# The Psychological Well-Being of Disability Caregivers: Examining the Roles of Family Strain, Family-to-Work Conflict, and Perceived Supervisor Support

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We draw on the cross-domain model of work-family conflict and conservation of resources theory to examine the relationship between disability caregiving demands and the psychological well-being of employed caregivers. Using a sample of employed disability caregivers from a national survey, we found that the relationship between caregiving demands and family-to-work conflict was stronger when employees experienced high levels of strain from family. Additionally, we found high levels of family to-work conflict were subsequently associated with decreases in life satisfaction and increases in depression, but only when perceived supervisor support was low. Overall, our findings suggest an indirect relationship between caregiving demands and psychological well-being that is mediated by family-to-work conflict and is conditional on family strain and perceived supervisor support. The theoretical and practical implications of these findings are discussed.

Keywords: disability care, job satisfaction, life satisfaction, perceived supervisor support, work-family conflict

Disabilities, frequently defined as physical or mental (psychological or cognitive) morbidities with accompanying impairments (Crews & Talley, 2012), affect approximately one in five people in the United States (Brault, 2012). About 10% of individuals describe their disability as severe (Brault, 2012), and some individuals with a disability require significant physical or mental supports (i.e., caregiving) to manage day-to-day life or their condition (National Family Caregiver Association, 2012). An estimated 21% of American families include an individual with such caregiving duties (National Alliance for Caregiving and AARP, 2004). Disability caregivers are responsible for maintaining the physical and mental well-being of the individual under their care, frequently coordinating formal and informal community supports while maintaining stability in the family (Friesen, Brennan, & Penn, 2008).

Providing caregiving for an individual with a disability can have both positive and negative effects. On the positive side, care provision has the potential to strengthen the bond between the caregiver and the person under his or her care (Boerner, Schulz, &

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Horowitz, 2004), offer a sense of purpose in life (Cohen, Colantonio, & Vernich, 2002), and evoke positive emotions for the caregiver through their experience of helping someone in need (Redmond & Richardson, 2003). However, negative effects of caregiving have also been shown. Caregivers report increased stress and feelings of isolation, financial difficulties, relationship problems at home, and physical complaints. These negative consequences are thought to be attributable to the physical (e.g., lifting the person with a disability), financial, and emotional challenges that disability caregiving can produce (Brannan & Heflinger, 2001; Earle & Heymann, 2011; Kendall, 1998; Redmond & Richardson, 2003; Rosenzweig, Brennan, Huffstutter, & Bradley, 2008). Caregivers often find it challenging to access and coordinate services from various care providers, such as doctors, therapists, and eldercare facilities (Rosenzweig, Brennan, & Ogilvie, 2002; Rosenzweig et al., 2008).

Many caregivers are also employed (Brennan, Rosenzweig, Ogilvie, Wuest, & Shindo, 2007). Although employment may impose additional demands on caregivers, it also provides benefits. Work can be a source of social and emotional support for the caregiver. It can also offer respite from caregiving responsibilities. Finally, employment provides financial resources that help defray the high cost of caregiving (Bainbridge, Cregan, & Kulik, 2006; Redmond & Richardson, 2003). Nevertheless, maintaining a balance between work and caregiving can be stressful in its own right (Lero, Spinks, Fast, Hilbrecht, & Tremblay, 2012). Although caregivers may establish work arrangements that accommodate their caregiving needs-such as telework or using a flex scheduletheir ability to do so is constrained by a host of factors such as their gender, education, and ethnicity (Lahaie, Earle, & Heymann, 2013). Caregiving also has implications for job performance as caregivers have more absences, distractions while working, or they may be forced to quit their job altogether (Earle & Heymann, 2012; Lahaie et al., 2013; Lero et al., 2012; Van Dongen, Josephsson, & Ekstam, 2014).

Despite the fact that the number of employees who provide caregiving to individuals with disability has rapidly grown in recent decades, there has been relatively little research on how caregiving is associated with work–family dynamics of these caregivers (Marks, 1998). Additionally, although researchers have found high levels of depression, exhaustion, stress, helplessness, and isolation among caregivers (e.g., Bainbridge et al., 2006; McDonald, Poertner, & Pierpont, 1999; Rosenzweig et al., 2002), the mechanisms triggering these effects and the boundary conditions enabling them are not fully investigated. Therefore, this study examines the impact of care demands on the mental health outcomes of caregivers and how these effects are mediated by family to-work conflict (FWC). We also investigate two contextual variables—strain from family members and perceived supervisor support (PSS)—as moderators of these effects.

