



This is a repository copy of *The demands and resources of working informal caregivers of older people : a systematic review.*

White Rose Research Online URL for this paper:
<https://eprints.whiterose.ac.uk/182337/>

Version: Published Version

Article:

Lam, W.Y., Nielsen, K. orcid.org/0000-0001-9685-9570, Sprigg, C.A. et al. (1 more author) (2022) The demands and resources of working informal caregivers of older people : a systematic review. *Work & Stress*, 36 (1). pp. 105-127. ISSN 0267-8373

<https://doi.org/10.1080/02678373.2022.2028317>

Reuse

This article is distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) licence. This licence only allows you to download this work and share it with others as long as you credit the authors, but you can't change the article in any way or use it commercially. More information and the full terms of the licence here: <https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>



Work & Stress

An International Journal of Work, Health & Organisations

ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/twst20>

The demands and resources of working informal caregivers of older people: A systematic review

Winnie Wing Yee Lam, Karina Nielsen, Christine A. Sprigg & Ciara M. Kelly

To cite this article: Winnie Wing Yee Lam, Karina Nielsen, Christine A. Sprigg & Ciara M. Kelly (2022): The demands and resources of working informal caregivers of older people: A systematic review, *Work & Stress*, DOI: [10.1080/02678373.2022.2028317](https://doi.org/10.1080/02678373.2022.2028317)

To link to this article: <https://doi.org/10.1080/02678373.2022.2028317>



© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 05 Feb 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

The demands and resources of working informal caregivers of older people: A systematic review

Winnie Wing Yee Lam , Karina Nielsen , Christine A. Sprigg and Ciara M. Kelly 

Institute of Work Psychology, The University of Sheffield, Sheffield, UK

ABSTRACT

This systematic literature review synthesises the existing knowledge about the impact on working caregivers managing dual responsibilities of paid work and informal eldercare, as well as the demands and resources related to juggling these duties. Due to the increasing volume of research in this area, it is important to synthesise current knowledge and identify gaps for future research in the area of Occupational Health Psychology. We identified 45 papers for inclusion in our systematic literature review. Demands and resources were categorised according to the Individual, Group, Leader, and Organisation (IGLO) model. Findings suggested ways that the workplace can provide support to informal caregivers, such as from peer-to-peer, manager-to-subordinate, organisational policy, and cultural aspects. Evidence showed that certain levels of the IGLO model, such as the individual, leader, and organisational-level resources as well as individual demands have received more research attention. Current studies mostly focused on one or two specific levels of the IGLO model rather than taking a holistic approach to examine factors at all levels. Our findings suggested that future research should take into account all levels of the IGLO model to fully capture the dynamics of juggling paid work and eldercare and we proposed a future agenda for research.

ARTICLE HISTORY

Received 27 November 2019
Accepted 9 January 2022

KEYWORDS

Eldercare; Working informal carer; Unpaid caregiving; Wellbeing; IGLO; JD-R

Introduction

The eldercare burden is increasing among working informal caregivers in the Western world due to an ageing population (OECD/European Commission, 2013; The World Bank, 2017) and the delay in retirement age (Yeandle & Buckner, 2017). Informal caregivers are the only source of support for 65% of people aged 65 and above who received help with Activities of Daily Living (ADLs) and 74% for Instrumental Activities of Daily Living (IADLs) in England (Health and Social Care Information Centre, 2017). Working informal caregivers are individuals who provide informal (i.e. unpaid) care, while also juggling the responsibilities of paid employment. In the UK, one in seven workers have juggled work and care responsibilities, increasing from one in nine during 2011

