Article

Generativity and Well-Being of Midlife and Aging Parents With Children With Developmental or Mental Health Problems

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Abstract

Parents who have a child with a developmental problem or mental disorder often provide support and assistance to their child throughout their lives, and the burden of caregiving can have an adverse impact on parents' mental and physical health. Using Erikson's theory as a framework, the present study investigated generativity as a moderator of the effects of parenting a child with a disability on parents' well-being during mid- to late life. Using data from the study of Midlife in the United States, we identified 220 parents who had a child with a disability and 3,784 parents whose children did not have a disability. Regression analyses showed that the effect of parenting a child with a disability on negative affect, positive affect, and physical health was conditional on both parental gender and generativity, with mothers experiencing greater adverse effects of parenting but showing a benefit from high levels of generativity.

Keywords

generativity, family caregiving, aging, well-being

Parents of adult children with developmental disabilities or mental health problems are often the primary sources of support and care for their child. Active parenting does not end for these parents when the child reaches adulthood. Instead, many of these individuals continue to provide care and assistance to their adult offspring and the long-term burden of providing this assistance has been shown to take a toll on aging parents' well-being (Seltzer, Floyd, Song, Greenberg, & Hong, 2011). However, the internal resources that parents bring to their role may shape the way that caregiving influences their physical and mental health. The purpose of the present study was to explore generativity as a psychological resource that may buffer the effects of parenting a child with disabilities on parental health and well-being in mid- to late life.

Erikson's (1950, 1968) developmental theory proposed that the life span could be divided into eight stages with a unique developmental challenge, or crisis, characterizing each stage. He saw development as a process that unfolded as the individual worked to actively resolve the relevant challenge, gaining competence, and maturity through the process. During midlife (Erikson's seventh stage), the focus is generativity, which is defined as a concern for nurturing, establishing, and guiding the well-being of future generations through productive and creative endeavors. This concern is based on both a psychological need to be needed and the societal expectation that each generation will contribute to those people and cultural institutions that will succeed them (Erikson, Erikson, & Kivnick, 1986). For many adults, parenting is a primary means of establishing generativity, but Erikson himself noted that parenthood is neither necessary nor sufficient for achieving generativity. Rather, generative expression involves wide involvement in areas that "guarantee the maintenance of the world" (Erikson et al., 1986, p. 50), such as participation in the lives of children (one's own and others), teaching, mentoring, volunteering, and helping to strengthen valued institutions and practices (McAdams & de St. Aubin, 1992; Villar, 2012).

By defining generativity as wide involvement in areas that ensure the welfare of the next generation, Erikson implied that generative individuals would be involved in a broad range of social roles. He saw social involvement as imperative for healthy adult development and conducive to generative expression because a more extensive role set would provide more opportunities for such expressions (Erikson et al., 1986). The importance of social involvement can be seen in Erikson's (1968) account of failure to achieve generativity, which he described as a sense of stagnation involving excessive self-concern and self-indulgence, along with "interpersonal impoverishment" (p. 138). Indeed, generativity has been linked with a diverse array of social activities including paid employment,

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participation in political or charitable causes, and religious or spiritual engagement (Peterson & Duncan, 1999; Son & Wilson, 2011; Versey & Newton, 2013).

According to Erikson, successful resolution of the challenges at each life stage makes a positive contribution to an individual's psychological well-being. In support of this idea, generativity has been consistently linked with life satisfaction, happiness, and psychological well-being (An & Cooney, 2006; Keyes & Ryff, 1998; Serrat, Villar, Pratt, & Stukas, 2016). Adults with higher perceived generativity report lower levels of depressive symptomology, greater feelings of self-efficacy, more favorable patterns of physical functioning, and greater satisfaction with work (Colby, Sippola, & Phelps, 2001; Gruenewald, Karlamangla, Greendale, Singer, & Seeman, 2009; Gruenewald, Liao, & Seeman, 2012). Generativity has been linked with better adjustment to later-life transitions including grandparenting (Thiele & Whelan, 2008), and retirement (Serrat et al., 2016).

