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Working and Care-giving: The Impact on Caregiver Stress, Family-Work Conflict, and Burnout

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Abstract

The objective of the current study was to examine role theory in relation to whether potential relationships exist between traumatic caregiver stress, family-work conflict, psychological strain, and burnout for caregivers who are also employed outside the home. A national web-based survey assessing these concepts resulted in 169 usable responses. Statistically significant correlations were found between traumatic caregiver stress and its effects on family-work conflict, psychological strains, and burnout. The article discusses the implications for life care planners in recommending the need for personal care attendants to minimize mental-health problems for caregivers who work outside the home.

Introduction

One of the most costly items, if not the costliest listed in life care plans for individuals who have sustained a severe cognitive and/or physical disability rendering them unable to carry out some or all of their activities of daily living, is the need for skilled and/or unskilled nursing care. Without adequate funding, it is estimated that approximately 80% of all care-giving services in the United States are provided by unpaid family members (National Alliance for Care-giving and American Association of Retired Persons (2004). The Alliance for Care-giving and AARP (2004) estimates there are 44.4 million caregivers who provide these unpaid services to care for someone, and approximately 59% of these caregivers either work or have worked outside the home while providing care. Although some married couples have the finances to sustain one partner ceasing work outside the home to care full-time for a loved one with a disability, an estimated 62% have had to either make some adjustments to their work schedule such as reporting to work late or ultimately having to discontinue outside employment entirely. It is estimated that by 2030, nearly 150 million Americans will have some type of chronic illness, representing a 50% increase since 1995 (Johns Hopkins University, 2003).

Research on stress continues to spark interest among academics and practitioners. Selye (1956) described stress as the body's reaction to a perceived emotional or physical threat.

Although researchers have found a number of forms or types of stress (e.g., work, ambient, child care), one increasingly important type is traumatic caregiver stress described as the sudden and unexpected strain of care-giving when a family member or partner sustains a disabling condition (Brehaut et al., 2009). Individuals who sustain an acquired severe head or spinal cord injury as well as children born with cerebral palsy all will all have some subsequent long term care requiring needs in some form.

Stress resulting from an individual unexpectedly becoming a caregiver has the potential to create significant threats to role properties such as role overload and conflict among competing (e.g. outside employment and caregiving) responsibilities. Statistics have shown it to be costly for organizations when employees or those they care for become ill (e.g., healthcare costs, absenteeism, turnover). "The annual cost of informal caregiving in terms of lost productivity to U.S. businesses is estimated at between $17.1 billion to $33 billion annually" (Metropolitan Life, 2010). In one study, approximately 20% of the unemployed respondents surveyed reported leaving their jobs because of caregiving responsibilities (Robinson, Barbee, Martin, Singer, & Yegidis, 2003).

Traumatic caregiver stress may be an important facilitator of family-work conflict defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). This may cause tardiness, absenteeism, and eventually turnover from the role of providing informal care-giving for a loved one. It may be especially difficult in instances where the caregiver has insufficient resources, energy, time, and support.

Moreover, spillover theory suggests satisfaction and conflict from one role has an impact on other roles. Spillover may be positive in that satisfaction derived from one role transfers to the other role; conversely, spillover may be negative in that dissatisfaction in the work role leads to dissatisfaction in the family role and vice versa. Bromet, Dew, and Parkinson (1990) believe there to be a reciprocal relationship between work and family roles in that if an individual's work interferes with family, this interference may cause family issues as the family obligations go unattended. Unattended family roles then spillover into the work domain, thereby causing family to interfere with work.

The concepts related to work stress has been described by several researchers as potentially involving role conflict, role ambiguity, and role overload (Boyar, Marertz, Pearson, and Keough, 2003; Cooke & Rousseau, 1984; House, Schuler, & Levanoni, 1983). Rizzo, House and Lirtzman (1970) define role conflict as an employee having more than one role within an organization that involves dimensions of congruency-incongruency or incompatibility with a set of standards or conditions that impinge upon role performance (p. 155). Conflicting role expectations, conflicts between time and resources become problematic and may lead to job stress, dissatisfaction and poor performance (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964).

Boyar et al. (2003) describe role ambiguity as when an employee is unsure of the expectations required in his or her work role. Rizzo et al. (1970) define it as a lack of necessary or needed information to clearly and predictably perform the job. In some instances, managers may send mixed signals as to how to accomplish a project and/or changed his or her decisions, thus signaling unpredictable behavior and resulting role ambiguity. As with role conflict, role ambiguity may lead to additional work stress causing anxiety and uncertainty for the employee.

