



# Eldercare and Work Among Informal Caregivers: A Multidisciplinary Review and Recommendations for Future Research

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## Abstract

Although research on eldercare and work has burgeoned in recent years, current literature is lacking an integrative model or framework to summarize existing findings and guide future research. The purpose of this article is to synthesize prior empirical research regarding eldercare among informal caregivers who must balance care with employment. We propose a conceptual model to serve as an organizing framework to understand eldercare and work. More specifically, our model includes predictors and outcomes that are grouped in terms of individual, family, caregiver relationships, work, and societal factors related to elder caregiving and work. We highlight and discuss key factors that mediate and moderate the relations between eldercare and its associated outcomes at multiple levels, including employees, their families, organizations for which caregivers work, and society as a whole. Finally, we provide methodological and substantive recommendations to guide future research.

**Keywords** Eldercare · Employed caregiver · Informal caregiving

Demographic and sociocultural changes, longevity, and the US post-war Baby Boom have made eldercare more important than ever before. The global population is aging at a rate “without parallel in the history of humanity” (United Nations, 2001). Life expectancy in the USA is currently 78.6 years: 81.1 years for women and 76.1 years for men (Kochanek, Murphy, Xu, & Arias, 2017). Globally, life expectancy is projected to rise from 70 in 2010–2015, to 77 in 2045–2050, to 83 in 2095–2100 (United Nations, 2015). The

world population aged 60 or more is the fastest growing segment, increasing by 3.26% a year. By 2050, nearly a quarter or more of inhabitants will be 60 or older in all major areas except Africa. Furthermore, fertility rates are declining worldwide (United Nations, 2015), suggesting that more caregivers will be taking care of older adults than raising children.

In Organisation for Economic Cooperation and Development (OECD) countries, women aged 25–54 have increasingly joined the labor force, expanding the number of dual-income families and decreasing the number of women at home to provide care. Across OECD countries, more than one in ten adults provides informal, usually unpaid care (Colombo et al., 2011) while holding paid jobs; in the USA, for example, one of every six employees cares for a disabled or older family member (Family Caregiver Alliance, 2016). Additionally, 70% of elder caregivers reported that their work responsibilities were disrupted by their need to spend as much as 20 h/week fulfilling caregiving responsibilities (National Alliance for Caregiving and AARP, 2009, 2015a, b).

Although multiple disciplines have studied the link between eldercare and work responsibilities, to our best knowledge, the literature provides no organizing framework or model. Our objective is to synthesize this relatively nascent literature on eldercare and work outcomes to advance theory and practice, provide guidance for future empirical research, and

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address methodological gaps. Our review identifies societal, organizational, familial, and individual factors that affect the informal caregiving process as it relates to work and employment. Additionally, we highlight ways to improve caregiver and recipient well-being and organizational outcomes. We also describe public policy initiatives that will facilitate caregiving processes. We conclude with recommendations to advance future research on elder caregiving and work.

## Defining Eldercare

Eldercare is the act of caring for older adults, usually parents, spouses, family members, or friends, although specific ages of recipients may vary (Bauer & Sousa-Poza, 2015; Scharlach & Fredriksen, 1994). We define eldercare as informal, unpaid caregiving to meet physical, cognitive, and/or emotional needs of older adults, often provided by spouses, children, or friends. Eldercare to support activities of daily living (ADLs) involves assistance with activities of personal care such as dressing, bathing, grooming, toileting, preparing meals, and getting in and out of bed. Eldercare related to instrumental activities of daily living (IADLs) includes assistance with instrumental activities of independent daily living such as shopping, cooking, managing medications, managing finances, and doing housework and/or laundry. Eldercare may be short-term after an injury, illness, or surgical procedure or long-term because of terminal illness or permanent physical or cognitive decline (Calvano, 2013). Care may vary in the amount of activities or hours spent (Colombo et al., 2011) depending on the illness or condition (Biegel, Sales, & Schulz, 1991) and the caregiver/recipient relationship, whether informal or formal (Bauer & Sousa-Poza, 2015). For the purposes of this review, we focus our attention on informal eldercare.

Consistent with basic lifespan developmental psychology, we conceptualize eldercare as a dynamic process that evolves as people age and circumstances change (Biegel et al., 1991; Bronfenbrenner, 2005). For example, cancer patients may need care for months or years depending on treatment processes and recovery. In contrast, recipients who have dementia are more likely to need increasingly intense extended care, without the likelihood of improvement. That is, needs will vary based on the nature of the illness and other factors impacting functional abilities (Biegel et al., 1991).

## Trends in Eldercare Research

Gerontologists, economists, and demographers conducted the earliest research on eldercare effects in the 1980s and 1990s. Gerontologists examined caregiving from the perspective of recipients (e.g., Lyons, Zarit, Sayer, & Whitlatch, 2002) and of caregivers of older adults (e.g., Pruchno, Burant, & Peters,

1997), along with demographic and contextual factors that clearly are associated with stressful and negative psychological and physical health outcomes, including mortality (Fisher et al., 2011; Schulz & Beach, 1999). Economists sought to quantify the economic impact and found that increased longevity and decreased fertility worldwide combined have increased the old age dependency ratio at a macroeconomic level (Bettio & Verashchangina, 2010). Such research used econometric models to evaluate impacts of various policies on women's participation in the labor force and their long-term earning potential (Skira, 2015). At a microeconomic level, economists showed that caregivers have increased risk for missing out on labor force participation (Bauer & Sousa-Poza, 2015), for earning lower wages (Bittman, Hill, & Thomas, 2007; Earle & Heymann, 2012), and for lacking health insurance, contributions to retirement savings, and/or Social Security benefits, particularly if they are involved in long-term caregiving (AARP Public Policy Institute, 2009; Chari, Engberg, Ray, & Mehrotra, 2015). Demographers have investigated effects on labor force participation within and across countries (Couch, Daly, & Wolf, 1999; Johnson & Climo, 2000; Levande, Herrick, & Sung, 2000) and have shown that wives, daughters, daughters-in-law, and those in close proximity to care recipients are more likely to be caregivers (Bauer & Sousa-Poza, 2015).

More recently, psychologists have studied effects on caregivers' physical and psychological well-being (Bainbridge & Broady, 2017; Dugan et al., 2016; Duxbury, Higgins, & Smart, 2011) and on interventions to improve organizational outcomes and worker well-being (e.g., Kossek et al., 2017). Industrial/organizational psychologists and management scholars have focused on how work affects caregiving, and vice versa (e.g., Alpass, Keeling, Allen, Stevenson, & Stephens, 2017; Barling, MacEwen, Kelloway, & Higginbottom, 1994).

## Theoretical Framework

Four theories contribute to our understandings of how eldercare affects employment: role theory, social role theory, the job demands/resources model, and bioecological systems theory. In the following sections, we discuss the theories and construct our integrated model of the eldercare process as it relates to employment.

**Role Theory** Many studies on eldercare and employment have relied on role theory (Greenhaus & Beutell, 1985; Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964), which stipulates that individuals must meet the demands implicit in their roles if they are to be successful. When employed individuals become caregivers, they must learn how to manage the new demands although incompatible family and work role demands often compete for time and can produce strain and

behavioral pressures (Allen & Martin, 2017; Greenhaus & Beutell, 1985), creating work/family conflict. Employed caregivers must reconcile their roles by prioritizing demands across both life domains (Barrah, Shultz, Baltes, & Stolz, 2004; Kossek et al., 2017).