Because generativity involves a "need to be needed," it is logical to expect that parenting a child with a disability might lead to enhanced feelings of generativity. However, parenthood itself does not necessarily predict generativity (Einolf, 2014), and the relationship between generativity and psychological well-being is equally robust for parents and childless adults (An & Cooney, 2006; Rothrauff & Cooney, 2008). One study that used the same data set as the present study found that individuals who gave personal care to a friend or relative in the previous year reported higher perceptions of generativity relative to noncaregivers, suggesting that caregiving was a source of generative perceptions (Grossman & Gruenewald, 2017). However, most care recipients in that study were either aging parents or spouses, and the experience of these caregivers may not generalize to parents of children with developmental problems or mental disorders, who may assume the caregiving role for decades. The preponderance of evidence is that rather than enhancing well-being, parenting a child with a disability has a cumulative wear and tear effect (Namkung, Greenberg, Mailick, & Floyd, 2018; Seltzer et al., 2011).

The long-term task of raising a child with a disability is accompanied by substantial exposure to stressors such as extra financial obligations related to the child's condition, time demands, managing behavior problems, and worry about the child's future (Brehaut et al., 2011; Lecavalier, Leone, & Wiltz, 2006; Weiss, 2002). This increased exposure to stressors can increase risk of mental and physical health problems, and evidence shows that parents of a child with a disability often experience more physical health symptoms, depressive symptoms, functional limitations on health, and poorer psychological well-being than parents with a child without a disability (Ha, Hong, Seltzer, & Greenberg, 2008; Namkung et al., 2018; Smith & Grzywacz, 2014). Substantial evidence, including a meta-analysis of over 200 studies, indicates that mothers are more susceptible to these effects than fathers. Specifically, the meta-analysis concluded that caregiving increased gender differences in depression and physical health, with women experiencing more negative outcomes (Pinquart & Sörensen, 2006).

Generativity may play a role in determining how caring for a child with disabilities will affect parental physical and psychological well-being. As noted, Erikson's (1950, 1968) theory proposes that successful negotiation of the relevant psychosocial challenge at each life stage produces inner strength, maturity, and competence. These assets increase the likelihood that the individual will positively resolve subsequent developmental crises, but it is plausible that they also represent psychological resources for dealing with other life challenges. In support of this idea, generativity prospectively predicted reduced subjective burden among midlife women caring for aging parents (Peterson, 2002), and it moderated the effects of depression on the need to cut back on work among midlife caregivers (Grossman & Gruenewald, 2017). A study of World War II veterans found that veterans who had experienced heavy active combat and achieved generativity (coded dichotomously based on qualitative interviews) were consistently healthier, happier, and less distressed than those who failed to achieve generativity (Ardelt, Landes, & Vaillant, 2010). While these three studies suggest that generativity buffered the psychological effects of exposure to stress, an alternative interpretation is that healthier and happier people have more energy for generativity.

The purpose of the present study was to examine the effects of generativity on the relationship between parenting a child with a disability (either a developmental problem or an early onset mental disorder) and parental physical and psychological health in midlife. The study involved secondary analysis of a national population-based study; thus, unlike most studies of the impacts of parenting a child with a disability, participants were not recruited based on their child's disability. We included three dependent variables: negative affect, positive affect, and physical health. Conceptually, these outcomes assess both positive and negative aspects of psychological functioning, as well as physical health. Based on evidence that mothers and fathers are differentially affected by raising a child with a disability, we investigated gender differences. We included gender as a main effect in all analyses and tested whether it interacts with generativity and parenting status in predicting the outcome variables.

Based on Erikson's (1950, 1968) theory and previous research in this area, we tested the following hypotheses:

Hypothesis 1: Parents of children with developmental or mental health problems will have higher levels of negative affect than parents whose children do not have disabilities.