Finally, role overload occurs when the employee has been given too many roles and must choose between accomplishing one at the expense of the other. Elloy and Smith (2003)

describe overload as being either qualitative involving too difficult a task, or quantitative involving too many tasks to be completed at one time. The resulting work stress of ongoing over demanding duties can again lead to anxiety, dissatisfaction and poor performance (Elloy & Smith, 2003; Lewis & Cooper, 1988).

Traumatic Caregiver Stress

There are numerous studies regarding the physical and psychological implications of caregiving (Marini, 2011). In a Canadian study of caregivers of children with health problems versus those reporting no health problems, Brehaut et al. (2009) found caregivers of a child experiencing having health problems were significantly more likely to report their own health problems such as low back pain and headaches, social isolation, and higher depressive symptoms. Other studies have shown varying degrees of caregiver psychological symptoms depending largely on the amount or number of hours of care-giving provided, type of assistance required, whether the disabled family member or partner has behavioral problems, and whether the caregiver has support to share the duties (Grosse, Flores, Ouyang, Robbins, & Tilford 2009; Imran et al., 2010; Roth, Perkins, Wadley, & Temple, 2009).

The psychological implications of caregiving are commonly cited in the literature, most specifically depression and anxiety (Grosse, Flores, Ouyang, Robbins, & Tilford, 2009; Imran et al., 2010; Mulvihill et al. 2005; Murphy et al., 2006; Roth et al., 2009). Imran and associates studied caregiver burden of 100 Pakistani family members caring for a family member with a psychiatric illness. They found that approximately 85% of male and female caregivers reported a high rate of depression and anxiety. Caregivers also expressed fear of being alone, becoming the individual solely responsible for the family member, coping with the family members behavioral problems, stigma, and social isolation.

Psychological Strain and Burnout

Psychological strain involves one's psychological health resulting from stress, and may be observed in the caregiver with symptoms of depression, anxiety, and irritation (Caplan, Cobb, French, Harrison, & Pinneau, 1975; 1980). As the duration of stress increases or continues, chronic stress can lead to 'burnout'. Burnout may be preceded by and include many of the strains (i.e., depression, fatigue, poor health) produced by stress in family-work conflict. In the work stress literature, burnout refers to a prolonged response to chronic interpersonal stress on the job, which includes three responses: an overwhelming exhaustion, feelings of detachment from work, and a sense of failure or ineffectiveness (Maslach, 1998). Maslach states that some people may quit their job as a result of burnout, yet others stay. The ones who stay will only do the mere minimum rather than their best work due to consequences such as fatigue. According to Maslach and Jackson (1981), burnout consists of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. Caregivers who have to continue their jobs may begin to experience burnout, which can lead to other adverse consequences. Burnout may cause the caregiver to feel detached from the organization. Energy levels are depleted and emotional exhaustion occurs, as well as other physical illnesses, which causes the employee (i.e., caregiver) to lose interest in self and work.

Family-Work Conflict

Work-family and family-work conflict is an increasing concern for organizations as well as employees. Although sometimes treated as a single construct, this study focuses current research regarding the treatment of work-family and family-work as distinct constructs, and

the effects of traumatic caregiver stress on family-work conflict. Both types of conflict create inter-role incompatibility in that "participation in the work (family) role is made more difficult by virtue of participation in the family (work) role" (Greenhaus & Beutell, 1985, p. 77). Boyar et al. (2003) suggest family responsibilities (e.g., caregiving) create family-work conflict. When considering a traumatic event occurring within the immediate family, responsibilities are likely to increase family-work conflict to an even higher degree. Responsibilities of the caregiver then require much more time than normal family responsibilities, which can be stressful in many instances alone. Boise and Neal (1996) suggest high levels of family responsibilities may place more strain on the family, which may spillover into the work roles of the employee (e.g., the caregiver at work). Family-work conflict is an important outcome that has been found to have several adverse individual and organizational consequences including heavy alcohol use (Frone, Russell, Cooper, 1997a), job dissatisfaction (Adams, King, & King, 1996; Boles, Johnston, & Hair, 1997), life dissatisfaction (Adams et al., 1996), family dissatisfaction (Beutell & Wittig-Berman, 1999), emotional exhaustion (Boles et al., 1997), absenteeism (Goff, Mount, & Jamison, 1990), and turnover intentions (Burke, 1988; Boyar et al., 2003).

