Published in final edited form as:

J Divorce Remarriage. 2019 ; 60(4): 283–300. doi:10.1080/10502556.2018.1528530.

Long-term Effects of a Parenting Preventive Intervention on Young Adults' Attitudes Toward Divorce and Marriage

Sharlene Wolchik, Ph.D,

Arizona State University

Caroline Christopher, Ph.D,

Vanderbilt University

Jenn-Yun Tein, Ph.D,

Arizona State University

C. Aubrey Rhodes, B.A, and

Arizona State University

Irwin N. Sandler, Ph.D

Arizona State University

Abstract

This study examined whether the New Beginnings Program (NBP), a parenting-focused preventive intervention designed to reduce children's post-divorce mental health problems, affected attitudes toward divorce and marriage in young adults whose mothers had participated 15 years earlier. Participants ($M = 25.6$ years; 50% female; 88% Caucasian) were from 240 families that had participated in a randomized experimental trial (NBP vs. literature control). Analyses of covariance showed that program effects on both types of attitudes were moderated by gender. Males in the NBP reported more positive attitudes toward marriage and less favorable attitudes toward divorce than males in the literature control.

Keywords

divorce; preventive intervention; attitudes about divorce; attitudes about marriage

Parental divorce is a highly prevalent stressful life event for children and adolescents. It is estimated that 1.1 million youth in the United States experience this transition in family structure each year and 30-50% of youth are predicted to live in a divorced or separated family prior to age 16 (National Center for Health Statistics, 2008). Although the majority of children whose parents divorce do *not* develop long-lasting problems, for a sizeable subgroup, the negative effects persist into adulthood and some research shows that differences between offspring in two-parent versus divorced families widen from childhood to adulthood (Cherlin, Chase-Lansdale, & McRae, 1998). Adults who experienced parental

divorce in childhood have lower education attainment (Amato & Cheadle, 2005), lower earnings (e.g., Sun & Li, 2008), and more mental health problems (e.g., Amato, 2000). They also endorse more liberal attitudes toward divorce and less positive attitudes toward marriage (e.g., Cui & Fincham, 2010; Miles & Servaty-Seib, 2010).

The current study addresses whether the New Beginnings Program (NBP), a prevention program in which mothers participated when their offspring were in late childhood/early adolescence, affected young adults' attitudes toward divorce and marriage. The malleability of these attitudes is important to examine because positive attitudes toward marriage predict greater commitment to, investment in, and satisfaction in marital and non-marital relationships (Riggio & Weiser, 2008) and less likelihood of divorce (e.g., Segrin, Taylor, & Altman), whereas liberal attitudes toward divorce predict lower marital quality (Amato & Rogers, 1999). Also, a composite of more liberal attitudes toward divorce and negative attitudes toward marriage predicts less commitment to and lower quality of non-marital romantic relationships (e.g., Cui & Fincham, 2010; Cui, Fincham, & Durtschi, 2011). Attention to these attitudes in young adulthood is particularly important given that success in romantic relationships is a central task of this developmental stage (Roisman, Masten, Coatsworth, & Tellegen, 2004) and affects physical and emotional well-being (e.g., Loving & Slatcher, 2013). Below, we discuss research on attitudes toward divorce and marriage, describe the NBP, and outline the current study.

Attitudes Toward Divorce and Marriage

There are several theoretical perspectives about how parental divorce may affect offspring's attitudes toward divorce and marriage. From the social learning perspective (Bandura & Walters, 1977), daily interactions with parents provide children opportunities to observe and imitate their parents' behaviors and attitudes. As Amato and DeBoer (2001) note, "by observing parental divorce, children learn firsthand that marriages do not last a lifetime, that people do not have to remain in unsatisfying relationships, and that divorce can provide opportunities to seek greater happiness with alternative partners" (p. 1040). Another perspective focuses on one's basic assumptions, such as beliefs about the benevolence of the world and people (Franklin, Janoff-Bulman, & Roberts, 1990). From this perspective, the breakup of a relationship on which children have depended and trusted leads them to hold less positive beliefs about the likelihood that relationships will be successful. It is also plausible that if the divorce led to positive changes (e.g., less interparental conflict, better adjustment of parents), offspring may have more positive feelings about divorce, whereas in families where the divorce led to greater stress and distress offspring may have more negative feelings about divorce. Finally, it is possible that their parents' experiences before and after the divorce could have heightened offspring's awareness of the vulnerability of intimate relationships, which may lead to a resolve to develop and maintain more lasting relationships and more positive attitudes toward marriage (Jacquet & Surra, 2001).

Multiple studies have compared attitudes about divorce and marriage across family status at different stages of development. Two studies examined attitudes toward divorce in early to middle adolescence. One found that adolescents from remarried families viewed divorce more favorably than those from divorced or two-parent families (Ganong, Coleman, &

Brown, 1981), whereas the other reported that adolescents from two-parent families held more favorable attitudes toward divorce than those from divorced families (Paddock-Ellard & Thomas, 1981). With a few exceptions (e.g., Kinnaird & Gerrard, 1986; Stone & Hutchinson, 1992), researchers have found that college students from divorced families had more favorable attitudes toward divorce than those in two-parent families (e.g., Coleman & Ganong, 1984; Cui & Fincham, 2010; Greenberg & Nay, 1982; Miles & Servaty-Seib, 2010). Findings using large national or probability samples have found similar results to those with college students. For example, Axinn and Thornton (1996) reported that 18-year-olds with divorced or remarried mothers held more positive attitudes toward divorce than those in two-parent families. The difference remained significant after controlling for mothers' changes in attitudes toward divorce between their child's birth and the assessment. Using large national samples, Amato and Booth (1991) and Trent and South (1992) found that adults who had experienced parental divorce in childhood had more positive views toward divorce than those who grew up in two-parent families. In one of the largest studies based on data from 44 countries, Sieben and Verbakel (2013) found that, after controlling for whether or not the participant had experienced dissolution of his or her own marriage, parental divorce before age 18 was associated with more positive attitudes toward divorce. Although a few researchers have not found significant differences across individuals from divorced and two-parent families on attitudes toward marriage (Coleman & Ganong, 1984; Ganong, et al., 1981; Greenberg & Nay, 1982; Stone & Hutchinson, 1993), most researchers have found less positive attitudes about marriage (e.g., Axinn & Thornton, 1996; Boyer-Pennington, Pennington, & Spink, 2001; Cui & Fincham, 2010; Gabardi & Rosen, 1991; Jennings, Salts, & Smith, 1992; Long, 1987; Miles & Servaty-Seib, 2010; Segrin, et al., 2005) in individuals whose parents divorced.

