Published in final edited form as:
Int J Aging Hum Dev. 2009 ; 68(2): 127–147.

Parenthood, Stress, and Mental Health in Late Midlife and Early Old Age

Tetyana Pudrovska*
Department of Sociology, Population Research Center, University of Texas at Austin

Abstract

Using two waves of the Wisconsin Longitudinal Study, I examine psychological consequences of potentially stressful, non-normative, or "off-time" aspects of the parental role in late midlife and early old age, including coresidence with adult children, stepparenthood, and parental bereavement. Additionally, I analyze gender differences in psychological implications of these characteristics of parenthood. Findings from random-effects pooled time-series models indicate that having stepchildren is unrelated to older parents' mental health. Moreover, the psychological consequences of stepparenthood do not depend on parental gender or the quality of parent-child relationships. Conversely, having at least one coresidential adult child of post-college age decreases psychological well-being among mothers but not among fathers. Death of a child has a detrimental effect on parents' mental health; yet, fathers are affected more adversely than mothers. The findings are interpreted with respect to family stress, parental role, and gendered role perspectives. Distinct experiences of this cohort of mothers and fathers are discussed.

Keywords

Parenthood; stress; depression; psychological well-being; adult children

INTRODUCTION

Parents of minor children often report higher levels of depression, anxiety, and anger than their childfree peers (Evenson & Simon, 2005; McLanahan & Adams, 1987; Ross & Van Willigen, 1996; Umberson & Gove, 1989). It is the demands and strains that are associated with parenting young children that contribute to elevated distress (Ross & Van Willigen, 1996; Umberson & Williams, 1999). From a gerontological perspective, an important question is whether the stress of parenthood persists later in life when children grow up and do not require time- and labor-intensive parental care. Research shows that parents of nonresidential adult children are similar to childless individuals in terms of depression (Koropeckyj-Cox, 1998) and report higher levels of affective well-being, life satisfaction, and meaning (Umberson & Gove, 1989). However, less attention has been directed to the structural characteristics of the parental role that may give rise to chronic parental strains

*Department of Sociology, University of Texas at Austin, 1 University Station – A 1700, Austin, TX 78712.

An earlier version of this paper was presented at the 60th Annual Meeting of the Gerontological Society of America, San Francisco, CA, November 2007.

and psychological distress of older mothers and fathers. The quality of the parental role may become particularly important for older parents' psychological well-being because older adults tend to relinquish other salient roles, particularly, due to retirement and widowhood. Therefore, identifying the structural characteristics of parenthood associated with an increased risk for parental strain and distress will enable gerontological social workers and clinicians to design psychosocial interventions tailored specifically to the needs of these "at-risk" parents. Moreover, Umberson and Williams (1999) observe that because researchers typically do not attempt to consider multiple structural characteristics of the parental role in one study, "research tends to remove elements of family status from the social context that actually shapes how these elements affect mental health" (Umberson & Williams, 1999, p. 228).

I examine psychological consequences of potentially stressful, non-normative, or "off-time" aspects of the parental role in late midlife and early old age, including coresidence with adult children, stepparenthood, and parental bereavement. Further, I analyze gender differences in the psychological implications of these structural characteristics of parenthood. I explore both negative and positive dimensions of mental health, in particular, depressive symptoms, environmental mastery, and purpose in life. Depression is one of the most common psychological outcomes used in survey research on parenthood and psychological well-being (e.g., Evenson & Simon, 2005; McLanahan & Adams, 1987; Nomaguchi & Milkie, 2003). Environmental mastery and purpose in life are important because parenthood could potentially have opposite effects on these dimensions of positive psychological well-being. Environmental mastery may be adversely affected by parenting stress (Pearlin & Johnson, 1977; Pearlin, 1999; Ross & Van Willigen, 1996), especially by chronic strains that are particularly deleterious for the sense of mastery (Pudrovska, Schieman, Pearlin, & Nguyen, 2005). In contrast, parenthood may elevate a sense of meaning and purpose in life (Umberson, 1996; Umberson & Gove, 1989).

The study is based on the two waves of the Wisconsin Longitudinal Study (WLS): the 1993 wave when most participants were 53–54 years old and the 2004 wave when the participants were 64–65 years old. Exploring psychological consequences of parenthood among the young-old is of critical importance today because nearly one-third of the U.S. population currently belongs to the Baby Boom cohort, the large cohort of men and women born between 1946 and 1964. The oldest members of this cohort are on the brink of transitioning from midlife to late life; thus, the findings revealed among members of the WLS cohort (born in 1939) may offer an early glimpse into the potential challenges facing Baby Boomers as they parent adult children.

Potentially Stressful Aspects of Late-Life Parenthood

Research shows that empty-nest parents report higher levels of psychological well-being than other groups of parents and childless individuals (Koropeckyj-Cox, 1998; Pudrovska, 2008; Umberson & Gove, 1989). Being an parent of successfully launched children is associated with parental fulfillment, pride, and well-being (Lachman, 2004; Ryff, Schmutte, & Lee, 1996). In contrast, some structural configurations and experiences of parenthood,

such as coresidence with adult children, stepparenthood, and parental bereavement, may create a context that is particularly conducive to parental strain and distress.

Coresidence with adult children is a distinctive characteristic of middle and late adulthood. Coresidence with children who attend college is becoming increasingly normative with the rising importance of higher education (Casper & Bianchi, 2002). However, it is still expected that after completing their education, children should live independently from parents (Ward, Logan, & Spitze, 1992). Coresidence of adult children and older parents may reflect either the needs of parents or the needs of children. On the one hand, adult children may use the parental home as a safety net in response to failures in marital or work roles. On the other hand, middle-aged and older parents may coreside with children because of the needs associated with declining health or widowhood (Ward et al., 1992). Yet, research shows that coresidence is more often a response to the needs and circumstances of adult children than parents, especially at midlife when parents are relatively young (Aquilino, 1990; Ward et al., 1992).