CONTACT Winnie Wing Yee Lam  wylam1@sheffield.ac.uk

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

(Carers UK, 2019). With the increased responsibilities associated with eldercare, working informal caregivers face challenges to fulfil both employment and family responsibilities. In the field of Occupational Health Psychology (OHP), research has mainly focused on the care demands stemming from children or work–family relations as a whole, rather than the demands from eldercare specifically (Calvano, 2013). The growing number of studies around working informal caregivers of older people stem from various disciplines, thus the knowledge in this area is scattered. The sustainability of eldercare may be better understood through a nuanced understanding of how working informal caregivers juggle their dual responsibilities and how these efforts influence their work, health, and wellbeing. It is important to synthesise current literature from these diverse disciplines to develop an integrated framework to develop an OHP research agenda. The knowledge synthesised under OHP frameworks will enable organisations to better support working informal caregivers and thus improve the sustainability of informal eldercare and maintenance of employment.

The present study systematically reviews studies examining the impact of eldercare on personal and work-related outcomes of working informal caregivers. Specifically, we will examine the factors that affect these relationships with a particular focus on the demands and resources in each of the Individual, Group, Leader, and Organisation (IGLO) levels (Nielsen et al., 2017). This paper aims to provide a comprehensive understanding of how informal eldercare care impacts the health and wellbeing of working informal caregivers, such as their general health, physical health, mental health, and overall satisfaction (Danna & Griffin, 1999), as well as impacts their work, such as their behaviour and performance at work (e.g. absenteeism and productivity). Our paper draws on two OHP models – the Job Demands and Resources model (JD-R) (Demerouti et al., 2001) and the IGLO model (Nielsen et al., 2017). Factors affecting the impact of eldercare at each level from demand or resource perspectives are systematically identified and knowledge is synthesised through the lens of OHP, adding knowledge to existing reviews from other disciplines.

Informal eldercare provision

The Organisation for Economic Co-operation and Development defined eldercare as a type of long-term care including helping with day-to-day activities such as washing and dressing, household activities such as cleaning and cooking, and some types of medical care (OECD, 2018). Eldercare requires the devotion of resources (e.g. time, effort, and money) and involves a variety of tasks. The care-receivers are often parents, parents-in-law, and/or relatives of caregivers, but can sometimes be friends and neighbours (Carers UK, 2015).

Eldercare has different characteristics compared to other types of care, e.g. childcare (Tennstedt & Gonyea, 1994). Eldercare is characterised by complexity and more acute incidences than childcare since older people are more likely to have multiple chronic conditions and may require sudden hospitalisation (Calvano, 2013). Furthermore, eldercare is distinctly different from childcare (Calvano, 2013) because the demands of childcare tend to ease over time since children gain autonomy as they grow up, but the demand from eldercare tends to increase over time as care-receivers lose autonomy (Kossek et al., 2001). Eldercare typically requires adaptation and involves the employment of many different skills. Therefore, the way eldercare impacts health and wellbeing

outcomes and work-related outcomes may be different to childcare or other informal adult care (Larsen, 2010; Scharlach & Fredriksen, 1994) and should be investigated.

The impact of eldercare on employees

Past reviews have identified negative impacts of managing work and caring responsibilities on the caregivers' emotional life, stress levels, and work–family conflicts and established that informal caregivers are at risk of leaving the workforce due to care responsibilities (Burch et al., 2019; Calvano, 2013; Clancy et al., 2020; Tennstedt & Gonyea, 1994). Impacts on caregivers may differ as a function of the nature of the care responsibilities. Combining paid work and caregiving need not only be perceived as a burden but may provide working informal caregivers with a sense of personal growth and challenge (Hoff et al., 2014). Paid work roles may offer caregivers a respite from their caregiving role, while providing eldercare could bring satisfaction and a sense of accomplishment (Calvano, 2013; Martire & Stephens, 2003; Tennstedt & Gonyea, 1994; Williams et al., 2016). There is therefore a need to explore both the positive and negative aspects of juggling paid work and informal care provision and how they influence working informal caregivers' health, wellbeing, and performance.