Overall, it appears that caregiver stress may be exacerbated when the caregiver must also balance work outside the home. Empirical findings nevertheless suggest that whether a caregiver is not employed outside the home but instead is mostly providing 24/7 primary care for a family member with a disability without much/any assistance, or having some help while at work, both circumstances can increase stress, burnout, and family-work conflict. The purpose of the current study was to explore the following research questions:

1. Is traumatic caregiver stress positively related to family-work conflict?
2. Is traumatic caregiver stress positively related to psychological strain?
3. Is traumatic caregiver stress positively related to burnout?

If caregiver stress is positively related to these mental health conditions, it may provide further empirical support regarding the importance of providing paid agency and/or private hire home health assistance in life care plans.

Methods

Sample and Procedure

A web-based survey was conducted to assess the impact on working caregivers who were providing informal caregiving to an immediate relative. Although self-report survey measures sometimes raise common method concerns, the interaction effects are not susceptible to common method bias. A link to the survey was posted on four websites. Three websites were national organizations including Brain Injury Association of America, National Family Caregiver Association, and National Organization for Empowering Caregivers. The fourth was a local organization in southwest Virginia for Relay for Life. Relay for Life is associated with the American Cancer Society. Flyers were also distributed at a local Relay for Life asking participants to visit the website to take the survey.

All respondents were asked to complete the survey anonymously unless the respondent chose to voluntarily provide contact information at the end. Participants were asked to only complete the survey if the following three criteria were met: 1) respondent was a caregiver as the result of a severe unexpected, sudden event or shock to an immediate relative; 2) the person for whom they were providing care is an immediate relative (e.g., spouse, child, sibling, parent, etc.); and 3) the caregiver is employed outside the home. The link to the survey was active from March 2007 until October 2007.

Instrumentation

Job-Caregiver Role Strain Scale. Traumatic caregiver stress was measured with the 20-item Job-Caregiver Role Strain Scale originally developed by Bohen and Viveros-Long (1981) and has been further validated by several researchers finding coefficient alphas ranging from α = .81-.91. (Duxbury & Higgins, 1991; Higgins, Duxbury, & Irving, 1992; Thomas & Ganster, 1995, Fields, 2002).

Family-work Conflict. Family-work conflict was measured with a 5-item scale developed by Netemeyer, Boles, and McMurrian (1996) with an initial reported Cronbach's alpha of .86 with a later confirmatory factor analysis by Fields (2002) indicating a coefficient alpha of .88.

Psychological strains. Psychological strains were measured with a 31-item scale developed by Caplan et al. (1975; 1980) measuring depression, anxiety, and irritation with a Cronbach α = .94, and later validated by Fields (2002) who reported coefficient alpha values ranging from .81 to 86.

Burnout. Burnout was measured with the 22 item scale called the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981) (α = .90).

Control variables. Role conflict, role ambiguity, and role overload were measured to control for work stress. Role conflict was measured with an 8-item scale developed by Rizzo et al. (1970) (α = .88). Role ambiguity was measured on a 4-item scale by Beehr, Walsh, and Taber (1976) (α = .84). Role overload was measured with a 3-item scale developed by Beehr et al. (1976) (α = .66).

Results

Two hundred and seven caregivers who also were employed outside the home responded to the survey; however, only 169 completed the entire assessment process for a response rate of 81.6%. The sample consisted of respondents who were 91.3% female and 88.3% of respondents were Caucasian. Sixty-nine percent of respondents were married, 13.5% divorced, and 11.7% were single. Forty percent (n=68) of respondents were taking care of a spouse, 30.2% (n= 51) a parent, or 19.8% (n= 33) a child. Although there was no working definition of severity, caregivers 41.4% (n=70) reported the care receiver had a severe injury, 29.6% (n= 50) a moderate injury, and 25.3% (n=43) a very severe injury. Fifty-nine percent of respondents had been a caregiver for 1 to 5 years, 22.8% for 6 to 10 years, and 12.4% for 11 to 15 years. The type of injury was 36.8% traumatic brain injury, 11.7% stroke, 4.3% cancer, 4.3% spinal cord injury, and the remaining approximate 57% classified as other. Education levels of participants were 27.8% Bachelor's degree, 23.5% Associate's degree, 23.5% high school, and 16.7% Master's degree. Seventy-four percent of respondents worked full-time and 19.1% part-time. Forty percent of respondents were taking care of a spouse, 30.2% a parent, and 19.8% a child. Forty-five percent of respondents worked in the service industry (e.g., teacher, customer service, healthcare), 9.7% government, 4.5% retail trade, 1.9% construction, and 33.5% ''other."

