partner either to improve their parenting practices or to use more harsh practices – as when one parent persuades the other that their child will not desist from negative behaviors unless spanked. As consistency between parents in their parenting practices is usually recommended in parental advice books (e.g., Forgatch & Patterson, 2005), individual parents may feel some pressure to change their parenting practices to be more in line with those of their partner or at least to make some compromises. Numerous studies with diverse samples (e.g., adolescent parents, middle-class adult parents, clinic-referred

parents) support the view that mothers' and fathers' observed and self-reported parenting styles, attitudes, and discipline strategies show similarities (Denham et al., 2000; Florsheim & Smith, 2005; Florsheim et al., 2003; Kerr, Lopez, Olson, & Sameroff, 2004; Mahoney, Donnelly, Lewis, & Maynard, 2000; Nobes & Smith, 1997; Simons et al., 1990; Smith & Farrington, 2004; Tamis-LeMonda, Shannon, Cabrera, & Lamb, 2004). Yet, none of these reviewed studies, nor any others of which we are aware, examined partner influences after accounting for parents' individual and family risk and also for partner selection effects.

In the general hypothesized model (Figure 1), the intergenerational association of poor and harsh discipline practices learned as a child (in the family of origin) and then enacted as an adult (in the family of procreation) is depicted by the association of first generation (G1) to Generation 2 (G2) discipline. Discipline by the G1 parents has been shown to have a mediated effect on the G2 father's discipline practices via the development of his antisocial and risky behaviors in adolescence. We will test whether this mediational path persists when men's risk behavior is assessed during his early years as a father and when other contextual and partner risk characteristics are considered. A pathway of central interest in the study is the hypothesized influence of the G2 mother's¹ negative discipline practices (as assessed by poor and harsh discipline of Generation 3 [G3]) on the G2 father's similar negative discipline practices. If partner discipline practices influence fathers' practices, even when other risk factors are accounted for in the model, this would strengthen conclusions about this mechanism of influence on parenting. Low SES and adolescent parenthood are two such risk factors that plausibly compete with partners' parenting as influences on fathers' parenting, given that these factors are associated with poorer parenting practices (e.g., Becker, 1987; Berlin et al., 2002; Conger et al., 1992) and may play a role in assortative mating. Thus, possible effects of G2 family SES and G2 father age at the birth of the first G3 child on his discipline practices were controlled in the model. Theoretically, we expect that G2 men's risk behaviors are associated with poor discipline practices, in part via influences on the risk context of the G2 family of procreation. However, because partner influences were the focus of the present study, we examined only the direct effects of these risk features on men's poor parenting. Additionally, fathers' parenting may be more sensitive to the opinions and behaviors of partners compared to mothers' parenting (e.g., Simons, Beaman, Conger, & Chao, 1993). Simons et al. (1990) reported that mothers' beliefs about the impact of parenting were associated with fathers' parenting behaviors, whereas his beliefs did not relate to her parenting. Such findings are consistent with theories that men and women view mothers as the parenting experts in families and consider fathers' parenting role to be primarily a supportive one (e.g., Patterson, 1980). Based on this perspective, we examined only mothers' influences on fathers' parenting and not vice versa.

The present study extends our prior study of intergenerational continuity in parenting (Capaldi et al., 2003) in several ways. First, in addition to the contributions of intergenerational continuity and prior developmental risk, the influences of risk of the G2 mother and of her discipline practices are examined. Second, the present study focuses on the negative discipline practices of the G1 and G2 parents, in particular, rather than on a broader construct of parenting. Third, due to the fact that it takes many years to collect developmentally timed data for G3 compared with more traditional study designs, the sample size of G3 for the present study was close to double the size for the prior study. In sum, we examined a prospective model of constructs hypothesized to show additive prediction to parenting that spans three generations (G1, G2, and G3) for an at-risk sample of young adult men in the OYS and their G3 children.

¹For clarification, "G1 mother and father" refer to the parents of the G2 man (recruited as a child for OYS), who is referred to as "G2 man" or "G2 father." "G3" refers to the (in most cases biological) child of the G2 father. "G2 mother" refers to the woman, who in most cases, is the partner of the G2 father and the mother of G3. Parents of the G2 mother were not assessed.