Hypothesis 2: The adverse effects of parenting an individual with a disability will be more pronounced for mothers than for fathers.

Hypothesis 3: Generativity will moderate the adverse effect of parenting an individual with a disability on depression, positive affect, and self-rated physical health. Because the effects of parenting a child with a disability are expected to depend upon gender of the parent, we also expected the effects of generativity to be conditional upon parental gender.

Table 1. Characteristics of the Sample.

Variable	Comparison Group ($n = 3{,}784$)	Parents of a Child With a Disability ($n = 220$)	χ^2
Percent mothers	52.6	61.9	7.28**
Percent with some college or more	57.7	59.8	0.39
Percent married	73.2	76.4	1.08
Percent employed	62.4	62.8	0.02
	Mean (*SD*)	Mean (*SD*)	*t*
Age	57.16 (11.93)	53.76 (11.90)	4.10***
Number of children	2.73 (1.36)	2.91 (1.56)	−1.83
Generativity	17.04 (3.85)	17.22 (3.74)	−0.66
Negative affect	1.49 (0.57)	1.72 (0.74)	−5.67***
Positive affect	3.47 (0.70)	3.21 (0.71)	5.28***
Physical health	7.38 (1.73)	7.05 (1.73)	3.00**

*$p < .05$. **$p < .01$. ***$p < .001$.

Method

Study Sample

Data for this study are from the study on Midlife in the United States (MIDUS; Brim, Ryff, & Kessler, 2004), a nationally representative probability sample of 7,108 English-speaking, noninstitutionalized adults ranging in age from 25 to 74 when they were first studied in 1995–1996. A second wave of data collection (MIDUS II) took place from 2004 to 2006, and a total of 4,032 adults (608% of the original MIDUS sample) completed a telephone interview and a self-administered questionnaire. This present study analyzed data from MIDUS II because screening questions were added to the child roster at MIDUS II survey to identify respondents who had a child with a developmental or serious mental health problem. If parents responded affirmatively, he or she was asked the child's diagnosis and the child's age when the symptoms first appeared. These screening questions were not administered at MIDUS I. MIDUS is a publicly available data set, and this study was deemed exempt from institutional review.

We used two analytic samples. The first group consisted of 220 respondents who had a child with a developmental problem (including conditions such as attention deficit disorder, learning disabilities, cerebral palsy, Down syndrome, and other types of intellectual disability) or a serious mental health problem (including anxiety disorders, bipolar disorder, depression, and schizophrenia) that had an onset before the child was 18 years old. The typical time of onset for serious mental health problems is often late adolescence or early adulthood; because we were interested in the effects of parenting, we restricted the sample to cases that began while the child was most likely still at home. For consistency, we used the same criteria for the cases involving a developmental disorder. The mean age of the offspring with developmental or mental health problems at the time of MIDUS II was 25.91 ($SD = 12.45$), and 48.6% were living with the parent who was an MIDUS participant. Of the respondents who reported a child with a disability, 13.2% reported more than one child with a disability. However, these respondents were not coded differently from parents with one child with a disability. The second analytic sample was the comparison group, consisting of 3,784 respondents who had at least one living child but did not report that any of their children had a developmental disability or serious mental health condition. Of this group, 39.7% reported that at least one child was living at home. Although we refer to "fathers" and "mothers," the data are based on the primary MIDUS respondents and none of the sample members are married to one another.

As shown in Table 1, there were more mothers in the group of parents whose child had a disability and this group was younger on average than those in the comparison group. The groups did not differ significantly regarding education, marital status, employment status, or number of children.