# The Joint Effects of Caregiving Demands and Strain From Family on FWC

Conservation of Resources (COR) theory, which is based on the premise that individuals pursue happiness by accumulating and maintaining a supply of valued resources (Higgins, 1997), provides the theoretical foundation for this study. Resources can include material possessions (e.g., car, house), situational or environmental conditions (e.g., support, good health), or personal characteristics (e.g., self-efficacy, skills). Resources may be valued in their own right, they may assist in the acquisition of other valued resources, or they may facilitate stress reduction (Hobfoll & Freedy, 1993). An adequate supply of resources helps individuals maintain high levels of subjective well-being and make psychological adjustments to stressful situations. In contrast, a loss of resources may render individuals vulnerable to depression and stress and reduce their ability to cope with crises (Bacharach, Bamberger, & Doveh, 2008; Bolger, Foster, Vinokur, & Ng, 1996). According to COR theory, in the face of severe resource demands—which may occur while providing disability care additional resource losses can trigger a crisis that leads to a downward spiral, whereas resource gain may enhance individuals' abilities to overcome the threat of stressors.

Caring for an individual with a disability can impose considerable resource demands on a caregiver (Bainbridge et al., 2006; Montgomery & Borgatta, 1989). However, disability care demands also vary in intensity. Disability care may not be as demanding when the recipient has a disability that is relatively minor; care recipients with a severe disability may need constant care. The greater the caregiving demands are, the more physically and psychologically taxing they can be for caregivers (Gibeau & Anastas, 1989). These demands can be especially taxing to employed caregivers, who must simultaneously manage their work and care responsibilities. Consistent with the cross-domain model of workfamily conflict (Ford, Heinen, & Langkamer, 2007), caregivers tend to experience higher levels of FWC than noncaregivers (Marks, 1998). COR theory suggests that the positive association between care demands and FWC exists because as care demands reduce the pool of resources available to caregivers (such as time,

physical energy, and mental stamina), they reduce the resources that caregivers need to meet their work obligations.

Although the above argument suggests a direct link between caregiving demands and FWC, it is vital to consider the impact that family members have on care provision. The linked-life perspective in caregiving proposes that caregiving is not an individual endeavor as it requires the involvement of other family members (Chesley & Moen, 2006; Warfield, 2005). The extent to which other family members contribute to caregiving can influence how care demands affect caregivers. Whereas previous research has focused on the beneficial effects of support from family (Parish, 2006; Warfield, 2005), the extent to which family members can create strain for caregivers has received less attention. In a qualitative study, Getch (2012) describes a working mother of a child with a disability who was chided by her spouse for her lack of energy. Other family members may criticize a caregiver for the health condition of the individual under their care (Corrigan & Miller, 2004; Friesen et al., 2008), and this criticism can undermine caregiver well-being (ten Brummelhuis & Bakker, 2012). Indeed, Getch (2012) suggests that strain from family members can increase caregiver distress and decrease caregiver mental health. When family members enact behaviors that create strain on caregivers rather than provide support, the unexpected nature of such behaviors can instigate a loss of resources further straining caregivers' abilities to manage caregiving and work responsibilities. For caregivers whose resources are already depleted as a result of relatively high care demands, family strain may strengthen the perception that their family role is interfering with their work role.

Hypothesis 1: Strain from family moderates the relationship between caregiving demands and FWC, such that the relationship is stronger when strain from family is high.

# The Joint Effects of FWC and PSS on Work and Life Outcomes

When individuals experience FWC, they are more likely to report lower levels of job satisfaction because the role conflict that they experience decreases their enjoyment of their job (Michel, Mitchelson, Kotrba, LeBreton, & Baltes, 2009). Arvee, Fields, and Luk (1999, p. 497) argue that because work and family domains "constitute the backbone of human existence," the conflict between the two domains may undermine individuals' perceptions of their overall life experience. Work-family conflict is also linked to decreases in individuals' psychological well-being—an indicator of which is depressive symptoms (Galovan et al., 2010). The empirical relationships between FWC and job satisfaction, life satisfaction, and depression have been observed in the workfamily literature (e.g., Bagger & Li, 2012; Cunningham & De La Rosa, 2008; Neal & Hammer, 2009), However, these relationships seem to be equivocal, suggesting the possibility that they are moderated by other variables (Stephens, Franks, & Atienza, 1997).