The New Beginnings Program

The NBP is a theory-based prevention program designed to reduce children's post-divorce mental health problems. The conceptual model underlying the program combines elements from a person–environment transactional framework and a risk protective factor model. The risk and protective factor model posits that the likelihood of mental health problems is affected by exposure to risk factors and availability of protective resources (Institute of Medicine, 1994). Person–environment transactional models posit that dynamic person–environment processes affect the development of problems and competencies, which, in turn, influence the social environment and development of competencies and problems later in development (Sameroff, 2000). Cummings, Davies, and Campbell's (2000) cascading pathway model integrates these two models into a developmental framework. From this perspective, parental divorce can lead to failures to resolve developmental tasks and increase susceptibility to mental health problems and impairment in developmental competencies. In this model, parenting is viewed as playing a central role in facilitating children's successful adaptation, and the skills developed in the successful resolution of earlier developmental tasks are viewed as important for managing future challenges. Based on these perspectives, the NBP focused on improving parenting by targeting the following empirically supported correlates of children's post-divorce mental health outcomes: mother-child relationship

quality, effective discipline, interparental conflict, and fathers' access to their children (Wolchik et al., 1993).

Two randomized trials of the NBP showed improvements in mother-child relationship quality, effective discipline, and children's adjustment problems at post-test (Wolchik et al., 2000; Wolchik et al., 1993); the second trial also led to decreases in maternal distress (Haine, Sandler, Wolchik, Tein, & Dawson-McClure, 2003). The second trial tested whether a child component had additive effects by comparing the parenting program to a dual-component (parenting program plus a child coping) program. Because additive effects on mental health outcomes did not occur at posttest nor at 6-month, 6-year, or 15-year follow-ups (Wolchik et al., 2002; Wolchik et al., 2013; Wolchik, et al., 2000), the two active conditions were combined to provide a more parsimonious perspective on the long-term program effects.

At the 6-year follow-up, program effects occurred on a range of outcomes, including mental health problems, alcohol and drug use, number of sexual partners, and grade point average (Dawson-McClure, Sandler, Wolchik, & Millsap, 2004; Wolchik, Sandler, Weiss, & Winslow, 2007; Wolchik, et al., 2002). For several effects, benefits were greater for those with higher pretest risk. At the 15-year follow-up, those in the NBP had a significantly lower incidence of internalizing disorders from adolescence to young adulthood (Wolchik, et al., 2013), used less mental health services, and spent less time in jail than those in the literature control (Herman et al., 2015). Also, the NBP reduced substance use for males (Wolchik, et al., 2013). Further, the NBP increased attitudes about warm parenting and decreased attitudes about harsh discipline for those whose mothers entered the program with poorer parenting quality (Mahrer, Winslow, Wolchik, Tein, & Sandler, 2014). The program also reduced painful feelings about divorce (Christopher et al., 2017). For example, NBP participants reported that they were less likely to see their life through a filter of divorce than those in the control condition.

The Current Study

This paper extends the findings on the long-term effects of the NBP in an important way. Most of the previously reported program effects have been on significant problems such as internalizing and substance use disorders (Bonds McClain et al., 2010; Wolchik, et al., 2002; Wolchik, et al., 2013; Wolchik, Tein, Sandler, & Kim, 2016) and involvement in the criminal justice system (Herman, et al., 2015). Although these problems are clearly important given their individual and societal costs, most offspring of divorced parents do *not* experience such severe problems. This paper furthers the research on the long-term impact of the NBP by examining its effects on attitudes toward divorce and marriage, outcomes that are related to a central developmental task of young adulthood: developing romantic relationships.

There are several ways in which the NBP could affect attitudes toward divorce and marriage. First, the program-induced increases in mother-child relationship quality could have increased children's and mothers' comfort with discussing divorce-related issues and provided children with more opportunities to understand their mother's experiences in the marriage and her reactions to the divorce and its aftermath. Depending on the nature of these

conversations, they could lead to either more positive or more negative attitudes toward divorce/marriage. Second, the program-induced reductions in depressive symptoms and disorders may have led to more positive views of romantic relationships, increased relationship satisfaction (Gustavson et al., 2012) or both, which could lead to more positive expectations for the longevity of relationships and more positive feelings about marriage. Third, it is possible that the program-induced reductions in painful feelings about the divorce could lead to less negative attitudes about divorce. Given that gender moderated other program effects at the 15-year follow-up (Wolchik et al., 2013) and that women are more likely to hold more positive attitudes toward divorce than men (e.g., Kapinus & Johnson, 2002), gender was examined as a moderator. Also, given that baseline risk moderated program effects for multiple outcomes (Christopher, et al., 2017; Wolchik, et al., 2007), risk was examined as a moderator.

Method

Drs. Wolchik and Sandler have devoted several decades of research at Arizona State University to understanding vulnerability and resilience factors among at-risk youth. They have focused on youth who have experienced parental divorce or parental death and have examined modifiable individual- and family-level variables that affect children's short- and long-term adjustment. With their research teams, Drs. Wolchik and Sandler have developed and evaluated empirically based interventions, including the NBP, to prevent or reduce problem outcomes and enhance competencies among youth who have experienced family disruptions. Dr. Tein has served as a Co-Principal Investigator on related grants and has contributed significantly to data analysis. While Dr. Christopher was a post-doctoral student of Dr. Wolchik's, she authored an article on the effect of the NBP on young adult's painful feelings about divorce. Aubrey Rhodes is a doctoral student who is a research assistant on the 26-year follow-up of the participants in the efficacy trial of the NBP. Drs. Wolchik and Sandler are partners in Family Transitions—Programs That Work LLC, which trains and supports providers to deliver the NBP.

