The Relative Risk of Divorce in Parents of Children With Developmental Disabilities: Impacts of Lifelong Parenting

Eun Ha Namkung, Jieun Song, Jan S. Greenberg, Marsha R. Mailick, and Frank J. Floyd

Abstract
We prospectively examined the risk of divorce in 190 parents of children with developmental disabilities compared to 7,251 parents of children without disabilities based on a random sample drawn from the community and followed longitudinally for over 50 years. A significant interaction between the parental group status and number of children was found: In the comparison group, having a larger number of children was related to an increased risk of divorce, whereas the number of children did not increase divorce risk among parents of children with developmental disabilities.

Key Words: developmental disabilities; divorce; parenting; family size

Developmental disabilities affect approximately one percent of the population (American Association on Intellectual and Developmental Disabilities, 2012). Increasingly, children with developmental disabilities survive into adulthood and often have close to a normal lifespan (Patja, Iivanainen, Vesala, Oksanen, & Ruoppila, 2000). Although their behavioral and functional abilities change as they move from childhood into adolescence and adulthood (McCallion & Nickle, 2008; Shattuck et al., 2007; Smith, Maenner, & Seltzer, 2012; Taylor & Mailick, 2014), most remain in need of at least some degree of support throughout their lives. Generally, the responsibility for providing or coordinating their support and care rests with their parents, who thus have a lifelong parenting role. There is a great deal of heterogeneity in family adaptation to a child with developmental disabilities. Past research has shown that resources such as social support, problem-focused coping, and positive affect help to buffer the stress associated with this parenting role (Pruchno & Meeks, 2004; Smith, Seltzer, Tager-Flusberg, Greenberg, & Carter, 2008; Woodman, 2014). Nevertheless, on average, parents of adults with developmental disabilities have been shown to have higher rates of health and mental health symptoms as compared with their peers whose children do not have disabilities or chronic conditions (Caldwell, 2008; Seltzer, Floyd, Song, Greenberg, & Hong, 2011). The purpose of the present study is to extend this assessment of the impacts of a child with developmental disabilities on parents to the marital domain, examining whether there is a higher risk of divorce in such families.

The effect of lifelong parenting on marital quality has been studied, as has the risk of divorce in these families. In their meta-analysis of 13 studies of parental divorce, Risdal and Singer (2004) found a higher rate of parental divorce or marital discord among parents of a child with disabilities compared to parents having no child with disabilities, but the overall effect size across studies was $d = .21$, indicating a small effect.

In-depth scrutiny of past research suggests that the risk of parental divorce may vary at different stages of the child's life. The impact of developmental disabilities on parental marital status is already evident early after the child's initial diagnosis. In a longitudinal study of mothers of infants with developmental disabilities interviewed at the birth of the child and again 12-18 months after the birth, Reichman, Corman, and Noonan...
(2004) found that these mothers were less likely to be involved with the infants’ fathers at the follow-up stage when compared to their peers of healthy infants. Similarly, Hatton, Emerson, Graham, Blacher, and Llewellyn (2010) found that, compared to typically developing children, preschool-aged children with cognitive delays were significantly less likely to be living in households with both biological parents or in households where their mothers were married at all three points of data collection (i.e., when children were aged 9 months, 3 years, and 5 years).

However, in a large-scale, population-based study, Urbano and Hodapp (2007) found significantly lower divorce rates among families of children with Down syndrome (7.6%) and families of children with other birth defects (10.8%), compared to those of children with no identified disability (11.2%). In this study, the timing of divorce was also significantly different across the groups: For families of children with Down syndrome, over 30% of all divorces occurred before the child reached the age of two, compared to 17.4% in families of children without disabilities and 14.9% in families of children with other birth defects. These different patterns suggest that the risk and timing of divorce appear to be, in part, a function of the specific disability of the child.