Recent reviews have explored how informal care impacts employees providing informal care. Clancy et al. (2020) grouped these outcomes into four levels, societal (e.g. labour supply), work-related (e.g. discrimination, job performance, work-related strain, work attitudes, absenteeism/presenteeism), family (e.g. marital quality, care recipients' health and wellbeing), and individual caregiver (e.g. psychological wellbeing, physical health, financial strain) outcomes. They also identified mediators (work-related), and moderators (individual caregiver, caregiving context, work-related) of the impacts of the caregiving process. Similarly, Burch et al. (2019) summarised outcomes in terms of individual, work, and labour supply level. Both reviews considered nonwork antecedents of individual, work, and labour supply outcomes, such as societal level and family factors. They both included articles that did not separate other forms of adult care (e.g. caring for adult children who require care due to disability or ill health) from eldercare in their analysis. The current review focuses on synthesising knowledge directly related to the work context for informal caregivers of older people. More specifically, we will examine how factors in the workplace influence the health and wellbeing outcomes and work-related outcomes of employees providing informal eldercare, due to the growing scale of this issue internationally. Our review identifies current research gaps specifically in the work context thus offering a promising research agenda within OHP that will lead to further insights on how to support this growing group of employees. Therefore, we propose the following as our first research question.

Research question 1: What is the impact of managing paid work and eldercare provision on health and wellbeing as well as work-related outcomes of informal caregivers of older people?

Theoretical frameworks

The JD-R and IGLO models provide the theoretical framework for the second part of our review. The JD-R model highlights the central role of demands and resources in optimal

functioning within roles (Bakker & Demerouti, 2007). Then, each demand and resource will be further classified according to the IGLO model (Day & Nielsen, 2017; Nielsen et al., 2017). The following sections will introduce the JD-R model and outline the demands and resources at each level of the IGLO model.

The Job Demands and Resources (JD-R) model

The JD-R model (Bakker & Demerouti, 2007) proposes that working conditions can be categorised into demands and resources. Demands are defined as the physical, social, or organisational aspects of work that involve continuous physical or mental effort (Demerouti et al., 2001). Resources are anything that individuals perceive as helping them to attain their goals (Halbesleben et al., 2014). Generally, demands are valued negatively, while resources are valued positively, associating with better work and personal outcomes, such as organisational commitment and health (Schaufeli & Taris, 2014). Many informal caregivers juggle multiple roles, thus facing multiple demands. When there are insufficient resources (e.g. time and energy) to cope with demands from paid work and family care, strain increases and wellbeing decreases (Bakker & Demerouti, 2007).

The individual, group, leader, and organisation (IGLO) model

To systematically classify demands and resources, we employed the IGLO classification of resources (Day & Nielsen, 2017; Nielsen et al., 2017; Nielsen & Christensen, 2021), which enables us to have a clearer idea of the level of research attention received for different levels of factors.

Individual-level demands are characteristics or behaviours of individuals, which burden them (e.g. behaviour and personality that increase the burden on individuals, such as being high in neuroticism), while resources are those that help them to achieve their goals (e.g. being high in optimism, self-efficacy) (Allen et al., 2012; Nielsen et al., 2017). It can also be that a strong socio-economic background provides resources to help individuals to better cope with the situation, such as education and finance because eldercare is often associated with managerial skills (Calvano, 2013) and financial pressure (Duxbury et al., 2011). Group-level demands include workplace interpersonal conflict (Ilies et al., 2011). Group-level resources include support from colleagues, which are important for individuals' work-family conflict (Michel et al., 2011). Leader-level demands and resources concern leadership characteristics and social interactions between leaders and employees (Nielsen et al., 2017). Leader-level demands include over-demanding or abusive leader behaviours (Carlson et al., 2012). Supervisor support, leadership style, and leader-member exchanges have been found to affect work and family outcomes (Morganson et al., 2017; Skakon et al., 2010). Organisational-level demands and resources are aspects of job design, organisational culture, human resources (HR) policies and HR practices that affect employees (Nielsen et al., 2017). An example of demand and resource respectively is the work climate for family sacrifices (Kossek et al., 2001) and job autonomy (Nielsen et al., 2017).