Method

Participants

Hypotheses were tested using prospective measures on three generations in the OYS and the Three Generational Study (3GS). Original sample recruitment (OYS) was of parents in Generation 1 (G1) and sons in Generation 2 (G2) and involved recruiting all fourth-grade boys who attended schools in higher-crime areas of a medium-sized metropolitan region in the Pacific Northwest. A 74% recruitment rate was attained for a sample size of 206. The sample represented the area in being 90% Euro-American and was predominantly from lower-class and working-class families (Hollingshead, 1975). Four young men in G2 have died, and retention rates have been 95% or higher at each year.

All biological and stepchildren in Generation 3 (G3) of the G2 OYS men, as well as the G2 mothers of G3 are/were eligible for the ongoing 3GS. As of October 2006, 216 children from 111 young men in OYS had participated in (a) only Time 1 (T1; $N = 28$), (b) only Time 2 (T1; $N = 23$), (c) or both ($N = 165$) waves of assessment, occurring at approximately 21 and 39 months of age, respectively. Of these 216 children, 21 lacked outcome data (G3 father discipline), mainly due to lack of contact with their fathers, and were not included in the analyses. Thus, 195 G3 children of 103 G2 fathers were included in the analyses; 179 were biological children of the OYS man, and 16 were stepchildren. All but 1 of the 121 G2 mothers were biological parents of the G3 children. The 91 G3 boys and 104 G3 girls averaged 21 months of age at the T1 assessment (range 17 to 34 months) and 39 months at T2 (range 35 to 59 months). At T1, the ages of the G2 mothers and fathers ranged from 17 to 41 years (mean = 25 years) and from 20 to 32 years (mean = 26 years), respectively. At T1, fathers had lived with the G3 children an average of 85% of the time since birth, and 44% of the fathers had lived with the children full time.

Procedures

Full assessments of G2 men in OYS were collected every other year through high school, beginning at Year 1 (age 9-10 years). Some variables involving the adolescent's behavior were collected every year. The assessments used in the present study included interviews and questionnaires from Years 1-22 of the OYS. Continuity was maintained when possible; however, measures were adapted to address developmental changes and to improve measurement. Details of the assessment instruments and procedures in Year 1 were presented in Capaldi and Patterson (1989).

The T1 assessment of G3 children (approximately 21 months of age) and G2 parents in 3GS entailed structured parent-child tasks in the Center, as well as parent questionnaires and interviews. The first visit of the T1 assessment was conducted with the mother; a second, separate T1 assessment was conducted with the father within the next 2 weeks. The T2 assessment was structured in the same way, with some changes in tasks and questionnaires to maintain developmental appropriateness.

Measures

The time points used to assess the key constructs were as follows:

1. G1 discipline practices were assessed when the G2 boy was ages 9 to 12 years (OYS Years 1 and 3).
2. G2 SES, the G2 fathers' and mothers' discipline of G3, as well as the G2 mothers' risk behavior, were assessed at T1 and T2 of 3GS, when G3 children were approximately 21 and 39 months of age. Data for G2 fathers' risk behavior came from OYS assessments closest in time to each of the two 3GS assessments. The time

between the OYS assessment from which the measure was drawn and the date of the 3GS assessment was 83 days, on average.

To create scales that were as similar as possible across assessment times, generation, and participant, measures were limited to self-report items for both G1 and G2. Because G2 fathers were the focal participants in OYS, somewhat more extensive data were available regarding their risk behavior than were available for G2 mothers.

G1 poor discipline of G2—Two self-report discipline scales (poor implementation and poor confidence in results) derived from interviews with the G1 mother (M) and father (F) were used to assess poor parenting of G2 boys. Poor implementation of discipline was formed from four items at Year 1 (M alpha = .56; F alpha = .59) and six items at Year 3 (M alpha = .71; F alpha = .70). Items included, “How often does your punishment depend on your mood?” and “How often do you follow through with threatened punishment?” The scales were associated significantly across years at the $p < .05$ level within respondent (M $r = .58$, F $r = .57$, $p < .01$), and across-time means were calculated to represent each parent’s poor implementation. Poor confidence in discipline results was represented by three items in both Year 1 (M alpha = .78; F alpha = .67) and Year 3 (M alpha = .64; F alpha = .55). Again, the scales were significantly associated within respondent across time (M $r = .60$; F $r = .53$, $p < .01$), and across-time means were therefore calculated. The poor implementation and low confidence scales were significantly associated for both the mothers and fathers ($r = .52$ and $.46$, respectively, $p < .01$), and mean scores on discipline were calculated for each parent. Finally, the global G1 poor discipline scale was calculated as the mean of the mother and father discipline scales, which were significantly associated ($r = .40$, $p < .01$).