Participants

Participants were 240 young adults and their mothers from 240 families (literature control [LC] $n = 76$; NBP $n = 164$) in the efficacy trial of the NBP that was conducted in 1992-1994 (Wolchik et al., 2000). Families were recruited primarily using court records of randomly selected divorce cases with children in a large Southwestern metropolitan county; 20% were recruited through the media. Eligibility criteria included: divorce in the last two years; mother had a child between 9 and 12; child lived with mother at least 50% of the time; mother had not remarried, did not have a live-in partner, and did not plan to remarry during the program (see Wolchik et al., 2000 for more information about eligibility and recruitment). Because of ethical considerations, families were excluded and referred to treatment if the child endorsed suicidal ideation or severe internalizing or externalizing problems at pretest. In families with more than one child in the age range, one was randomly selected to be interviewed.

At pretest, the children averaged 10.3 years old ($SD = 1.1$; range = 9-12); 50% were female. Mothers reported the following ethnicities: 88.7% Caucasian, 6.7% Hispanic, 2.1% African American, and 2.5% other. At pretest, 47% of the mothers had completed some college; the average annual total household income was \$20,001-\$25,000. On average, families were separated 26.7 months ($SD = 17.2$) and divorced 12.3 ($SD = 6.4$) months. Chi-square tests revealed no significant differences between the LC and NBP conditions on these variables.

At the 15-year follow-up, the young adults were 25.6 years old on average ($SD = 1.2$, range = 24-28). Relationship status was: 19% married, 1% divorced, 1% separated, 23% cohabitating, 37% not previously nor currently married; 19% did not select a response. Twenty-four percent had children. Educational attainment was 21% high school only, 45.4% some college, 29.4% college, and 3.1% postgraduate education. Median personal income was \$30,000.

Procedure

Mothers and their offspring were assessed at pretest, which was administered prior to random assignment to intervention condition, posttest, and 3-month, 6-month, 6-year, and 15-year follow-ups. This study used data from the pretest and the 15-year follow-up. After the pretest, families were randomly assigned to condition: parent ($n = 81$), dual-component (mothers and children participated in separate, concurrently run groups) ($n = 83$), or LC ($n = 76$) condition. Retention was high; of the young adults, 81% ($N = 194$) completed the 15-year follow-up. Parents and offspring 18 or older signed consent forms; children signed assent forms. At pretest, families received \$45. Young adults received \$225 for a much longer 15-year follow-up assessment. The study procedures were approved by the university's Institutional Review Board.

Intervention Conditions

The parenting program consisted of 11 group (1.75 hour) and two individual (1 hour) sessions and included didactics, modeling of parenting skills, role-play, and home practice exercises. The 11-session child program aimed to increase effective coping strategies, enhance mother-child relationship quality, and reduce negative thoughts about divorce stressors. Sessions included didactics, modeling of coping skills by leaders, and practice of the program skills. All groups were co-led by two master's-level clinicians, with eight to 10 participants/group. Details about the programs are available in Wolchik et al. (2000; 2007). Mothers and children in the LC each received three books on children's adjustment to divorce.

Measures

Demographics.—Mothers and young adults reported on demographics including their education level, relationships/marital status, gender, ethnicity, and income.

Attitudes Toward Divorce Scale.—Young adults completed the 12-item Attitudes Toward Divorce Scale (Kinnaird & Gerrard, 1986), which assesses agreement with favorable and unfavorable statements about divorce (1 = strongly disagree; 5 = strongly agree). An example item is, "People should feel no great obligation to remain married if they are not

satisfied.” Some items were reverse scored; higher scores reflect more positive attitudes toward divorce. Kinnaird and Gerrard (1986) reported internal consistency reliability of .77 and two-week test-retest reliability of .86. Alpha coefficients were .83 for males and .86 for females in this sample.

Attitudes Toward Marriage.—Young adults completed the 14-item Attitudes Toward Marriage Scale (Kinnaird & Gerrard, 1986), which assesses the extent of agreement with statements about the importance of marriage and the probability of personal success and fulfillment (1 = not at all; 5 = quite a lot). An example item is, “Do you ever think that you may NOT have a successful marriage?” Some items were modified to be appropriate for married participants. Some items were reverse coded; higher scores reflect more positive attitudes toward marriage. Kinnaird and Gerrard (1986) reported an alpha coefficient of .88 and two-week test-retest reliability of .87. Alpha coefficients were .87 for males and .89 for females in this sample.

Pre-test Risk.—Consistent with the previous studies of the NBP, pretest risk was a standardized composite score (z-score) of: (a) mother and child reports of child externalizing (CBCL externalizing subscale [Achenbach, 1991]; Divorce Adjustment Project Externalizing Scale [Program for Prevention Research, 1992]) and (b) environmental stressors (i.e., maternal distress, interparental conflict, negative life events that occurred to the child, missed visits with the father, per capita annual income). Risk scores prospectively predicted children’s mental health problems, competence, substance use, and high sexual risk behaviors in the LC (Dawson-McClure et al., 2004) and moderated program effects on multiple outcomes (Christopher et al., 2017; Wolchik et al., 2007).

Pretest self-esteem.

Self-esteem.: The 6-item Global Self-Worth subscale of the Self Perception Profile for Children was used to assess self-esteem (Harter, 1982, e.g., “You are happy being the way you are”; $\alpha = .71$).

Pretest internalizing problems.—Because previous analyses showed that participants at the 15-year follow-up had higher levels of pretest internalizing problems than non-participants (Wolchik et al., 2013), pretest internalizing problems were used as a covariate. A composite of standardized scores of mother (CBCL internalizing subscale [Achenbach, 1991; $\alpha = .87$]) and child (Child Depression Inventory [Kovacs, 1985; $\alpha = .87$], Revised Children’s Manifest Anxiety Scale [Reynolds & Richmond, 1978; $\alpha = .90$]) report was used.

