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Marital Quality and Families of Children with Developmental Disabilities

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Abstract

In the current review, we highlight recent research on marital quality in parents of children with developmental disabilities (DD) and discuss the child and family factors that account for why some marriages fare better than others. We will also discuss the need for the field of DD to broaden its perspective on marital quality and to examine the impact of marriages on child well-being and the well-being of parents. The clinical implications of recent research findings on marital quality for improving supports and interventions for families of children with DD are discussed. A theoretical framework and model of marriage and parent and child psychosocial well-being in the context of child disability is proposed and a roadmap for future research is provided.

Introduction

The quality of marriages in parents of children with a developmental disability (DD) has been the focus of research dating back to the 1950s (Farber, 1959; Farber, 1960; Gath, 1978). In these early studies, investigators theorized that the stresses associated with having a child with DD would negatively impact parents' marital relationship. More than half a century later, the assumption that children with DD have a negative effect on parental marriage continues to be perpetuated in the mass media, with reports that the marriages of parents of children with DD are doomed for divorce (Doherty, 2008; Solomon & Thierry, 2006).

Parents of children with DD are indeed faced with extraordinary challenges and often experience high levels of parenting stress and poor psychological well-being (e.g., Baker, Blacher, Kopp, & Kraemer, 1997; Fidler, Hodapp, & Dykens, 2000; Hauser-Cram, Warfield, Shonkoff, & Krauss, 2001). Given the lifelong nature of DDs, these parenting challenges are often longstanding and extend into the son or daughter's adolescence and

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adulthood (Seltzer et al., 2009; Seltzer, Greenberg, Floyd, Pettee, & Hong, 2001; Smith, Hong, Seltzer, Greenberg, Almeida, & Bishop, 2009). Our own interviews with more than 500 mothers of adolescents and adults with a variety of DDs over the past decade highlight that the challenges of having a son or daughter with DD can strain parents' marriages. For instance, a mother of an adolescent with fragile X syndrome commented, ''My husband and I are hardly ever able to get away together. It has been really hard on our marriage.'' A mother of an adult son with an autism spectrum disorder (ASD) stated "We were so focused on our son that we didn't have time to invest in our marriage. We got a divorce and went our separate ways." Another mother of an adult son with an ASD commented "[My son's] disability and behaviors were just too much for his dad. He up and left us."

Yet, research also suggests that many parents of children with DD report average to above-average levels of marital satisfaction (e.g., Flaherty & Glidden, 2000; Stoneman & Gavidia-Payne, 2006) and have longstanding marriages (e.g., Hartley et al., 2010; Seltzer et al., 2001; Urbano & Hodapp, 2007). In our interviews with mothers of adolescents and adults with DDs, mothers often described positive spousal interactions and even attributed their strong marriage to the presence of their son or daughter with DD. For instance, a mother of an adult son with fragile X syndrome commented, "There have been times when it has been a real strain on the marriage. But overall I think it's made me a better person. And it has made my husband and I a stronger couple." Another mother of an adolescent daughter with fragile X syndrome commented "Because [my husband] and I have to rely on each other and work together to care for our daughter, we have become best friends." These comments underscore the marked variability in the quality of marriages in families of children with DD. Although some parents of children with DD may be at an increased risk of marital discord and divorce, the marriages of many other parents do not appear to be negatively impacted by having a child with DD.

The purpose of the current chapter is to highlight recent research on marital quality in parents of children with DD and to discuss the factors that account for why some marriages fare better than others. We will also discuss the need for the field of DD to broaden its perspective on the interrelatedness of parents' marital quality and parent and child psychosocial well-being. The clinical implications of recent research findings for designing services for families of children with DD will also be discussed. A theoretical framework for understanding the interrelatedness between marital quality and parent and child psychosocial well-being and a road-map for future research are then provided.

2. Marital Quality of Parents of Children with A DD

Marital quality is defined as an evaluation of the functioning and success of a marital partnership (Spanier & Cole, 1976). Marital quality is most commonly assessed through self-reported ratings of overall happiness, adjustment, or satisfaction with one's marriage. Marital quality can be assessed through self-reported ratings using a single item (e.g., "Overall, how satisfied are you with your marriage?") or multiple items spanning different dimensions of the partner relationship (e.g., communication, sexual intimacy, ability to settle disagreements, degree of affection expression, and amount of cohesion). In other studies,

marital quality is assessed through observations of couple interactions or objective measures (e.g., divorce).

In the past several decades, numerous researchers have examined the quality of marriages in parents of children with DD. The large majority of these researchers sought to determine whether, on average, married parents of children with DD have poorer quality marriages than comparison groups of married parents of children without DD. The large majority of these studies examined self-report measures of marital satisfaction or marital adjustment or examined the prevalence of divorce. To date, only one published study has reported on findings regarding couple interactions from observational couple data on married parents of children with DD. Overall, the findings from these studies are mixed.

2.1. Marital satisfaction and marital adjustment

Findings across studies examining average levels of self-reported marital satisfaction or marital adjustment in parents of children with DD as compared to other parents are inconsistent. In several studies, parents of children with DD were found to have a lower average level of marital satisfaction or marital adjustment than comparison groups of parents (Bristol, Gallagher, & Schopler, 1988; Farber, 1959; Florian & Findler, 2001; Friedrich & Friedrich, 1981; Gath, 1978; Trute, 1990). In other studies, there was not a significant difference in marital satisfaction or marital adjustment between parents of children with DD and comparison groups of parents (Abbott & Meredith, 1986; Fisman, Wolf, & Noh, 1989; Fisman et al., 1996; Gath & Gumley, 1984, 1986; Holmbeck et al., 1997; Riper, Ryff, & Pridham, 1992; Waisbren, 1980; Williams & McKenry, 1981).