G2 socioeconomic status—Self-reported SES by the G2 father and mother (from a demographic questionnaire) was comprised of four items: last grade completed (scale 1 “<7th grade” to 7 “graduate degree”), current income (scale 1 “< \$4,999” to 9 “> \$50,000”), current occupation (scale 1 “menial service worker” to 9 “higher executives”), and whether currently looking for work (1 = “yes,” 2 = “no”). Standardized Cronbach’s alphas at T1 and T2 were .63 and .60 for the G2 mother ($r = .75$, $p < .01$), and .64 and .55 for the father ($r = .65$, $p < .01$). Cross-time means were derived for mothers and fathers and were significantly associated, $r = .50$, $p < .01$. Finally, the mean of these scores was taken to calculate family SES level.

Of the G2 parents, 22% of fathers and 26% of mothers did not complete high school, 40% of fathers and 42% of mothers were high school graduates, 26% and 27% respectively had attended some college, and 9% and 6% respectively had gained a college degree. Of the fathers, 62% (and 67% of the mothers) were in skilled manual worker or lower occupations, and 22% of fathers (25% of mothers) were looking for work at one or both of the study years. Mother and father reports of household income were strongly associated, ($r = .77$, $p < .01$), and the average of their reports indicated that 57% of the sample fell into the \$25,000 to \$29,999 range. Only 21% of the sample had an income over \$50,000.

G2 father age at birth of first child—Births of biological children to the G2 father were tracked yearly mainly via father report. The age of each G2 father at the birth of his first biological child was calculated.

G2 risk behavior—G2 risk behavior was measured as the mean of subscales for antisocial behavior and substance use. Antisocial behavior and substance use were calculated for G2 mother and G2 father separately at each data collection point, and the mean of the scales across the 3GS assessments was then calculated for the final risk behavior scores for each parent.

Antisocial behavior was measured by taking the sum of 16 items (identical for mother and father) from the National Youth Survey (Elliott, 1983); the scale was originally used to measure delinquency in adolescents but has been used to assess OYS participants into adulthood. Items (examples include, “How many times in the past year have you dealt in stolen goods?” and “How many times in the past year did you steal something worth more than \$50?”) were recoded from a continuous scale to an eight category ordinal scale (0 = 0; 1 = 1; 2 & 3 = 2; 4-9 = 3; 10-14 = 4; 15-39 = 5; 40-79 = 6; 80-249 = 7; 250-max = 8) to reduce skewness and potential effects of outliers.

Substance use in the past year was calculated using self-report interview items. For both mother and father, separate scales for alcohol, marijuana, and other drug use were calculated for each data collection point. Each domain was measured using frequency of use in the past year, with additional indicators for volume, patterns of use, or number of types tried.²

To measure alcohol use, frequency of use of beer, wine, and spirits were assessed separately, along with amount used, on average, on each occasion. Patterns of alcohol use was measured for the G2 mother by the number of types of alcohol they used and the largest number of drinks they had per day in the previous year. For the G2 father assessment, 8 to 14 items were used per year (e.g., “Have you been unable to stop drinking in the past year?” and “When drinking, do you usually get drunk?”).

Marijuana use for mother and father was measured by frequency (“How many times in the past year have you used marijuana?”), volume (“When using marijuana, how much do you usually use each time?”), and G2 father patterns of use (six to eight items, e.g., “Have you ever tried to stop using marijuana and found you couldn’t?” and “Have you had problems at work/school because of marijuana use?”).

Other drug use was assessed by the mean of the number of other illicit and prescription drugs abused in the previous year. The sum of frequencies with which the respondent used any or all of nine categories of such drugs was calculated, including cocaine, hallucinogens, inhalants, opiates, other stimulants (e.g., amphetamines); “downers” (e.g., barbiturates); other tranquilizers (e.g., valium); abuse of over the counter drugs (e.g., Vivarin); and overuse of prescribed medications. Measures were similar for fathers and mothers.