Several studies indicate that this divergent pattern of marital stability for parents of children with developmental disabilities continues across the life course. In a longitudinal study of divorce risk among parents of children with autism, Hartley et al. (2010) found that, although the prevalence of divorce was similar to the comparison group whose children did not have disabilities during childhood years, the likelihood of divorce was significantly higher than the comparison group when the child with autism was in adolescence and adulthood. In a study using a large national dataset, Freedman, Kalb, Zablotsky, and Stuart (2012) found no difference in the odds of living in a household with two adoptive or biological parents between children with autism and those without disabilities. However, this study focused on parents of school-aged children, and thus was not inconsistent with the Hartley et al. results.

A study by Seltzer et al. (2011) of parents in their early 60s who had a son or daughter with developmental disabilities found no difference in the odds of currently being married, but significant differences in the odds of being married to the first spouse as compared with a matched group of parents of adults without disabilities. In other words, although cross-sectionally there was no difference in marital status between the two groups of parents, parents of adults with developmental disabilities were more likely than other parents to have been divorced or widowed and then remarried.

Although not all studies have identified marital status differences for parents of children with and without developmental disabilities (e.g., Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001), most studies that have looked across life stages have observed an effect on marital stability. Thus, the question of the impact of having a child with developmental disabilities on parental divorce is best addressed by studies covering the life course of a marriage. Based on past research, we hypothesized that, over the life course of a marriage, there will be a greater likelihood of divorce in parents of children with developmental disabilities than in parents whose children were not disabled.

The impact of having a child with developmental disabilities on divorce may also be affected by the size of the family and the position of the child with disabilities within the birth order. It is well-established that, in the general population, couples with children are less likely to divorce than those without children (Andersson, 1997). However, past research findings on the effect of the number of children on divorce are inclusive. Some studies based on samples drawn from the general population suggest a decreased risk of divorce with a greater number of children (Djamba, Mullins, Brackett, & McKenzie, 2012; Lyngstad, 2006), whereas other studies suggest an increased risk in families of four or more children (Andersson, 1997; Heaton, 1990). This inconsistency may partly come from the age of children of the couples studied. Previous research suggested that the age of the youngest child has a great impact on the propensity to divorce, with divorce rates lowest when the youngest child is under the age of two (Andersson, 1997; Waite & Lillard, 1991). However, most studies on the association of number of children and divorce risk focused on parents with preschool- and school-aged children, so they could not capture the lifelong impact of family size on divorce risk of parents (Andersson, 1997; Heaton, 1990; Lyngstad, 2006).
Among families of children with developmental disabilities, however, having a greater number of children may have a protective function throughout the families' life course, as siblings often assume an important role as secondary caregivers for their brother or sister with disabilities during childhood and often inherit the role of caregivers in midlife after the parents are no longer able to fulfill this primary role (Seltzer, Greenberg, Orsmond, & Lounds, 2005; Stoneman, 2005). Siblings of individuals with developmental disabilities often are socialized to expect that their brother or sister is a shared family responsibility. Past research has shown that adult siblings remain highly involved in their family of origin throughout their life course, and have more frequent contact with family members and live closer to the sibling with the disability than siblings in families who do not have a disabled sibling (Orsmond & Seltzer, 2007; Taylor, Greenberg, Seltzer, & Floyd, 2008). These siblings often delay their own family formation, possibly due to their ongoing family responsibilities (Hodapp, Urbano, & Burke, 2010).