Measures

Negative affect was measured with 6 items culled from well-validated measures and described in detail by Mroczek and Kolarz (1998). Respondents were asked "During the past 30 days, how much of the time did you feel (a) so sad nothing could cheer you up, (b) nervous, (c) restless or fidgety, (d) hopeless, (e) that everything was an effort, and (f) worthless?" Positive affect was similarly assessed with the items, "During the past 30 days, how much of the time did you feel: (a) cheerful, (b) in good spirits, (c) extremely happy, (d) calm and peaceful, (e) satisfied, and (f) full of life?" Participants answered using a 5-point scale (1 = *none of the time*, 2 = *a little of the time*, 3 = *some of the time*, 4 = *most of the time*, 5 = *all of the time*) and responses to the 6 items for each scale were added, with higher scores indicating greater negative and positive affect, respectively. The 30-day response frame was intended to capture contextual influences on emotions and feelings. Both the negative and positive affect scales have been widely used and have demonstrated good reliability and validity (Keyes, 2000; Mrockzek & Kolarz, 1998). Cronbach's α for the present study was .87 for negative affect and .91 for positive affect. Physical health was assessed by asking participants, "Using a scale from 0 to 10 where 0 means 'the worst possible

Table 2. Correlations Among Major Study Variables.

Variable	1	2	3	4	5	6	7	8	9
1. Generativity	—								
2. Parent status	.01	—							
3. Negative affect	−.13***	.10***	—						
4. Positive affect	.22***	−.09***	−.62***	—					
5. Health	.14***	−.05**	−.38***	.40***	—				
6. Age	−.03	−.07**	−.11***	.14***	−.06***	—			
7. Gender	.01	.04**	.10***	−.04*	.00	−.03	—		
8. Education	.16***	−.01	−.14***	.06**	.13***	−.06***	−.07***	—	
9. Marital status	−.01	.01	−.07***	.06**	.07***	−.07***	−.16***	.08***	—
10. Employment	.07***	.00	−.09***	.00	.19***	−.50***	−.12***	.13***	.03*

*$p < .05$. **$p < .01$. ***$p < .001$.

health' and 10 means 'the best possible health,' how would you rate your health these days?" Self-rated health is a subjective global assessment of health status and has been consistently linked to health outcomes, including mortality, independent of objective health measures (Benyamini, 2011; Ferraro & Wilkinson, 2015).

In addition to parental status (parent of a child with a developmental disability or a childhood-onset serious mental health problem or parent of a child who did not have such disabilities), the key predictor variable in this study was generativity, which was assessed with an abbreviated version of the Loyola Generativity Scale (LGS; McAdams & de St. Aubin, 1992). Participants responded to each of 6 items using a 4-point scale ranging from 1 (*not at all*) to 4 (*a lot*). The items included: "Others would say that you have made unique contributions to society," "You have important skills you can pass along to others," "Many people come to you for advice," "You feel that other people need you," "You have had a good influence on the lives of many people," and "You like to teach things to people." A total score was computed by summing all 6 items. The LGS in general and the abbreviated scale in particular measure the extent to which an individual perceives himself or herself as generative (Keyes & Ryff, 1998). Both forms of the LGS have been widely used (e.g., An & Cooney, 2006; Einolf, 2014; Gruenewald et al., 2012; Keyes & Ryff, 1998; Son & Wilson, 2011). The scale has high test–retest reliability, and it correlates with other measurements of generativity (An & Cooney, 2006; Gruenewald et al., 2012; McAdams & de St. Aubin, 1992; Son & Wilson, 2011). Cronbach's α for the present study was .85.

Based on prior research on factors associated with individual psychological and physical well-being (Bookwala, 2005; Ha et al., 2008; Mroczek & Kolarz, 1998), age, gender, education, marital status, and employment status were included as covariates in the analysis. Respondents reported their age, gender (0 = *male*, 1 = *female*), marital status (0 = *nonmarried*, 1 = *married or living with a partner*), education (0 = *finished high school or less*, 1 = *some college or more)*, and employment status (0 = *not working*, 1 = *working or self-employed*).

Data Analysis

First, we examined descriptive statistics for both analytic samples and tested for differences using χ^2 tests (for dichotomous variables) and *t* tests (for continuous variables). We calculated bivariate correlations among all study variables.