2.2. Observational studies of marital interactions

In the only observational study of marital interactions in parents of children with DD, Floyd and Zmich (1991) found that parents of children with intellectual disability exhibited more negative spousal communication behaviors (e.g., put-downs, blaming, and denying responsibility) and engaged in higher rates of negative reciprocity than did parents of children without intellectual disability. However, on a self-reported measure of marital adjustment, the two groups of parents did not differ. Thus, differences in marital interactions were observed, but parents of children with intellectual disability did not perceive themselves as having a more negative marital relationship than parents of children without intellectual disability. Floyd and Zmich theorized that despite having negative spousal interactions, parents of children with intellectual disability may have attributed these negative interactions to the challenges of having a child with intellectual disability as opposed to problems with their marriage.

This study highlights the need for studies to include both self-reported ratings of marital quality and observational studies of marital interactions within families of children with DD. These methodologies capture unique, yet both important, aspects of marital quality (e.g., Gottman & Notarius, 2000). Observed marital interactions capture the quality of actual interactions between spouses, independent of parent perceptual biases. Self-reported ratings can assess the subjective experiences of parents and may be more representative of what goes on between spouses across time and situations. Self-report ratings can also capture

cognitive factors such as parents' attributions and expectations about marital quality, which have been shown in the general population to impact long-term marital survival and parent outcomes separate from the quality of observed interactions (e.g., Bradbury & Finchman, 1992). Within parents of children with DD, observed negative spousal interactions may be moderated by parents' attributions for these negative interactions. Parents who attribute negative spousal interactions as due to child-related stress may be more likely to remain married and feel satisfied with their marriage than parents who attribute negative spousal interactions to an undesirable quality in their spouse or a problem in their marriage. Future studies of marital quality in parents of children with DD that include both self-reported perceptions of marital quality and observations of marital interactions are needed to understand these cognitive and behavioral processes.

2.3. Divorce

Several studies have also looked at the rate of divorce in parents of children with DD. Findings from these studies are also varied. Several studies indicate that parents of children with DD have an increased risk of divorce as compared to parents of children without DD (Breslau & Davis, 1986; Hartley et al., 2010; Witt, Riley, & Coiro, 2003). However, other studies have not found a higher risk of divorce in parents of children with DD as compared to comparison groups of parents (Freedman, Kalb, Zablotsky, & Stuart, 2011; Joesch & Smith, 1997; Urbano & Hodapp, 2007). In their meta-analysis of six studies examining divorce in parents of children with a variety of different DDs, Risdal and Singer (2004) found that parents of children with DD had an average of 5.97% more divorces than did comparison groups of parents.

2.4. Inconsistency in study samples and research methodologies

Differences in research samples and methodologies may account for some of the discrepancy in findings across studies of marital satisfaction or marital adjustment and divorce in families of children with DD. Although most studies of marital satisfaction or marital adjustment relied on self-reported ratings, a variety of different self-report measures were used. These measures differed in the extent to which various domains (i.e., sexual intimacy versus communication or ability to settle disagreements) of marital quality were assessed. Having a child with DD may take a greater toll on some aspects of marriages than others. For instance, the high level of childcare responsibilities may mean that couples who have a child with DD spend less time participating in enjoyable leisure activities together. In contrast, other domains of marital quality such as satisfaction with spousal communication or couple problem-solving strategies may be less affected. Unfortunately, nearly all of the previous studies mentioned above only reported total scores for measures of marital satisfaction or marital adjustment, and thus it is difficult to understand the extent to which these item differences may be driving the discrepancies in findings across studies.

In addition, information on divorce was collected in different manners across studies, with some studies examining official state divorce records and other studies using parent report. Each of these methodologies has its own disadvantages; studies examining state divorce records do not capture couples who are separated but not formally divorced and reporting

biases may blur results from self-report measures of divorce, particularly, regarding the timing of marital dissolution.

Perhaps more importantly, there are marked differences across studies in the characteristics of the families of children with DD studied, including variation in child age, type of DD, and sampling methodology (e.g., community vs. clinical sample and parent-reported diagnosis of DD vs. medical record and measurement validated diagnosis). As will be discussed later on in this review, these sample differences have been shown to be differentially related to marital discord. There are also differences across studies in the comparison groups of parents of children without DD. In some studies, the comparison group included parents of children with other types of problems (i.e., mental health and physical problems) and group differences between parents of children with DD and the comparison group were not found (e.g., Fisman et al., 1996; Freedman et al., 2011). In studies that excluded these parents from the comparison group, negative effects of having a child with DD on marital quality have been found (e.g., Hartley et al., 2010). Certain child mental health conditions (e.g., attention deficit/hyperactivity disorder (ADHD)) have been linked to an increased risk of divorce in parents (Wymbs, Pelham, Molina, Gnagy, & Wilson, 2008), and thus it may be that stressful parenting more generally is predictive of marital discord.

2.5. Summary and further research

Overall, findings from studies examining marital satisfaction or marital adjustment and divorce in parents of children with DD are mixed. Across these studies, there is evidence that having a child with DD can negatively influence marriages, albeit the effect is small, and many marriages remain intact and are reported to be of high quality. What is clear both within and across studies is the substantial variability in the marital quality of parents of children with DD. The unique challenges of having a child with DD may lead to marital strain in some couples, but have no effect, or possibly even a positive effect, on the marriages of other couples.

Further research is needed to better understand marital quality in parents of children with DD as compared to other groups of parents. Previous studies have often been based on small-sized samples and included heterogeneous samples of children with various types of DD. Large-scale studies are needed in order to clarify the ways in which having a child with DD may impact parenting and how this risk may vary across child characteristics including child age and type of DD. Moreover, studies to date have predominantly been cross-sectional, presenting a snapshot of marital quality at one point in time. These studies have also focused on parents of younger children with DDs. Longitudinal studies that track changes in marital quality throughout the son or daughter's childhood and adulthood are needed to elucidate changes in marital quality across time and child age.