One potential moderator that is specific to the work domain is PSS (Carlson & Perrewé, 1999), which facilitates employees' abilities to maintain a balance between work and family (Bagger & Li, 2014; Greenhaus, Ziegert, & Allen, 2012; Kossek, Pichler, Bodner, & Hammer, 2011). Consistent with COR theory, we predict that employees may be able to cope more effectively with

FWC when PSS is high. This prediction is based on the notion that PSS represents a resource gain from which employees can draw in their efforts to fulfill their work and caregiving duties. For example, supervisors may accommodate the needs of caregivers by offering flexible schedules or allowing work from home. Previous research has shown that PSS reduces the harmful effects of stressors (e.g., Lawrence, Halbesleben, & Paustian-Underdahl, 2013), and promotes disability caregivers' psychological and physical health (Earle & Heymann, 2011). Therefore, we expect PSS to buffer the relationships between FWC and job satisfaction, life satisfaction, and depression.

Hypothesis 2: PSS moderates the relationships between FWC and job satisfaction (2a), life satisfaction (2b), and depression (2c) such that the relationships are stronger when PSS is low.

Together, our hypotheses suggest a model in which a mediating variable (FWC) carries the effects of the independent (caregiving demands) to the dependent variables (job satisfaction, life satisfaction, and depression), and those effects are conditional on the levels of the moderator variables (strain from family and PSS). As shown in Figure 1, the end result of this process is a two-stage model of conditional indirect effects (Preacher, Rucker & Hayes, 2007).

Hypothesis 3: Strain from family and PSS moderate the indirect effect of caregiving demands on job satisfaction (3a), life satisfaction (3b), and depression (3c) through FWC such that the indirect effects are realized when strain from family is high and PSS is low.

# Method

We used the data from Phase II of the National Survey of Midlife Development in the United States (MIDUS II). Phase I of the survey (MIDUS I) was administered in 1995 and 1996 to a total of 7,108 Americans aged between 25 and 74 years. The study was designed to investigate the extent to which physical and mental health is influenced by biological, behavioral, psychological, and social factors. Respondents to the survey include four subsamples: The main sample recruited through random-digit-dial, the siblings of a subset of the main sample, twins, and oversamples from several metropolitan areas. Researchers collected all data via phone interviews and a paper-and-pencil survey that was administered through the mail. MIDUS II was conducted in 2004 through 2006 as a follow-up of the initial study. Participants originally enrolled in MIDUS I were located, interviewed on the phone, and given a second paper-and-pencil survey to fill out. A total of 4,963 participants responded to MIDUS II (a 70% response rate). The

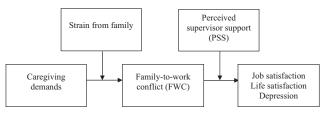


Figure 1. Proposed model.

mean age of the participants was 55.43 (SD = 12.45) and 53% of them were female. As in MIDUS I, the overall sample includes four subgroups.

We included in our study only those respondents who (a) were active caregivers, (b) were employed in a paying job, and (c) had a supervisor. We identified those who were active caregivers based on responses to two questions. First, respondents were asked whether during the last 12 months they had provided care to someone who suffers from a physical or mental condition, illness, or disability. A total of 629 respondents (12.68%) answered "yes" to this question. Second, respondents were asked whether they were still providing care at the time of the survey. A total of 363 respondents responded affirmatively. Because supervisor support was a key variable in our hypothesized model, we excluded individuals who were self-employed from our dataset. Finally, we limited our analyses to the main sample and the metropolitan sample because the inclusion of the twin and sibling samples could lead to interpretative difficulties due to their nested nature (Ford, 2014). A total of 102 respondents met our inclusion criteria. Of these 102 participants, 20 were excluded because they failed to respond to the paper-and-pencil survey entirely which included most of the variables in our model. We removed another 15 cases from our final analyses because they were missing one or two of the variables in our model. Respondents in the final sample (n =67) had a mean age of 53.33 (SD = 8.80) and worked an average of 39.97 hours per week (SD = 16.79). Among the participants, 66% were women, confirming past research suggesting that women are more likely to assume the caregiving role than are men (Schulz & Martire, 2009). Participants provided an average of 17.96 hours of care each week (SD = 19.60) and had an average caregiving demand score of 2.46 (SD = 1.18) on a scale of 0 (low demands) to 4 (high demands).