**Social Role Theory** Social role theory proposes that social groups form attitudes and beliefs about the social roles of men and women, particularly in work settings (Eagly, 1987, 1997; Eagly & Steffen, 1984; Eagly, Wood, & Diekmann, 2000). Across cultures, men are expected to be breadwinners; women are expected to be caregivers. Consequently, wives and daughters are three times more likely than sons to be primary caregivers to older parents and to become “women in the middle” with multiple roles as spouse, mother, daughter, and worker (Brody, 2004).

**Job Demands/Resources Model** The job demands/resources (JDR) model is a dominant theory in the occupational health psychology literature (Bakker & Demerouti, 2017). The JDR model stipulates that burnout and other strain results when individuals lack resources to meet demands, which are defined as “physical, social, or organizational aspects of a job that require sustained physical or mental effort and are therefore associated with certain physiological or psychological costs” (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001, p. 501). We suggest that when job demands are paired with caregiver demands, employed caregivers suffer significant strain. But if caregivers have resources in the form of supervisor support, role clarity, and autonomy, they enjoy physical, psychological, social, and organizational advantages that can help them avoid physiological and psychological costs. According to the JDR model, employed caregivers are less likely to experience strain if job demands are low or resources are available.

Researchers have used the JDR model for investigating how early, middle, and late life and career stages are associated with work and home demands and resources. That is, early career workers experience high demands and insufficient resources, leading to high work/family conflict. In contrast, late adulthood workers enjoy average job demands and high resources, leading to lower work/family conflict and higher levels of positive work/family experiences (Demerouti, Peeters, & van der Heijden, 2012).

**Bioecological Systems Theory** Bioecological systems theory originally proposed that family, work, and society are affected by multiple interconnected factors that must be considered to understand individual experiences and outcomes (Bronfenbrenner, 1977, 2005, 2009). Later, the emphasis turned to the process-person-context-time (PPCT) model (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 1998) highlighting that development is a “complex reciprocal interaction between an active, evolving biopsychological human

organism and the persons, objects, and symbols in its immediate external environment” (Bronfenbrenner & Morris, 1998, p. 996). In other words, development takes place dynamically, over time, based on individual differences and other proximal contextual factors. Those later developments most accurately explain the theory (Tudge, Mokrova, Hatfield, & Karnik, 2009), which has been a useful theoretical framework for other work/family research, such as work/family spillover (Grzywacz & Marks, 2000). It provides a framework for understanding elder caregiving processes by emphasizing that people, processes, and time interact in a dynamic way. This model suggests we can consider the development and interaction of the caregiver and care recipient over time, and how proximal factors at multiple interconnected levels relate to one another to affect the eldercare process. According to bioecological systems theory, working caregivers impact and are also impacted by their family system, their job and broader work environment, and the society in which they live. Furthermore, bioecological systems theory helps to explain caregiving as a process that takes place over the time as interactions between the caregiver and care recipient may develop and change over time based on characteristics of the caregiver, care recipient, and other proximal contextual factors.

## A Conceptual Model of Eldercare and Work

In this article, we synthesize the substantial research published across multiple social science disciplines regarding conflicts between eldercare and outside employment. We propose a model that describes predictors and outcomes of eldercare responsibilities and shows how they intersect with work. Furthermore, we explain important mediators and moderators that may impact the outcomes of elder caregiving (see Fig. 1).

Based on Bronfenbrenner’s (2009) bioecological systems theory, our model explains that eldercare and outside employment interact at individual, caregiver/recipient relationship, family, employment, and societal levels to predict outcomes. Caregivers have multiple roles that are each associated with role expectations and resource demands. Therefore, role theory, social role theory, the JDR model, and bioecological systems theory explain predictors, outcomes, mediators, and moderators of caregiving processes. We synthesize research from multiple disciplines including psychology, management, gerontology, human development, family studies, sociology, and economics.

## Predictors of Eldercare

Next, we summarize research to help identify predictors of combining eldercare and work. Although many of the variables we discuss have been studied as moderators, we propose

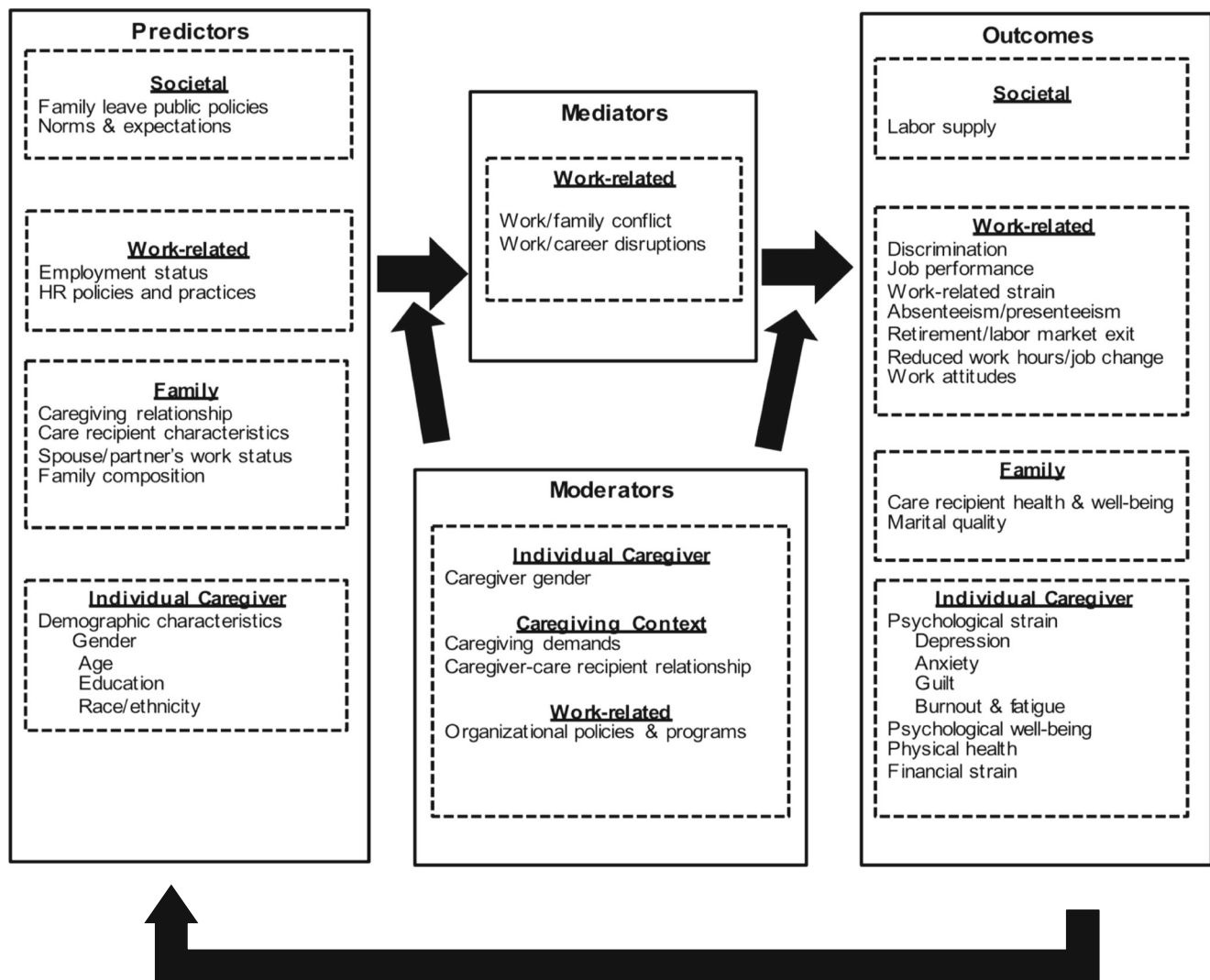


Fig. 1 A conceptual model of eldercare and work

that they may also predict the likelihood that individuals will be eldercare providers at some point in their lives.