For the G2 fathers, substance use alphas for the indicators used to measure each substance type (alcohol, marijuana, and other drug use) ranged from .54 to .85; relatively low alphas were obtained for some three-item scales. T1 and T2 G2 father substance use scores were significantly associated, $r = .71, p < .01$. The antisocial behavior scales’ alphas across OYS assessments averaged .72, and the T1 and T2 indicators were significantly associated, $r = .74, p < .01$. The association between the time-averaged substance use and antisocial behavior scales for the G2 men was significant, $r = .44, p < .01$.

For the G2 mothers, separate substance use scales within T1 and T2 exhibited good internal consistency coefficients for alcohol and marijuana use (ranging from .70 to .85) but, seemingly owing to lower base rates, weaker coefficients for other drug use (.54 and .36 at T1 and T2, respectively). Although alcohol and marijuana use were significantly correlated within T1 ($r = .37$) and T2 ($r = .41$) and marijuana and drug use were correlated at T1 ($r = .26$), the three substance type indicators showed poor overall convergence (alpha = .48 at 3GS T1 and .34 at

²For the fathers, whose substance use scores came from different OYS waves, the majority of indicators were very similar at each of the possible OYS time points. In some instances, the number of component items/indicators fluctuated slightly, and the method of summarizing (i.e., continuous versus categorical and sum versus mean) changed. However, all scores were standardized within the OYS sample at each time point, and all essential items were retained. Therefore, there was little substantive difference among the final constructs.

T2). However, the subscales were included in the T1 and T2 measures of G2 mothers' substance use. Given that polysubstance use was not necessarily expected, the indicators were face valid and internally consistent, and comparable scales for mothers and fathers were desirable. Scales at the two time points were associated significantly ($r = .39$) and, therefore, averaged to form the time-averaged substance use scale. The overall association between the substance use and antisocial behavior scales forming the G2 mothers' risk behavior scale also was significant ($r = .44$).

G2 poor and harsh discipline of G3—G2 discipline of G3 was assessed using mother and father self-report questionnaires. Items were similar to those used for assessment of G1 parenting of G2, except that harsh discipline by G2 was also included in the construct. Subscales relating to harsh discipline (six items, e.g., “How often do you spank or swat the child when they don't mind?”), poor implementation (seven items, e.g., “How often does the child get out of a punishment when they set their mind to it?”), and lack of confidence in discipline (five items, e.g., “How often do you have to discipline this child repeatedly?”) were formed from self-report five-point Likert items at each time. The measure of G1 harsh discipline did not converge with other measures of G1 discipline and, therefore, was not used. G2 harsh discipline did converge significantly with other indicators of discipline, perhaps in part because, within G2 assessments, the respondents answered detailed items in a questionnaire format congruent to the other measures of G2 discipline. To assess the outcome of discipline more fully for the G2 father and because harsh discipline is generally more prevalent when children are younger, as at the G3 assessment, this scale was included in the global score of discipline for G2 parents.

For the G2 mothers, the poor implementation scales at T1 and T2 had alphas of .59 and .68, respectively, and were associated significantly, $r = .56$, $p < .01$. Thus, the mean was used to form the cross-time score. The same procedure was used for both mothers' low confidence in discipline (alphas .63 and .70; $r = .47$, $p < .01$) and harsh parenting (alphas .65 and .70; $r = .50$, $p < .01$). An average of the cross-time means of all three indicators for the G2 mother (alpha = .69) was taken to represent mothers' global poor/harsh discipline.

In parallel fashion, for the G2 fathers, the T1 and T2 indicators of poor discipline implementation (alphas .64 and .61; $r = .50$, $p < .01$), low confidence in discipline results (alphas .62 and .72; $r = .47$, $p < .01$), and harsh discipline practices (alphas .68 and .76; $r = .51$, $p < .01$) were combined to represent fathers' global poor/harsh discipline (alpha = .72).

Gender Effects

Although the small sample size constrained the power available to test models by gender, mean levels of the predictors and outcomes were examined by the G3 gender prior to aggregation within G2 fathers. There were no significant ($p < .05$) differences.