#### Measures

All of the measures described below were included in the paper-and-pencil survey with the exception of caregiving demands, depression, and life satisfaction, which were assessed during the phone interview portion of the MIDUS II survey administration.

Caregiving demands. Respondents were asked on the phone to indicate whether they performed any of the following four groups of tasks: (a) Bathing/dressing/eating/going to the bathroom, (b) getting around inside/outside the house, (c) shopping/cooking/housework/laundry, and (d) managing money/making phone calls/taking medications. We operationalized caregiving demands as the sum of the "Yes" responses to the four caregiving tasks, with a larger number representing a higher level of caregiving demands.

**Family-to-work conflict.** FWC was measured with a fouritem scale (Grzywacz, 2000). A sample item is *Responsibilities at home reduce the effort you can devote to your job.* Participants responded with a 5-point scale ranging from 1 (*all the time*) to 5 (*never*). We reversed the score so that high scores represent a higher level of FWC.

**Strain from family.** Strain from family was assessed with a four-item measure created specifically for the MIDUS survey (see Walen & Lachman, 2000). A sample item is *How often do they [your family] criticize you?* Responses to each item were rated on a 4-point scale ranging from 1 (*often*) to 4 (*never*). We reversed the

scores on these items so that higher scores represent a higher level of family strain.

**Perceived supervisor support (PSS).** PSS was measured with a three-item scale (Karasek & Theorell, 1990). A sample item is *How often do you get information you need from your supervisor or superior?* Participants responded to the survey on a 5-point scale ranging from 1 (*all the time*) to 5 (*never*). We reversed the scores on the scale items so that higher scores represent a higher level of PSS.

**Job satisfaction.** Job satisfaction was assessed with a single item that asked respondents to rate their work situation on a scale from 0 (*the worst possible work situation*) to 10 (*the best possible work situation*).

**Life satisfaction.** We assessed life satisfaction with three items. The items asked respondents to rate their life situation on a scale from 0 (the worst possible life overall) to 10 (the best possible life overall), to indicate how satisfied they were with their lives on a scale of 1 (very) to 4 (not at all), and to indicate how pleased they were with how things had turned out in their lives on a scale of 1 (agree strongly) to 7 (disagree strongly). Because the items were not measured on the same scale, we standardized the scores from each item (reversing the scores from the second and third items) before combining the items into a measure of life satisfaction.

**Depression.** Measurement of depression was based on the definition and symptoms given in the third revised edition of the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 1987). To be diagnosed with major depression an individual must suffer from either depressed affect or anhedonia and must also suffer from at least four other symptoms such as meaningful weight loss or gain, insomnia, fatigue, feelings of worthlessness, or thoughts of suicide. MIDUS II researchers administered scales assessing these symptoms, summing the scores from the scale items into a continuous measure of depression that ranged from 0 (*no symptoms of depression*) to 7 (*all seven assessed symptoms of depression*). One symptom of depression—observable changes in psychomotor functioning—was not measured in this sample.

#### **Control Variables**

We controlled for participants' age and gender. We also controlled for the total weekly hours respondents worked at paying jobs and the total weekly hours they spent on caregiving.

#### **Results**

Means, standard deviations, reliability coefficients, and the correlations of the studied variables are presented in Table 1. To test our hypothesized model, we used the PROCESS macro for SPSS created by Hayes (2013). Hypothesis 1 stated that caregiving demands would interact with strain from family to predict FWC. Results of our analysis are presented in Table 2. As shown in the results for the mediator variable model, the regression coefficient for the interaction term between caregiving demands and strain from family was significant (B = .26, p < .05). We plotted this interaction by following the procedures given by Aiken and West (1991). As seen in Figure 2, respondents reported higher levels of FWC when caregiving demands and strain from family members were high, lending support to Hypothesis 1.

Hypothesis 2 stated that FWC and PSS would interact to predict job satisfaction (2a), life satisfaction (2b), and depression (2c). Table 2 shows the results of our tests of Hypotheses 2a, 2b, and 2c. As shown in the dependent variable models in Table 2, the interaction between FWC and PSS was a significant predictor of job satisfaction (B = .70, p < .05) and depression (B = -.90, p < .05), and was a marginally significant predictor of life satisfaction (B = .23, p < .10). Interaction plots for these results are shown in Figure 3. Our results suggest that FWC was associated with decreases in job satisfaction (Figure 3A) and life satisfaction (Figure 3B) only for caregivers who reported low levels of PSS. In addition, those caregivers reporting high FWC and low PSS reported more symptoms of depression (Figure 3C). Overall, these results support Hypotheses 2a and 2c, and offer marginal support for Hypothesis 2b.