Analytical Strategy

Preliminary analyses included assessing the distribution of the study variables and probing for outliers using Cook’s distance, studentized deleted residual, and leverage statistics (Bollen & Jackman, 1990). Attrition analyses on effects in relation to the key pretest measures (e.g., demographic variables, child mental health variables) were conducted with a series one-way (attrition status) or two-way (program condition $\times$ attrition status) analysis of variance (for continuous variables) or logistic regression (for categorical variables). Differential attrition rates across program condition were tested with a χ^2 test. Two-tailed

analyses of covariance (ANCOVA) were used to test if the mother and dual component conditions differed on attitudes toward divorce or marriage.

Intent-to-treat analyses were used to evaluate the NBP's effects on attitudes. Two-tailed ANCOVAs were conducted with intervention condition as the independent variable and attitudes toward marriage and divorce as the dependent variables. Because families were randomly assigned to the intervention conditions, we expected that covariates were independent of the intervention conditions, the differences on the covariates between the treatment conditions were small, and ANCOVA would achieve its greatest benefit by reducing the error term (Kepple & Wickens, 2004). We examined the homogeneity of regression slopes assumption (i.e., regression lines for the effect of the covariate on the outcome to be the same across the intervention conditions) for each covariate described below.

As in previous follow-up studies, because we did not have pretest measures of attitudes toward divorce and marriage, we included pretest level of risk, which predicted future child mental health problems, high risk behaviors, and competence (Dawson et al., 2004), as a covariate. Pretest internalizing problems and self-esteem were included as covariates because attrition analyses showed that participants at the 15-year follow-up had higher levels of pretest internalizing problems than non-participants (Wolchik et al., 2013). Correlations were run between attitudes toward marriage and divorce and variables identified in previous research as being related to young adults' attitudes toward marriage and divorce (e.g., Gabardi & Rosen, 1991; Trent & South, 1992). These variables included young adults' gender, age, race, and education level; marriage or cohabitation; father's education; mother's education; and mother's remarriage. Variables that were significantly correlated with attitudes were included as covariates.

Separate ANCOVAs were conducted to test whether gender and baseline risk moderated the effects of the NBP by including the interaction of risk/gender and condition in the models. For significant interactions, we probed simple effects for males and females or at high and low risk levels. Mplus 7 (Muthén & Muthén, 1998-2017) was used to examine the program effects, with the full information maximum likelihood estimation for missing data (Arbuckle, 1996).

Results

Preliminary Analyses

No cases appeared to influence the regression of the predictors on the outcomes. Skewness and kurtosis were acceptable (West, Finch & Curran, 1995). Similar to previous studies with other outcomes (e.g., Wolchik et al., 2002, 2013), because the mother and dual-component conditions did not differ significantly on attitudes toward divorce or marriage, they were combined and labeled NBP; program effects were compared across the NBP and LC.

The rates of attrition did not differ significantly across the NBP (9.8%) and LC conditions (11.8%). There were no significant attrition or group $\times$ attrition interaction effects except for the following two findings: young adults who participated in the 15-year follow-up had

significantly more internalizing problems (-0.06 vs. -0.30 , $t = -2.05$, $p = .03$) and lower self-esteem (20.45 vs. 21.53 ; $t = 2.33$, $p = .03$) at pretest than those who did not participate.

As shown in Table 1, young adults who were Caucasians or whose mothers remarried had more positive attitudes toward marriage. Those who had married or lived with a partner had more positive attitudes toward marriage and less positive attitudes toward divorce. Those whose mothers had higher educational levels had more negative attitudes toward marriage. Examination of the homogeneity of regression slopes showed a significant interaction of intervention condition and pretest internalizing problems on attitudes toward divorce. In the LC, internalizing problems were significantly related to positive attitudes toward divorce (unstandardized $B = -.33$, $SE = .12$, $t = -2.73$, $p = .006$); in the NBP, internalizing problems were not significantly related to attitudes toward divorce ($B = -.04$, $SE = .07$, $t = .59$, $p = .56$).

As shown in Table 1, young adults who were Caucasians or whose mothers remarried had more positive attitudes toward marriage. Those who had married or lived with a partner had more positive attitudes toward marriage and less positive attitudes toward divorce. Those whose mothers had higher educational levels had more negative attitudes toward marriage.

Primary Analyses

Young adult gender moderated the effects of NBP on attitudes toward marriage and divorce. Table 2 presents the standardized and unstandardized regression coefficients for the main effects and the condition by gender interaction effects. The interactions of gender with condition for attitudes toward marriage ($B = .36$, $SE = .18$, $t = 2.02$, $p = .043$) and attitudes toward divorce ($B = -.57$, $SE = .22$, $t = -2.62$, $p = .009$), were significant. Probing the simple effects revealed program effects for males but not females. Males in the NBP had more negative attitudes about divorce ($M_{NBP} = 3.23$, $M_{LC} = 3.60$; $B = -.37$, $SE = .16$, $t = -2.34$, $p = .02$; Cohen's $d = .45$) and marginally significantly more positive attitudes about marriage than those in the LC (adjusted $M_{NBP} = 3.08$, $M_{LC} = 2.88$; $B = .21$, $SE = .13$, $t = 1.66$, $p = .09$; Cohen's $d = .32$). The baseline risk by condition interaction was not significant.

Discussion

This study is the first to demonstrate that a parenting intervention had effects on attitudes toward divorce and marriage in young adults who experienced parental divorce in late childhood or early adolescence. More specifically, the NBP led to significantly more negative attitudes toward divorce and marginally more positive attitudes toward marriage for males, but not females. The program effects were not moderated by level of risk.