Many factors that stem from the workplace can either provide resources or impose demands on working informal caregivers of older people. Employers play a key role in supporting informal caregivers to manage the dual responsibilities. Employers can influence the level of work-family conflicts of employees experience by changing the characteristics of job role (e.g. role conflict, role ambiguity, role overload, time

demands, task variety, job autonomy) and level of work support (e.g. organisational support, supervisor support, coworker support) (Michel et al., 2011) or by providing information on assistance and financial support (Keefe & Fancey, 2002). To explore the resources at the IGLO levels, we proposed the following research questions:

Research question 2: What resources do working informal caregivers of older people receive at each IGLO level and how are these resources related to their health and wellbeing outcomes and work-related outcomes?

Research question 3: What demands do working informal caregivers of older people experience at each IGLO level and how are these demands related to their health and wellbeing outcomes and work-related outcomes?

Method

Our review focused on papers published in psychology, organisational studies, economics and gerontology since the year 2000. Relevant studies were identified from Web of Science, Google Scholar and ProQuest. ProQuest included databases such as Asian Business Database, European Business Database, Health & Medical Collection, PsycARTICLES, PsycINFO, Science Database, and Social Science Database, while Web of Science covered MEDLINE and many Social Science and Business databases. In our initial search, we used the combinations of search terms included (employees, eldercare), (informal eldercare, employee), (caregiving, elder, employee), (eldercare, work), (dementia, informal caregiver, work), (dementia, caregiving, work), and (caregiving, employment) and identified 29 articles. We then utilised search terms used by Burch and colleagues (2019) and adapted search terms based on the wellbeing criteria in Danna and Griffin (1999), which further identified 5 articles because the former is a recent review in the topic and the latter focuses on work-related outcomes. Finally, a manual search was done by checking references of articles from previous searches, email notifications from search engines, and other sources, and 11 additional papers were identified. A total of 45 papers were included in the current review. Seven papers used a longitudinal research study design, one used a cross-sectional shortitudinal research design, and the remaining were cross-sectional research. An overview of the papers reviewed can be found in Table 1.

The inclusion criteria were quantitative, empirical studies that explored the impact of eldercare on working caregivers. We included only quantitative studies to achieve a better synchronisation and produce a systematic qualitative analysis of quantitative research, which was considered valuable in reviewing a body of relatively sparse, but growing literature on a specific topic (Suri & Clarke, 2009). We excluded papers that did not separate eldercare with disabled care or other forms of informal care. However, if the study included employees caring for older people with a certain old age-related condition (e.g. dementia), it would still be included in the analysis because they are caring for older people.

Results

Impact of eldercare on working informal caregivers

Research question 1 aims to identify the impact of managing paid work and eldercare provision on health and wellbeing outcomes and work-related outcomes of informal

Table 1. An overview of the articles included in the review.