Hypothesis 3 stated that FWC would mediate the relationship between caregiving demands and job satisfaction (3a), life satisfaction (3b), and depression (3c) only when strain from family is high and PSS is low. To test this hypothesis, we conducted

Table 1
Descriptive Statistics for All Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Age	53.33	8.80										
2. Gender	1.66	.48	06									
3. Work hours	39.97	16.79	33**	$29^{*}$								
4. Caregiving hours	17.96	19.60	21	.07	07							
<ol><li>Caregiving demands</li></ol>	2.46	1.18	15	.04	07	.32**						
6. FWC	2.18	.65	32**	.13	.14	05	.02	(.74)				
7. Strain from family	2.34	.60	$26^{*}$	04	.13	.17	03	.30*	(.74)			
8. PSS	3.49	1.03	.16	12	06	03	.00	36**	35**	(.94)		
<ol><li>Job satisfaction</li></ol>	7.45	1.95	.15	24	19	.08	.13	24*	10	.17		
<ol><li>Life satisfaction</li></ol>	0	.81	.23	28*	12	07	.03	43**	19	.32**	.45**	(.73)
<ol><li>Depression</li></ol>	1.18	2.26	15	.20	01	.01	11	.23	.25*	08	24*	$47^{**}$

Note. n = 67. Coefficient alphas are shown on diagonal in parentheses. For gender 1 = male, 2 = female. FWC = Family-to-work conflict; PSS = Perceived supervisor support.

<sup>\*</sup> p < .05. \*\* p < .01.

Table 2
Regression Results for Overall Model

Model	B	SE	t	$R^2$
Mediator variable model: FWC				.26
Constant	3.93	1.20	3.28**	
Age	02	.01	-2.12*	
Gender	.14	.17	.85	
Work hours	.00	.01	.43	
Care hours	01	.00	-1.62	
Caregiving demands	59	.28	-2.10*	
Strain from family	38	.32	-1.19	
Caregiving demands × Strain from family	.26	.12	2.25*	
Dependent variable model: Job satisfaction				.23
Constant	14.74	3.67	4.01**	
Age	.01	.03	.17	
Gender	-1.05	.51	$-2.07^*$	
Work hours	02	.02	-1.58	
Care hours	.01	.01	.60	
Caregiving demands	.23	.20	1.15	
FWC	-2.83	1.26	-2.24*	
PSS	-1.30	.75	$-1.74^{\dagger}$	
$FWC \times PSS$	.70	.35	2.02*	
Dependent variable model: Life satisfaction				.32
Constant	2.54	1.44	$1.76^{\dagger}$	
Age	.00	.01	.38	
Gender	38	.20	$-1.90^{\dagger}$	
Work hours	01	.01	83	
Care hours	.00	.01	51	
Caregiving demands	.06	.08	.77	
FWC	-1.17	.49	-2.38*	
PSS	34	.29	-1.16	
$FWC \times PSS$	.23	.14	$1.70^{\dagger}$	
Dependent variable model: Depression				.18
Constant	-5.51	4.41	-1.25	
Age	03	.04	79	
Gender	.63	.61	1.04	
Work hours	01	.02	39	
Care hours	.00	.02	.00	
Caregiving demands	34	.24	-1.38	
FWC	3.77	1.51	2.49*	
PSS	1.90	.90	2.12*	
$FWC \times PSS$	90	.41	$-2.17^{*}$	

Note. n = 67. Regression coefficients are unstandardized. FWC = Family-to-work conflict; PSS = Perceived supervisor support.

analyses of the conditional indirect effects of caregiving on the dependent variables using the PROCESS macro. The results of our analyses are presented in Table 3, which provides effect size estimates and confidence intervals for the conditional indirect effects of caregiving demands on the dependent variables, through FWC, at four different combinations of strain and support levels. As shown in Table 3, the indirect effects of caregiving demands on life satisfaction (indirect effect = -.105; 95% CI = -.266, -.009; p < .05) and depression (indirect effect = .269; 95% CI = .003, .722; p < .05), through FWC, were significant only when strain from family was high and PSS was low. The confidence intervals surrounding the effect size estimates for the other three combinations of moderator values included zero for both dependent variables. The indirect effects of caregiving demands, through FWC, on job satisfaction were marginally significant when strain from family was high and PSS was low (indirect effect = -.192; 90% CI = -.506, -.023; p < .10). Overall, these

results suggest support for Hypotheses 3b and 3c, and marginal support for Hypothesis 3a.