Pearson correlations and reliabilities are reported in Table 1. Traumatic caregiver stress was significantly positively correlated with family-work conflict (r =.36, $p < .01$) with a standardized medium effect size (Cohen, 1988), psychological strains (r = .40, $p < .01$) medium effect size, and burnout (r =.45, $p < .01$) medium effect size. Family-work conflict was significantly positively related to role overload (r = .28, $p < .01$) for a small effect size, and burnout (r = .47, $p < .01$) for a medium effect size. All other statistically significant correlations found in Table 1 were not relevant to this particular study.

Table 1

Correlation Matrix

	1	2	3	4	5	6	7	8	9	10
1.Traumatic Caregiver Stress	(.81)									
2. Role Conflict	.284**	(.88)								
3. Role Ambiguity	.071	.214**	(.84)							
4. Role Overload	.282**	.515**	.199**	(.66)						
5. Family-Work Conflict	.360**	.170*	.075	.267**	(.88)					
6. Psychological strains	.400**	.057	.022	.070	.128	(.94)				
7. Burnout	.446**	.101	.176*	.193*	.233**	.768**	(.90)			
8. Supervisor Support	-.222**	-.250**	-.614**	-.274**	-.072	-.107	-.248**	(.95)		
9. Perceived Organizational Support	-.244**	-.239**	-.518**	-.277**	.023	-.129	-.244**	.691**	(.93)	
10. Family-Friendly Policies	-.138	.079	-.232**	-.075	.038	-.025	-.094	.459**	.595**	(.87)

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Direct Effects of Traumatic Caregiver Stress

Hierarchical moderated regression was performed to test direct traumatic caregiver stress on outcomes. In the first regression, family-work conflict was the dependent variable and supervisor support the moderator (Table 2). Role overload was significant (R2 = .072, β = .241) in step one. Traumatic caregiver stress was added in the second step and was also statistically significant (R2 = .160, ΔR2 = .088, β .318), affirming research question one that traumatic caregiver stress is positively correlated with family-work conflict.

The same analyses were done for psychological strain, and burnout. In the analyses with psychological strain as the dependent variable, the only statistically significant variable was traumatic caregiver stress in step 2 (β = .437), supporting confirming research question two that caregiver stress is positively correlated to psychological strain (Table 3). In the third analyses with burnout as the dependent variable, role overload was statistically significant in step 1 (R2 = .055, β = .190). In step 2, traumatic caregiver stress was added and was statistically significant (ΔR2 = .182, β = .436), supporting research question three affirming caregiver stress is positively correlated with burnout (Table 4).

Table 2

Summary of Hierarchical Regression Analysis Predicting Family-Work Conflict

Variable	B	SE B	β
Step 1			
Role Conflict	.025	.058	.039
Role Ambiguity	.019	.075	.020
Role Overload	.248	.091	.241*
Step 2			
Role Conflict	-.009	.056	-.014
Role Ambiguity	.073	.089	.076
Role Overload	.200	.089	.194*
TCS	.505	.123	.318*

* p < .05

R^2 = .072 for Step 1

ΔR^2 = .088 for Step 2

Note: TCS is traumatic caregiver stress.

Table 3

Summary of Hierarchical Regression Analysis Predicting Psychological Strains

Variable	B	SE B	β
Step 1			
Role Conflict	.012	.046	.024
Role Ambiguity	-.005	.060	-.007
Role Overload	.051	.073	.064
Step 2			
Role Conflict	-.034	.043	-.065
Role Ambiguity	.009	.057	-.032
Role Overload	-.003	.068	-.015
TCS	.537	.094	.437*

* p < .05

R^2 = .006 for Step 1

ΔR^2 = .171 for Step 2

Note: TCS is traumatic caregiver stress.

Table 4

Summary of Hierarchical Regression Analysis Predicting Burnout

Variable	B	SE B	β
Step 1			
Role Conflict	-.020	.064	-.028
Role Ambiguity	.134	.084	.126
Role Overload	.215	.102	.190*
Step 2			
Role Conflict	-.081	.060	-.115
Role Ambiguity	.137	.078	.079
Role Overload	.120	.094	.093
TCS	.791	.129	.436*

* $p < .05$ $R^2 = .055$ for Step 1

$\Delta R^2 = .182$ for Step 2

Note: TCS is traumatic caregiver stress.