These findings extend the research on the long-term effects of the NBP by examining its effects on attitudes related to the offspring's romantic involvement and family formation. The previous research on the NBP in young adulthood has found program effects on internalizing disorders, substance use and abuse and involvement in the criminal justice system (Wolchik, et al., 2013) as well as cognitive/affective processes, such as attitudes toward parenting (Mahrer, et al., 2014) and painful feelings about divorce (Christopher, et al., 2017). The breadth of long-term effects of this program provides strong support for the

enduring power of brief preventive programs that teach parenting skills (Sandler, Ingram, Wolchik, Tein, & Winslow, 2015).

The focus on attitudes toward divorce and marriage is important because it is well documented that the offspring of divorced parents are at risk for relationship difficulties (e.g., Dennison, Koerner, & Segrin, 2014). These attitudes predict investment in, quality of and commitment to marital and non-marital relationships (Amato & Rogers, 1999; Cui & Fincham, 2010; Cui et al., 2011; Riggio & Weiser, 2008) and the likelihood of divorce (e.g., Segrin, Taylor, & Altman). Thus, attitudes toward divorce and marriage have implications for developing and sustaining positive romantic relationships, a critical developmental task of young adulthood (Roisman, et al., 2004).

It is interesting to consider how the program may have led to changes in males' attitudes toward divorce and marriage. About one half of the program focused on teaching skills to improve the quality of the mother-child relationship, such as spending more positive time together, reinforcing children's positive behaviors, and using effective listening skills. Improvements in the quality of the mother-child relationship were found at post-test (Wolchik, et al., 2000) and, for the families at high risk at program entry, at the 6-year follow-up when the offspring were adolescents (Sigal, Wolchik, Tein, & Sandler, 2012). Several studies have found positive relations between relationship quality and open communication, including mothers' sharing of their own problems (e.g., Afifi & McManus, 2010; Waller & Rose, 2010). Thus, it is plausible that the program-induced improvements in relationship quality increased mothers' sharing their attitudes and feelings about their marriage, divorce and its aftermath. These interactions could have heightened males' awareness of and concern about the negative effects of the divorce on their mothers, which may have led to a resolve to develop and maintain more lasting relationships. It is also possible that the program effects to reduce depressive symptoms and disorders led to more positive views of romantic relationships (Gustavson et al., 2012).

Although females' attitudes toward divorce and marriage were not significantly nor marginally significantly different across the NBP and LC groups, the pattern of effects was opposite of that for males. Attitudes toward divorce were more positive and attitudes toward marriage were more negative for females in the NBP than LC. These gender differences may be related to differences in the nature of mothers' conversations with their daughters and sons. Although some research has shown no significant differences in the frequency or nature of the topics divorced mothers disclosed to their adolescent daughters and sons (Koerner, Wallace, Jacobs Lehman, Lee, & Escalante, 2004), other research has shown that mothers are more likely to vent in their relationships with their daughters than sons (Dolgin, 1996). Also, the few studies that have examined the nature of maternal disclosures with sons and daughters and how these disclosures are interpreted have shown gender differences. In their sample that was comprised of 92% married families, Waller and Rose (2010) found that both mothers and their adolescents reported gender differences in the nature of discussions of mothers' problems. Greater co-rumination, defined as excessively discussing, rehashing, and speculating about problems, and dwelling on negative feelings occurred in mothers' discussion of their problems with daughters than sons. In another study, adolescent females whose parents had divorced were more likely to agree with their mother's negative

disclosures about their fathers than males (Koerner et al., 2004). All of this may culminate in daughters' greater exposure to mothers' negative feelings and attitudes toward marriage and divorce, which then may lead to a greater likelihood of daughters adopting their mother's attitudes.

Risk at program entry did not moderate the program effects. Although at earlier assessments (Dawson-McClure et al., 2004; Wolchik et al., 2000; 2002; 2007) stronger benefits occurred for those with high risk at program entry on multiple outcomes, at the 15-year follow-up, risk less consistently moderated program effects (Wolchik et al., 2013; Christopher et al., 2017). It is likely that over time, the aspects of the environment captured in this measure (e.g., maternal distress, per capita income) were overshadowed by more proximal characteristics of the environment and thus the predictive power of this measure decreased.

Although not hypothesized, the NBP mitigated the effect of pretest internalizing problems on attitudes toward divorce. Whereas there was a significant relation between pretest level of internalizing problems and attitudes toward divorce for young adults in the control group, this association was not observed for young adults in the NBP.

Limitations and Directions for Future Research

These findings need to be considered in light of several limitations. First, the sample was primarily non-Hispanic White. Given that by 2023, ethnic minorities will comprise more than half of U.S. youths (Federal Interagency Forum on Child and Family Statistics, 2016), research using ethnically diverse samples is important. Second, the children lived primarily with their mothers, the arrangement that characterized the majority of divorced families when the trial was conducted. Fathers now play a greater role in post-divorce parenting (Fabricius, Braver, Diaz, & Velez, 2010). Thus, it will be important to examine the effects of the NBP, which has recently been shown to improve the quality of fathers' parenting (Sandler et al., 2017), on offspring attitudes toward divorce and marriage when fathers participate. Third, attitudes toward marriage and divorce were assessed when the offspring were young adults. Research is needed to examine whether these program effects affect the nature and longevity of males' marital relationships.

Acknowledgments

This research was supported by National Institute of Mental Health grants (5R01MH071707, 5P30MH068685, and 5P30MH039246). Trial Registration: clinicaltrials.gov; Identifier: NCT01407120. The first, fourth and fifth authors' work on this paper was supported by a grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (R01HD094334). The third author's work was also supported by a grant from the National Institute of Drug Abuse (2R01DA09757). The second author's work on this paper was supported by a postdoctoral fellowship provided by the National Institute on Drug Abuse (T32DA039772) through the Psychology Department and the Research and Education to Advance Children's Health (REACH) Institute at Arizona State University. We thank the mothers and children for their participation as well as the group leaders for their careful delivery of the program. Sharlene A. Wolchik and Irwin N. Sandler declare the following competing financial interest: Partnership in Family Transitions—Programs That Work LLC, which trains and supports providers to deliver the New Beginnings Program.

References

- Achenbach TM (1991). Manual for the Child Behavior Checklist/4-18 and 1991 Profile. Burlington, VT: University of Vermont, Department of Psychiatry.