Coresidence with adult children may be particularly stressful for parents in the context of children's failure to establish normative adult roles (Aquilino & Supple, 1991). For parents, coresidence with children who have failed to maintain adult statuses may indicate the lack of success in the parental role, and the lifestyle that parents expect at mid- and late life may be delayed or disrupted because of intergenerational living arrangements (Pillemer & Suitor, 2002; Ward & Spitze, 1996). Therefore, I hypothesize that parents who coreside with mature, i.e. post-college age, adult children report lower levels of well-being compared to parents whose children live independently. To capture the circumstances that might underlie intergenerational coresidence, my analysis includes indicators of parental health and socioeconomic status, which can reflect parents' need for assistance or, conversely, parents' resources to help their children (Ward et al., 1992).

Stepparenthood—Research among young and middle-aged adults shows that parenting of minor stepchildren may result in additional stressors and demands compared to having only biological children. Cherlin (1978) argues that stepfamilies are an incomplete institution because there are no clear social norms and expectations that regulate life of families formed by remarriage. Family boundary ambiguity in stepfamilies, or a lack of clarity with respect to family membership, is associated with family stress, dysfunctional relationships, and depression (Deater-Deckard et al., 1998; Stewart, 2005). There is a dramatic gender difference in the likelihood of sharing a household with one's minor stepchildren. Young children disproportionately stay with their biological mothers after parental divorce (Casper & Bianchi, 2002); therefore, men are more likely to live with their stepchildren than women. However, research suggests that being a non-resident stepmother of young stepchildren may entail at least as much stress as stepfatherhood because remarried women who remary have to cultivate relationships with stepchildren who live with their biological mothers (Nielsen, 1999).

Most research suggesting that stepparenthood tends to be stressful has been conducted among parents of young children. I hypothesize that having adult stepchildren may not necessarily introduce a potential for stress in parents' lives because mothers and fathers in

stepfamilies may gradually adjust to a challenging and ambiguous family environment created by remarriage (Pudrovska, 2008). Indeed, research shows that family boundary ambiguity tends to decline with the passage of time as couples overcome the initial stress of forming a new union (Stewart, 2005). Moreover, the effects of the structural characteristics of parenthood may depend on the quality of intergenerational ties (Connidis & McMullin, 1993; Koropeckyj-Cox, 2002). The presence of adult stepchildren or intergenerational coresidence may not be stressful *per se*, but only when the quality of parent-child relationships is poor. Therefore, my analysis includes an indicator of relationship quality. In addition, I take into account parents' marital status and marital history because these factors may influence both mental health and the structural context of parenthood, specifically, the presence of stepchildren.

Parental bereavement is a profoundly stressful and traumatic experience with long-lasting psychological repercussions. Parents describe the death of a child as devastating and incomprehensible (Rinear, 1988). The death of a child is an "off-time" event: in a normative life course, children are expected to outlive their parents. One of the most difficult tasks for bereaved parents is to find meaning in their child's death (Cook, 1983). It is possible that the effect of a child's death on parental psychological functioning depends on the age at which the child died; for example, losing a newborn may be a profoundly different experience compared to losing an adult child. Thus, I hypothesize that death of a child adversely affects parents' mental health, and this effect may differ depending on the child's age at death.

Are Mothers and Fathers Really Different?

The psychological implications of parenthood may differ for men and women. Existing research suggests two views regarding gender differences in mental health of middle-aged and older parents: the parental role and the gendered role perspectives.

The *parental role perspective* (Scott & Alwin, 1989) holds that mothers of young children experience more distress than fathers because their parental role is more demanding and stressful (McLanahan & Adams, 1987; Nomaguchi & Milkie, 2003; Ross & Van Willigen, 1996; Umberson, 1996). Most participants in my study were born in 1939 and came of age in the 1950s and early 1960s, the decades characterized by the traditional gender division of family labor. Men were expected to become the primary breadwinners, whereas women were responsible for maintaining the household and taking care of the children. Yet, as children grow up and become self-sufficient adults, the parenting roles of mothers and fathers may gradually converge because women are no longer involved in labor-intensive and time-consuming childcare (Pudrovska, 2008). In turn, comparable role involvement appears to have similar psychological consequences for men and women (Barnett et al., 1994; Voydanoff & Donnelly, 1999).

Conversely, the *gendered role perspective* suggests that regardless of the life-course stage, women are more responsive than men to psychological costs and rewards of parenthood because women were socialized to be particularly attuned to family roles. Parental role is more salient to women than to men (Simon, 1992). Women invest more emotionally in the parental role, and their sense of self is tied more closely to parenthood than is men's (Daniels & Weingarten, 1983). Scott and Alwin (1989) show that the higher level of the

parental strain reported by mothers compared to fathers stems not only from the "objective" differences in the experience of the parenting role, but also from the differential orientations men and women bring to parenthood. Moreover, older women tend to be more emotionally vulnerable to childlessness than older men, which may reflect internalized gender attitudes about the salience of motherhood for women's identities (Koropeckyj-Cox, 2002).

Thus, the parental role hypothesis predicts that because men's and women's parenting roles tend to converge in mid- and later life, coresidence with adult children, stepparenthood, and parental bereavement are related in a similar way to mothers' and fathers' mental health. According to the gendered role hypothesis, women are more strongly than men affected by the potentially stressful structural characteristics of parenthood, even in late midlife and early old age.