To determine whether generativity moderated the effects of parenting a child with a disability, we used ordinary least squares hierarchical regression. Separate models were estimated for each of the three dependent variables. The first step included control variables (age, gender, education, marital status, and employment status), a dummy variable for parent status (*parent of a child with a disability* = 1), and generativity. In the second step, we entered interaction terms that allowed the effect of each of the primary predictors to vary as a function of gender, generativity, or both. Specifically, we entered 3 two-way interactions (parent status by gender, generativity by gender, and parent status by generativity) and 1 three-way interaction (parent status by gender by generativity). In follow-up analyses, we tested the simple effects of generativity for each of the groups and plotted the regressions for the separate groups to contrast their slopes and intercepts. Because this was an exploratory study, it seemed prudent to test these relationships cross-sectionally rather than longitudinally.

Results

To address whether the two groups differed on generativity and the well-being variables, we used *t* tests to examine mean differences. Results are presented in Table 1. The group of parents of a child with a disability scored higher on measures of negative affect, and they scored lower on measures of positive affect and physical health. There were no differences between groups regarding generativity. Intercorrelations among all variables are presented in Table 2. Generativity was inversely related to depression and positively related to positive affect and self-rated health. In regard to control variables, generativity was positively correlated with education and employment status.

Results of the regression analyses are summarized in Table 3. Generativity was significantly related to lower levels of

Table 3. Unstandardized Regression Coefficients for Parent Status (PS), Generativity, and Their Interaction.

	Negative Affect		Positive Affect		Health	
Variable	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
Control variables						
Gender						
B	0.06**	0.14	−0.01*	0.01	0.13*	0.39
SE	0.02	0.10	0.03	0.11	0.06	0.26
Age						
B	−0.01***	−0.01***	0.01***	0.01***	0.01*	0.01*
SE	0.001	0.001	0.001	0.001	0.003	0.003
Education						
B	−0.13***	−0.13***	0.03	0.03	0.27***	0.27***
SE	0.02	0.02	0.03	0.03	0.06	0.06
Marital status						
B	−0.11***	−0.11***	0.11***	0.11***	0.25***	0.24***
SE	0.03	0.03	0.03	0.03	0.07	0.07
Employment						
B	−0.18***	−0.18***	0.10***	0.10***	0.61***	0.60***
SE	0.02	0.02	0.03	0.03	0.07	0.07
Main effects						
PS						
B	0.20***	−0.19	−0.23***	0.11	−0.37**	0.91
SE	0.04	0.28	0.05	0.41	0.11	0.94
Generativity						
B	−0.02**	−0.01**	0.04***	0.04***	0.05***	0.06***
SE	0.003	0.004	0.003	0.005	0.01	0.01
Interaction effects						
PS × Gender						
B		1.45***		−1.01*		−2.89**
SE		0.41		0.50		1.10
PS × Generativity						
B		0.02		−0.02		−0.07
SE		0.02		0.02		0.05
Gender × Generativity						
B		−0.01		0.00		−0.02
SE		0.01		0.007		0.01
PS × Gender × Generativity						
B		−0.07**		0.06*		0.16*
SE		0.02		0.03		0.06
R^2 for complete model		.095		.088		.068

*$p < .05$. **$p < .01$. ***$p < .001$.

negative affect. As a group, parents of a child with a disability had higher rates of negative affect than the comparison group. However, the significant interaction between parent status and gender indicated that the effect of parenting a child with a disability was stronger for women. Given this significant interaction, we tested the moderating effect of generativity by including its three-way interaction with parent status and gender. This interaction was significant, indicating that generativity moderated the effect of parenting a child with a disability on negative affect but only for mothers. Specifically, for men, the interaction between generativity and parent status was not significant ($B = .02$, $p = .35$), but for women, there was a significant interaction between generativity and parent status ($B = -.05$, $p < .001$). To probe this interaction, we tested the slope of the effect of parent status on negative affect at three levels of generativity (the mean, one standard deviation above the mean, and one standard deviation below the mean), separately by gender. These relationships are illustrated in Figure 1. Fathers of children with a disability did not have significantly different levels of negative affect from fathers whose children did not have a disability, regardless of their level of generativity. Mothers of children with a disability with low or medium levels of generativity had significantly higher levels of negative affect than mothers of children who did not have a disability (low generativity: $B = .51$, $p < .001$; average generativity: $B = .29$, $p < .001$). However, at high generativity, mothers of a child with a disability did not differ in their levels of negative affect from the comparison mothers ($B = .08$, $p = .25$). The complete model explained 9.5% of the variance in negative affect, $R^2 = .095$, $p < .001$, which is regarded as a small to medium effect size (Cohen, 1992).