- Afifi TD, & McManus T (2010). Divorce disclosures and adolescents' physical and mental health and parental relationship quality. *Journal of Divorce & Remarriage*, 51, 83–107. doi: 10.1080/10502550903455141
- Amato PR (2000). The Consequences of divorce for adults and children. *Journal of Marriage and Family*, 62, 1269–1287. doi:10.1111/j.1741-3737.2000.01269.x
- Amato PR, & Booth A (1991). The consequences of divorce for attitudes toward divorce and gender roles. *Journal of Family Issues*, 12, 306–322. doi:10.1177/019251391012003004
- Amato PR, & Cheadle J (2005). The long reach of divorce: Divorce and child well-being across three generations. *Journal of Marriage and Family*, 67, 191–206. doi:10.1111/j.0022-2445.2005.00014.x
- Amato PR, & Rogers SJ (1999). Do attitudes toward divorce affect marital quality? *Journal of Family Issues*, 20, 69–86. doi:10.1177/019251399020001004
- Arbuckle JL (1996). Full information estimation in the presence of incomplete data In Marcoulides GA & Schumacker RE (Eds.), *Advanced Structural Equation Modeling* (pp. 243–278). Hillsdale, NJ: Lawrence Erlbaum.
- Axinn WG, & Thornton A (1996). The influence of parents' marital dissolutions on children's attitudes toward family formation. *Demography*, 33, 66–81. doi:10.2307/2061714 [PubMed: 8690141]
- Bandura A, & Walters RH (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bollen KA, & Jackman RW (1990). Regression diagnostics: An expository treatment of outliers and influential cases. *Modern Methods of Data Analysis*, 13, 257–291. doi: 10.1177/0049124185013004004
- Bonds McClain D, Wolchik SA, Winslow EB, Tein J-Y, Sandler IN, & Millsap RE (2010). Developmental cascade effects of the New Beginnings Program on adolescent adaptation outcomes. *Development and Psychopathology*, 22, 771–784. doi:10.1017/S0954579410000453 [PubMed: 20883581]
- Boyer-Pennington ME, Pennington J, & Spink C (2001). Students' expectations and optimism toward marriage as a function of parental divorce. *Journal of Divorce & Remarriage*, 34, 71–87. doi: 10.1300/J087v34n03_05
- Cherlin AJ, Chase-Lansdale PL, & McRae C (1998). Effects of parental divorce on mental health throughout the life course. *American Sociological Review*, 63, 239–249. doi:10.2307/2657325
- Christopher C, Wolchik S, Tein J-Y, Carr C, Mahrer NE, & Sandler I (2017). Long-term effects of a parenting preventive intervention on young adults' painful feelings about divorce. *Journal of Family Psychology*, 31, 799–809. doi:10.1037/fam0000325 [PubMed: 28471208]
- Coleman M, & Ganong LH (1984). Effect of family structure on family attitudes and expectations. *Family Relations*, 33, 425–432. doi:10.2307/584713
- Cui M, & Fincham FD (2010). The differential effects of parental divorce and marital conflict on young adult romantic relationships. *Personal Relationships*, 17, 331–343. doi:10.1111/j.1475-6811.2010.01279.x
- Cui M, Fincham FD, & Durtschi JA (2011). The effect of parental divorce on young adults' romantic relationship dissolution: What makes a difference? *Personal Relationships*, 18, 410–426. doi: 10.1111/j.1475-6811.2010.01306.x
- Cummings EM, Davies PT, & Campbell SB (2000). New directions in the study of parenting and child development In *Developmental Psychopathology and Family Process: Theory, Research, and Clinical Implications* (pp. 200–250). New York: The Guilford Press.
- Dawson-McClure SR, Sandler IN, Wolchik SA, & Millsap RE (2004). Risk as a moderator of the effects of prevention programs for children from divorced families: A six-year longitudinal study. *Journal of Abnormal Child Psychology*, 32, 175–190. doi:0091-0627/04/0400-0175/0 [PubMed: 15164859]
- Dennison RP, Koerner SS, & Segrin C (2014). A dyadic examination of family-of-origin influence on newlyweds' marital satisfaction. *Journal of Family Psychology*, 28, 429–432. [PubMed: 24798814]
- Dolgin KG (1996). Parents' disclosure of their own concerns to their adolescent children. *Personal Relationships*, 3, 159–169. doi:10.1111/j.1475-6811.1996.tb00109.x