METHOD

Sample

The study is based on data from the Wisconsin Longitudinal Study (WLS), a long-term study of a random sample of 10,317 men and women who graduated from Wisconsin high schools in 1957. The participants were first interviewed during their senior year in high school, when they were 17–18 years old (1957). Subsequent interviews were completed at ages 36 (in 1975), 53–54 (in 1993), and 64–65 (in 2004). The sample is broadly representative of older, White American men and women who have completed at least a high school education. Among American women and men ages 60–64 in 2000, slightly more than two-thirds were White of non-Hispanic background who have completed at least twelve years of schooling (U.S. Bureau of the Census, 2003). Sewell and Hauser (1975) estimated that roughly 75 percent of Wisconsin youth graduated from high school in the late 1950s.

The present analysis is restricted to 5,080 WLS participants who had at least one biological or nonbiological child at the time of the 1993 interview and who participated in both the 1993 and 2004 waves and completed both phone interviews and self-administered mail questionnaires. The sample comprises 2,296 men and 2,784 women. With respect to sample attrition, 15.5% of participants who completed phone interviews in 1993 were not interviewed in 2004. Respondents who were lost to follow up had somewhat lower levels of income and education, yet they did not differ from those who were retained in the study in terms of gender, marital status, and the structural characteristics of the parental role.

Individual variables had between 0% and 1% missing values that were handled using the Stata command *ice* for multiple imputation (Royston, 2005). In multiple imputation, the entire data set is divided into *m* smaller separate data sets, which allows pooling *m* parameter estimates to obtain an improved estimate of a specific parameter for the full sample (Acock, 2005).

Measures

All measures used in my analysis were assessed both in 1993 and 2004. Therefore, each respondent has two values on each variable—a baseline 1993 value and a follow-up 2004 value.

Dependent variables—I examine the consequences of parenthood for both positive and negative aspects of psychological functioning: depressive symptoms, purpose in life, and environmental mastery. *Depressive symptoms* were evaluated in 1993 and 2004 using the 20-item Center for Epidemiologic Studies Depression Scale (CES-D). Respondents were asked to indicate the number of days in the past week that they experienced specific symptoms, such as feeling sad, depressed, or bothered by things that usually did not bother them. Response categories ranged from 0 to 7 days. Responses to all items were averaged to create an index, with higher scores reflecting a greater number of depressive symptoms. The CES-D measure has a positive skew that can produce heteroskedasticity and inflate the standard errors. To reduce the positive skew, I took the natural log of the depressive symptoms scale, following other studies of parenthood and mental health (Mirowsky & Ross, 2002). In addition, although I report findings from models with the logged scale of depressive symptoms, I conducted a sensitivity analysis with an untransformed variable (not shown), and the results from the two analyses were very similar.

Purpose in life and environmental mastery are two dimensions of the Ryff's scales of psychological well-being (Ryff, 1989). *Purpose in life* ($\alpha = .70$) was measured in 1993 and 2004 with a subscale comprising four items, such as "I'm an active person in carrying out the plans I set for myself." *Environmental mastery* ($\alpha = .72$) was evaluated with three items, such as "I am quite good at managing the many responsibilities of my daily life." For each item, respondents were given six response categories ranging from "agree strongly" to "disagree strongly." If necessary, I reverse-coded the items so that higher scores indicate higher levels of psychological well-being. The scales for purpose in life and environmental mastery were obtained by averaging scores on the respective individual items.

To address the issue of endogeneity between parenthood and mental health, I include *lifetime depression history* and adjust for the number of depression episodes that the participant had experienced prior to the transition to parenthood, with participants who reported no depressive episodes assigned the value of 0 and participants who reported at least one episode assigned the value of 1.

Structural configurations of the parental role—An indicator of c*oresidence with adult children* is coded 1 if at least one child aged 23 or older was living in the respondent's household at the time of the interview. (In 2004, 97.7% of respondents' youngest children were 23 or older, with the average age of the youngest child being 34 years old.) A dummy variable reflecting the presence of *stepchildren* is coded 1 if a respondent had at least one stepchild. Most parents with stepchildren in my sample also had biological children. Only nine stepparents did not have biological children. The variable *parental bereavement* is coded 1 for parents who have ever experienced the death of a child. This category includes 16 parents who had experienced the death of a child and had no surviving children at the time of the 2004 interview.

These three dummy variables denoting the focal structural configurations of the parental role are not mutually exclusive because of the potential overlap among categories. For example, parents who have at least one stepchild may also have coresidential adult children (whether biological or nonbiological), or parents coresiding with their adult children may also have

experienced parental bereavement. The three focal categories of parents have different comparison groups. The comparison group for parents of coresidential adult children are empty-nest parents, the comparison group for stepparents are parents who have never had stepchildren, whereas bereaved parents are compared to parents who have never experienced the death of a child. The purpose of my analysis is not to compare these three different categories to a common reference group (such as empty-nest parent), but to examine whether the presence of each potentially stressful structural characteristic is associated with elevated distress and reduced psychological well-being compared to its absence.

In addition, I control for the *number of children*, which reflects each respondent's total number of biological and non-biological children (range 1 – 16).

Whereas the structural characteristics variables reflect *all* children, the *quality of parent-child relationships* was assessed both in 1993 and 2004 with two questions about a randomly *selected child* of each respondent: similarity between the respondent's and the child's general outlook on life, and closeness between the respondent and the child. There are four response categories ranging from "not at all similar/close" to "very similar/close." The two items were averaged to create a scale (α = .70).

Socioeconomic characteristics—*Education* refers to the years of schooling one has completed; categories include 12 (reference category), 13 to 15 years, 16 years, and 17 or more years. *Net worth* reflects the respondent's total household assets. *Employment status* is coded 1 if a respondent was working for pay at the time of the interview.