In addition to the caregiving support nondisabled children may provide, a larger number of nondisabled children may confer certain psychological benefits to parents having a child with disabilities. In a study comparing siblings of individuals with Down syndrome and Rett syndrome, Mulroy, Robertson, Aiberti, Leonard, and Bowers (2008) found that parents of children with Down syndrome who had a greater number of children were more likely to perceive that their other children benefited from having a sibling with Down syndrome. These benefits included a greater level of maturity, patience, a readiness to help out, and an appreciation of one’s own health and ability. From a family systems framework, these perceived benefits may have positive rippling effects on parents' marital relationships. Yet, as far as we know, only one study has considered how the number of children might differentially affect the risk of divorce among families of children with disabilities compared to families of typically developing children (Urbano & Hodapp, 2007), and this study did not find that family size had a differential effect on rates of divorce. However, this study sampled relatively young families, and therefore did not capture families across the life course. Based on past research that has revealed the important role of siblings in families of children with developmental disabilities across the life course, we hypothesized that the number of children would moderate the effect having a child with developmental disabilities has on the risk of divorce.

The child with the disability is likely to come later in the birth order (Lord, Mulloy, Wendelboe, & Schopler, 1991; Urbano & Hodapp, 2007), in part due to the fact that maternal age is related to the risk of giving birth to a child with a developmental disability. The important distinction seems to be whether the child with disabilities is a first (or only) child as opposed to coming later in the birth order, though the effect of birth order is not yet clear. Urbano and Hodapp (2007) found that divorce was less likely in families of children with Down syndrome when the child was born later in the birth order. However, Hartley and colleagues (2010) found that in families of children with autism, there were significantly higher odds of being divorced when the child with autism was born second or later in the birth order.

The existing literature on the effect of having a child with developmental disabilities on the risk of divorce has two major limitations. First, most studies have employed volunteer or clinic-based samples, which may not be representative of the broader population of parents of children with developmental disabilities. Second, as noted, most studies have been cross-sectional in design, which may lead to a limited understanding of how divorce risk changes across the life course. Because the stress of caring for a child with disabilities is lifelong, parents of children with disabilities may experience a prolonged period of vulnerability to divorce (as suggested by Hartley et al., 2010) and, thus, a life course perspective in the design of research is needed. In the present study, using the Wisconsin Longitudinal Study, a life course study of adult development from high school to late midlife/early old age, we examined the risk and timing of divorce in parents of children with developmental disabilities compared to parents of children without disabilities, and tested the differential effect of family size between the two groups of parents. As described below, the Wisconsin Longitudinal Study respondents were randomly selected for the study prior to the time when they became parents. Thus, we avoided the self-selection biases inherent in most previous studies based on volunteer samples of parents of children with disabilities. In addition, the Wisconsin Longitudinal Study has tracked the dates of child births and of marital transitions.
starting when respondents were 18 years of age in 1957, and extending until 2004-2006, when respondents were, on average, in their early 60s. Thus, we were able to prospectively study across nearly five decades of the life course whether parents of children with developmental disabilities have a heightened risk of divorce relative to their age peers.

**Methods**

**Data and Sample**

The Wisconsin Longitudinal Study is a random sample of 10,317 women and men who graduated from Wisconsin high schools in 1957 and a subsample of their randomly selected siblings (Hauser, Sheridan, & Warren, 1999). After initial data collection in 1957, follow-up telephone surveys were conducted in 1975 with 9,138 (90.1%) surviving members of the original sample when they were in their mid-30s; in 1992 with 8,493 (87.2%) of the surviving original respondents when they were in their early 50s; and again in 2004 with 7,265 (80.0%) of the surviving respondents when they were in their mid-60s. Parallel data collection procedures were conducted with siblings of the original respondents in 1977, 1994, and 2006, with 5,823 siblings participating in one or more of these data collection points. For the present study, we drew on data from four rounds of the Wisconsin Longitudinal Study in which data were collected from both graduate and sibling respondents. The 1957 survey provided data about the respondents’ background relevant to both the original participants and the siblings (e.g., religious affiliation of their family of origin), and the 1975/1977, 1992/1994, and 2004/2006 surveys were used to track the respondents’ marital and childbearing history and to measure the respondents’ sociodemographic characteristics that might be related to their marital and childbearing decisions.