A further limitation of previous studies is that many are several decades old. As previous researchers have pointed out (Glidden & Schoolcraft, 2007), there have been important historical changes in marital quality for the general population. Large population-based studies show marked fluctuations in marital satisfaction and rates of divorce over the past few decades. For instance, there was an overall downward trend in marital quality between 1980 and 2000 (Amato, Johnson, Booth, & Rogers, 2003). Thus, studies that were

conducted several decades ago may not be representative of marital quality currently experienced in families of children with DD. Furthermore, in addition to these broader historical shifts, there have been important societal changes in public awareness and acceptance of DD conditions in recent years. There has also been a shift in the timing of diagnosis of many DD (e.g., Mandell et al., 2010) and availability and delivery of disability services (e.g., Thomas, Ellis, McLaurin, Daniels, & Morrissey, 2007) that has likely altered the impact of having a child with DD on marital quality. Thus, new studies are needed in order to capture the impact of these shifts on the current experiences of couples who have a child with DD.

In addition, the differences found between observational and self-report measures in the Floyd and Zmich (1991) study suggest that parents' perceptions and reports of their marital quality often differ from the quality of their observed interactions. It is important to understand these potential differences and how they uniquely operate to impact long-term marital quality. Thus, there is a great need for research that incorporates both self-report measures and observational couple interaction measures.

Observational methodologies also provide in-depth information on verbal and nonverbal dimensions of marital interactions. To date, studies have almost exclusively relied on global measures of marital quality or only assessed total scores and thus virtually nothing is known about how having a child with DD may differentially impact various domains of marital interactions. An understanding of the types of negative interactions experienced by couples of children with DD is important for guiding interventions and supports. For instance, having a child with DD may take a particularly heavy toll on the amount of time that couples spent in enjoyable leisure activities; however, other domains of marital quality may be less affected. In addition, how couples handle conflicts is one of the most important determinants of marital quality (e.g., Gottman, 1994). It may be that parents of children with DD have frequent disagreements as a result of the unique challenges of having a son or daughter with DD; however, if couples engage in adaptive communication strategies as opposed to demand/withdraw interactions, which are linked to poor conflict resolution, they may not have a high risk of marital discord.

3. Why Some Marriages Fare Better than Others

The discrepancy in findings on marital quality across studies and the substantial variability within studies suggest that efforts to portray an overall level of marital quality in parents of children with DD may not be useful. It would be more informative to identify the factors that distinguish the parents who are negatively impacted by having a child with DD from those who are not. There is tremendous variability in the characteristics, functioning, and symptoms of children with DD and their families. Research has shown that level of parenting stress and the challenges faced by parents vary as a function of child and family factors (e.g., Abbeduto et al., 2004; Baker, Blacher, Kopp, & Kraemer, 1997). It is likely that the impact of having a child with DD on parents' marital quality similarly varies by these factors. The discrepancy in research findings on marital quality across studies and substantial variability among families within studies may in part reflect the importance of child and family factors.

3.1. Child diagnosis

Some of the variation in parenting stress and well-being may be attributed to the nature of the child's disability. Previous research has found marked differences in the psychological and physical well-being of parents of children with DD based on the nature of their child's diagnosis (e.g., Abbeduto et al., 2004; Hartley, Seltzer, Head, & Abbeduto, in press). These differences in parenting experiences and well-being by child diagnosis likely contribute to differences in risk of marital discord and divorce. The nature of some DDs may take a heavier toll on marriages than other DDs. In support of the notion that risk of marital discord varies as a function of the nature of the child's DD, within their investigation of families of children with various DDs, Joesch and Smith (1997) found that parents of children with intellectual disability had a lower rate of divorce than parents of children with medical or physical conditions such as congenital heart disease and cerebral palsy.

Similarly, when looking across studies, there is evidence of diagnostic differences in parental marital quality. For instance, families of children with Down syndrome are often found to fare better than parents of children with other types of DD. Mothers of children with Down syndrome report a lower level of parenting stress and view caretaking more positively than mothers of children with other types of DD (Hodapp, Ly, Fidler, & Ricci, 2001; Hodapp, Ricci, Ly, & Fidler, 2003; Sellinger & Hodapp, 2005). This “Down syndrome advantage” continues during mothers’ midlife, when their son or daughter is an adolescent or adult (e.g., Abbeduto et al., 2004; Esbensen, Bishop, Seltzer, Greenberg, & Taylor, 2010) and is also evident in fathers (Hartley et al., in press). The “Down syndrome advantage” is purported to be related to a variety of factors including the certainty (i.e., genetic testing) and early timing of diagnosis, profile of less negative and more positive behaviors displayed by individuals with Down syndrome compared to children with other DDs, and possibly parent resources (e.g., older and more educated mothers), although recent evidence suggests that maternal age and education do not contribute to this advantage (Esbensen & Seltzer, 2011).

In line with the “Down syndrome advantage,” in a study of medical records of over 372,000 families living in Tennessee, the risk of divorce in parents of children with Down syndrome was equal to and even slightly less than that of families of children without an identified disability and families of children with other congenital disabilities (Urbano & Hodapp, 2007). The certainty and early timing of diagnosis of Down syndrome, relatively low levels of parenting stress, positive views on caretaking, and overall positive psychological well-being experienced by parents of children with Down syndrome may help promote positive marital interactions.

By contrast, the nature of other disorders appears to be more taxing on families and may take a toll on parents’ marriages. For instance, the behaviors associated with attention deficit/hyperactivity disorder (ADHD) have been found to be stressful for parents and may result in added strain to marriages (Wymbs et al., 2008). The rate of divorce in a sample of 282 parents of children with ADHD was found to be twice as high as the divorce rate in a comparison group of parents of children without ADHD (Wymbs et al., 2008). Individuals with DD often have comorbid ADHD and inattentive and hyperactive behaviors (e.g.,

Emerson, 2003; Simonoff, Pickles, Wood, Gringras, & Chadwick, 2007) and the presence of these symptoms may result in increased risk of marital strain for these families as well.