Marital status and marital history are represented with six mutually exclusive categories: currently married, married only once (reference category); currently married, married more than once; divorced/separated, married only once; divorced/separated, married more than once; widowed, married only once; widowed, married more than once.

Respondents' *physical health* is measured as a count of chronic illnesses that have ever been diagnosed by a medical professional.

In addition, all models include respondents' *gender* (female = 1) and *age* at the time of the 1993 and 2004 interviews.

Analytic Plan

The 1993 and 2004 waves were combined to create a pooled time-series data set that contains 10,160 person-years. The primary method of analysis used in my study is the random-effects pooled time-series models that can be represented by the equation:

$$Y_{it}=u+\sum \beta X_{it}+\alpha_i+\varepsilon_{it},$$

where u is an overall constant, α_i is a random term capturing the influence of all factors related to individual i, and ε_{it} is an error term for individual i at time t (Johnson, 1995). Because α_i is assumed to be a random disturbance, a generalized least squares (GLS)

solution provides appropriate estimates of the *β's* and their standard errors (Teachman et al., 2001).

The two most common alternatives to the random-effects estimation are ordinary least squares (OLS) models with a lagged dependent variable and fixed-effects models. Unlike OLS models, random- and fixed effects models incorporate *heterogeneity* among respondents. Failure to include heterogeneity may produce biased estimators because important variables that influence both predictors and the outcome may have been omitted from the model (Frees, 2004). In the random-effects models, the heterogeneity term is assumed to be drawn from unknown population and, thus, is treated as a random variable, whereas in the fixed-effects approach, the heterogeneity term is treated as a fixed parameter. Unlike the fixed-effects models, random-effects models can include time-invariant covariates because the GLS estimation involves both within- and between-individual variance (Johnson, 1995). I use random-effects rather than fixed-effects models because some parental characteristics show very little change between late midlife and early old age in the WLS. Very few WLS participants lost a child or became stepparents between the two waves (roughly 2% in both categories); thus, examining change with so few cases would yield unstable and unreliable coefficients. Conversely, there was a noticeable change in the patterns of intergenerational coresidence: 13% of parents reported having a coresidential adult child in 1993 but not in 2004. In a sensitivity analysis (not shown), I estimated OLS models with lagged dependent variables as well as fixed-effects models, and the results were similar to the random-effects coefficients.

My analysis utilizes the longitudinal nature of the data. Unlike cross-sectional models and longitudinal OLS models with lagged dependent variables, random-effects models account for unobserved factors that might affect both parenthood and mental health, and thus lead to spuriousness. Accounting for unobserved heterogeneity is possible because of the GLS solution, in which weights are assigned with respect to the proportions of the total variance that fall between and within individuals in the sample. Therefore, estimate of random-effects coefficients is based on both within- and between-individual information (Allison, 1994; Hsiao, 2003; Johnson, 1995). The resulting coefficients are unbiased with respect to potential confounding effects of unmeasured time-invariant and time-varying variables. Finally, the random-effects model holds that the explanatory variables are strictly respondents, most importantly, gender. Moreover, certain structural aspects of parenthood, such as the exogenous (Hsiao, 2003). Because this is a strong assumption, I conducted the Hausman test to assess whether the fixed-effects models were more suitable. For each model, the test indicated the appropriateness of the random-effects specification.

RESULTS

Descriptive Statistics

Table 1 reveals that roughly one-fifth of men and women reported a child over 22 years old living with them in 1993, whereas less than 10% of parents shared a residence with an adult child in 2004. In 2004, 10% of men versus 8% of women had a stepchild ($p < .01$). Further, 10% of women versus 7% of men reported at least one deceased child in 2004. This difference is explained by women's greater propensity to report perinatal and neonatal

deaths that occurred several decades ago. For example, in 2004, 3% of women versus 2% of men reported having *ever* experienced the death of an infant child (not shown). Among the bereaved parents in the WLS, the average age at which the child died was 12 years for both mothers and fathers in 1993, and 19 years for fathers versus 16 years for mothers in 2004. As shown by large standard deviations, there is substantial variability in the ages of the deceased children.

Multivariate Models

Table 2 shows the results from the random-effects models estimating the associations between parenthood and mental health during the transition from late midlife to early old age. Sharing a residence with a child over 22 years old is associated with lower levels of environmental mastery among parents, but unrelated to depressive symptoms and purpose in life. Further, having at least one deceased child is associated with elevated depressive symptoms and diminished purpose in life; yet, parental bereavement is unrelated to environmental mastery. The effects of parental bereavement and coresidence with adult children are significant after adjustment for the quality of parent-child relationships and an array of parents' characteristics, including age, lifetime history of depression, gender, marital status, socioeconomic resources, and physical health. Moreover, the effects of bereavement on parents' mental health do not depend on the child's age at death, as indicated by the nonsignificant interaction terms (not shown). Further, the presence of stepchildren is *not* related to depressive symptoms, purpose in life, and environmental mastery. The quality of parent-child relationships is strongly associated with parents' mental health. However, when I examined whether psychological effects of the structural configurations of the parental role depend on the quality of parent-child relationships, none of the interaction terms was significant (not shown).

Intergenerational coresidence may reflect the need of a parent or the need of an adult child. Unfortunately, the WLS did not ask about the reasons for parent-child coresidence. To address the possibility that coresidence with children may be caused by parents' declining health, all models adjust for the number of parents' diagnosed chronic illnesses. The association between coresidence with adult children and mental health of mothers and fathers remains virtually unchanged when parental physical health is controlled. Moreover, I tested an interaction between coresidence and parental health (not shown) to explore the possibility that parents in poor health are not distressed by coresidence with adult children and may even derive psychological benefits from this living arrangement. However, the interaction term was not significant, which suggests that the psychological implications of parent-adult child coresidence are not contingent on parental health, at least for members of the WLS cohort.