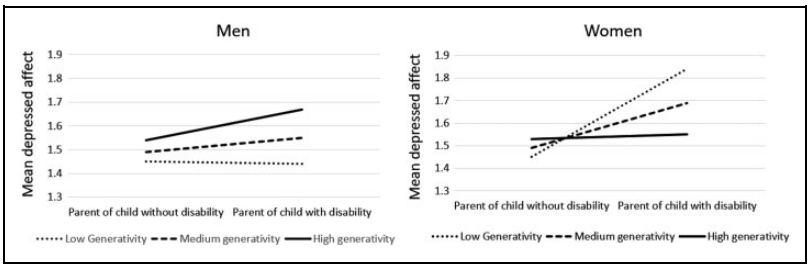

Figure 1. Effect of parent status on depressed affect at three levels of generativity, by sex.

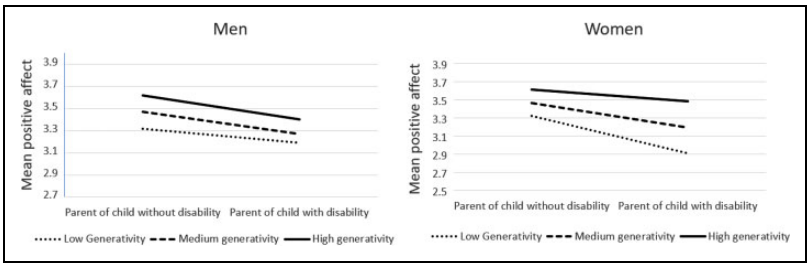

Figure 2. Effect of parent status on positive affect at three levels of generativity, by sex.

In terms of positive outcomes, generativity had a significant positive effect for the sample overall, with higher levels of generativity associated with higher levels of positive affect. Parenting a child with a developmental disorder or mental health problem was associated with reduced positive affect, but this relationship was conditional on gender, indicating that mothers of a child with a disability tended to experience lower positive affect. The three-way interaction between gender, parent status, and generativity was also significant, indicating that the effect of having a child with a disability was conditional on both gender and generativity. For men, generativity did not significantly moderate the effect of parent status ($B = -.02$, $p = .43$), but it did significantly moderate the effect of parent status for women ($B = .04$, $p = .02$). We probed these relationships using the same procedure described previously, and results are depicted in Figure 2. Mothers of a child with a disability reported lower levels of positive affect than mothers of children who did not have a disability when their levels of generativity were low or medium (low generativity: $B = -.41$, $p < .001$; average generativity: $B = -.27$, $p < .001$). However, at high levels of generativity, there was no difference in positive affect between mothers of children with a disability and the comparison mothers ($B = -.13$, $p = .11$). R^2 for the complete model was .088, $p < .001$, which is regarded as a small to medium effect size (Cohen, 1992).