Discussion

Traumatic caregiver stress was significantly and positively related to a variety of negative outcomes including family-work conflict, psychological strain, and burnout, even when significant sources of work stress (role conflict, ambiguity, and overload) are controlled for and taken into account. These findings are important for several reasons. First, the findings expand conceptualizations of role stressors to incorporate a new perspective on stress which is widely felt by employees who are also caregivers but has been subject to very little research.

Second, the findings provide evidence that traumatic caregiver stress is related to outcomes that have known relationships with a range of negative outcomes for organizations including lateness, absenteeism, job dissatisfaction, poor job performance, and turnover (Southern Caregiver Resource Center, 2003). It has been estimated that 59% to 75% of informal caregivers are women (Family Caregiver Alliance, 2008; Arno, 2002). According to the Family Caregiver Alliance (2008), the cost to replace women caregivers who cease work outside the home due to their care-giving responsibilities is estimated at over $3 billion annually. Absenteeism among women caregivers is estimated to be approximately $270 million annually, and partial abseentism (e.g., extended lunch breaks, leaving work early or arriving late) is estimated at an additional $327 million. All totaled, care-giving related workday interruptions are estimated to cost $3.8 billion to businesses annually (Family Caregiver Alliance, 2008; National Alliance for Caregiving, 2004).

Finally, it is unreasonable to expect caregivers who also are employed outside of the home to be the primary caregiver without other paid or unpaid caregivers, be it family, private hire or home health agency to provide a greater level of support. Caregivers may not only be in jeopardy of losing their job or having to cease their employment, but also are likely to sustain mental-health problems cited in the present study to include psychological strain and burnout, and further supported in the literature too often include depression and anxiety (Harrell & Krause, 2002; Marini, 2011; Meade, Lewis, Jackson & Hess, 2004).

Limitations

There are important limitations associated with the use of a cross-sectional survey design. However, according to Spector (1994, p.390), "this design can be quite useful in providing a picture of how people feel about and view their jobs." In other words, he believes it is a good first step. The non-experimental cross-sectional design does not allow us to conclude that traumatic caregiver stress causes family-work conflict, psychological strain, or burnout, but merely that such are associated with traumatic caregiver stress. Although the reverse causal ordering (e.g., that burnout leads to caring for a traumatically ill or injured family member) is not likely, the possible effects of work stress were controlled. Thus, it cannot be ruled out that other alternative causes for the observed relationships may exist. The fact that there are small non-significant correlations among some study variables suggests that relationships are not being artificially inflated across the board. However, future research that rules out additional alternative explanations and collects data from multiple sources would be beneficial and lend additional support to these findings.

Limitations may also be associated with the use of a non-probability convenience sample. Again, given the challenges of identifying a substantial sample of caregivers meeting study criteria, the use of relevant professional association Web sites provided access to the exact types of caregivers of interest. This approach also provided access to caregivers facing a range of traumatic caregiving situations and a range of organizational settings and policies. However, it cannot be specified that the population to which the findings generalize, nor is there a certainty that those who completed the survey in fact met the criteria presented. Future research that focuses on a specific population may provide additional insights.

Implications for Life Care Planners

The exploratory relationship findings in the present study regarding caregiver stress for the working caregiver provide empirical support for life care planners in defending reasons why caregivers employed outside the home cannot continue to be the primary caregiver without receiving financial compensation. Defense attorneys sometimes infer during depositions that since family members have been providing unpaid care-giving to their disabled family member or partner, they should continue to do so, especially if no apparent conflicts or issues have thus far been reported by the family. Although each case must be assessed by the life care planner on an individual basis, it would be prudent to develop several care-giving alternatives in the life care plan based on family circumstances and dynamics. For example, one alternative would be to exclude family members altogether from performing any care-giving responsibilities, and have such services provided by paid skilled and/or unskilled personal care personnel as recommended by a physician or other competent healthcare provider. In such instances, life care planners consulting with the physician or other appropriate provider should cue him or her to focus on exactly what level and how much care the injured party will require. A second alternative may be to consider a hybrid care-giving plan which may include certain hours provided by family, and other hours provided by paid caregivers. Life care planners must be cognizant of hazards for aging caregivers, the physical and mental health of the caregiver, and the transition that may occur as additional hours of care may be necessary as the person receiving care ages.

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