To examine gender differences in the psychological implications of parenthood, I tested interactive effects of gender and each potentially stressful aspect of the parental role. The interaction terms involving the presence of stepchildren were not significant, indicating that mothers and fathers are affected (or not affected) by stepparenthood in a similar way. Conversely, the effects of parental bereavement and coresidence with adult children differ by gender. Table 3 contains models separately for men and women illustrating interaction

terms that were significant in the full sample (Table 2). Parental bereavement is more detrimental to fathers than to mothers. Having at least one deceased child is associated with elevated distress and diminished purpose in life among men; yet, the death of a child is unrelated to women's depressive symptoms and purpose in life. In contrast, as shown in Table 3, coresidence with adult children decreases purpose in life and environmental mastery among mothers but not among fathers.

DISCUSSION

Using a sample of men and women who graduated from Wisconsin high schools in 1957, I examined whether potentially stressful characteristics of the parental role influence parents' mental health, and whether these effects differ by gender. My findings indicate that having stepchildren is unrelated to parental mental health. Moreover, the psychological implications of stepparenthood do not depend on the quality of intergenerational relationships. Research conducted among parents raising young children suggests that the crucial mediating factor linking the presence of stepchildren to parents' mental health is family stress. When children are young and require continuous parental care and provision, stepparenthood may be associated with elevated parental strain that is often exacerbated by marital conflict and boundary ambiguity in stepfamilies (Cherlin, 1978; Degarmo & Forgatch, 2002; Stewart, 2005). As children grow up and become self-reliant, the daily parental and marital strains subside, and this mediating link is disrupted. My findings are consistent with research showing resilience and adjustment of parents and children in stepfamilies. For example, Stewart (2005) suggests that the stress of boundary ambiguity in stepfamilies declines with the passage of time. Finally, the psychological impact of having stepchildren does not differ by gender, which is consistent with the parental role hypothesis. Whereas women may be more affected by enduring parental strains in young and middle adulthood, the effect of stepparenthood appears to be similar for mothers and fathers in late life when men's and women's parental roles tend to equalize. The lack of effects on mental health may reflect that some stepchildren were acquired very early and raised as own child, whereas others were acquired late and stepparents had very little contact with them. Duration of marriage reflects part of this difference. Unfortunately, I can't test it directly because we do not have it in the data.

Conversely, the psychological impact of the coresidence with adult children is moderated by gender in the direction predicted by the gendered role hypothesis. Having at least one coresidential adult child of post-college age decreases purpose in life and environmental mastery among mothers but not among fathers. My analysis indicates that the psychological impact of coresidence with adult children is neither explained nor moderated by parents' health problems or by the quality of parent-child relationships. Yet, existing research has identified potential mechanisms through which having a coresidential adult child may contribute to mothers' parental strain and, thus, elevate their distress.

First, from a life course perspective, coresidential adult children violate normative expectations with regard to the timing of nest-leaving (Settersten, 1998). Adult children who coreside with parents are less likely to be married and employed, and have lower levels of education than children living independently (Goldscheider & Goldscheider, 1999; Mitchell,

Wister, & Gee, 2002). Specifically, in my study, among children aged 23 or older that live with their parents, over 90% are unmarried and over 80% do not have a bachelor's degree. Compared to fathers, mothers may be more attuned to their children's accomplishments and be more concerned about children's delay or failure to achieve desirable adult statuses (Aldous, 1987). Second, the presence of an adult child in the household may entail more housework for mothers compared to having an empty nest (Goldscheider & Goldscheider, 1994). For example, when asked how she would feel about an adult child's return home to live, a mother said: "I wouldn't like it. I'm tired of waiting on people" (Aldous, 1987, p. 232). Third, parents whose mature children have failed to maintain expected adult statuses may feel less competent in their parental role, and older parents' feelings of parental competence are positively related to their well-being (Mancini & Blieszner, 1989). For many women of the WLS cohort, raising successful children to adulthood has been one of the greatest accomplishments a woman could aspire to (Carr, 2004). Therefore, mothers may be more adversely affected by potential indicators of their lack of parental success than fathers who had more opportunities for achievement outside the family. Fourth, mothers are often more involved in (and feel responsible for) managing relationships in the family, including conflicts or relational strains among family members. The notion that mothers-wives are responsible for happiness and harmony within the family may represent an additional, gendered strain for mothers with coresidentialial adult children.

Similarly to coresidence with adult children, death of a child has a detrimental impact on parents' psychological well-being. Contrary to the crisis perspective, regardless of the age at which the child died and the time elapsed since the child's death, consistent with previous studies (Rogers, Floyd, Seltzer, Greenberg, & Hong, 2008). Yet, the gender interaction term shows that fathers are more adversely affected than mothers. Specifically, having at least one deceased child is associated with elevated distress and diminished purpose in life among men; yet, the death of a child is unrelated to women's depressive symptoms and purpose in life. Several potential explanations can account for this counterintuitive finding. Men of the WLS cohort may have focused on their work roles to the detriment of family involvement (Carr, 2005) and, thus, may regret not having spent more time with the family when the deceased child was alive, whereas mothers may have done more in terms of direct care to a terminally ill child (Lewis, Kagan, & Heaton, 2000). Also, gendered expectations of fathers as providers and protectors may exacerbate their responses to bereavement. Moreover, women may be more likely than men to obtain social support from friends and express their grief (Connidis & Davies, 1990; Turner & Marino, 1994). Further, because most deceased children are sons (between 60% and 70% in the WLS), men may be more upset than women by the loss of "lineage." Finally, mothers might have experienced posttraumatic growth that may result from the struggle with highly challenging life crises (Tedeschi & Calhoun, 2004). Tedeschi and Calhoun (1995) show that women are more likely than men to construe benefits arising from crises and to learn from difficult life experiences. Coping with the trauma of maternal bereavement may have stimulated the development of inner strength among women.