Data Analytic Strategies

G2 predictors were created and computed for each G3 child. As no hypotheses were tested regarding differential parenting of G3, yet some G2 fathers had more than one child in the data set, variables were collapsed across children within fathers (by calculating mean scores) to create a dataset wherein there was a single case for each G2 father. All variables were transformed, as necessary, to reduce skew and to more closely approximate a normal distribution. Observed rather than latent variables were used in the analysis as the sample size was small in relation to the number of parameters to be estimated. Path modeling was conducted within Mplus 4.1 (Muthén & Muthén, 1998-2006). Data were complete (nonmissing) for four of the seven variables. Mother risk behavior had 5% missing data (the most of all the variables) due to some low participation at the outset of 3GS. The maximum likelihood algorithm was used to derive parameter estimates in the presence of missing data, and the Yuan-Bentler T2

χ^2 statistic was used because it provides tests that are robust to non-normality and nonindependence of observations (Muthén & Muthén).

Results

The correlation matrix of the seven measured variables included in the modeling analysis is presented in Table 1. As hypothesized, G1 use of poor and harsh discipline was associated (albeit modestly) both with lower levels of SES in G2 and with the G2 men's risk behavior assessed approximately 14 years later. All six of the hypothesized predictor variables were significantly related to G2 fathers' poor and harsh discipline in the expected directions, and significant associations were seen between G2 mothers and fathers on their risk behavior and negative discipline practices. G2 mothers' negative discipline practices were associated with their own risk behavior but not with those of G2 fathers, whereas G2 fathers' negative discipline was associated with both their own and their partners' risk behavior.

All six predictors were then entered in a path model, with G2 fathers' poor and harsh discipline toward G3 as the outcome variable. We hypothesized that the negative discipline that the G2 father had experienced in his family of origin would be predictive of his own negative discipline practices, but that risk context for the G2 parents (as assessed by low SES and the risk characteristics of each G2 parent) and the G2 mother's own negative discipline tactics would explain additional variance in the G2 fathers' discipline practices. From this initial model, nonsignificant ($p < .10$) paths and predictor covariances were trimmed.

Findings for path coefficients are shown in Figure 2, and significant covariances among the predictor variables are shown in the note with Figure 2. The model showed acceptable fit, $\chi^2(11) = 12.46$, $p = .33$, CFI = 0.99, TLI = 0.98, RMSEA = .04, $N = 103$. As hypothesized, the G1 parents' negative discipline practices with the G2 youths were predictive of G2 fathers' negative discipline of G3, even with other predictors in the model. Of the four variables assessing risk context, only G2 mothers' risk behavior was significantly predictive of the G2 fathers' negative discipline in this multivariate model. Finally, as predicted, the G2 mothers' own negative discipline practices explained additional variance in G2 fathers' negative discipline. In all, the predictors explained 21% of the variance in G2 fathers' discipline practices.³

Discussion

The present study extended prior research (Capaldi et al., 2003) by testing hypotheses regarding factors that might account for additional variance in young fathers' negative discipline practices over and above the parenting he experienced in his family of origin and the young men's developmental risk. Hypotheses were drawn from a conceptual model based on a dynamic developmental systems approach. Specifically, we examined the degree to which young fathers' poor and harsh discipline practices were uniquely explained by risk context and partners' discipline practices, over and above intergenerational influences on fathers' parenting. In this way, partner behavior and risk context were considered as potential influences on discontinuity in parenting across generations.

³Some G2 fathers included in the model may have separated from their partner (G2 mother) prior to or shortly after their child's birth. Because such fathers may have had little exposure to their partner's risk behavior and discipline practices, we examined whether this circumstance impacted the similar nonaggregated G3 level models. Overall, most fathers did have substantial exposure to their partner: 75% of G3 children had lived with both biological parents for at least 75% of the time prior to the assessment. Two strategies were used. First, the model was rerun eliminating cases for which the biological parents were together less than 34% of the time since the child's birth (11 cases). This resulted in minor changes in fit (the fit remained satisfactory) but no substantive differences in findings. The second strategy was to control for exposure time by weighting both the G2 mothers' risk behavior and discipline constructs by exposure time (by multiplying the construct scores by proportion of the time the child lived with both parents). The model fit was comparable and acceptable, and findings essentially unchanged.