## Discussion

Using a representative sample of employees with disability care responsibilities from a national survey, we examined the conditions under which caregiving demands were related to the job satisfaction, life satisfaction, and depression of the caregiver. Overall, our results suggest support for our hypothesized model of conditional indirect effects. In the sections that follow, we discuss the implications of these findings for research and practice and identify avenues for future research.

## **Theoretical Implications**

Consistent with our predictions, we found that caregiving demands were more strongly related to FWC when strain from

 $<sup>\</sup>bar{p} < .10$ .  $\hat{p} < .05$ . \*\* p < .01.

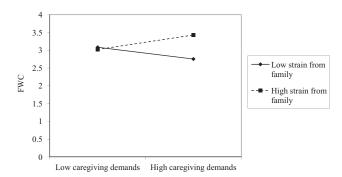
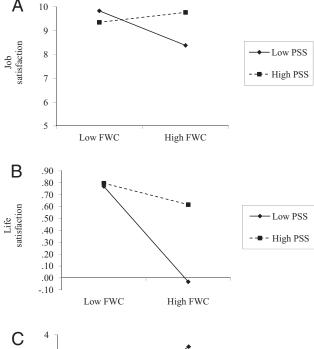


Figure 2. Interactive effects of caregiving demands and strain from family on family to-work conflict (FWC).

family was high and that this relationship was weaker when strain was low. These results are consistent with COR theory (Hobfoll, 1989), showing that high care demands had a more pernicious effect on caregivers particularly when they were combined with high levels of strain from family. Strain from family may lead caregivers to divert time and energy away from caregiving and



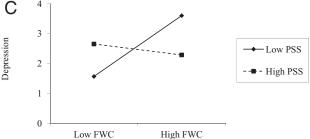


Figure 3. Interactive effects of FWC and PSS on job satisfaction (A), life satisfaction (B), and depression (C).

Table 3
Analysis of Conditional Indirect Effects of Caregiving Demands at Various Values of the Moderators

Values of mod	erators	Indirect effect	95%	CI	90% CI		
Family strain	PSS	estimate	Lower	Upper	Lower	Upper	
	Depe	ndent varial	ble: Job sa	tisfaction			
Low	Low	.156	030	.586	001	.498	
Low	High	044	396	.086	313	.056	
High	Low	−.192 <sup>b</sup>	588	.000	506	023	
High	High	.055	106	.413	071	.351	
	Depe	ndent varial	ole: Life sa	atisfaction			
Low	Low	.085	020	.275	004	.232	
Low	High	.019	045	.163	029	.129	
High	Low	105 <sup>a</sup>	266	009	236	023	
High	High	024	139	.058	117	.040	
	De	pendent var	riable: Dep	ression			
Low	Low	219	756	.073	652	.021	
Low	High	.039	141	.451	100	.345	
High	Low	.269ª	.003	.722	.040	.649	
High	High	048	395	.195	319	.143	

*Note.* n=67. CI = Bias-corrected confidence interval. Effect size estimates and bias-corrected confidence intervals are based on resampling techniques using 10,000 bootstrapped samples. Effect estimates with confidence intervals that do not include zero are shown in bold.

toward coping with the additional strain, leaving them with insufficient resources to meet work requirements. The literature has started to move beyond the study of caregivers as individuals operating in isolation, and instead has begun to consider the entire family system in which disability care takes place (Rosenzweig & Kendall, 2008). This line of research tends to highlight the positive effects associated with the support provided by family members (e.g., Warfield, 2005), but other studies (Kendall, 1999), including our own, suggest that family members may exhibit behaviors that reduce rather than enhance caregivers' abilities to provide adequate care to the individual with a disability. One possibility is that family support and family strain have simultaneous effects on how caregivers cope with their caregiving and employment responsibilities. Future research could examine this possibility.