In the 2004/2006 Wisconsin Longitudinal Study survey, screener questions were administered to identify whether any of the respondent’s children (living or deceased) had developmental disabilities. The screener consisted of a maximum of 31 questions that began by asking parents if any of their children (living or deceased) had a developmental disability or serious long-term mental health problems and, if so, the specific diagnosis. If a parent indicated that the son or daughter had a specific developmental disability (e.g., Down syndrome, cerebral palsy, fragile X syndrome, autism spectrum disorder, etc.) or used terms such as “developmental disability,” “mental retardation,” or “cognitive disability,” that child was included in the developmental disabilities group. In a few cases, parents did not know the child’s diagnosis. In these instances, the respondents were asked if the condition began before age 22. If so, the following questions were asked: “Does the child have below-average intelligence?”, “Did the child ever attend special education?”, and “Does the child’s problem limit his/her ability to hold a regular job or independently carry out other normal tasks of adult life?” If a respondent answered yes to one or more questions, he or she was included in the developmental disabilities sample. In addition, when a parent indicated that the child had epilepsy or seizures, the question about intelligence was asked, and the child was only included in the developmental disabilities group if the epilepsy was accompanied by below-average intelligence.

For the present analysis, the sample was restricted to those respondents who participated in the 2004/2006 phone interview and for whom we could establish via inspection of the dates of the marriage and dates of birth of the children that the respondent was married to the other biological parent at the time of the birth of their children and, therefore, likely the biological parent of all children in the household. Thus, we excluded premarital or nonmarital births, as well as respondents who had children from a prior marriage. We restricted the sample to biological parents because the impact of having a child with developmental disabilities on the marriage may be different when stepchildren are involved. We also excluded families who adopted the child with developmental disabilities because data were not available on the date of adoption and, thus, we could not be certain that the parents were married to one another at the time of the adoption.

Based on the screening questions, we identified 199 biological parents of a child with developmental disabilities who were married to the other biological parent at the time of the child’s birth and for whom complete data on marital history (e.g., dates of marriage, divorce, or death of spouse) was available. We dropped nine cases in which the child suffered brain injuries prior to age 22 because these brain injuries occurred during late childhood or adolescence, whereas the other developmental disabilities had
an onset at birth or within the first few years of life. Thus, the final analytic sample consisted of 190 parents of a child with developmental disabilities. Their conditions included intellectual disability \( (n = 78, 41.05\%) \), Down syndrome \( (n = 30, 15.79\%) \), autism spectrum disorder \( (n = 21, 11.05\%) \), cerebral palsy \( (n = 26, 13.68\%) \), and other specific developmental disability diagnoses \( (n = 35, 18.42\%) \).

A comparison group of biological parents who did not have a child with disabilities was created \( (n = 7,542) \). In the Wisconsin Longitudinal Study research design, a “target child” was randomly selected for each respondent. To be included in the comparison group, the children in the household had to be the biological children of the respondent and the other parent in the household. Cases in which the targeted child was adopted were excluded because data were not available on the date of the adoption. We dropped 291 parents from the analysis because of missing data on marital history or because the target child’s birth occurred prior to the time the parents got married or after the parents’ marriage ended. Thus, the comparison group consisted of 7,251 biological parents who had children without disabilities and who were married to the other biological parent at the time of the birth of the children.

**Measures**

The parent’s marital history was identified from detailed marital questions asked in the 1975/1977, 1992/1994, and 2004/2006 surveys. If a respondent reported a new marriage or a marital transition due to separation, divorce, or the death of the spouse, follow-up questions were asked about the specific date that the marital transition occurred. For purposes of this analysis, if respondents reported multiple marital transitions, only the marriage involving the biological parents of the target child (i.e., either the child with developmental disabilities or the randomly selected target child in the comparison group) was considered.