Finally, generativity was related to better self-rated physical health for the overall sample. Parents of a child with a disability tended to have poorer health, but the two-way interaction between parent status and gender indicated that the adverse effect of parenting a child with a disability on physical health was greater for women. However, similar to the findings for the other outcomes, the effect of parent status on physical health depended on both gender and generativity. Generativity did not moderate the effect of parent status for fathers ($B = -.06$, $p = .19$), but it did significantly interact with parent status for mothers ($B = .09$, $p = .01$). This interaction was probed in the same manner as described previously and the relationships are depicted in Figure 3. At low or medium levels of generativity, mothers of a child with a disability reported poorer health than the comparison mothers (low generativity: $B = -.82$, $p < .001$; average generativity: $B = -.49$, $p < .001$). However, at high levels of generativity, there was no difference in self-reported health between mothers of children with a disability and mothers of children who did not have a disability ($B = -.15$, $p = .42$). R^2 for the complete model was .068, $p < .001$, which is regarded as a small to medium effect (Cohen, 1992).

Discussion

The present study examined the effects of having a child with a disability on parents' mental and physical health. We predicted that these effects would be more pronounced for women. We also tested the moderating influence of generativity, expecting that generativity would buffer the adverse effects of parenting a child with a disability.

As expected, the group of parents who had a child with a disability reported higher negative affect, lower positive affect, and lower subjective physical health. However, each of these effects was dependent on gender, which is consistent with previous meta-analyses that have reported statistically reliable gender differences in caregiver outcomes (Pinquart & Sörensen, 2006). Some scholars have argued that women fare worse than men not because they are more vulnerable to the stress of raising children and providing care, but because they are exposed to more stressors (Ross & Van Willigen, 1996). In general, mothers perform a disproportionate amount of household duties including those related to children (Craig, 2006) and while this disparity has shrunk in past decades, it still exists

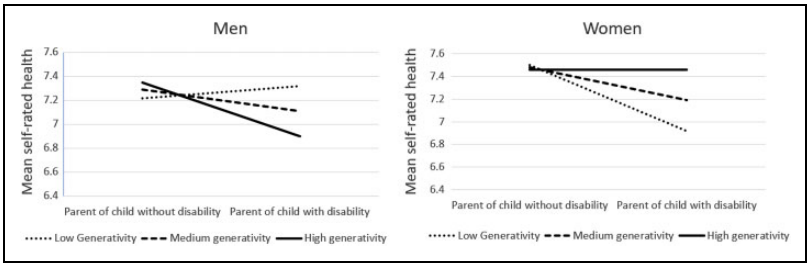

Figure 3. Effect of parent status on self-rated health at three levels of generativity, by sex.

(Bianchi, Sayer, Milkie, & Robinson, 2012). Regarding caregiving, it has been shown that women are exposed to higher levels of caregiving stressors including behavior problems, more hours of care provided, higher number of caregiving tasks, and higher perceived burden (Pinquart & Sörensen, 2006). Furthermore, women tend to ascribe greater importance to the parenting role than men do (Simon, 1992) and strains are more distressing when they occur in role domains that are personally salient (Simon, 1992; Thoits, 1991). Thus, the gender differences in our results are likely a reflection of relatively greater stress for the mothers of a child with a disability and the greater salience of the parenting role for these women.

Generativity was related to lower negative affect, and higher positive affect and subjective health. For women, it also moderated the effect of parenting a child with a disability, suggesting that generativity can function as an important psychosocial resource. According to Lazarus and Folkman's (1984) transactional model of stress, part of the appraisal process for determining a situation's potential threat is evaluating one's own personal and social resources for dealing with the threat. Our results suggest that people with a strong sense of generativity have an inner sense of strength or competence ("You have important skills you can pass along to others," "Many people come to you for advice") that may enhance their appraisal of their ability to cope. According to the transactional model, this positive appraisal leads to a reduction in perceived threat and more effective coping responses. Another important psychosocial resource is social support (Haley, Levine, Brown, & Bartolucci, 1987). Because highly generative people tend to occupy many social roles (Erikson et al., 1986), they tend to have access to wider social networks and stronger social support (Hart, McAdams, Hirsch, & Bauer, 2001). Consistent with this idea, a longitudinal study of female caregivers found that women who scored high on generativity listed more people whom they felt they could call on to provide help or support and were more satisfied with the support they received from others (Peterson, 2002).