Limitations

Several limitations of the present study deserve mention. First, my study focused on the experience of a single birth cohort. Whereas longitudinal panel data used in my analysis are ideal for uncovering aging effects, I could not examine cohort differences in the relationship between parenthood and mental health. Further, although questions about structural configurations of the parental role were asked about *each* child of the respondent, the quality of parent-child relationships was assessed with respect to *one* randomly selected child. A better measure of relationship quality should incorporate parents' ties with each of their children. In addition, the reason underlying parent-adult child coresidence may be an important factor in determining parents' mental health; yet, I could incorporate this factor in my analysis only indirectly because the WLS did not include questions about the circumstances of intergenerational coresidence. No information on age at which stepchildren were acquired, and age may influence both parent-stepchild relationships over the life course and have implications for parents' mental health. Very few older adults in this sample live with their grandchildren to allow meaningful analysis, but this may be an important configuration with important psychological implications. Finally, the WLS sample is overwhelmingly based on White respondents. Yet, the meaning, experiences, and psychological implications of parenthood differ by race (Nievar & Luster, 2006). For example, coresidentialial grandparents and grandchildren are more common among African-American and Hispanic than White families (Casper & Bianchi, 2002). Moreover, "ethnocultural differences in attitudes toward death and bereavement (e.g., Hayslip & Peveto, 2005) that might affect long-term adaptation for parents could not be discerned in this sample." Future studies of parenthood and psychological well-being should rely on data that allow detailed racial comparisons. Yet, despite these limitations, my analysis has identified specific groups of older parents who might be at an increased risk for parental strain and resulting distress. This study suggests that mothers of coresidential adult children and bereaved fathers may particularly benefit from psychosocial interventions designed to enhance coping skills and the sense of mastery.

Acknowledgments

The study was supported by a grant from the National Institute on Aging (P01 AG21079-01). The Wisconsin Longitudinal Study (WLS) has its principal support from the National Institute on Aging (AG 9775, AG13613, and AG21079), with additional support from the National Science Foundation (SES-9023082), the Spencer Foundation, and the Graduate School of the University of Wisconsin. A public-use version of the quantitative data from the WLS is available from the Inter-university Consortium for Political and Social Research at the University of Michigan or the Data and Program Library Service (DPLS), University of Wisconsin-Madison.

References

Acock AC. Working with missing values. Journal of Marriage and Family. 2005; 67:1012–1028.

Aldous J. New views on the family life of the elderly and the near-elderly. Journal of Marriage and the Family. 1987; 49:227–234.

Allison PD. Using panel data to estimate the effects of events. Sociological Methods and Research. 1994; 23:174–199.

Aquilino WS. The likelihood of parent-adult child coresidence: Effects of family structure and parental characteristics. Journal of Marriage and the Family. 1990; 52:405–419.

Aquilino WS, Supple KR. Parent-child relations and parents' satisfaction with living arrangements when adult children live at home. Journal of Marriage and the Family. 1991; 53:13–27.

Barnett RC, Brennan RT, Raudenbush SW, Marshall NL. Gender and the relationships between marital-role quality and psychological distress: A study of women and men in dual-earner couples. Psychology of Women Quarterly. 1994; 18:105–127.

Carr D. “My daughter has a career—I just raised babies”: Women’s intergenerational social comparisons. Social Psychology Quarterly. 2004; 67:132–54.

Carr D. The psychological consequences of midlife men’s social comparisons with their young adult sons. Journal of Marriage and Family. 2005; 67:240–250.

Casper, LM.; Bianchi, SM. Continuity and change in the American family. Thousand Oaks, CA: Sage; 2002.

Cherlin AJ. Remarriage as an incomplete institution. American Journal of Sociology. 1978; 84:634–650.

Connidis IA, Davies L. Confidants and companions in late midlife and early old age: The place of family and friends. Journal of Gerontology. 1990; 45:141–149.

Connidis IA, McMullin JA. To have or have not: Parent status and the subjective well-being of older men and women. Gerontologist. 1993; 33:630–636. [PubMed: 8225007]

Cook JA. A death in the family: Parental bereavement in the first year. Suicide and Life-Threatening Behavior. 1983; 13:42–61. [PubMed: 6649018]

Daniels, P.; Weingarten, K. Sooner or later: The timing of parenthood in adult lives. New York: Norton; 1983.

Deater-Deckard K, Pickering K, Dunn JF, Golding J. Family structure and depressive symptoms in men preceding and following the birth of a child. American Journal of Psychiatry. 1998; 155:818–823. [PubMed: 9619156]

Degarmo DS, Forgatch MS. Identity salience as a moderator of psychological and marital distress in stepfather families. Social Psychology Quarterly. 2002; 65:266–284.

Evenson RJ, Simon RW. Clarifying the relationship between parenthood and depression. Journal of Health and Social Behavior. 2005; 46:341–358. [PubMed: 16433280]

Frees, EW. Longitudinal and panel data: Analysis and applications in the social sciences. Cambridge University Press; 2004.

Goldscheider FK, Goldscheider C. Family structure, leaving home, and investments in young adulthood. Cahiers Quebecois de Demographie (Special Issue on Childhood). 1994; 23:75–100.