Few DDs appear to be more stressful for parents than ASDs (Seltzer et al., 2001). Mothers of children with an ASD report higher levels of stress (Sanders & Morgan, 1997; Herring et al., 2006) and more depressive symptoms (Dumas, Wolf, Fishman, & Culligan, 1991; Olsson & Hwang, 2001) than do comparison groups of mothers of children with other types of DDs. Moreover, this profile of heightened parental stress and poor psychological well-being is not limited to early parenting years or to mothers; studies have found elevated levels of parenting stress and poor psychological well-being in mothers of adolescents and adults with an ASD as compared to normative comparison groups (Smith et al., 2009), and in fathers of adolescents and adults with an ASD as compared to fathers of adolescents and adults with Down syndrome and fragile X syndrome (Hartley et al., in press).

Several factors are theorized to contribute to the poorer well-being of parents of young and grown children with an ASD, including the uncertainty surrounding ASD diagnosis and often long diagnostic odyssey to reach a diagnosis of ASD (Wiggins, Baio, & Rice, 2006), the stressful profile of symptoms and associated behavior problems including inattention and hyperactivity seen in individuals with an ASD, and public misunderstanding of and low tolerance for the symptoms and behaviors seen in individuals with an ASD (Abbeduto et al., 2004; Gray & Holden, 1992). In addition, family members of individuals with an ASD may themselves show symptoms of the broader autism phenotype (BAP), which involves mild and subtle ASD-like impairments in social interactions, communication and restricted/repetitive interests and behaviors (Bolton et al., 1994; Piven, 2001; Piven et al., 1990), and other psychiatric conditions (Smalley, McCracken, & Tanguay, 1995; Szatmari et al., 1995). Thus, parents of children with an ASD may often be caring for an additional child with a disability or special care needs and parents themselves may evidence problems that limit their resources to cope with the demands of caring for a child with an ASD.

Recent evidence suggests that parents of children with an ASD may also be at risk for experiencing marital discord. However, in terms of divorce, this risk may only be apparent during the later parenting years. In the first published study on divorce in parents of children with an ASD, we examined the prevalence and timing of divorce in a sample of 391 families of adolescents and adults with an ASD (Hartley et al., 2010). We found that parents of children with an ASD had a similar risk of divorce as did a matched comparison group of parents of children without a mental health condition or DD when the son or daughter was young. However, in late childhood (aged 8 years) and beyond, the divorce rate declined among parents of children without disabilities, but this decline in the divorce rate was not evident among parents of older children with an ASD. The high level of parenting stress and caregiving demands that continue into the child's adolescence and beyond coupled with the poor psychological and physical health of parents of sons and daughters with an ASD may foster an extended period of risk of negative marital interactions and reduced resources for promoting positive spousal interactions for parents of individuals with an ASD, and hence a higher rate of divorce. However, in this study, the majority (75%) of families remained married to the biological or longstanding adoptive fathers of the child with an ASD through the son or daughter's adolescence and adulthood. Thus, although the risk of divorce was

higher for parents of children with an ASD during the later parenting years as compared to parents of children without a DD or mental health condition, the majority of marriages remained intact through parents' mid to late life.

Findings from a second recent study on parental relationship status in 913 children with an ASD also suggest that rates of marital disruption for parents who have a child with an ASD are similar to that of a normative comparison group during the early parenting years (Freedman et al., 2011). This study examined the current relationship status (i.e., whether biological or adoptive parents were living together) of children using data from the 2007 National Survey of Children's Health, a population-based survey of children in the United States aged 3–17 years. Children reported to have an ASD by parents were equally likely to live with both parents (biological or adoptive) as were children reported who did not have an ASD according to parent report.

The mean age of children in the Freedman et al. study was 10 years (SD = 4 years), ranging from 3 to 17 years. In the Hartley et al. (2010) study, the increased risk of divorce between parents of children with an ASD and the comparison group first began in the son or daughter's older childhood and became more prominent during their adolescence and adulthood. The mean age of children in the Hartley et al. study was 27 years (SD = 9 years), ranging from 14 to 56 years. Thus, the lack of an overall difference in the parental relationship status of children with an ASD as compared to the normative comparison group in the Freedman et al. study may be due to the younger age of the sample. It is also possible that historical changes in public awareness of ASD and increases in services and supports over the past decade lessened the negative effect of having a child with an ASD on parents' marriages. Thus, the marital relationship of parents of current children with an ASD may be less negatively impacted than the marital relationship of parents of current adults with an ASD.

3.2. Child age

As discussed in the previous section, there is evidence that having a child with an ASD takes a greater toll on marriages during the child's adolescence and adulthood than during the early parenting years. To date, the large majority of studies on marital quality have been cross-sectional and involved parents of younger children with DD. Little is known about how marital quality varies across the child's lifespan. Yet, research has shown that the struggles faced by parents of children with DD fluctuate across the life course, with certain developmental stages (e.g., exit out of high school) being especially challenging for individuals with DD and their families (Taylor & Seltzer, 2010a, 2010b, 2010c).

In addition, research on the general population has shown changes in marital satisfaction and the risk of divorce across parents' adulthood. For typical couples (i.e., those who do not have a child with a DD), the greatest risk of divorce is early on in their marriage, and when their children are young (Bramlett & Mosher, 2002; Cherlin, 1992; Shiono & Quinn, 1994). Parents of young children have high levels of parenting responsibilities and parenting stress and are often unable to devote resources toward their spouse, which can lead to more negative spousal interactions (e.g., Shapiro, Gottman, & Carrere, 2000; Shiono & Quinn, 1994). In addition, early on in marriages, couples may not yet have established adaptive

processes for handling marital conflict. However, as children mature and become more independent, parenting responsibilities and demands decrease, and more resources can be devoted toward one's spouse and maintaining a positive and strong marriage. Thus, if marriages survive the early parenting years, the couple's risk of divorce decreases and often remains low, although some evidence suggests that there is a second, but much smaller, increase in risk of divorce during parents' midlife (Cherlin, 1992; Furstenberg & Kiernan, 2001).