Based on the marital history information, we created three marital variables: (1) date of marriage, (2) date of divorce (if applicable), and (3) date of spousal death in case of bereavement. From these variables, we calculated how long each respondent was married to the spouse (in months). For the longitudinal survival analyses, marital status was used as the time-to-event dependent variable, also known as the event variable. The outcome in the survival analyses was constructed with two pieces of information: the event (e.g., divorce) itself and the duration of marriage (i.e., time from marriage to divorce or spousal death) in months.

The primary independent variable used as a predictor of divorce was whether a parent had a child with developmental disabilities \( (1 = \text{parents of a child with developmental disabilities}, \text{or} 0 = \text{parents of children without disabilities}) \).

In order to examine whether the number of children in the family had a differential effect on divorce rates, the number of biological children born during the marriage involving the birth of the child with developmental disabilities or the target child (for those in the comparison group) was determined based on information from the child roster which listed the dates of birth and death of all children in the family. Few parents had six or more children, so we top-coded the number of children at six for the statistical analyses.

Based on the research on divorce in the general population, we controlled for several parental characteristics known to be associated with an increased risk of divorce. The respondent’s educational attainment was coded using two dummy variables \( (1 = \text{high school graduated or less}, \text{and} 1 = \text{Bachelor’s degree or higher with} \text{0 = some college}) \) as research by Payne and Gibbs (2011) indicated that those with some college are at a higher risk of divorce than those with a high school education or less or those who have graduated college. Religion of the family \( (1 = \text{Catholic}; \text{0 = otherwise}) \) in which the respondent grew up was controlled based on the well-established finding of lower divorce rates among Catholics (Teachman, 2002). We also controlled age in years (Freedman et al., 2012; Reichman et al., 2004) and gender \( (1 = \text{female}, 0 = \text{male}) \) of the respondent (Aughinbaugh, Robles, & Sun, 2013).

In addition, we controlled the age when the respondent married the child’s biological parent, as divorce is more likely to occur when individuals marry at a younger age (Corman & Kaestner, 1992). We also controlled the time between marriage and birth of the first child (in months), as divorce risk is higher when there is a shorter duration between marriage and childbirth (Corman & Kaestner, 1992). Finally, we took into account whether the respondent had experienced the death of any child during that marriage \( (0 = \text{none of children died}, 1 = \text{one or more}) \).
more children died), given that the evidence is inconclusive as to whether there is a higher likelihood of divorce among bereaved parents compared with nonbereaved parents (Lyngstad, 2013, Schwab, 1998).

**Analytic Strategy**

Our analytic approach involved three stages. First, we used basic bivariate contrasts to provide an initial portrait of characteristics of the two groups of parents in terms of marital status and its covariates. Next, we used survival analyses to investigate whether parents of children with developmental disabilities had an increased risk of divorce relative to parents who did not have children with disabilities. The Kaplan-Meier survival analysis provides insight into the shape of the survival (i.e., remaining married) function for each parent group across the life course.

Third, we conducted Cox modeling, which allowed us to examine the factors that predict the relative risks of divorce. In Model 1, we entered the main predictor of having a child with developmental disabilities as well as all parental and marital control variables. We hypothesized that having a child with developmental disabilities would increase the risk of divorce, net of the parental and marital control variables. We further examined whether family size would differentially predict divorce in families of children with developmental disabilities and the comparison group. We entered the interaction term of parent group status (developmental disabilities versus comparison group) × number of children in Model 2. In a follow-up analysis, we examined the interaction between the child’s birth order and parent group status. However, this interaction was not significant, and controlling for the child’s birth order had no effect on the findings. We thus dropped child’s birth order from the final models because of its correlation with the number of children variable ($r = .55$).

**Results**

**Descriptive Findings**

Table 1 presents descriptive statistics comparing parents having children with developmental disabilities to the comparison group. With respect to marital history, rates of divorce did not significantly differ between the two groups. About 22% of parents of children with developmental disabilities experienced divorce, whereas 20% of parents in the comparison group experienced divorce. There were no differences between parents of children with developmental disabilities and comparison group parents with respect to age, gender, educational attainment, family religion, and the length of time between the marriage and the birth of the first child.