### Individual Caregiver Factors

**Gender** Role, social role, and bioecological systems theories explain that women and men experience different career patterns that are associated with caregiving roles (Moen, 1996). Women are much more likely to take on caregiving roles that impact their propensity for paid work at various points across the life course, (see, for example, Dentinger & Clarkberg, 2002). Nearly 75% of all caregivers are women and may spend as much as 50% more time than men in providing care (AARP Public Policy Institute, 2015a, b). Although fewer men provide informal care, their numbers are increasing. Consequently, both genders are susceptible to adverse effects such as presenteeism, in which the employee is physically present in the workplace but not functioning at high levels

of productivity (Calisanti, 2004; Collins, 2014; Kramer, 2002).

**Age** As the population ages, middle-aged and older individuals are most likely to be caretakers (Baider & Surbone, 2014; Schulz & Eden, 2016). Across Europe, eldercare is the responsibility of about one in five workers aged 55 to 64 (AGE Platform, 2017), and in the USA, caregivers averaging 51.8 years old spend more time caregiving in comparison with caregivers averaging 48 years old (Family Caregiver Alliance, 2016). Research has supported the trend that mid-life caregivers are the primary caregivers: 70% are 50 to 64 years old (Wagner & Takagi, 2010). However, younger individuals also commonly face eldercare responsibilities (Fruhauf, Jarrott, & Allen, 2006) and may be more likely to experience the burden of being part of the sandwich generation (Brody, 2004).

**Education** Employees who have some college education are more likely than the less educated to face conflicts between

their careers and eldercare (AARP, 2015b), but additional research is needed to investigate why this occurs. Perhaps more highly educated workers have higher-level jobs that offer more resources such as flexible time and autonomy, which may provide the opportunity to maintain a career and provide care simultaneously. Additionally, less-educated individuals may opt out of lower-paid employment for full-time caregiving (Lilly, Laporte, & Coyte, 2007), which would decrease day-to-day work/family conflict.

**Race and Ethnicity** Ethnic minorities may be more likely to provide care in the first place. A meta-analysis revealed that ethnic differences between minorities and Caucasians affect stressors, resources, and psychological outcomes of caregiving (Pinquart & Sörensen, 2005): minority caregivers provided more care in terms of hours per week and number of tasks. Additionally, minority caregivers are more likely to have stronger beliefs in familial obligations and more informal support through social resources, which may provide a stronger incentive to be responsible for informal care.

### Family Factors

**Caregiving Relationship** Most informal caregivers are responsible for an immediate relative (86%). Parents receive almost half the care (47%): mothers receive 34%, fathers receive 13%, and parents-in-law receive 8% (AARP, 2015b). Therefore, being an adult child increases employees' chances of providing eldercare at some point in their lives.

**Care Recipient Characteristics** Eldercare may become necessary to help individuals with illnesses or conditions such as stroke, cancer, arthritis, dementia, heart disease, mobility issues, and back problems. A national survey of caregivers aged 50+ found that 16% were caring for a recipient who needed help because of "old age," 9% were caring for those who have Alzheimer's disease or dementia, and 8% were dealing with mobility issues (National Alliance for Caregiving [NAC] and AARP Public Policy Institute, 2015b). In 2015, Alzheimer's disease and other dementias required an estimated 18.1 billion hours of care from more than 15 million family members and other unpaid caregivers (Gaugler, James, Johnson, Scholz, Weuve, & Alzheimer's Association, 2016). As the population ages, dementia and mobility issues will increase the need for caregiving (Fisher et al., 2011).

Demographically, women over age 50 receive more than half of eldercare (67%), indicating that eldercare need is more likely if an older woman is a friend or part of the family (AARP & NAC, 2015b). In addition, a meta-analysis revealed that ethnic minority care recipients often have greater cognitive and physical impairments and behavior problems (Pinquart & Sörensen, 2005). Because elder caregiving usually becomes increasingly burdensome, caregivers may become

extensively involved in their caregiving roles (Azarnoff & Scharlach, 1988), but two studies showed that ethnic minorities are less likely than Whites to use institutional care (Buhr, Kuchibhatla, & Clipp, 2006; McLennon, Habermann, & Davis, 2010). This may be explained by a finding from Pinquart and Sörensen (2005) which found that ethnic minorities were more likely to receive informal support through social resources compared to Caucasian caregivers.

**Spouse/Partner Work Status** Spouses/partners must often decide together which one will leave the workforce to provide eldercare (Fisher, Chaffee, & Sonnega, 2016; Matthews & Fisher, 2013). The bargaining or exchange perspective potentially explains why spousal employment status predicts caregiving responsibilities (Szinovacz & Davey, 2008). That is, spouses who have the greater resources, especially in regard to earning power and education, are likely to contribute less to family work, while spouses who earn less income will be the most likely to provide eldercare. Further, research has shown that men are more likely to rely on their spouses to provide support for older parents, indicating that married women are more likely to provide eldercare (Brody, 2004; Horowitz, 1985).

**Family Composition** Having a lack of alternatives regarding who will provide care often increases the chances of being a primary caregiver. For example, adult children who have one or more sisters will be less likely to become caretakers (Franks, Pierce, & Dwyer, 2003; Gerstel & Gallagher, 2001; Horowitz, 1985). However, family composition may be a stronger predictor for women. For example, even when men are the only family members available to provide care, they are less likely to provide care that is typically considered appropriate for women, such as hands-on personal care (Brody, 2004; Campbell & Martin-Matthews, 2003).

### Work-Related Factors

**Employment Status** Employment seems to have mixed effects on the likelihood of assuming caregiving status (Berecki-Gisolf, Lucke, Hockey, & Dobson, 2008; Pyper, 2006). However, data from a large British sample indicated that employment status predicts the likelihood of providing informal eldercare (Michaud, Heitmueller, & Nazarov, 2010). Other studies suggested a similar trend (Moscarola, 2010). For example, a population-based probability sample of middle-aged women in the Netherlands showed that unemployed women were more likely than employed women to be parental caregivers (Dautzenberg et al., 2000). Quite logically, part-time rather than full-time workers have more time available and are thus more likely to provide care (Bauer & Sousa-Poza, 2015; Michaud et al., 2010). For example, the nearest living daughters who have the least competing demands will be most

likely to self-select into caregiving roles (Dautzenberg et al., 2000).

Based on role theory and the JDR model (Bakker & Demerouti, 2017; Kahn et al., 1964), we could argue that full-time rather than part-time workers could be subject to more job demands and work/life conflict and be less likely to provide eldercare (Dautzenberg et al., 2000), but that may depend on their behavioral and/or psychological involvement in their work roles (Carlson & Frone, 2003; Hepburn & Barling, 1996). Although the role theory explanation seems logical, empirical research somewhat discounts it (Lilly et al., 2007). For example, data from a large Australian sample were used to study the order and events that led women in their 50s to become informal caregivers: employment status did not predict whether they self-selected into caregiving roles (Berecki-Gisolf et al., 2008). Specifically, hours in paid employment did not predict caregiving status 3 years later. Although the caregivers were mostly women about 50, the study did not specify the types of care recipients.