Parents of children with DD often do not experience a similar pattern of decreasing parenting responsibilities and child-related stress as their son or daughter ages into adolescence and adulthood. Children with DD often continue to live with their parents in adulthood (Seltzer et al., 2001) and these parents experience high parenting stress into their son or daughter's adulthood (e.g., Smith et al., 2009). As of result of this extended period of parenting stress, parents of sons and daughters may have a prolonged period of vulnerability to divorce that extends into their son or daughter's adulthood.

As previously described, our research suggests a pattern of prolonged heightened vulnerability to divorce in parents of children with an ASD that starts in the son or daughter's late childhood and persists into their adulthood (Hartley et al., 2010). In our comparison group of parents of children without a mental health condition or DD, the risk of divorce decreased in the son or daughter's late childhood. In contrast, the risk of divorce remained high into the son or daughter's adolescence and young adulthood for our parents of children with an ASD. In our sample, nearly all (94.6%) of parents who divorced co-resided with their son or daughter with an ASD prior to and at the time of the divorce. Thus, in contrast to the normative experience, parents of sons and daughters with an ASD had a "full nest" (i.e., grown children living at home) and continued to experience high level of parenting demands and stress (e.g., Smith et al., 2009). These non-normative challenges and parenting stressors experienced by parents of sons and daughters with an ASD during their midlife may have contributed to a high level of negative spousal interactions as compared to parents of typically developing older children, adolescents, and adults.

The timing of diagnosis and varying profile of symptoms and impairments by type of DD may also contribute to different periods of risk to marriages. For instance, although only a relatively small number of parents of children with Down syndrome divorced, Urbano and Hodapp (2007) found that these divorces most often occurred before the child was 2 years old, as compared to parents of children without DD and parents of children with other congenital disabilities who divorced later. Urbano and Hodapp posited that this early timing of divorce may be due to stress surrounding the initial diagnosis of Down syndrome, which typically occurs prior to or immediately after birth, and the high rate of medical problems often experienced early on by children with Down syndrome. In contrast, a different pattern in timing of divorce was found for parents of children with ADHD. Wymbs et al. (2008) found that parents of children with ADHD appeared to be at greatest risk for divorce when their child with ADHD was about 5 to 7years old. The study authors speculated that children are entering school during these years and ADHD behaviors may be more evident and problematic in the school environment, and subsequently led to more parenting stress.

3.3. Intellectual disability status, autism symptoms, and behavior problems

Child characteristics aside from diagnosis are also related to marital quality in families of children with DD. Child behavior problems have consistently been shown to be the strongest predictor of parenting stress, and may thus contribute to an increase in negative spousal interactions. Indeed, a few cross-sectional studies have shown a negative association between child behavior problems and marital satisfaction. For instance, in a sample of young children with developmental delays (Baker, Blacher, Crnic, & Edelbrock, 2002), parents who had children with more frequent and severe behavior problems reported lower marital satisfaction. In contrast to behavior problems, the intellectual disability or developmental delay status of the child has not been found to be related to marital quality within families of children with DD. For instance, in a sample of young children with DD, parents' ratings of parenting stress and marital satisfaction were not significantly related to whether the child had an intellectual delay (Baker et al., 2002). Similarly, in our study of divorce in families of adolescents and adults with an ASD, the presence of intellectual disability in addition to an ASD was similarly not predictive of divorce (Hartley et al., 2010).

In our research on mothers of adolescents and adults with an ASD, we also examined the association between severity of autism symptoms and marital quality. The age of onset and severity of early autism symptoms in the son or daughter with an ASD, as assessed through the lifetime Autism Diagnostic Interview, Revised (ADI-R; Lord, Rutter, & Le Couteur, 1994) total score, were not significantly predictive of divorce (Hartley et al., 2010). Similarly, parent-reported severity of autism symptoms was not related to parental relationship status in the Freedman et al. (2011) study of 913 children with an ASD. These findings are in line with the large body of research showing that parenting stress is more strongly associated with level of behavior problems than intellectual disability status or autism symptoms (e.g., Baker, Blacher, Crnic, & Edlebrock, 2002; Baker et al., 2003; Hartley, Barker, Seltzer, Floyd, & Greenberg, 2011).

3.4. Parent and family characteristics

Parent demographic characteristics have been shown to be related to risk of marital discord and divorce within families in the general population. Many of these characteristics may operate in a similar fashion within families of children with DD. Within the general population, parents who are less educated, marry younger, and have children early in the marriage are at greater risk of divorce (Bramlett & Mosher, 2002; Karney & Bradbury, 1995; Ono, 2009). Moreover, risk of divorce has been found to vary across ethnic/racial groups, with some minority groups (e.g., African-Americans) evidencing an increased risk of divorce and other minority groups (e.g., Asian Americans) evidencing a decreased risk of divorce as compared to white couples (Bramlett & Mosher, 2002; Tzeng & Mare, 1995). Unfortunately, studies to date have included predominately white samples and thus little is known about whether the challenges of having a child with a DD differentially impact the marriages of parents of different ethnic/racial groups.

There is some evidence that maternal age at the time of the birth of the child with DD operates in a similar fashion among families of children with DD. Urbano and Hodapp (2007) found a negative association between parent age and risk factors for divorce within

families of children with Down syndrome and other types of congenital disabilities (Urbano & Hodapp, 2007). Similarly, in our research, we found that mothers who had their child with an ASD at a younger age were more likely to get divorced than mothers who had their child with an ASD at an older age ASD (Hartley et al., 2010).

It is likely that there are also unique parent and family risk factors for marital discord within families of children with DD. In two studies to date, the birth order of the child with DD, independent of family size, was associated with risk of divorce. Interestingly, the direction of this effect was different across these studies, suggesting that birth order may operate differently by child diagnosis. Urbano and Hodapp (2007) found that divorce was more likely in families of children with Down syndrome when the child was born earlier (i.e., first versus second born) in the birth order. In contrast, in our sample of 391 families of adolescents and adults with an ASD, divorce was more likely when the child with an ASD was born later in the birth order (Hartley et al., 2010). The reasons why birth order operates differently between families of children with Down syndrome versus an ASD are not clear and should be examined in future studies.