However, the two groups of parents were significantly different in terms of the age when they married, the number of children born during the marriage, the experience of the death of a child during the marriage, and the birth order of the target child. Parents of children with developmental disabilities were about two years older than comparison group parents when they married the biological parent of the target child and had a greater number of children in the marriage (approximately three children in the comparison group and nearly four children in the developmental disabilities group). A higher proportion of parents of a child with developmental disabilities (15%, $n = 28$) than comparison parents (7%, $n = 472$) had experienced the death of a child during the marriage. Among families of children with developmental disabilities who experienced the death of a child, 50% ($n = 14$) involved the death of the child with disabilities. Finally, children with developmental disabilities were less likely to be first-borns (36%) than children in the comparison group (44%).

**Marital Survival**

Figure 1 shows the two Kaplan-Meier (KM) survival curves of marital duration stratified by whether or not parents have a child with developmental disabilities. The curves were not significantly different (log rank test $p = .22$). Thus, counter to our hypothesis, the risk of divorce of the two groups of parents was not significantly different.

**Predictors of the Relative Risk of Divorce**

Table 2 presents Cox proportional hazard models predicting divorce among parents who had a child with developmental disabilities and among the comparison group. Consistent with the KM models, parents of children with developmental disabilities did not experience an increased risk of divorce relative to comparison group parents, after adjusting for individual, marital, or family characteristics of the parents (see Model 1).

However, in Model 2, there was a significant interaction between parent group status and the
The number of biological children born during the marriage ($b = -.23, p = .04$). Figure 2 illustrates that, for parents of a child with developmental disabilities, the risk of divorce was higher than the comparison group when there was only one child in the family and the risk remained relatively constant across family size. Parents with an only child with developmental disabilities had an estimated hazard risk of 2.5, and the hazard risk was 2.0 when parents had 6 or more children, including the child with developmental disabilities. In contrast, the divorce risk among parents in the comparison group was positively associated with family size, as the risk of divorce was lowest with only one child and increased with each successive child in the family.

We also found several significant associations between the risk of divorce and marital or family characteristics. Consistent with past research,

<table>
<thead>
<tr>
<th>Variables</th>
<th>DD $(n = 190)$</th>
<th>Comparison $(n = 7,251)$</th>
<th>$t$ or $x^2$ (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Marital History</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Still married</td>
<td>67.89%</td>
<td>70.65%</td>
<td>.68 (2)</td>
</tr>
<tr>
<td>Death of spouse</td>
<td>10.00%</td>
<td>9.27%</td>
<td></td>
</tr>
<tr>
<td>Divorce</td>
<td>22.11%</td>
<td>20.08%</td>
<td></td>
</tr>
<tr>
<td><strong>Parental Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (years)</td>
<td>64.77 (4.72)</td>
<td>64.70 (3.47)</td>
<td>-.31 (7439)</td>
</tr>
<tr>
<td>Gender (% female)</td>
<td>51.58%</td>
<td>53.72%</td>
<td>.34 (1)</td>
</tr>
<tr>
<td>Educational attainment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school grad or less</td>
<td>58.29%</td>
<td>58.25%</td>
<td>.57 (2)</td>
</tr>
<tr>
<td>Some college</td>
<td>14.44%</td>
<td>16.21%</td>
<td></td>
</tr>
<tr>
<td>Bachelor’s degree or higher</td>
<td>27.27%</td>
<td>25.54%</td>
<td></td>
</tr>
<tr>
<td>Family religion (% Catholic)</td>
<td>38.42%</td>
<td>41.89%</td>
<td>.91 (1)</td>
</tr>
<tr>
<td><strong>Marital Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at marriage (years)</td>
<td>22.38 (3.65)</td>
<td>21.97 (3.11)</td>
<td>-1.78 (7431)†</td>
</tr>
<tr>
<td>Time lag to the first child birth (months)</td>
<td>23.12 (26.24)</td>
<td>21.39 (19.79)</td>
<td>-1.18 (7439)</td>
</tr>
<tr>
<td>Number of children born during marriage</td>
<td>3.47 (1.44)</td>
<td>3.08 (1.24)</td>
<td>-4.35 (7439)***</td>
</tr>
<tr>
<td>Death of any child</td>
<td>14.74%</td>
<td>6.52%</td>
<td>19.94 (1)***</td>
</tr>
<tr>
<td>Target child’s birth order (% first born)</td>
<td>36.45%</td>
<td>44.27%</td>
<td>4.90 (1)*</td>
</tr>
</tbody>
</table>