The mixed findings may occur because much eldercare research has categorized employment status as either employed or unemployed (Kemp & Rosenthal, 2001; Reid, Stajduhar, & Chappell, 2010; Spiess & Schneider, 2003), but a simple dichotomous variable may be inadequate for categorizing employment status. For example, when employment is categorized in terms of full-time versus part-time versus no employment (Skira, 2015) or work hour cutoffs (Liu, Dong, & Zheng, 2010), the dichotomous classifications fail to capture meaningful differences. For example, one employee works 39 h/week; another works 15 h/week; but both are categorized as part-time, although they will have vastly different time for combining eldercare with employment. Future research should use more detailed or nuanced measures of employment status, considering other employment conditions such as time flexibility and work locations. In support, a recent review argued that using somewhat arbitrary cutoffs in work hours limits our ability to identify meaningful outcomes (Ganster, Rosen, & Fisher, 2018).

**HR Policies and Practices** HR policies and practices and work/life benefits such as flexibility strongly impact whether employees can balance employment and eldercare responsibilities (Matz-Costa & Pitt-Catsouphes, 2009; McNamara, Pitt-Catsouphes, & Brown, 2013). A comparison between the 2008 National Study of Employers and a 2014 study by the Families and Work Institute in the USA shows that organizations are increasingly instituting supportive programs or policies to help employees manage eldercare responsibilities (Matos & Galinsky, 2014). Compared with the 2008 findings, the 2014 survey revealed that most employers had added eldercare resources and referrals; 75% were providing unpaid or paid job-protected time away from work for eldercare. Companies were finding that they could increase worker

engagement by providing flextime and protected leave for family and personal needs, which then allowed employees to better balance caregiving and work demands and increased their likelihood of accepting eldercare roles.

## Societal Factors

**Family Leave Public Policies** Public policies that support family caregiving and allow family leave also predict whether workers will provide eldercare. Such policies vary across countries (Bauer & Sousa-Poza, 2015). The US Family and Medical Leave Act of 1993 (FMLA) stipulates that employers with at least 50 employees within a 75-mile radius of the workplace must provide up to 12 weeks of unpaid job-protected leave to care for new children, to recover from severe medical conditions, or to care for family members who have severe medical conditions, not including conditions such as flu or migraines (U.S. Department of Labor, 2002). FMLA narrowly defines family as nuclear relationships through marriage and parenthood (Smith, 2004). Additionally, the 12-week limit ignores life-long issues or progressively debilitating illnesses (Gubrium, 1988; Smith, 2004) and therefore provides limited help for incorporating eldercare demands (Smith, 2004).

Although the FMLA provides some assistance, it does not guarantee paid family leave. The USA is trying to establish the Family and Medical Insurance Leave (FAMILY) Act to provide partial wage replacement for up to 12 weeks of caregiving. A few states provide paid leave for eldercare (National Conference of State Legislatures, 2016). For example, California provides up to 6 weeks of paid leave at about 60% to 70% of wages to care for seriously ill family members. Rhode Island offers 4 weeks, and New Jersey offers 6 weeks of paid leave to care for older relatives with serious medical conditions. New York recently established 8 weeks of paid leave at 50% of average weekly wages to care for spouses, domestic partners, parents, stepparents, parents-in-law, and grandparents. Benefits will increase each year until 2021, to reach 12 weeks of paid leave at 67% of the average weekly wage. In 2020, Washington and Washington D.C. will join the few states providing paid leave to care for elders with serious medical conditions.

Many other countries have laws that more specifically cover elder caregivers. Under Ireland's Carer's Leave Act (2001), full-time employees who have at least 1 year of continuous service with their employer are entitled to 13 to 104 weeks of *unpaid* caregiver leave. In the UK, employees are entitled to time off to handle family emergencies or disruption of care arrangements, but pay is at the employer's discretion.

Some countries have recognized the need to provide paid leave for eldercare. In Australia, employees can use leave to deal with personal illness, care responsibilities, and family emergencies. All but casual employees can draw paid leave:

full-time employees can draw 10 days; part-time employees can draw pro-rata of 10 days each year depending on the number of hours they work. Both full-time and part-time employees are entitled to an additional two unpaid days of leave. Thus, individuals may be more likely to engage in eldercare when they are eligible for assistance through a family leave policy.

**Norms and Expectations** In addition to HR policies and practices and government policies about family leave, workplace culture, an informal mechanism, influences behavioral norms and expectations such as tendencies for coworkers to discuss nonwork roles and to use social support and formal policies (Allen, 2001; Scandura & Lankau, 1997). Organizational group norms can regulate group behavior regarding the use of group resources (Hackman, 1992). Employees who wish to use formal support may hesitate if supervisors or colleagues discourage the use (Morris, 1997; Sahibzada, Hammer, Neal, & Kuang, 2005). In contrast, when supervisors informally support caregiving work interruptions, they will still have positive perceptions regarding the job performance of leavetakers (Kim, Ingersoll-Dayton, & Kwak, 2011).

**Summary** Multiple factors determine whether employees will undertake eldercare. Our review indicated that women, older individuals, and those with higher education are more likely to combine eldercare with employment. Additionally, adult children are more likely to be caregivers, especially when the recipient, usually a parent, needs care because of old age, dementia, or mobility issues. Work/family policies, cultural expectations at work, or societal expectations may also make it more likely that employees will assume both work and caregiving roles.

## Outcomes of Eldercare

Providing informal eldercare can have positive and negative effects on both caregivers and recipients (Horrell, Stephens, & Breheny, 2015). In this section, we discuss the outcomes of eldercare at the same levels of analysis used for the predictors. The JDR model (Bakker & Demerouti, 2017) provides a theoretical framework for understanding that strain occurs when demands (caregiving and work role expectations) exceed caregivers' resources (e.g., time, energy, and money). Caregivers are often consumed by the need to provide informal care but lack immediate or direct benefits. Consequently, demands exceed resources, resulting in strain that impacts caregivers, their family, their work, and even society.

## Individual Caregiver Factors

**Psychological Strain** Psychological strain is a frequently cited outcome of combining eldercare and work (e.g., Calvano,

2015; Duxbury et al., 2011). A loss of psychological resources has negative repercussions (Zacher, Jimmieson, & Winter, 2012) in which caregivers may feel burdened and strained and have negative psychological and physical health outcomes (Covinsky et al., 2001; Lee, Walker, & Shoup, 2001; Mutschler, 1994; Stroller & Pugliesi, 1989).

Providing childcare and eldercare may lead to psychological strain and time conflicts (Lee, Foos, & Clow, 2010). However, consequences of eldercare can also differ from those of childcare. Working elder caregivers may experience more depressive symptoms, feelings of being burdened, and strain as recipients decline cognitively (Gerald, 1998; Marchi-Jones, Murphy, & Rousseau, 1996). Similarly, caregivers dealing with cancer and dementia report feeling more physically burdened and psychologically distressed than other caregivers, after controlling for sociodemographic characteristics and caregiving involvement (Kim & Schulz, 2008). The greatest challenge is the unpredictability of the duration and onset of eldercare needs (Williams, Devaux, Petrac, & Feinberg, 2012).

In contrast, some caregivers have been able to successfully balance work with caregiving and elude strain (Dautzenberg et al., 2000; Matthews, Werkner, & Delaney, 1989). Methodological differences may explain the inconsistent findings (Reid et al., 2010). For example, many cross-sectional eldercare studies failed to accurately capture strain over time. Additionally, studies differed in how they conceptualize informal elder caregivers through their inclusion criteria. For example, Jolanki (2015) omitted men, women who cared for spouses, and self-employed workers. Kim and Gordon (2014) sampled women 50 to 64 years old who worked in the labor force for at least 35 h/week and provided significant care to a person over the age 50 for at least 6 months. Those examples are extreme, but the lack of a clear and cohesive definition of eldercare has made it difficult to generalize the effects of eldercare on psychological strain.