The presence of multiple children with special care needs within a family may also place parents at increased risk of marital discord. The genetic etiology of some DDs, such as fragile X syndrome, mean that parents are at risk of having multiple children with a disability or mental health condition (e.g., Bolton et al., 1994; Brown, 2002; Piven et al., 1990). Caring for multiple children with disabilities or mental health conditions has been shown to take a toll on mothers' physiological health (Hartley et al., in press; Orsmond, Lin, & Seltzer, 2007).

In our study of mothers of adolescents and adults with fragile X syndrome, we found that mothers who had two or more children with FXS or a child with FXS and a child with another disability evidenced a physiological profile of being chronically stressed as compared to mothers who had only one child with fragile X syndrome. More specifically, mothers of multiple children with disabilities had lower morning cortisol levels (both upon awakening and 30 min after awakening) as compared to mothers who had only one child with fragile X syndrome (Hartley et al., in press). This pattern of hypoactivation of cortisol is associated with chronic stress exposure and burnout (Gunnar & Vazquez, 2001; Miller, Chen, & Zhou, 2007). It is likely that the added parenting stress and reduced resources of parents caring for multiple children with a disability may place them at greater risk of negative spousal interactions. Unexpectedly, in our study of divorce in parents of adolescents and adults with an ASD, we did not find a significant relation between having multiple children with an ASD and divorce; however, this may be due to the small number of families (n = 10) with more than one child with ASD in the sample (Hartley et al., 2010).

3.5. Parent coping resources

It is also important to understand how the coping resources of parents mitigate the effect of parenting stressors on marital interactions. Research has shown that the impact of experiencing child-related stressors on parental psychological well-being is reduced when adaptive coping strategies are used. Parents who report having high levels of social support and who report using high levels of problem-focused coping (i.e., attempts to alter the

stressor) or positive reappraisal coping (i.e., reframing event in a more positive light) report more positive psychological well-being than do parents who report using escape-avoidance and other maladaptive emotion-focused coping efforts (e.g., Dunn, Burbine, Bowers, & Tantleff-Dunn, 2001; Glidden, Billings, & Jobe, 2006).

Parents who have high levels of family and friend social support and who employ adaptive coping strategies to deal with child-related stress may similarly not be at risk for negative marital interactions, whereas parents who employ maladaptive coping strategies may be at risk for marital discord. In support of this notion, parents of children with an ASD who reported using escape-avoidance coping reported more marital problems than parents who did not use this coping strategy (Dunn et al., 2001). In contrast, the use of positive reappraisal was related to fewer marital problems within these parents (Dunn et al., 2001). Similarly, Stoneman and Gavidia-Payne (2006) examined the use of problem-focused coping by mothers and fathers of young children with DD. After accounting for the experience of daily hassles, they found that the use of problem-focused coping strategies was positively related to ratings of marital adjustment in fathers. Interestingly, the use of problem-focused coping was not significantly related to marital adjustment in mothers. Rather, for mothers, ratings of marital adjustment were related to their spouse's use of problem-focused coping. When fathers of young children with a DD used more problem-focused coping to deal with stressors, mothers had more positive ratings of their marital relationship.

These findings highlight the need for research to incorporate measures of coping when examining the impact of child-related stress on parental outcomes, including marital relationship. Parents who are better able to manage child-related stress through adaptive coping strategies or by relying on sources of support outside of their spouse may be less vulnerable to having this parenting stress affect their marital relationship. However, previous findings (Stoneman & Gavidia-Payne, 2006) also highlight that ratings of marital adjustment of married spouses may differ from each other and be influenced by different mechanisms.

3.6. Summary and future research

In sum, the factors and mechanisms that determine marital quality in parents of children with DD likely result from a cascading effect of the interplay between a variety of child and family factors and other life experiences over time. Child diagnosis, age, and behavior problems appear to be key factors that influence marital quality. Further research is needed to understand the link between these child characteristics and marital quality. In particular, more research is needed to understand the changes in marital quality and divorce at different child ages and in relation to different types of behavior problems and parenting challenges. There is also evidence that parental age and family processes such as birth order of the child with DD and presence of multiple children with a disability in the family influence the likelihood of divorce in families of children with DD. It is also important for future research to include measures of parental coping and other social support resources, as marital stress may often be mitigated when effective coping strategies are used and/or parents have a supportive network of others to help them deal with child-related stressors. Moreover, it is

important that future research examine the marital experiences of both mothers and fathers, as perceptions of marriage can vary within couples.

4. Broadening The Perspective On Marital Quality

Research in the field of DD has focused on examining the effect of having a child with DD on parents' marital quality. Yet, theory and research within the general population indicates that parents' marital quality also has strong effects on child development and well-being. Moreover, the quality of the marital relationship is a key source of support or source of added stress for adults and is a strong determinant of adult well-being. Very little research attention within the field of DD has been devoted to understanding these alternative pathways and roles of marital quality in determining both child and parent psychosocial well-being.

4.1. The effect of marital quality on children with a dd

Research within the general population has found a strong effect of parents' marital quality on child development and well-being (Cummings, Davies, & Campbell, 2000). For instance, there is substantial evidence that exposure to marital anger and conflict has a negative effect on children and leads to increased sadness and anger in children (e.g., Ballad & Cummings, 1990; Cummings, Ballard, & El-Sheikh, 1991). Moreover, parental marital quality indirectly impacts children through altering parenting emotions and behaviors (e.g., Adam, Gunnar, & Tanaka, 2004; Erel & Burman, 1995; Whisman, 2001). Results of longitudinal studies based on broad measures over long periods of time (e.g., Krishnakumar & Buehler, 2000) and daily diary research on day-to-day family processes (e.g., Almeida, Wethington, & Chandler, 1999) have shown that marital distress is related to negative changes in parenting such as being less warm, involved, and emotionally supportive toward children.