The findings of the present study confirmed the hypothesis regarding expected associations across generations in poor and harsh discipline practices. As expected, there were intergenerational associations in negative discipline practices across approximately a 14-year period between G1's discipline of their G2 sons in middle childhood and G2 parenting of their own sons and daughters in early childhood. The findings are consistent with those of a prior study based on a smaller sample of G3 children (Capaldi et al., 2003), which found significant intergenerational associations in a more general measure of parenting, as well as with earlier research with other three-generational samples (Belsky et al., 2005; Conger et al., 2003; Hops et al., 2003; Smith & Farrington, 2004; Thornberry et al., 2003). Again, however, the variation in G2 fathers' discipline that was explained by childhood experience was relatively modest, indicating that other important influences exist.

Findings confirmed the prediction that there would be intergenerational associations affecting risk context for the G2 family. Poor discipline by G1 was associated with higher levels of men's risk (as assessed by antisocial behavior and substance use) and also with lower levels of SES for the G2 family of procreation. We also predicted that risk context for the young family would affect the men's discipline practices. This was partially confirmed by the finding that the G2 mother's risk behavior accounted for significant variance in the G2 father's negative discipline practices in the path model. Although the G2 family's SES level and the G2 father's age at first fatherhood and risk all were associated with father's negative discipline, these factors were not significantly predictive of his discipline in the multivariate path model. Thus a mediating role of young father risk behavior in cross-generational parenting, which was found in the prior study (Capaldi et al., 2003) was not found in the present study, although G1 poor discipline did predict G2 risk behavior as a young adult. The difference in findings is likely due to the additional predictors of the young father's discipline practices that were included in the current model. In addition, measures of G2 fathers' risk behavior were collected during different developmental periods in the prior compared to the present study (G2 fathers' adolescence versus during G3 children's early childhood), and the sample size of fathers on OYS has increased since the prior study. Finally, the prediction that the G2 mother's negative discipline practices would account for significant variance in the young father's negative discipline in the path model, even after accounting for other hypothesized predictors, was confirmed.

The processes and outcomes involved in poor discipline practices have been articulated by Patterson and colleagues in the coercion model (e.g., Patterson et al., 1992). Dimensions of poor discipline practices include ineffective discipline (e.g., giving in to aggressive and noncompliant behavior from the child), low-level coercive discipline (e.g., nattering and threats with failure to follow through), and harsh discipline, including occasions where parents lose their temper and use overly harsh consequences, including physical discipline. These forms of discipline have been shown to be predictive of conduct problem behaviors at home, which then generalize to other settings such as school (Ramsey, Patterson, & Walker, 1990). Thus, problematic discipline may have severe consequences. This study provided evidence that these consequences include intergenerational effects because poor parenting in one generation predicts poor parenting in the next. Additionally, poor parenting in the family of origin increases the levels of contextual risk in the next generation's family of procreation.

This study adds to prior research on the influences on parenting by demonstrating that mothers' poor parenting can negatively affect that of fathers. Despite the importance of parenting by both mothers and fathers for children's development, the possible influences that one parent may have on the other's parenting skills has rarely been considered, and then has been examined only indirectly. The intergenerational design is particularly suited to examining the effects of partner influences over prior influences. The present findings indicate that the mother's influence on father's parenting should be examined more carefully and likely considered in prevention and treatment programs. Whereas it is generally considered that women have a

positive effect on their male partners' risk behaviors (e.g., effects of marriage on crime desistance, cf. Sampson and Laub, 2005), the present study found that individual differences in women's behaviors are linked with their partner's negative parenting. Two aspects of women's problematic behavior (i.e., negative discipline and risk behaviors involving substance use and antisocial behavior) independently predicted men's negative discipline. These findings are consistent with the dynamic developmental systems model. Namely, results supported the prediction that the risk behaviors of each member of a dyad and the specific influence of one partner on the other, pertinent to the outcome of interest (in this case discipline practices), are important considerations in developmental processes and family interaction patterns associated with problem behavior outcomes.

Of note, the G2 parents in the present study were an average of ages 23 to 24 years at the birth of the G3 child; thus, a relatively large proportion were young when the child was born. Numerous studies have found an association between prior developmental risk, particularly conduct problems, and becoming a parent at a younger age (Becker, 1987; Black et al. 2002; Lerman, 1993; Pears et al., 2005), and younger fathers have been found to show higher levels of antisocial behavior, earlier onset, and more serious substance use (Pears et al.; Wei, Loeber, & Stouthamer-Loeber, 2002; Woodward, Fergusson, & Horwood, 2006). Thus, early parenthood may serve as a marker of prior risk conditions that would be expected to continue to encumber the young family. Early parenthood itself adds to the risk context for the parents and their offspring, perhaps because it is a developmentally inappropriate or "off-time" role transition that may interfere with age-appropriate transitions (e.g., school completion) and adult pathways (Hogan & Astone, 1986). However, within this group of young fathers, age at the birth of their first child was not a significant predictor in the multivariate model. It may be that the dynamics of early parenthood, as associated with both prior and future family contextual risk, may be captured well by the dynamic developmental systems model.