**Depression** Depression, one of the most common mental health issues in the USA, interferes with one's ability to carry out major life activities. The National Institute of Mental Health (NIMH) reported that 16.2 million (6.7%) US adults had at least one major depressive episode in 2016 (NIMH, 2016). Women have a higher prevalence of depression (8.5%) than men (4.8%). Recall that most elder caregivers are women, and their eldercare responsibilities place them at even higher risk of depression (Pinquart & Sörensen, 2003), which may further increase along with feelings of being burdened as the patient's functional status declines (Grinfeld et al., 2004).

**Anxiety** Because caregivers are often dealing with stressful situations, they may experience anxiety. US epidemiological surveys estimate that 3.1% of caregivers have generalized

anxiety disorder each year and 5.7% will experience anxiety over a patient's lifetime (NIMH, 2016). Once again, women are approximately twice as likely as men to have generalized anxiety (NIMH, 2016). The caregiving literature has given the most attention to measures of depression or burden and less attention to anxiety. However, research on Alzheimer's care has shown that 10% to 35% of family caregivers experience anxiety at some point (Fisher & Laschinger, 2001).

**Guilt** Guilt is defined as a feeling of responsibility or remorse for failing to meet personal expectations or obligations (Tangney, Miller, Flicker, & Barlow, 1996). For caregivers, guilt can rise from perceptions that they have provided inadequate care (Pyper, 2006; Spillers, Wellisch, Kim, Matthews, & Baker, 2008). Younger caregivers, adult children, and employed caregivers tend to report the highest levels of guilt, especially when their schedules had more care-related interruptions (Spillers et al., 2008).

**Burnout and Fatigue** Many caregivers provide daily face-to-face care, which can cause strain and lead to burnout when they reach a state of physical, emotional, and mental exhaustion (Maslach, 1982; Pines & Aronson, 1988). Wives and caregivers who had initially poor health, limited social interaction, and a negative outlook on the caregiving situation are most vulnerable to burnout (Almberg, Grafstrom, & Winblad, 1997).

**Psychological Well-Being** Combining paid work and eldercare may also have positive outcomes (Jutras & Veilleux, 1991; Moen, Robinson, & Dempster-McClain, 1995; Penning, 1998; Skaff & Pearlin, 1992), particularly when caregivers have enough emotional and social support that they can find satisfaction through caregiving (Franks & Stephens, 1996; Kinney & Stephens, 1989) and can form strong emotional connections with the care recipient (Bacon, Milne, Sheikh, & Freeston, 2009; Fisher et al., 2011; Walker, Pratt, & Oppy, 1992). Conversely, lower levels of well-being occur in caregivers who provide ADLs and IADLs, who are the primary caregivers, and who must handle many eldercare crises (Gottlieb, Kelloway, & Fraboni, 1994). Finally, caregivers may experience simultaneous positive and negative well-being and emotions (Fisher et al., 2011). Research in South Korea found that caregivers reported positive and negative affect when work interfered with caregiving, but neither occurred when caregiving interfered with work (Kim & Gordon, 2014).

**Physical Health** Research has paid much attention to psychological health, but fewer studies have examined impacts on physical health. The JDR model indicates that informal caregiving could evoke chronic stress and poor physical health. For example, an examination of Chinese families showed that

caregivers experienced significantly more physical stress than non-caregivers (Pei, Luo, Lin, Keating, & Fast, 2017). Full-time caregivers tend to miss more work because of sickness and other health problems (Ugreninov, 2013). Additionally, a meta-analysis that assessed physical health through single-item indicators of subjective health, symptoms, medications, and hospitalizations confirmed poorer physical health among caregivers (Pinquart & Sörensen, 2003). A more recent meta-analysis showed that when care recipients had significant behavioral problems, caregivers showed impaired health consistently related to the frequency and duration of care, although cohabiting with the care recipient was not associated with impaired physical health (Pinquart & Sörensen, 2007).

Hoffman, Lee, and Mendez-Luck (2012) used logistic regression models to separately estimate four health-risk behaviors: smoking, sedentary behavior, and regular soda and fast-food consumption as well as a global health-risk measure of Baby Boomer caregivers. After controlling for psychological distress, personal characteristics, and social resources, they found that Baby Boomer caregivers were more likely to engage in negative health behaviors and were therefore at risk for certain behavioral factors associated with disability and chronic illness.

**Financial Strain** Caregivers of older adults report that their caregiving roles bring financial strain (NAC and AARP, 2015b; Spillman, Wolff, Freedman, & Kasper, 2014; Wolff, Spillman, & Freedman, 2016), which comes from absence in the workforce and from the cost of caregiving itself. Because women frequently leave the workforce to provide eldercare, they are at the greatest financial risk. Additionally, women who are less educated or in lower SES groups may be less able to make up for lost income. The economic implications multiply as average lifespans continue to rise in multiple nations. The older the care recipient, the more likely that primary caregivers will need to hire assistants (NAC and AARP, 2015b). Among those providing care to someone outside a nursing home, 34% of caregivers reported hiring help in 2014 (NAC and AARP, 2015b). Furthermore, when caregivers over the age of 50 leave their jobs, they will lose about \$304,000 in benefits and wages over their lifetime (NAC and AARP, 2009).

## Family Factors

**Care Recipient Health and Well-Being** Although impacts on caregivers have been studied extensively, little is known about effects on care recipients' health and well-being. Ejem, Drentea, and Clay (2014) found that care recipients experience significant depressive symptoms in reaction to the emotional stress they observe in their caregivers. Additionally, Wolff and Agree (2004) found that the psychological health of care recipients was significantly affected by their

perceptions of the quality of informal care arrangements; those who felt respected and valued were less likely to be depressed than individuals who disliked the arrangements.

**Marital Quality** Compared with caregivers of other relatives, caregivers of spouses may experience greater burdens and negative impacts on marital relationships (Andren & Elmstahl, 2008; Conde-Sala, Garre-Olmo, Turro-Garriga, Vilalta-Franch, & Lopez-Pousa, 2010; Louderback, 2000; Rinaldi et al., 2005). For example, a comparison of long-time care-providing adult children and spouses revealed that spouses reported marital unhappiness, marital role inequity, and hostility toward their partner (Bookwala, 2009). Caregiving often becomes more intensive and taxing over time as recipients' health declines, so a longer duration of care could cause strain that negatively affects marital satisfaction (Bauer & Sousa-Poza, 2015). However, emotional support between spousal caregivers and care recipients may reduce some stress. Caregiving wives had higher levels of marital happiness and lower levels of burden when they had reciprocal emotional support with husbands who were care recipients (Wright & Aquilino, 1998).

### Work-Related Factors

**Discrimination** Caregiving responsibilities can result in employees losing their jobs or suffering discrimination in hiring, promotions, or raises, often because of limited legal protections and assumptions that they are unavailable and lack commitment (Williams et al., 2012). Family responsibility discrimination (FRD) legal claims are increasing and often involve the denial of leave or retaliation for using leave. Caretaking employees are more open to discrimination for occasional outcomes of work/family conflict, such as being late to work, leaving early, taking time off during the day, reducing work hours, or taking a leave of absence (Williams et al., 2012). Although we know that FRD is increasing, we have yet to identify the workplace characteristics associated with it (O'Connor, Kmec, & Harris, 2015).