Within families of children with DD, only a few cross-sectional studies have examined the impact of parental marital quality on child development and well-being. Evidence from these few studies suggests that parents' marital quality is an important determinant of parenting behaviors and the parent–child relationship. For instance, positive interactions with one's spouse were shown to be related to fewer aversive parent–child exchanges for both mothers and fathers of children with mild to moderate intellectual disability (Floyd & Zmich, 1991). Similarly, parents' ratings of marital satisfaction were positively associated with feelings of closeness to their son or daughter in both mothers and fathers of adults with intellectual disability (Essex, 2002). In our own research on adolescents and adults with an ASD (Hartley et al., in press), marital satisfaction was found to be a strong predictor of perceived closeness in the parent–child relationship, and particularly the father–child relationship. Research within typical families (i.e., families of children without a DD) has also found that marital discord takes a greater toll on fathers' relationship with children than mothers' relationships with children (e.g., Beckman, 1991; Pruchno & Patrick, 1999).

4.2. The effect of marital quality on parent well-being

There is also some evidence that being in a satisfied and high-quality marital relationship serves as an important source of support for dealing with the challenges of having a son or

daughter with DD. The main source of emotional and instrumental support for dealing with parenting and other stressors is often one's spouse (Belsky, 1984). The added parenting stress related to having a son or daughter with a DD may mean that spousal support is particularly strong determinant of psychological well-being for these parents. The few studies on this topic show that parents indicate a strong association between marital satisfaction and the experience of parenting burden or stress (Essex & Hong, 2005; Essex, 2002; Hartley et al., in press; Kersh, Hedvat, Hauser-Cram, & Warfield, 2006). For instance, in our examination of 91 married mothers and fathers of co-residing adolescents and adults with an ASD, parents with above-average marital satisfaction were less burdened by their son or daughter than were parents with below-average marital satisfaction, after controlling for the level of their son or daughter's behavior problems (Hartley et al., 2011).

4.3. Summary and further research

In addition to understanding the effect of having a child with DD on parents' marriages, it is also important to understand how parents' marriages influence child well-being and the well-being of parents. Although child functioning and behaviors in children with DD have been shown to be diagnostic specific, there is strong evidence that child functioning and behaviors are also influenced by parenting and the family environment (e.g., Baker, Smith, Greenberg, Seltzer, & Taylor, 2011; Hessl et al., 2001; Singh et al., 2007). Thus, it is important for future research to examine the ways in which parents' marriages and related parenting behaviors impact both young and grown children with DD.

It is also important to understand the ways in which marital quality may serve as both a risk and resiliency factor for managing child-related stress within families of children with DD. For instance, parents of children with some DDs, such as fragile X syndrome and ASD, are at an increased risk of depression, anxiety, and other mental health conditions. Child-related stress may directly contribute to this increased risk and may indirectly contribute through leading to poor marital relationships. Further research is thus needed to understand the role of marital quality in buffering the mental health conditions of parents.

5. Implications For Clinical Practice

There are several important implications of research findings on marital quality for improving supports and interventions for families of children with DD. There is often a gap between scientific research and beliefs in the general public. Despite the varied and often positive quality of marital relationships in parents of children with DD, misconceptions that all parents of children with DD have poor marriages and are fated for divorce continue to be presented within the mass media (Doherty, 2008; Solomon & Thierry, 2006). It is important to debunk this myth. Care providers working with families of children and adults with DD should be aware of the great variability in marital quality, so that they can appropriately counsel families. Parents of children with DD should be reassured that their marriage is not destined for divorce, as many marriages are long-lasting and parents report high satisfaction with their marriage. However, it is also important to make parents aware of risk factors for marital discord such as the nature of the child's DD, level of behavior problems, and other parent and family factors.

There is a great need for family-focused interventions that support the whole family and their ongoing needs throughout the son or daughter's life course. These efforts should include support for parents' marital relationship. Within the general population, couple interventions have been shown to be an empirically validated treatment for mental health conditions within one or both spouses (Baucom, Shoham, Mueser, Daiuto, & Stickle, 1998). Moreover, research suggests that improvements in marital quality can lead to increases in positive parenting behaviors (e.g., Carlson & McLanahan, 2006; Gattis, Simpson, & Christensen, 2008). Thus, interventions and supports aimed at strengthening the marital relationship have the potential to lead to improvements in the well-being of both parents and children with DD.

In order to be most effective, couples therapy should be tailored to the challenges faced by parents of sons and daughters with DD. For instance, parents should be guided in identifying strategies to enhance their marital relationship, such as learning how to communicate, provide support to each other, and carve our private couple time amidst their daily caregiving demands and stressors. These strategies may differ depending on the child's diagnosis, behavior problems, and age. For instance, parents of adolescents and adults with an ASD should be supported in finding ways to strengthen their marriage through their child's transition to adulthood, despite the often great divergence of family structure and parenting roles and responsibilities from the typical experience of having an empty nest and increased time to devote toward one's career, personal interests, and marital relationship.

6. Roadmap For Future Research

Building from the literature reviewed in the chapter, we propose a theoretical framework to guide understanding and research on the pathways between parental marital quality and child psychosocial well-being within families of children with DD. Our model is guided by research within the general population, but also accounts for the unique processes seen in families of children with DD. As depicted in the model (Fig. 1.1), the pathway between marital quality and child psychosocial well-being is bidirectional and the model is designed to test the effects flowing in both directions.

(1) In the pathway from child psychosocial well-being to marital quality, child diagnosis influences their psychosocial well-being. (2) Certain DD diagnoses (e.g., ASD) are related to more severe profiles of symptoms and behaviors than are other diagnoses (e.g., Down syndrome). The child's psychosocial well-being subsequently contributes to parenting stress and demands. (3) Children with DD who present with more challenging and severe symptoms and behaviors lead to higher levels of parenting stress and demands. Increased parenting stress and demands, in turn, negatively impact parental psychosocial well-being. (4) However, parental coping resources (e.g., use of adaptive coping strategies and support) moderate the extent to which parenting stress and demands negatively impact parental psychosocial well-being. In other words, parents who are able to effectively cope with high levels of parenting stress and demands experience optimal psychosocial well-being. Parents' psychological well-being, subsequently, affects their marital interactions.