- Fabricius WV, Braver SL, Diaz P, & Velez CE (2010). Custody and parenting time: Links to family relationships and well-being after divorce In Lamb ME (Ed.), *The role of the father in child development* (5th ed., pp. 201–240). Hoboken, NJ: John Wiley & Sons.
- Federal Interagency Forum on Child and Family Statistics. (2016). *America's children in brief: Key national indicators of well-being*. Washington, DC: U.S. Government Printing Office.
- Franklin KM, Janoff-Bulman R, & Roberts JE (1990). Long-term impact of parental divorce on optimism and trust: Changes in general assumptions or narrow beliefs? *Journal of Personality and Social Psychology*, 59, 743–755. [PubMed: 2254851]
- Gabardi L, & Rosen LA (1991). Differences between college students from divorced and intact families. *Journal of Divorce & Remarriage*, 15, 175–192. doi:10.1300/J087v15n03_10
- Ganong LH, Coleman M, & Brown G (1981). Effect of family structure on marital attitudes of adolescents. *Adolescence*, 16, 281–288.
- Greenberg EF, & Nay WR (1982). The intergenerational transmission of marital instability reconsidered. *Journal of Marriage and Family*, 44, 335–347. doi:10.2307/351543
- Gustavson K, Røysamb E, Soest T. v., Helland MJ, Karevold E, & Mathiesen KS (2012). Reciprocal longitudinal associations between depressive symptoms and romantic partners' synchronized view of relationship quality. *Journal of Social and Personal Relationships*, 29, 776–794. doi: 10.1177/0265407512448264
- Haine RA, Sandler IN, Wolchik SA, Tein J-Y, & Dawson-McClure SR (2003). Changing the legacy of divorce: Evidence from prevention programs and future directions. *Family Relations*, 52, 397–405. doi:10.1111/j.1741-3729.2003.00397.x
- Harter S (1985). *Manual for the Self-Perception Profile of Children* (Revision of the Perceived Competence Scale for Children). Unpublished manuscript, University of Denver, CO.
- Herman PM, Mahrer NE, Wolchik SA, Porter MM, Jones S, & Sandler IN (2015). Cost-benefit analysis of a preventive intervention for divorced families: Reduction in mental health and justice system service use costs 15 years later. *Prevention Science*, 16, 586–596. doi:10.1007/s11121-014-0527-6 [PubMed: 25382415]
- Institute of Medicine. (1994). *Reducing risks for mental disorders: Frontiers for preventive intervention research*. Washington, DC: National Academy Press.
- Jacquet SE, & Surra CA (2001). Parental divorce and premarital couples: Commitment and other relationship characteristics. *Journal of Marriage and Family*, 63, 627–638. doi:10.1111/j.1741-3737.2001.00627.x
- Jennings AM, Salts C, & Smith TA (1992). Attitudes toward marriage: Effects of parental conflict, family structure, and gender. *Journal of Divorce & Remarriage*, 17, 67–80. doi:10.1300/J087v17n01_05
- Kapinus CA, & Johnson MP (2002). Personal, moral, and structural commitment to marriage: gender and the effects of family life cycle stage. *Sociological Focus*, 35, 189–205. doi: 10.1080/00380237.2002.10570697
- Keppel G, & Wickens TD (2004). *Design and Analysis: A Researcher's Handbook*. Upper Saddle River, N. J.: Pearson Prentice Hall.
- Kinnaird KL, & Gerrard M (1986). Premarital sexual behavior and attitudes toward marriage and divorce among young women as a function of their mothers' marital status. *Journal of Marriage and Family*, 48, 757–765. doi:10.2307/352568
- Koerner S, Wallace S, Jacobs Lehman S, Lee S-A, & Escalante KA (2004). Sensitive mother-to-adolescent disclosures after divorce: Is the experience of sons different from that of daughters? *Journal of Family Psychology*, 18, 46–57. doi:10.1037/0893-3200.18.1.46 [PubMed: 14992609]
- Kovacs M (1985). The Children's Depression Inventory (CDI). *Psychopharmacology Bulletin*, 21, 995–999. [PubMed: 4089116]
- Long BH (1987). Perceptions of parental discord and parental separations in the United States: Effects on daughters' attitudes toward marriage and courtship. *Journal of Social Psychology*, 127, 573–582. [PubMed: 3437763]
- Loving TJ, & Slatcler RB (2013). Romantic relationships and health In Slimpson JA & Campbell L (Eds.), *The Oxford handbook of close relationships* (pp. 617–637). New York, NY: Oxford University Press.

- Mahrer NE, Winslow E, Wolchik SA, Tein J-Y, & Sandler IN (2014). Effects of a preventive parenting intervention for divorced families on the intergenerational transmission of parenting attitudes in young adult offspring. *Child Development*, 85, 2091–2105. doi:10.1111/cdev.12258 [PubMed: 24916511]
- Miles NJ, & Servaty-Seib HL (2010). Parental marital status and young adult offspring's attitudes about marriage and divorce. *Journal of Divorce & Remarriage*, 51, 209–220. doi: 10.1080/10502551003597865
- Muthén LK, & Muthén BO (1998-2017). *Mplus user's guide* (7th ed.). Los Angeles, CA: Muthén & Muthén.
- National Center for Health Statistics. (2008). Marriage and divorce: Retrieved from <http://www.cdc.gov/nchs/fastats/divorce.htm>.
- Paddock-Ellard K, & Thomas S (1981). Attitudes of young adolescents toward marriage, divorce, and children of divorce. *The Journal of Early Adolescence*, 1, 303–310. doi: 10.1177/027243168100100309
- Program for Prevention Research. (1992). *New Beginning Program documentation battery*. Unpublished manual, Arizona State University.
- Reynolds CR, & Richmond BO (1978). What I think and feel: A revised measure of Children's Manifest Anxiety. *Journal of Abnormal Child Psychology*, 6, 271–280. doi:10.1007/BF00919131 [PubMed: 670592]
- Roisman GI, Masten AS, Coatsworth JD, & Tellegen A (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75, 123–133. doi:10.1111/j.1467-8624.2004.00658.x [PubMed: 15015679]
- Sameroff AJ (2000). Developmental systems and psychopathology. *Development and Psychopathology*, 12, 297–312. doi:10.1017/S0954579400003035 [PubMed: 11014740]
- Sandler I, Gunn H, Mazza G, Tein J-Y, Wolchik S, Berkel C, ... Porter M (2017). Effects of a program to promote high quality parenting by divorced and separated fathers *Prevention Science*, Advance publication. doi:10.1007/s11121-017-0841-x
- Sandler I, Ingram A, Wolchik S, Tein J-Y, & Winslow E (2015). Long-term effects of parenting-focused preventive interventions to promote resilience of children and adolescents. *Child Development Perspectives*, 9, 164–171. doi:10.1111/cdep.12126 [PubMed: 30854024]
- Segrin C, Taylor ME, & Altman J (2005). Social cognitive mediators and relational outcomes associated with parental divorce. *Journal of Social and Personal Relationships*, 22, 361–377. doi: 10.1177/0265407505052441
- Sieben I, & Verbakel E (2013). Permissiveness toward divorce: The influence of divorce experiences in three social contexts. *European Sociological Review*, 29, 1175–1188. doi:10.1093/esr/jct008
- Sigal AB, Wolchik SA, Tein J-Y, & Sandler IN (2012). Enhancing youth outcomes following parental divorce: A longitudinal study of the effects of the New Beginnings Program on educational and occupational goals. *Journal of Clinical Child and Adolescent Psychology*, 41, 150–165. doi: 10.1080/15374416.2012.651992 [PubMed: 22417189]
- Stone MK, & Hutchinson RL (1993). Familial Conflict and Attitudes Toward Marriage. *Journal of Divorce & Remarriage*, 18, 79–91. doi:10.1300/J087v18n03_05
- Sun Y, & Li Y (2008). Stable postdivorce family structures during late adolescence and socioeconomic consequences in adulthood. *Journal of Marriage and Family*, 70, 129–143. doi:10.1111/j.1741-3737.2007.00466.x
- Trent K, & South SJ (1992). Sociodemographic status, parental background, childhood family structure, and attitudes toward family formation. *Journal of Marriage and Family*, 54, 427–439. doi:10.2307/353074
- Waller EM, & Rose AJ (2010). Adjustment trade-offs of co-rumination in mother–adolescent relationships. *Journal of Adolescence*, 33, 487–497. doi:10.1016/j.adolescence.2009.06.002 [PubMed: 19616839]
- West SG, Finch JF, & Curran PJ (1995). Structural equation models with non-normal variables: Problems and remedies In Hoyle R (Ed.), *Structural equation modeling: Issues and applications* (pp. 56–75). Newbury Park, CA: Sage.