Goldscheider, FK.; Goldscheider, C. The changing transition to adulthood: Leaving and returning home. Thousand Oaks, CA: Sage; 1999.

Hayslip, B., Jr; Peveto, CA. Cultural changes in attitudes toward death, dying, and bereavement. New York: Springer; 2005.

Hsiao, C. Analysis of panel data. 2. Cambridge University Press; 2003.

Johnson DR. Alternative methods for the quantitative analysis of panel data in family research: Pooled time-series models. Journal of Marriage and the Family. 1995; 57:1065–1077.

Koropeckyj-Cox T. Loneliness and depression in middle and old age: Are the childless more vulnerable? Journal of Gerontology: Social Sciences. 1998; 53B:S302–S312.

Koropeckyj-Cox T. Beyond parental status: Psychological well-being in Middle and old age. Journal of Marriage and the Family. 2002; 64:957–971.

Lewis S, Kagan C, Heaton P. Dual-earner parents with disabled children: Family patterns for working and caring. Journal of Family Issues. 2000; 21:1031–1060.

Mancini JA, Blieszner R. Aging parents and adult children: Research themes in intergenerational relations. Journal of Marriage and the Family. 1989; 51:275–290.

McLanahan S, Adams J. Parenthood and psychological well-being. Annual Review of Sociology. 1987; 5:237–257.

Mitchell BA, Wister AV, Gee EM. “There’s no place like home”: An analysis of young adults’ mature coresidency in Canada. International Journal of Aging and Human Development. 2002; 54:57–84. [PubMed: 12003501]

Nielsen L. Stepmothers: Why so much stress? A review of the research. Journal of Divorce and Remarriage. 1999; 30:115–148.

Nievar MA, Luster T. Developmental processes in African American families: An application of McLoyd's theoretical model. Journal of Marriage and Family. 2006; 68:320–331.

Nomaguchi KM, Milkie MA. Costs and rewards of children: The effects of becoming a parent on adults' lives. Journal of Marriage and Family. 2003; 65:356–374.

Pillemer K, Suitor JJ. Explaining mothers' ambivalence toward their adult children. Journal of Marriage and Family. 2002; 64:602–613.

Pudrovska T. Psychological implications of motherhood and fatherhood in midlife: Evidence from sibling models. Journal of Marriage and Family. 2008; 70:168–181.

Rinear EE. Psychosocial aspects of parental response patterns to the death of a child by homicide. Journal of Traumatic Stress. 1988; 1:305–322.

Rogers, Catherine H.; Floyd, Frank J.; Seltzer, Marsha Mailick; Greenberg, Jan; Hong, Jinkuk. Long-term effects of the death of a child on parents' adjustment in midlife. Journal of Family Psychology. Apr; 2008 22(2):203–211. [PubMed: 18410207]

Ross CE, Van Willigen M. Gender, parenthood, and anger. Journal of Marriage and the Family. 1996; 58:572–584.

Royston P. Multiple imputation of missing values: Update. Stata Journal. 2005; 5:88–102.

Ryff CD. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology. 1989; 57:1069–1081.

Scott J, Alwin DF. Gender differences in parental strain: Parental role or gender role? Journal of Family Issues. 1989; 10:482–503.

Settersten RA. A time to leave home and a time never to return? Age constraints around the living arrangements of young adults. Social Forces. 1998; 76:1373–1400.

Sewell, W.; Hauser, RM. Education, occupation, and earnings: Achievement in the early career. New York: Academic Press; 1975.

Simon RW. Parental role strains, salience of parental identity and gender differences in psychological distress. Journal of Health and Social Behavior. 1992; 33:25–35. [PubMed: 1619256]

Stewart SD. Boundary ambiguity in stepfamilies. Journal of Family Issues. 2005; 26:1002–1029.

Teachman J, Duncan G, Yeung W, Levy D. Covariance structure models for fixed and random effects. Sociological Methods and Research. 2001; 30:271–288.

Tedeschi, RG.; Calhoun, LG. Trauma and transformation: Growing in the aftermath of suffering. Thousand Oaks, CA: Sage; 1995.

Tedeschi RG, Calhoun LG. Posttraumatic growth: Conceptual foundations and empirical evidence. Psychological Inquiry. 2004; 15:1–18.

Turner RJ, Marino F. Social support and social structure: A descriptive epidemiology. Journal of Health and Social Behavior. 1994; 35:193–212. [PubMed: 7983334]

Umberson, D. Demographic position and stressful midlife events: Effects on the quality of parent-child relationships. In: Ryff, CD.; Seltzer, MM., editors. The parental experience in midlife. Chicago, IL: University of Chicago Press; 1996. p. 493-531.

Umberson D, Gove W. Parenthood and psychological well-being: Theory, measurement, and stage in the life course. Journal of Family Issues. 1989; 10:440–462.

Umberson, D.; Williams, K. Family status and mental health. In: Aneshensel, CS.; Phelan, JC., editors. Handbook of the sociology of mental health. New York: Kluwer Academic/Plenum Publishers; 1999. p. 225-254.

Voydanoff P, Donnelly BW. Multiple roles and psychological distress: The intersection of the paid worker, spouse, and parent roles with the role of the adult child. Journal of Marriage and the Family. 1999; 61:725–738.

Ward R, Logan J, Spitze G. The influence of parent and child needs on coresidence in middle and late midlife and early old age. Journal of Marriage and the Family. 1992; 54:209–221.

Ward RA, Spitze G. Gender differences in parent-child coresidence experiences. Journal of Marriage and the Family. 1996; 58:718–725.