We also found that PSS mitigated the negative effects of FWC among caregivers such that caregivers who experienced high levels of FWC were more likely to report decreased job satisfaction and increased depression only when they perceived a low level of support from their supervisors. This finding is also consistent with COR theory and suggests that supervisors may serve as a supply of resources that enables individuals to better cope with competing demands from their job and family. Although working confers significant psychological and financial benefits, past research has shown that many caregivers have to forego employment because there is not enough flexibility at work to allow them to provide proper care while also meeting work requirements (Lewis, Kagan, Heaton, & Cranshaw, 1999). Many employed caregivers are wary of revealing their situation to their coworkers and supervisors out of fear that they may be stigmatized for the disability of the individual under their care (Rosenzweig et al., 2011). Although some organizations offer family friendly programs, such programs

<sup>&</sup>lt;sup>a</sup> 95% CI does not include zero. <sup>b</sup> 90% CI does not include zero.

tend to be more compatible with individuals who have more typical care responsibilities (Chesley & Moen, 2006). Along this line of argument, our study adds to those that underscore the important role that supervisors can play in reaching out to employed caregivers under their supervision, trying to understand the potential challenges they face, encouraging them to utilize existing flexibility policies and programs, and providing informal support to accommodate their needs. Such support can yield dividends, as it may not only help these caregivers cope with FWC as demonstrated in the present study, but also may motivate them to exhibit higher performance in reciprocation for being supported (Bagger & Li. 2014).

Finally, we found support for our overall, conditional indirect effects model. Our results suggest that disability caregiving demands were more closely associated with the dependent variables when high strain from family was coupled with low PSS. These findings have important implications for COR theory, which postulates that both resource losses and resource gains affect the way that individuals respond to stressors. Extant empirical tests of COR theory typically focus on the effects of resource gains *or* losses on reactions to stressors in a piecemeal fashion. Because our study simultaneously models resource losses (strain from family) and resource gains (perceived supervisor support) from separate domains as the moderators of the indirect relationship between disability caregiving demands and work-life outcomes, we believe it represents a more comprehensive test of COR theory than is currently available in the work–family literature.

## **Practical Implications**

Our findings suggest that when caregivers have both care and work responsibilities, their perception of the support they receive from their supervisor is an important factor in determining their psychological well-being. PSS appears to hold significant promise as a variable that buffers the negative effects of caregiving demands on caregiver well-being even when strain from family is high. Although accommodations are offered in many organizations, oftentimes supervisors are the ones who ultimately decide whether employees can make use of them. Lero and colleagues (2012) offer the following suggestions for supervisors specific to the context of disability care. First, supervisors need to be open to possible changes to work arrangements to allow these caregivers to meet their multifaceted and complex needs. Second, supervisors need to listen to their employees and work together with them to identify accommodations that are appropriate and fair. Third, although supervisors may be obligated to follow organizational policies, they should also be willing to make reasonable and creative accommodations based on each caregiver's specific needs. Finally, supervisors should share their experiences with their employees, other supervisors, and the upper management. To put these specific suggestions into practice, we urge organizations to follow Taylor, Delcampo, and Blancero's (2009) recommendation to provide training to managers so that they will better understand how to provide family support to the caregivers under their supervision.

Our results also suggest that caregiving demands shared an indirect relationship with life satisfaction and depression only when family strain was high. Thus, an effective way to improve outcomes for those high in caregiving demands may be to target interventions at the relationship between caregivers and their fam-

ily members. For example, if a caregiver believes that he or she is unjustifiably criticized or given an unfairly large share of care responsibilities, he or she might discuss the issue openly with family members in an effort to reduce the strain coming from their family. Furthermore, family counselors could also be used as a resource to help individual caregivers adjust to their caregiving role, negotiate with their family members regarding shared care arrangements, or to serve as a mediator when internal discussion among family members does not lead to strain reduction. We note that although some of these recommendations are outside the scope of our data, they align with those of previous researchers (Schulz & Martire, 2004; Whitlatch, Judge, Zarit, & Femia, 2006).