**Job Performance** Employees who must combine paid work and informal eldercare may often be tardy, absent, or otherwise interrupt daily work functioning (Barling et al., 1994; Barnett, 2005; Wakabayashi & Donato, 2005), with negative effects on productivity, job performance, and performance-related costs (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005; Fast, Williamson, & Keating, 1999; Gordon & Rouse, 2013; Reid et al., 2010; Scharlach, Sobel, & Roberts, 1991). In addition, increased stress and role overload is negatively related to productivity (Fast et al., 1999; Pickard, 2004; Smith, 2004). Thus, job performance may suffer as a result of providing eldercare. However, buffers such as satisfaction with eldercare tasks have been found to moderate the negative

relationship between eldercare responsibilities and job performance (Zacher et al., 2012).

**Work-Related Strain** In a study using a large Austrian sample, work-related strain was measured with multiple items, including aspects of performance, mistakes, timeliness of work completion, and perceptions of coping with stressful situations. Feelings of being burdened rather than the hours required for eldercare were most strongly related to strain (Trukeschitz, Schneider, Muhlmann, & Ponocny, 2013). A large sample of caregivers in Victoria, British Columbia, found that a self-reported composite measure of work interruptions was correlated with caregiver burden and strain (Reid et al., 2010).

**Absenteeism and Presenteeism** Work/family conflict research (e.g., Allen, Herst, Bruck, & Sutton, 2000) and eldercare research (Barling et al., 1994; Boise & Neal, 1996) have shown that work/family conflict leads to absenteeism, one of the most likely outcomes of eldercare responsibilities (Scharlach et al., 1991; Ugreninov, 2013). Some studies examined full absenteeism or partial absenteeism, in which employees miss part of the workday or spend time on the phone (Barling et al., 1994), but we do not know which form is most prevalent. However, the largest toll on organizations may occur when caretakers must spend work time contacting care providers or care recipients (Shoptaugh, Phelps, & Visio, 2004; Speer & Newman, 1996).

Presenteeism, in which employees are physically at work but work at partial capacity, is another outcome of the struggle to reconcile eldercare with employment (Calvano, 2015). Presenteeism is conceptually similar to partial absenteeism (Hepburn & Barling, 1996). Presenteeism can require eldercare providers to use after-work time to make up the work they missed, which increases work-related strain (Trukeschitz et al., 2013). Current technological advances now allow many employees to use flextime and flex-locations, so many may be able to work full-time hours without being at the actual workplace. However, flexibility in work time and location is not accessible to all employees (Bulger & Fisher, 2012).

**Retirement/Labor Market Exit** Eldercare has been linked to work withdrawal behaviors, including exiting the workforce (Bittman et al., 2007; Carr et al., 2016; Matthews & Fisher, 2013; Scharlach et al., 1991). The UK Household Longitudinal Study revealed that full-time employed caregivers, particularly women, were more likely than non-caregivers to quit their jobs, but part-time workers were not as likely to exit the labor market (Carr et al., 2016). The NAC and AARP reported that 10% of family caregivers quit their jobs or retired early (Caregiving in the U.S., 2009), whereas earlier studies reported that 9% to 28% left the workforce to provide care (Scharlach et al., 1991).

Data from the Health and Retirement Study collected from 1992 to 2008 suggested that women caregivers are more likely than men caregivers to retire (Van Houtven, Coe, & Skira, 2013). Additionally, a British sample indicated that more work hours and a longer care duration are associated with altered work hours or quitting (Carmichael, Hulme, Sheppard, & Connell, 2008). Overall, most studies suggested that elder caregivers are less likely to participate in the paid workforce (Bauer & Sousa-Poza, 2015; Berecki-Gisolf et al., 2008; Bittman et al., 2007; Carmichael & Charles, 2003; Lilly, Laporte, & Coyte, 2010; Nguyen & Connelly, 2014) and that women are especially likely to stay out of the workforce permanently (Bauer & Sousa-Poza, 2015; Spiess & Schneider, 2003; Van Houtven et al., 2013; Wakabayashi & Donato, 2005).

**Reduced Work Hours/Job Change** Another common long-term outcome is that eldercare workers may reduce work hours, changing from full-time to part-time work to meet eldercare demands (Berecki-Gisolf et al., 2008; Bittman et al., 2007; Bolin, Lindgren, & Lundborg, 2008; Kotsadam, 2011; Leigh, 2010; Lilly et al., 2007; Meng, 2012; Stone & Short, 1990; Van Houtven et al., 2013), particularly among those who must provide at least 10 hours of care per week (King & Pickard, 2013). Women caregivers tend to reduce their work hours by about 3 hours/week, or 150 hours/year (Van Houtven et al., 2013).

However, some studies indicated that caregiving is not associated with reduced work hours (Meng, 2012). Results may differ because they use different criteria (Bauer & Sousa-Poza, 2015; Leigh, 2010). For example, eldercare is often measured as a binary, unidimensional variable, focusing on number of hours, intensity, location, caregiver and recipient relationships, or duration of care, without considering other dimensions (Calvano, 2013).

**Work Attitudes** A comparison of employees with and without eldercare responsibilities indicated no differences in job satisfaction or organizational commitment (Shoptaugh et al., 2004). This finding suggests that eldercare responsibilities do not relate to work attitudes.

### Societal Factors

**Labor Supply** A review of 34 studies found that caregivers are as likely as non-caregivers to be in the labor force (Lilly et al., 2007), but other reviews have shown that caregiving impacts wages, the labor supply, and the numbers of workers in full-time or part-time status (Bauer & Sousa-Poza, 2015; Calvano, 2013). A review of research primarily from Europe found cross-national differences in the labor supply: compared with caregivers in Europe, men caregivers from central Europe were less likely to work, whereas both men and women

caregivers from central Europe worked fewer hours (Bauer & Sousa-Poza, 2015).

**Summary** Eldercare interacts with employment to affect the lives of both caregivers and care recipients. Individuals who combine eldercare with employment are more likely to experience depression, anxiety, and guilt; to engage in risky health behaviors; to have damaged physical health; and to have financial burdens. Further research is needed to reconcile the mixed findings regarding eldercare effects on the current labor supply.

### Mediators

**Work/Family Conflict** Role theory (Greenhaus & Beutell, 1985; Kahn et al., 1964) is central to our understanding of eldercare and work. Employees who are also caregivers must meet demands beyond those facing unemployed caregivers and non-caregivers. In contrast to research that considers work/family conflict as an outcome (Barling et al., 1994; Calvano, 2013; Kossek et al., 2017), we conceptualize work/family conflict as a mediator between the predictors we have discussed and outcomes. In other words, work/family conflict transmits the effects of the predictors of eldercare, often resulting in negative outcomes (Duxbury et al., 2011).

Employees with eldercare responsibilities tend to be comparatively dissatisfied with their work/family balance (Buffardi, Smith, O'Brien, & Erdwins, 1999), which suggests that they are experiencing work/family conflict, particularly when their eldercare responsibilities interfere with their jobs. Family-to-work conflict predicted hours of work missed (Lee et al., 2010), increased absenteeism (Goff, Mount, & Jamison, 1990), turnover intentions (Boyar, Maertz, Pearson, & Keough, 2003), and other indications of strain (Lee, 1997) and may reduce time to recover from work (Bauer & Sousa-Poza, 2015; Sonnentag, Venz, & Casper, 2017). Therefore, eldercare responsibilities may indirectly damage work performance or productivity (Lee, 1997; Scharlach et al., 1991). Unfortunately, the research has mainly identified effects occurring when family conflicts with work rather than vice versa, indicating the need for additional research. However, existing research on positive work/life spillover could explain why eldercare responsibilities can also be positively related to performance (Carlson, Kacmar, Wayne, & Grzywacz, 2006; Greenhaus & Powell, 2006).