Finally, these findings suggest that a dynamic developmental systems view also may inform efforts to prevent and intervene on poor parenting practices. Elucidating the childhood, contextual, and partner experiences that give rise to and maintain fathers' poor discipline may be an important component of effecting change. Moreover, influencing fathers' parenting practices may necessitate intervening on mothers' discipline practices. Many interventions do focus on both parents (Reid, Eddy, Fetrow, & Stoolmiller, 1999), and this study underscores the importance of doing so, perhaps particularly with young parents. It also suggests a consideration of partner influences in intervening on family processes other than discipline, such as positive reinforcement and nurturing. The potential power of prevention and intervention efforts to change the course of individual lives involves both direct and indirect effects. These and other findings highlight that such efforts may impact not only individuals but also their partners, children, and subsequent generations.

Despite the strengths of the present study, including the long-term prospective data across generations and measures of both mothers' and fathers' characteristics and discipline practices, there are some limitations that should be considered. First, because the focus of the study was on father's discipline, only the prediction of the father's discipline from the mother's was considered. However, influences may well be bidirectional, and examination of the contribution of father factors to maternal discipline would be helpful in understanding the dyadic development and dynamics of parenting. Second, sample size did not allow for testing of latent variable models; therefore, associations may have been somewhat underestimated. Similarly, it was not possible to test differential models according to the gender of the G3 child. Third, many OYS men are not yet fathers, and those who became fathers earlier in the sample have been shown to have had higher prior risk characteristics (Fagot et al., 1998). Thus, the present sample of fathers, which represented just over one half of the full OYS sample, were likely to show higher risk overall than the remaining men. Finally, although a number of

possible factors that might account for the association of mother's risk and discipline with father's discipline practices were examined (including SES, father age at first fatherhood, and length of exposure to partner influences, as well as his own risk), it is possible that some additional factors may partially account for these associations.

In the present study, G1 and G2 parenting practices were assessed at different developmental periods in the subsequent generation (i.e., middle versus early childhood, respectively). Because the stresses and challenges of parenting and marriage differ with child developmental periods, the relative influence of partners, current context, and childhood experience may differ for parents across developmental time. Therefore, in future research it would be helpful to examine associations at differing developmental stages.

Studies of parenting have often examined contextual risk factors, but most often have focused on mothers only. The dynamic developmental systems model shifts the focus to the parenting dyad, to the influence of their prior developmental risk, and to the specific influences that each parent might have on the other's parenting practices. Specifically, we studied the extent to which the young mother's risk and poor and harsh discipline practices might influence those of the young father, over and above the intergenerational influence of his experience in the family of origin. Findings that both of these factors increase the risk that the young father will use poor and harsh discipline practices indicate the importance of the focus on influence dynamics across parents. Implications include a deeper consideration of these dynamics in the design of preventive interventions that target parenting.

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Figure 1.
The predicted pathways of transmission of negative parenting using a dynamic developmental systems model approach,

Figure 2.
Findings for path coefficients and significant covariances among the predictor variables.

Table 1

Correlation matrix and descriptive statistics for all model variables

Variable	1	2	3	4	5	6	7
<i>Generation 1</i>							
1. Poor discipline	—						
<i>Generation 2</i>							
2. G2 age at birth of first G3 child	-.17*						
3. SES	-.35**	.61**					
4. Father risk behavior	.22*	-.08	-.22*				
5. Mother risk behavior	-.01	-.24*	-.10	.33**			
6. Father poor and harsh discipline	.25*	-.21*	-.27**	.22*	.32**		
7. Mother poor and harsh discipline	.07	-.22*	-.14	.09	.26**	.29**	
Mean	.00	22.54	-.04	-.58	-.57	1.61	1.59
SD	.84	3.48	.88	.16	.18	.23	.21
N	103	103	102	103	98	103	102