Previous research has found that parenting itself does not necessarily produce generativity (Einolf, 2014), and our study found that among parents, having a child with a disability was not uniquely linked with higher generativity. Although generativity stems in part from a need to be needed, theoretically, it is also motivated by desires to produce a legacy beyond the self, to assist in the continuity of the species, and to contribute meaningfully to the lives of others (e.g., Erikson, 1950; McAdams & de St. Aubin, 1992). These admirable desires can be satisfied through many avenues outside of parenthood. In fact, there is evidence that nonfamilial endeavors such as volunteering and civic engagement can fulfill adults' generative desires and enhance their well-being equally as well as parenting (An & Cooney, 2006). In light of this finding, we speculate that the mothers in our study who scored highest on generativity were those who were involved in a variety of social roles outside of the family. Supporting this notion, our data showed that generativity was positively correlated with both employment and higher education; presumably, women with more schooling and income have the resources to create larger and more beneficial social roles for themselves.

This study builds upon the extant literature showing that positive perceptions of generativity are associated with better mental and physical well-being (An & Cooney, 2006; Gruenewald et al., 2012; Serrat et al., 2016). Although most of the existing research used cross-sectional observational designs, at least two longitudinal studies showed that generativity predicted positive outcomes 10 years later (Gruenewald et al., 2012; Peterson, 2002), suggesting that interventions that enhance perceptions of generativity may yield benefits. Indeed, recent evidence indicates that generativity is modifiable (Gruenewald et al., 2016). The Baltimore Experience Corps program is an intergenerational civic engagement program in which older adult volunteers serve in a variety of roles (such as tutoring, friendship, guidance) in local elementary schools (Fried et al., 2004). The program was intentionally designed to provide older adults with opportunities to meaningfully contribute to the younger generation while simultaneously engaging the adults socially, cognitively, and physically. Initial results from a randomized controlled trial of the program showed that Corps participants showed increases in perceptions of generativity at the 2-year follow-up (Gruenewald et al., 2016). An exciting direction for future research will be to explore whether these increases in generativity were accompanied by improvements in mental and physical health. Another promising direction will be to develop different programs given that there are numerous ways to promote and satisfy generative desires. Specifically, the findings of this study suggest that mothers of individuals with disabilities may benefit from opportunities to get involved in advocacy activities related to their son or daughter's disability as such activities are likely to generate feelings of generativity.

The present study has some limitations. Although the Loyola Generativity Scale is widely used and its validity is empirically supported, it likely does not capture all aspects of generativity. Theoretical conceptualizations of generativity often make a distinction between generative behavior, generative desire, and perceptions of generative achievement (e.g., McAdams, Hart, & Maruna, 1998; Gruenewald et al., 2016); however, the Loyola Scale primarily assesses perceptions. Another limitation is that the cross-sectional research design limits our interpretation of the findings. We hypothesized that generativity contributes to better mental and physical functioning, but it is possible that people with better mental and physical health are more likely to be socially engaged in ways that lead to higher generativity. Future research should test whether generativity predicts change in well-being over time. Finally, this study did not test the moderating effect of generativity for different types of disabilities; future work should explore whether this effect is conditional on the type of the offspring's disability.

The present study also had some unique strengths. First, we used a nationally representative data set which increases generalizability of the findings. Notably, the sample of parents of children with disabilities were not specifically recruited for a study of caregiving effects as is the case with most research on such parents. Our data are thus less vulnerable to self-selection bias. Second, we found a three-way interaction between gender, parent status, and generativity for three distinct aspects of adult well-being. Although effect sizes were small, this consistency across outcomes increases our confidence in our results. Finally, to our knowledge, this is the first study to directly test the idea that generativity can moderate the adverse effects of parenting a child with a developmental or mental health problem on mental and physical health. This study thus adds to the extant literature supporting the importance of generativity for well-being in mid- to late life in general and for coping with the challenges of caring for offspring with disabilities in particular.

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