**Work and Career Disruptions** Often care recipients have unexpected health or medical issues or need assistance with ADLs or IADLs, so that employed caregivers may be tardy, miss work, or have their work disrupted (Barling et al., 1994; Barnett, 2005; Wakabayashi & Donato, 2005), with performance-related costs (Gordon & Rouse, 2013). For example, employees experiencing stress from caregiving

demands and work interruptions received lower performance appraisal ratings (Kim et al., 2011). Career disruptions are particularly damaging to women who must often reduce their work hours or quit to meet caregiving responsibilities (Matthews & Fisher, 2013). Therefore, work and career interruptions may serve as a mediator of the predictors and outcomes of eldercare.

## Moderators

### Individual Characteristics

**Gender** Worldwide research consistently shows that elder caregivers are mostly women (Bauer & Sousa-Poza, 2015; Brody, 2004) and they are most likely to experience negative outcomes. A study of Chinese families showed that women caregivers experienced the greatest physical strain (Pei et al., 2017). Similarly, women tend to have the most negative outcomes in terms of depression, guilt, strain, and overall physical and emotional health and well-being (Duxbury et al., 2011; MacDonald, Phipps, & Lethbridge, 2005). Women are also more likely to be absent from work (Boise & Neal, 1996), take leaves, consider early retirement, and leave the workforce, whereas men caregivers are more likely to continue working (Carr et al., 2016; Dentinger & Clarkberg, 2002; Matthews & Fisher, 2013). Longitudinal data from the US Health and Retirement Study indicated a unidirectional relationship in reversed directions between caregiving and employment across genders: men caretakers were more likely to remain employed (Lee, Tang, Kim, & Albert, 2014).

### Caregiving

**Caregiving Demands** As previously stated, caregiving varies in location, duration, intensity, and frequency (Calvano, 2013), and those dimensions moderate the relation between predictors and outcomes. Caregivers who reside with or are in close proximity to recipients experience higher strain and more negative outcomes than those living apart (Duxbury et al., 2011; Hansen & Slagsvold, 2015). A Norwegian Life Course, Aging, and Generation Study among spousal partners and parent care recipients found that caregivers who resided with recipients had worse psychological well-being than those who resided elsewhere (Hansen & Slagsvold, 2015). As care transitions from the home to long-term care settings, caregivers may no longer conduct ADLs or IADLs and instead serve as health system navigators and advocates (Qualls, 2016). This transition in caregiving roles may cause even worse psychological health (Eom, Penkunas, & Chan, 2016).

Longer time spent in caregiving roles, higher intensity in both IADLs and ADLs, and daily/hourly frequency of providing help is more disruptive and more likely to be associated with negative outcomes (AARP, 2015a, b; Bauer & Sousa-

Poza, 2015). Hours of care are especially associated with strain (Longacre, Valdmanis, Handorf, & Yang, 2017) among those caring for patients who have mental health issues (53%), Alzheimer's or dementia (50%), or long-term physical conditions (45%) (AARP Public Policy Institute, 2015a, b). Thus, caregivers who are dealing with chronic, long-term, and progressive illnesses are more likely to have psychological strain.

**Caregiver/Recipient Relationship** The type and quality of the caregiver/recipient relationship is another moderator related to caregiving demands. Bronfenbrenner's later work to refine bioecological systems theory emphasized that individuals play important roles in their own development, particularly regarding dynamic changes in person–context interactions (Tudge et al., 2009). The theory suggests that the caregiver/recipient relationship may shape experiences and outcomes for both parties. For example, caregivers experience more stressors and strains when caring for spouses or parents rather than for those with whom they share other relationships (AARP Public Policy Institute, 2015a, b). Among the most traumatic aspects of caregiving is witnessing the decline, suffering, and death of close relatives (Calvano, 2015; Haley, 1997). Although there are negative outcomes associated with close caregiver/recipient relationships, research has also shown that these closer relationships have been associated with lower informal care costs and better cognitive and functional outcomes in persons with dementia (Vernon et al., 2017).

Considering that women are the most common caretakers and that care recipients are often women and/or parents, the daughter caregiver/mother recipient relationship warrants particular attention. Indeed, daughter caregivers who worked part-time (10–34 h/week) report high levels of depression and negative affect (Martire & Stephens, 2003).

### Work-Context Variables

**Organizational Policies and Programs** The availability and ease of using organizational policies and programs can also moderate the relationship between caregiving and its associated outcomes. These policies tend to have positive repercussions, such that increased availability and feasibility of policies and programs has the potential to decrease strain associated with caregiving. The 2014 National Study of Employers found that employee assistance programs (EAPs) increased from 58% in 2008 to 78% in 2014, along with an increase in wellness programs and dependent care assistance programs (DCAP), a tax benefit to help with caregiving costs. The survey also identified HR practices such as offering eldercare resources and referrals, schedule flexibility, and time off with potential compensation.

Research has identified organizational programs that include arrangements for flexible work schedules (Bulger & Fisher,

2012) and opportunities to work from home, which can reduce absenteeism (e.g., Golembiewski & Proehl, 1978; Winett, Neale, & Neal, 1980), to be most helpful. Underutilization strongly inhibits the success of flexible work arrangements (Bulger & Fisher, 2012) and may occur because (1) employees fail to use benefits, (2) they are unaware of benefits, (3) supervisors tend to discourage the use of benefits, (4) workers perceive other barriers, or (5) all employees cannot access benefits. Organizations should address these barriers to improve the effectiveness of flexible work arrangements.

**Summary** Many factors at multiple levels including gender, distance, duration of care, the characteristics of the caregiver/recipient relationship, and work arrangements moderate the relationship between the predictors of caregiving and outcomes. Women are most likely to suffer negative physical and mental health outcomes. Caregivers in close proximity with recipients and caregivers who provide care for a long-time experience the greatest strain and negative outcomes. Flexible work arrangements can reduce the work interruptions and work/family conflict that lead to negative outcomes.

## Practical and Policy Implications

Organizations tend to have more childcare assistance programs rather than eldercare assistance programs, although eldercare responsibilities may be more disruptive (Neal et al., 1993; Sahibzada et al., 2005; Scott, Hwang, & Rogers, 2006) in terms of absenteeism, presenteeism, and work and career disruptions. To help caregivers balance work and caregiving roles, organizations are advised to enhance HR benefits (Matthews & Fisher, 2013; Matz-Costa & Pitt-Catsouphes, 2009; Oldenkamp, Bultmann, & Witek, 2018).

Flexible work arrangements and time off are particularly beneficial, but some employees lack access to such arrangements or doubt whether flex arrangements are acceptable (Bulger & Fisher, 2012; Neal & Hammer, 2007; Oldenkamp et al., 2018). Furthermore, countries vary widely regarding caregiving and family leave policies (Bauer & Sousa-Poza, 2015) although eldercare is becoming a pressing, global issue requiring urgent national and organizational policies and practices that support informal caregivers. Organizations should thus provide for job-protected family leave, particularly paid, and ensure that caregivers use the benefits. We further urge national and local governments to consider remuneration agreements.

## Future Research

We have identified many areas to guide future research. In this section, we summarize methodological issues with current research and substantive gaps where more research is needed.

## Methodological Issues

Consistent with Bronfenbrenner's bioecological systems theory, elder caregiving processes evolve with changes in caregivers, recipients, work contexts, and family and societal factors. Thus, we strongly encourage researchers to diverge from the more common cross-sectional research designs (Casper, Eby, Bordeaux, Lockwood, & Lambert, 2007; Fisher & Barnes-Farrell, 2013; Matthews & Fisher, 2013). Instead, investigators should pursue longitudinal and multilevel research (Calvano, 2013; Casper et al., 2007), experience sampling methodology, and/or daily diary studies that capture dual-level perceptions of both caregivers and recipients to improve understanding of their "lived" experiences. In addition, research should draw on role and social role theory and the JDR model to examine questions such as: Do care recipients understand the demands caregivers are under? How do their understandings impact the caregiving relationship? How do their perceptions affect caregivers' strain?