Author(s)	Summary of results [Method/Design (Cross-Sectional, CS; Longitudinal, L)/Country]
1. Andersson et al. (2019)	Employees caring for older people with unmet caring needs were more likely to experience work interruptions. Psychological wellbeing is associated with lower odds of incurring a work interruption. [Survey/ CS/ US]
2. Barnett et al. (2009)	Greater usable flexibility was linked with lower caregiving concerns, which is linked to job changes. [Survey/ CS/ US]
3. Barrah et al. (2004)	For women, work interference with family was positively linked to intention to seek new employment, negatively linked to flexible work, supervisor support and supportive workplace culture. Family interference with work was related to work absence for men. [Interview/ CS/ US]
4. Brown and Pitt-Catsouphes (2013)	Work hours and work overload were linked with higher work-to-family conflict (WFC). Supervisor support, family-supportive environment, and access to flexibility were each linked with lower levels of WFC. Access to flexibility had a stronger effect on reducing WFC among intermittent caregivers. [Survey/ CS/ US]
5. Brown and Pitt-Catsouphes (2016)	The relationship between perceived workplace flexibility and caregiver stress and the relationship between access to flexible work options and caregivers stress were mediated by WFC. Being older, being in good health, and lower levels of WFC were associated with lower levels of stress. [Survey/ CS/ US]
6. Cheng et al. (2020)	Eldercare provision had a positive impact on subjective wellbeing, while high caring intensity had a negative impact. Eldercare provision affected men and women and different types of workers differently. [Survey/ L/ Australia]
7. Crespo et al. (2019)	Caregiving overload and positive job experience predicted depression and positive affect. [Interview, Survey/ CS/ Spain]
8. Dembe et al. (2011)	Employer-sponsored elder care programmes can help employees find and arrange care for elder dependents, which helped reducing absences, improving working productivity, and employees staying employed. [Survey/ CS/ USA]
9. Dugan et al. (2020)	Compared with no ECD group, depressive symptoms were higher for the acquired ECD group and the relinquished ECD group, family-work conflict was higher for the persistent ECD group; work stress was higher for the relinquished ECD group and the persistent ECD group. [Survey/ L/ US]
10. Dugan et al. (2016)	Providing personal care and providing 5 or more hours per week of eldercare were linked with increased depressive symptoms and FWC, compare with no care. [Survey/ CS/ US]
11. Duxbury et al. (2011)	Caregivers living with elder dependents had the highest levels of financial, physical, and emotional strain. Women had higher physical and emotional strain than men. [Survey/ CS/ Canada]
12. Ghaffar (2020)	Eldercare financial burden generates stress at work that results in emotional exhaustion. [Survey/ L/ Pakistan]
13. Gordon and Rouse (2013)	Work-family conflict plays a mediating role between types (behavioural & psychological) of work and caregiving involvement and work costs (job interruptions and turnover intentions (TI)). [Survey/ CS/ US]
14. Greaves et al. (2015)	Low supervisor care support predicted a negative relationship between core self-evaluation (CSE) and TI. High current supervisor work and care support predicted a negative relationship between CSE and TI three months later, mediated by employees' satisfaction and emotional exhaustion from work. [Survey/ CS & L/ Australia, US, India]
15. Juratovac and Zauszniewski (2014)	Higher caregiving mental effort and caregiving workload, and poorer self-assessed health were significantly correlated with high depressive symptoms. [Survey/ CS/ US]
16. Kim and Cho (2018)	Eldercare demands were related to musculoskeletal disorders in Korean female workers. [Survey/ CS/ Korea]
17. Kim and Gordon (2014)	The negative impact of work interfering with care is on the psychological wellbeing of female informal caregivers was stronger for those with high perceived financial needs. Care interfering with work was negatively linked to the psychological wellbeing of female informal caregivers with low perceived financial needs. [Survey/ CS/ Korea]
18. Kim et al. (2011)	Work performance of employees with employers support was less affected by work interruptions. The link between stress and work interruptions were stronger positively among employees with supportive employer. [Survey/ CS/ US]
19. Kossek et al. (2001)	A work environment that has a concern sharing atmosphere benefits performance and wellbeing, whereas a work environment that has an atmosphere to making sacrifice of family negatively impact wellbeing and increase conflicts between work and family. [Survey/ CS/ US]

(Continued)

Table 1. Continued.