*Variables with missing data: educational attainment ($n = 4$); family religion ($n = 17$); age at marriage ($n = 8$); death of any child ($n = 8$).

*Marital history categories refer to status of marriage involving the child with developmental disabilities or the target child for the comparison group.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. 

Figure 1. Kaplan-Meier survival curves of parents of a child with developmental disabilities and parents of a child without disabilities ($p = .2$).
parents who married at an older age had a decreased risk of divorce; for each additional year older an individual was at the time of marriage, there was a 4% decline in the risk of divorce. The time between marriage and the birth of the first child reduced the risk of divorce; with each additional month married individuals delayed having their first child, the risk of divorce decreased by 1%.

With respect to parent characteristics, older age was related to a lower divorce risk. Parents who had some college education experienced a greater risk of divorce compared to those who did not attend college (33%) and who completed college or graduate degrees (17%). Parents who grew up in Catholic families were 23% less likely to divorce than non-Catholics. Bereaved parents showed 60% lower risk of divorce than non-bereaved parents.

We conducted post hoc analysis to examine whether the results of the survival analyses were affected by fixing the starting date as the date of the marriage. As an alternative, we used the target child’s birth as the starting point to investigate whether this might more clearly show the impact of having a child with disabilities on divorce rates. The KM survival curve starting from the child’s birth date was almost identical to the survival curve starting from the parents’ marriage date. In addition, the Cox proportional hazard models starting at a child’s birth date also yielded equivalent results to the models starting at a parent’s marriage date. We also used the birth of the last biological child in the family as a starting...
point, as the probability of divorce approaches zero up to this point in the life course. The KM survival curve and the Cox proportional hazard models again yielded identical results to those using the date of marriage. Thus, our post hoc analyses suggest that our findings are quite robust and not dependent on the date selected as the starting point.

**Discussion**

The Wisconsin Longitudinal Study offers an unbiased, longitudinal, and population-based approach to address a significant question that previously was asked in studies using data from cross-sectional studies, using volunteer samples, or focusing on specific stages of the family life course, which possibly yield biased conclusions. In the present study, there was neither an overall increased risk of divorce associated with having a child with developmental disabilities nor a difference in the timing of divorce.

The economics literature focuses on the "quantity-quality" trade-off of having children (Rosenzweig & Zhang, 2009). The basic premise is that if parents have a large number of children, they will have less time and resources to spend on each child than if they have fewer children. Thus, having a large number of children may stretch family resources and be associated with weaker family ties, increasing the risk of divorce. In our comparison group, we did find that having a larger number of children was related to increased rates of divorce. However, we found that, among parents of a child with developmental disabilities, those who had fewer children were at increased risk of divorce, but having a larger number of children did not lead to a further elevation in rates of divorce.

These data suggest that, among parents of children with developmental disabilities, the quantity-quality trade-off and associated resource constraints might be more complex than in the general population. In making decisions about having additional children, parents must consider how another child will affect the resources available and quality of the relationship with their present children. It might be that having a child with developmental disabilities fundamentally alters this calculus. Parents of a child with developmental disabilities may place greater value on having additional nondisabled children to provide opportunities for their son or daughter with disabilities to participate in social activities and to share in the caregiving responsibilities (Dyke, Mulroy, & Leonard, 2009; Mulroy et al., 2008). That a different dynamic appears to be operating in families of children with developmental disabilities warrants further research.