Table 1

Descriptive Statistics for the Study Variables: Men (n = 2,296) and Women (n = 2,784), Wisconsin Longitudinal Study, 1993–2004

Variable	1993		2004	
	Men	Women	Men	Women
Psychological Outcomes:				
Depressive symptoms	14.80*** (13.54)	17.10 (16.16)	11.95*** (12.58)	14.40 (14.54)
Depressive symptoms (ln)	1.94*** (1.95)	2.20 (1.72)	1.34*** (2.46)	1.73 (2.19)
Purpose in life	4.87** (.80)	4.93 (.89)	4.76*** (.80)	4.87 (.87)
Environmental mastery	4.90** (.82)	4.96 (.87)	4.98** (.75)	5.04 (.78)
Depressive episode prior to the transition to parenthood	.01***	.04		
Focal Aspects of the Parental Role:				
At least one coresidential child 23 or older	.20	.21	.06**	.09
At least one stepchild	.07	.06	.10**	.08
At least one deceased child	.04***	.08	.07***	.10
Child's age at death	12.81 (10.45)	12.00 (10.52)	18.91** (14.13)	16.18 (14.51)
Other Aspects of the Parental Role:				
Quality of parent-child relationships	3.73*** (.47)	3.82 (.38)	3.75*** (.48)	3.81 (.39)
Number of living children	2.78*** (1.52)	2.95 (1.68)	2.84*** (1.59)	2.99 (1.71)
At least one child with developmental disability or mental illness	.013	.015	.047	.048
Marital Status and History:				
Currently married, married only once	.72	.70	.68***	.62
Currently married, married more than once	.16***	.12	.18***	.12
Divorced/separated, married only once	.06***	.09	.05***	.09
Divorced/separated, married more than once	.01*	.02	.02*	.03
Widowed, married only once	.004***	.02	.02***	.09
Widowed, married more than once	.002***	.009	.006***	.02
Age	53.26*** (.64)	53.12 (.59)	64.37*** (.71)	64.24 (.65)
Socioeconomic Status:				
12 years of education	.49***	.60	.49***	.60
13–15 years of education	.16	.16	.16	.16
16 years of education	.15	.14	.15	.14
17 or more years of education	.20***	.10	.20***	.10
Net worth (US$)	316,057*** (415,775)	241,023 (354,226)	648,477*** (583,754)	439,201 (471,924)
Net worth (ln)	11.72*** (2.69)	10.98 (3.69)	12.40*** (3.22)	11.48 (4.22)
Currently employed	.94***	.79	.48***	.39
Physical Health:				

Variable	1993		2004	
	Men	Women	Men	Women
Number of chronic diagnosed illnesses	.85*** (1.05)	1.05 (1.22)	2.09*** (1.68)	2.30 (1.77)

Note. Asterisks denote significant difference between male and female samples:

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 2

Random-Effects Models Predicting Depressive Symptoms and Psychological Well-Being: Wisconsin Longitudinal Study, 1993–2004 (N = 5,080)

Variables	Depressive Symptoms	Purpose in Life	Environmental Mastery
Focal Aspects of the Parental Role:			
At least one coresidential child 23 or older	.077 (.056)	−.031 (.022)	−.047* (.021)
At least one stepchild	−.065 (.099)	−.032 (.040)	.015 (.039)
At least one child deceased	.189* (.084)	−.077* (.033)	−.031 (.032)
Other Aspects of the Parental Role:			
Quality of parent-child relationships	−.179*** (.049)	.090*** (.018)	.087*** (.018)
Number of living children	−.025 (.018)	.008 (.009)	.003 (.007)
At least one child with developmental disability or mental illness	.177 (.103)		
Gender (Female = 1)	.278*** (.052)	.145*** (.021)	.094*** (.021)
At least one child deceased × Gender	−.342* (.170)	.199** (.067)	—
At least one coresidential adult child × Gender	—	−.095* (.040)	−.092* (.041)
Constant	5.342	4.917	4.435
σ_u	1.197	.592	.566
σ_e	1.658	.565	.550
Fraction of variance due to u_i	.343	.524	.514
Number of observations	10,160	10,160	10,160
Number of respondents	5,080	5,080	5,080

Note. All models adjust for parents' age, depression prior to the transition to parenthood, martial status and marital history, education, net worth, employment status, and the number of chronic diagnosed illnesses.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 3

Random-Effects Models Predicting Depressive Symptoms and Psychological Well-Being Separately by Gender: Wisconsin Longitudinal Study, 1993–2004 (N = 5,080)

Variables	Depressive Symptoms		Purpose in Life		Environmental Mastery	
	Men	Women	Men	Women	Men	Women
At least one coresidential child 23 or older	.044 (.093)	.107 (.070)	**−.005 (.031)**	**−.065* (.030)**	**.002 (.030)**	**−.084** (.030)**
At least one child deceased	**.427** (.144)**	**.045 (.099)**	**−.196*** (.052)**	**−.002 (.046)**	−.074 (.050)	.012 (.044)
Constant	5.924	5.189	5.015	4.816	4.152	4.675
σ_u	1.224	1.169	.552	.620	.551	.576
σ_e	1.823	1.507	.546	.579	.534	.563
Fraction of variance due to u_i	.311	.375	.506	.534	.516	.511
Number of observations	4,592	5,568	4,592	5,568	4,592	5,568
Number of respondents	2,296	2,784	2,296	2,784	2,296	2,784

Note. All models adjust for other structural aspects of the parental role, the quality of parent-child relationships, parents' age, depression prior to the transition to parenthood, martial status and marital history, education, net worth, employment status, and the number of chronic diagnosed illnesses.

* $p < .05$.

** $p < .01$.

*** $p < .001$.