- Wolchik SA, Sandler I, Weiss L, & Winslow EB (2007). New Beginnings: An empirically-based program to help divorced mothers promote resilience in their children In Briesmeister JM & Schaefer CE (Eds.), *Handbook of parent training: Helping parents prevent and solve problem behaviors* (pp. 25–62). New York: John Wiley & Sons.
- Wolchik SA, Sandler IN, Millsap RE, Plummer BA, Greene SM, Anderson ER, ... Haine RA (2002). Six-year follow-up of a randomized, controlled trial of preventive interventions for children of divorce. *Journal of the American Medical Association*, 288, 1874–1881. doi:10.1001/jama.288.15.1874 [PubMed: 12377086]
- Wolchik SA, Sandler IN, Tein JY, Mahrer N, Millsap R, Winslow EB, ... Reed AB (2013). Fifteen-year follow-up of a randomized trial of preventive intervention for divorced families: Effects on mental health and substance use outcomes in young adulthood. *Journal of Consulting and Clinical Psychology*, 81, 660–673. doi:0091-0627/04/0400-0175/0 [PubMed: 23750466]
- Wolchik SA, Tein JY, Sandler IN, & Kim H-J (2016). Developmental cascade models of a parenting-focused program for divorced families on mental health problems and substance use in emerging adulthood. *Development and Psychopathology*, 28, 869–888. doi:10.1017/S0954579416000365 [PubMed: 27427811]
- Wolchik SA, West SG, Sandler IN, Tein J-Y, Coatsworth D, Lengua L, ... Griffin WA. (2000). An experimental evaluation of theory-based mother and mother-child programs for children of divorce. *Journal of Consulting and Clinical Psychology*, 68, 843–856. doi:10.1037/0022-006X.68.5.843 [PubMed: 11068970]
- Wolchik SA, West SG, Westover S, Sandler IN, Martin A, Lustig J, ... Fisher J (1993). The children of divorce parenting intervention: Outcome evaluation of an empirically based program. *American Journal of Community Psychology*, 21, 293–331. doi:10.1007/BF00941505 [PubMed: 8311029]

Table 1
Correlations Among Attitudes Toward Marriage and Divorce and Potential Covariates

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1 Attitudes Toward Divorce	1.00											
2 Attitudes Toward Marriage	-0.47**	1.00										
3 Condition	-0.06	0.02	1.00									
4 Risk	-0.07	0.01	0.10	1.00								
5 YA gender	-0.04	-0.13	0.03	0.20**	1.00							
6 YA age	0.09	-0.04	0.03	0.04	0.08	1.00						
7 YA race ^a	-0.08	0.18*	-0.03	0.04	0.09	-0.20**	1.00					
8 YA relationship status ^b	0.20**	-0.35**	0.01	0.09	0.24**	-0.06	0.02	1.00				
9 Mother remarried after divorce ^c	-0.11	0.15*	0.12	-0.06	-0.12	-0.07	-0.03	-0.17*	1.00			
10 Mother highest level of education	0.06	-0.17*	-0.07	-0.37**	-0.10	0.03	-0.18*	0.03	0.03	1.00		
11 YA highest level of education	-0.09	0.00	0.04	-0.36**	-0.16*	0.01	-0.05	-0.04	0.11	0.39**	1.00	
12 Father highest level of education	0.00	-0.12	0.07	-0.39**	-0.04	-0.01	-0.03	0.07	0.00	0.39**	0.45**	1.00

Note. Highest level of education for fathers was missing for 115 cases

^aYA Race: 1= white, 0=nonwhite.

^bYA relationship status: 1=never married or living with partner.

^cMother remarried after divorce: 1=mother remarried at least once after divorce.

* p<.05.

** p<.01.

Table 2.
Gender as a Moderator of the Effects of the NBP on Young Adults' Attitudes toward Marriage and Divorce at 15-year Follow-up

	Raw Means (SD)		Condition Main Effect		Gender Main Effect ^a		Condition X Gender	
	NBP	Control	<i>b</i> (<i>SE</i>) β	p-value	<i>b</i> (<i>SE</i>) β	p-value	<i>b</i> (<i>SE</i>) β	p-value
Attitude about Marriage	3.66 (.62)	3.63 (.64)	-.14(.12)	.26	-.35(.15)	.02	.35 (.18) *	.047
Attitude about Divorce	3.26 (.69)	3.17 (.78)	.20 (.15)	.18	.26(.18)	.15	-.57 (.22) **	.008
			.13		.18		-.38	

Note.

^aFemale was coded as 0 and male was coded as 1. Covariates include pretest risk, pretest internalizing problems, pretest adult self-esteem, mothers' education, a binary variable representing whether or not the young adult has ever been married (or lived with a partner) versus those who have never been married or lived with a partner, and a binary variable representing whether or not the mother remarried after the divorce.

* $p < .05$.

** $p < .01$.