Although the focus of the present research was on the marital stability of parents of children with developmental disabilities, the findings have implications for the nondisabled children of these parents, given the interaction effect of family size. In small families, the one or two other children have to grapple with not only the extra stress from caregiving demands posed by their sibling with developmental disabilities, but also with the higher risk of marital discord and divorce of their parents. In larger families, on the other hand, the nondisabled siblings may provide support to each other and to their parents, with a concomitant lower risk of divorce in the parents than in the comparison group and lower consequent life stress in the child generation.

We found unexpectedly that parents who experienced the death of a child had lower divorce rates. Some past research has found that bereavement causes considerable stress on the marriage and is associated with increased rates of divorce (Lehman, Wortman, & Willimans, 1987; Lyngstad, 2013; Najman et al. 1993). However, other researchers have found no differences in divorce rates between those who have lost a child and those who have not experienced a child death (Murphy, Johnson, & Lohan, 2003). Our findings are consistent with research by Carroll and Shaefer (1994) who found that the grief of coping with the death of a child can strengthen the marital bond. Both the Lehman et al. (1987) and the Najman et al. (1993) studies, which found an effect of child death on bereavement, involved child deaths that were unexpected and traumatic. Lehman et al. (1987) studied children who died in a car crash and Najman et al. (1993) studied children who died in infancy. In the Wisconsin Longitudinal Study, data on whether the death was expected or unexpected were available only when the child died from an illness, and we were therefore unable to examine whether unexpected or traumatic child deaths have a greater effect on the risk of divorce than when there was some anticipation of the child’s impending death.

The present study had several limitations that must be acknowledged. The sample was drawn...
from Wisconsin and there were very few members of minority groups, reflective of Wisconsin’s population in the mid-20th century. The Wisconsin Longitudinal Study also represents a cohort who married younger and had more children than today’s cohort of young adults who marry later and have fewer children. In addition, the Wisconsin Longitudinal Study consisted of high school graduates, more Catholics, those mostly in their first marriage, and excluded premarital births, all of which are characteristics related to lower rates of divorce. Nevertheless, marital disruption in the Wisconsin Longitudinal Study generation (born in 1939, on average) was quite similar to that found in the general population of individuals from the same birth cohort. Among selected birth cohorts from 1935-1939 to 1955-1959 of the Survey of Income and Program Participation (SIPP) 2001 Panel, the percentages of participants ever divorced up to age 40 were highest in the 1950-1954 birth cohort (31.4% for men, 35.2% for women), whereas they were 22.7% for both men and women in the 1935-1939 birth cohorts (Kreider, 2005). Given the higher divorce among more recent cohorts, it is possible that couples forming families today may be differentially vulnerable to the influence of a child with a disability. Thus, additional research is warranted to determine if the findings of this study are generalizable to present younger age cohorts of families of individuals with developmental disabilities.

Nevertheless, there were several manifest strengths of the present research, including the fact that it was a random population-based sample and that it spanned 50 years in the lives of families both with and without a child with developmental disabilities. Together these strengths and limitations point the way toward future research.

In conclusion, we found that divorce rates were not elevated, on average, in families with a child with developmental disabilities. However, in small families, there was a significantly higher risk of divorce relative to a normative comparison group. This is the first population-based study of marital stability in families in which there was a child with developmental disabilities that spans nearly the full marital life course, and the absence of a main effect on divorce gives hope and optimism to these families. Future research should attempt to replicate these findings in current cohorts, to measure not only marital status but its quality, and also to seek a deeper understanding of the mediators and moderators that lead to marital stability or distress in parents of children with developmental disabilities.

References


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