In our model, we conceptualized several variables as mediators between predictors and outcomes of eldercare in relation to work across the lifespan. However, little research has tested models longitudinally to examine how these variables inter-relate over time. We hope that structural equation or path models will be used to empirically investigate mediators and moderators and test more holistic models with more variables to advance understandings of eldercare as a process and of the psychological mechanisms linking eldercare and work.

Sampling might be another way to address shortcomings in previous work/family and eldercare research that used "narrow samples" or observed only women (Casper et al., 2007; Calvano, 2013). Although women are the most likely caregivers, studies should include both genders. Additionally, convenience samples and heterogeneous random digit dialing samples yield significantly different findings; thus, convenience samples should be used with caution (Pruchno et al., 2008). We highly recommend using datasets from large-scale heterogeneous surveys such as the Survey of Health, Aging, and Retirement in Europe (SHARE) and the Health and Retirement Study (HRS; Fisher & Ryan, 2018) that provide large, representative samples with panel designs and thus address our call for more longitudinal holistic model testing of multiple variables along with family-level or country-level data. Large national datasets will also facilitate cross-national and cross-cultural comparisons (Mehta & Leng, 2017).

Psychology and management researchers often obtain data from multiple sources to avoid self-report bias and common method variance. Consistent with recommendations by Casper et al. (2007), future eldercare research should gather data from peers, supervisors, and HR records. For example, research could investigate how perceptions regarding the availability and ease of using organizational policies vary across different levels within an organization.

## Substantive Issues

In addition to strengthening research through better sampling and with more longitudinal, multilevel, and multiple source research, our review identified substantive gaps needing attention.

**Predictors of Eldercare** When we developed our conceptual model, we anticipated finding more studies that investigated predictors of becoming an elder caregiver, such as race/ethnicity, education, and socioeconomic status. However, we conclude that more research is needed to determine why employees who have some college education are more likely to become caregivers. Additionally, more research is needed to investigate the prevalence of “younger” caregivers who must care for parents or grandparents (Fruhauf et al., 2006), along with specific issues, predictors, and work-specific outcomes among employees at various ages and career stages. For example, do younger caregivers experience more or less strain comparatively? Do they have different strategies for balancing work and caregiving compared to older caregivers? Understanding how the experience of combining eldercare and work differs across diverse types of caregivers is crucial for understanding how to best support caregivers.

Another predictor of caregiving and work experiences, based on role theory and boundary theory, is boundary preferences for managing the work/family interface (Matthews, Barnes-Farrell, & Bulger, 2010). More research is needed to explore how boundary preferences relate to psychological outcomes, acceptance of caregiving roles, and efforts to balance caregiving and work roles by changing or adjusting work hours.

**Work Outcomes** Future research should consider more heterogeneous forms of employment rather than focusing on simple dichotomous variables such as working versus not working or full-time versus part-time. Work hours could be investigated as a continuous variable rather than on the basis of an arbitrary cutoff (Ganster et al., 2018). Employment relationships are shifting with the growth of the “gig” economy in which workers take on multiple part-time jobs and/or serve as contractors, so research should investigate more nuanced and heterogeneous forms of employment. Although eldercare has been investigated in relation to work outcomes such as absenteeism, disruptions, job satisfaction, and performance (Barling et al., 1994; Calvano, 2015; Kim et al., 2011; Trukeschitz et al., 2013), research should be extended to study presenteeism and engagement. Additional research should investigate organizational policies and practices for encouraging worker engagement and increasing job satisfaction.

**Health Outcomes** We call for multidimensional and multi-source research for measuring mental and physical health

among caregivers and care recipients through subjective self-reports and objective measures.

**Childcare and the Sandwich Generation** Childcare and eldercare have different relationships with work-related outcomes (Carlson et al., 2000; Fredriksen & Scharlach, 1997) in that working elder caregivers may experience more depressive symptoms and burden (Gerald, 1998). The greatest challenge for eldercare workers is that their duties are unpredictable, and they cannot always plan for absences (Williams et al., 2012). Childcare and eldercare have some similarities: both induce strain and time-based conflict (Lee et al., 2010). Additional research should assess whether employers treat workers differently according to whether they are dealing with childcare or eldercare needs, which would have HR implications regarding discrimination. Future research might study whether employees make career decisions regarding where to work, whether to accept promotions, and when to retire according to their eldercare responsibilities. A detailed comparison of childcare versus eldercare is beyond our scope here, but future research should conduct a comparative study.

Many women are having children later in life and are becoming part of the “sandwich generation” comprising women in their thirties and forties who care for both young children and for parents or other older adults (Neal & Hammer, 2007). They are at particularly high risk for negative outcomes and should be the focus of additional research.

**Organizational and HR Policies and Practices** We recommend a closer examination of organizational policies and practices, including HR benefits and participation in benefit plans. Unfortunately, many supervisors fail to show family-supportive supervisor behaviors (FSSB). FSSB studies have surged rapidly in recent years (Crain & Stevens, 2018; Zeytinoglu, Cooke, & Mann, 2010), but should examine whether supervisors encourage the use of eldercare-related benefits, help employees balance work and eldercare, and/or reduce negative work outcomes typically associated with eldercare.

**Holistic Model Testing** We hope that the model we have introduced (Fig. 1) may further guide more holistic eldercare and work research. Many studies consider only a few variables or overlook control variables (Calvano, 2013). Multicollinearity among conceptually and empirically related variables may be a challenge. For example, research often conflates outcome variables (Calvano, 2013). “Feedback loops” should be investigated to show how extensively our conceptualized outcomes may impact predictors in a model that unfolds over time. We described eldercare as a dynamic evolving process based on the bioecological systems theory in which caregivers and recipients change over time. Outcomes such as physical health or psychological well-being, in turn, may affect subsequent predictors. For

example, if care recipients have declining well-being, caregivers may also suffer declining well-being. Indeed, decreased cognitive functioning in care recipients can increase strain in caregivers (Marchi-Jones et al., 1996). We encourage eldercare and work researchers to consider “the bigger picture” through a more comprehensive look at eldercare as an ongoing, dynamic process in which the variables we have described as outcomes may impact predictors later.

**Policy and Cross-Cultural Research** We call for more public policy and cross-cultural research, recognizing that countries vary in demographics, policies, norms (Mehta & Leng, 2017), organizational support, and cultural values. Research questions might include the following: How might state or national laws governing end-of-life decisions intersect with elder caregiving and work? How are informal caregivers affected by changes in government pension plans that increase retirement age? When retirement is postponed to later years, are employees more likely to become informal caregivers who must balance caregiving and work responsibilities? Are any government programs effective for supporting informal caregivers? In other words, we need more policy research to evaluate current state and national programs and resources for elder caregivers and care recipients.

## Conclusions

Employees are increasingly responsible for informal eldercare throughout the world as longevity increases. We synthesized research from psychology, management, gerontology, human development and family studies, economics, and sociology to provide a model that can serve as an organizing framework for understanding predictors, outcomes, mediators, and moderators of eldercare and work. Understanding relevant key theories and integrating empirical research regarding predictors and outcomes of combining elder caregiving and work will help advance future eldercare research. We have provided practical interventions that we hope organizations can use to help individuals better manage the dual demands of elder caregiving and work.

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