This pathway suggests that enhancing child psychosocial functioning (e.g., reducing child symptoms and behaviors) can lead to higher marital quality by reducing parenting stress and demands and thereby leading to more optimal parental psychosocial well-being. This pathway also suggests that improving parents' coping resources (e.g., parent support groups and education on adaptive coping strategies) may lead to improved marital quality by moderating the impact of parenting stress and demands on parents' psychosocial well-being.

In pathway from marital quality to child psychosocial well-being, marital quality has a direct effect on children with DD when they observe parents interacting (5). Observations of parental marital conflict and anger have a negative effect on the psychosocial well-being of the child with DD, whereas observations of positive parental interactions have a positive effect on the child's psychosocial well-being. Marital quality also has an indirect effect on children with DD through influencing parental psychosocial well-being (6) and parenting behaviors (7). Parents in high-quality marriages engage in more positive parenting behaviors (e.g., attentive, warm, and responsive to the child) and experience more optimal psychosocial well-being, which also leads to positive parenting behaviors (8). Optimal parenting behaviors have a positive impact on the psychosocial well-being of the child with DD (9). In contrast, parents in poor-quality marriages engage in more negative parenting behaviors (e.g., less attentive, more distant, and less responsive to the child) and experience poor psychosocial well-being (e.g., depression, anxiety, and low self-esteem), which further contributes to negative parenting behaviors. Maladaptive parenting behaviors have a negative impact on the psychosocial well-being of the child with DD. This pathway suggests that enhancing marital quality can lead to more optimal psychosocial functioning in children with DD through the child observing positive parental interactions and by fostering positive parenting behaviors and parental psychosocial well-being.

Finally, as indicated by the nested oval shapes, these processes are all occurring within the context of the family and broader societal/cultural environment. Family factors such as the presence of additional children with a disability in the family, socioeconomic status, and birth order of the child with DD and societal/cultural factors such as availability of disability services, timing of diagnosis, and public awareness of disabilities can impact the pathways between marital quality and child psychosocial well-being. The nature and strength of the associations between marital quality and child psychosocial well-being may change across time and within a developmental context.

Our "Marital Quality and Child Psychosocial Well-Being in the Context of Child Disability" model is intended to provide a starting point for understanding the interrelations between marital quality and child psychosocial functioning based on current research findings. However, longitudinal studies are needed to test these pathways. Future research should track families over multiyear periods to understand how marital quality and child well-being are related within families of children with DD. Moreover, daily diary studies that ask parents to report on their marital interactions, parenting experiences, and child's behaviors, and symptoms over the course of several consecutive days may be useful in elucidating how time-ordered pathways unfold on a daily level. This methodology allows for the examination of events and experiences in their natural and spontaneous context (Almeida, 2005) and has been used to provide insight into the daily life of mothers of children with DD (e.g., Smith et

al., 2009) and the impact of child behavior problems on mothers' physiological health (e.g., Seltzer et al., 2009; Hartley et al., in press).

Future research should also include more in-depth analyses of the ways in which parenting stress contributes to negative marital interactions. For instance, are parents of children with stressful diagnoses (e.g., ASD) and severe behavior problems at risk for having inter-parent disagreements about behavior management practices? Do these parents have more limited private couple time, and thereby have difficulty remaining close and connected as a couple? Or, are these parents simply more fatigued and taxed as a result of child-related stress and less able to avoid negative spousal interactions and foster positive spousal interactions? Research must also identify the adaptive processes that promote strong marriages despite the challenges related to having a son or daughter with DD, as research to date has been focused on factors related to negative marital outcomes. Parents who engage in adaptive relationship maintenance behaviors (e.g., active attempts to talk to, forgive, and appreciate spouse) may be able to maintain a positive marital relationship despite experiencing high levels of parenting stress and demands. Finally, it is likely that the mechanisms that lead to marital discord change overtime and in relation to the age-related challenges faced by parents and children with DD. Thus, studies that include children, adolescents, and adults with DD are needed to provide insight into the ways in which these processes differ by child and parent age, and family stage of development.

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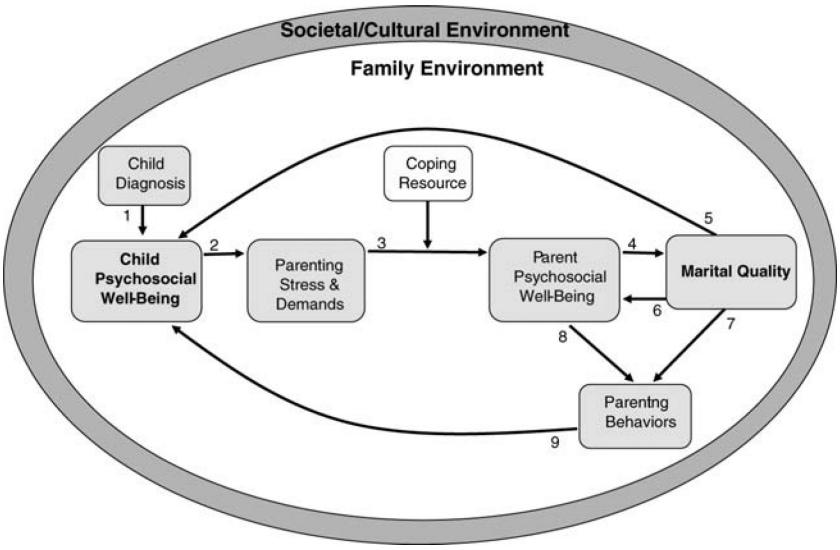

Figure 1.1.
Model of marital quality and child psychosocial well-being in the context of child disability.