#### **Limitations and Future Research**

This study has several limitations which may provide opportunities for future research. First, although we found support for our hypotheses, the sample size is relatively small and represents only a very small proportion of the entire MIDUS II sample. Along these lines, and as noted by an anonymous reviewer, past research has shown that caregivers' experience with caregiving is influenced by a myriad of factors, such as their educational level and health, their relationship with the person under their care, their ethnicity, their socioeconomic background, and the age and health condition of the individual with a disability (Bernheimer, Weisner, & Lowe, 2003; Booth & Kelly, 1999; Brannan & Heflinger, 2001; Earle & Heymann, 2012; Lahaie et al., 2013). Because of the small sample size, we were not able to determine whether these factors independently influence the validity of our results. We followed the recommendation of two anonymous reviewers to conduct a comparison between the 15 respondents with incomplete data (thereby being omitted from our final analyses) and the 67 respondents included in our final sample. Results of the comparison indicate that the data were not completely missing at random. Specifically, we found that although these two groups were relatively similar to each other in age and gender, the group with missing data appeared to work fewer hours, spend more time providing care, and be better adjusted (evidenced by lower levels of depressive symptoms, FWC, and strain from family in comparison to the other group). We considered using multiple imputation to increase our final sample size, but researchers have cautioned against such statistical remedies when the data are not missing at random (Sterne et al., 2009; White & Carlin, 2010; Schafer & Graham, 2002). Taken as a whole, the limitations associated with our sample suggest that our results should be interpreted with caution.

Second, we used a measure of general PSS rather than one that focuses specifically on family support from supervisors (Kossek et al., 2011). It is important to note that the type of support that disability caregivers need may be rather unique. Specifically, caregivers may need much more flexibility in their work schedule compared with those with eldercare or childcare responsibilities (Stewart, 2013). To the extent that work–family specific constructs of supervisor support tend to have larger effect sizes compared with general supervisor support (Kossek et al., 2011), our results may have understated the effects observed in the present study. One avenue for future research would be to develop measures that adequately capture the extent to which supervisors provide support for disability care.

Third, although the MIDUS study was conducted longitudinally across two waves of data collection, most of the constructs in our model were included only in the second wave. Thus, our results are based on a cross-sectional design which does not allow us to infer causality. A longitudinal study with a repeatedmeasure design may allow researchers to understand how employed caregivers integrate their work and care roles over time (Parish, Seltzer, Greenberg, & Floyd, 2004; Pavalko & Smith, 1999). A longitudinal study may be particularly useful in gaining insights into the experience of individuals who are thrust into the caregiver role unexpectedly. Relatedly, a reviewer pointed out that one challenge associated with disability care is that care demands may fluctuate on a day to day or week to week basis, making it extremely difficult to anticipate the extent to which such cares may interfere with work. For example, an employed parent of a child with asthma cannot predict when her child might have an asthma attack, making it almost impossible to completely shield her work from her care responsibilities. Future research could examine fluctuations in care demands and their outcomes by means of an experience sampling study design.

Fourth, the MIDUS II data were collected almost a decade ago. Since the time of the data collection, much has changed in the work-family landscape. For example, the Americans with Disability Act Amendments Act was passed in 2008. One implication of the law is that it increases the requirements of public schools to provide educational opportunities to children with disabilities. As a result of this law, children with disabilities are now eligible for a wider range of educational accommodations (Zirkel, 2009). As such, this law may help relieve the accommodative burden placed on employed caregivers, thereby enhancing their abilities to manage their professional and caregiving responsibilities. In addition, over the last two decades, organizations have expanded the availability of flexibility and family friendly programs and have provided alternative career paths to employees who seek to achieve a greater balance between work and family (Galinsky, Bond, Sakai, Kim, & Giuntoli, 2008, cf., Lero et al., 2012). If this trend continues, disability caregivers may enjoy greater freedom to pursue employment opportunities without compromising their availability to the person under their care (Thyen, Kuhlthau, & Perrin, 1999). Additional data on disability caregivers is needed for research in this area to advance.

Finally, although juggling care and work responsibilities can be a stressful experience (leading to greater role conflict and less satisfaction with work and life), it can also be a rewarding one (Getch, 2012). Caregivers may experience a combination of positive emotions (e.g., a mother is encouraged when her autistic child responds more positively to medical treatment) and negative emotions (e.g., the same mother is saddened when her autistic child has difficulties communicating with classmates). In addition, skills learned from caring for individuals with disabilities (such as problem solving or multitasking) can be brought to bear at work, allowing employed caretakers to perform their duties more effectively (Freedman, Litchfield, & Warfield, 1995). An enhancement approach (Marks, 1977) complementing the conflict approach adopted in the present study may increase our understanding of how these caregivers travail the challenging terrains of work and disability care.

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