Author(s)	Summary of results [Method/Design (Cross-Sectional, CS; Longitudinal, L)/Country]
20. Kossek et al. (2019)	The STAR Intervention led to more effective in reducing stress and psychological distress for elder and sandwiched informal caregivers compared with employees without caregiving. [Interview & survey/ Intervention/ US]
21. Lam and Garcia-roman (2017)	On the days caregivers provided care, they spent less time on paid work and reported higher levels of sadness. [Survey/ CS/ US]
22. Lee et al.(2010)	Eldercare givers reported time- and strain-based conflict. FWC predicted hours of work missed [Survey/ CS/ USA]
23. Lee et al. (2001)	Employed caregivers who spent more hours on caregiving reported poorer emotional health, and female caregivers reported more depression symptoms. [Survey/ CS/ US]
24. Longacre et al. (2017)	Caring for a longer period, round-the-clock care and work interference were linked with higher levels of stress. Informal caregivers reported care interfered with work had higher level of education. [Survey/ CS/ US]
25. Lozano et al. (2016)	Being aware of referral service and using community service were linked to lower emotional strain. [Survey/ CS/ US]
26. Oldenkamp et al. (2018)	The chance of informal caregivers using one or more work arrangements increased if they had a more disrupted schedule and more health problems due to caregiving, or when they worked more hours a week. [Survey/ CS/ Netherlands]
27. Pei et al. (2017)	Higher care hours and care financial expenses were linked with the chance of employment consequence and psychological burden. More women had physical stress due to eldercare than men. [Structured interview/ CS/ China]
28. Peng et al. (2020a)	Variations in eldercare demands increased next-week FWC and time theft at work. [Diary survey/ L/ China]
29. Peng et al. (2020)	Eldercare supportive supervision indirectly linked positively to job performance and negatively to time banditry via work engagement for those with high caregiver burden. [Experiment + Survey/CS & L/ US]
30. Reid et al. (2010)	Caregivers reported change in work hours, decrease in work performance, being late, absent, and work interruption. Caregivers who reported that their work performance was affected because of caregiving tended to report higher levels of burden, lower levels of wellbeing and self-esteem. [Structured interview/ CS/ Canada]
31. Rofcanin et al. (2019)	FSSBs were negatively associated with unsupportive work–family culture while positively associated with perceived organisational support (POS). FSSBs were positively associated with the perceived overall health (POH) and work–family balance satisfaction (WFBS). FSSBs was the mediator of (1) the positive links between POS and POH as well as WFBS; (2) the negative links between unsupportive work–family culture and POH as well as WFBS. [Survey/ CS/ Peru]
32. Sakka et al. (2016)	Negative family-to-work spillover was higher in caregivers than in non-caregivers. [Survey/ CS/ Japan]
33. Schneider et al. (2013)	Time conflict between eldercare and paid work was linked with the job change intention of female workers, but flexible work arrangements increase their attachment to their jobs and the labour market. Physical care burden triggered intentions to leave the labour market of male workers. [Survey/ CS/ Austria]
34. Shoptaugh et al. (2004)	Work time flexibility and satisfaction with eldercare arrangement negatively linked with absenteeism. [Survey/ CS/ US]
35. Stephens et al. (2001)	Women experienced parent care conflict tended to have parents with lower functional and cognitive ability and fewer socio-economic resources. [Face-to-face interview/ CS/ US]
36. Tement and Korunka (2015)	Support from co-workers may not help lessen the possible negative effects of the demands of caregiving. In conditions of low autonomy, WFE levels of elder caregivers were higher than the “work-only” group. [Survey/ CS/ Slovenia]
37. Trukeschitz et al. (2013)	Some aspects of eldercare reduced the level of perceived work-related strain. [Survey/ CS/ Austria]
38. Wang et al. (2018)	Caregiving demands and job demands contributed to health outcomes of caregivers of older people with dementia, the effect of caregiving demands on health outcomes was partially mediated by job demands. [Survey/ CS/ Taiwan]
39. Wang et al. (2011)	Informal caregivers of older people with dementia with full-time job and reported difficulty reconciling work and caregiving experienced more role strain. Education level was negatively linked with the level of role strain. Work inflexibility schedule increased their depressive symptoms. [Survey/ CS/ Taiwan]
40. Wang et al. (2013)	For informal caregivers with low work-care conflict, there was a negative relationship between their perceived preparedness and experienced role strain. [Survey/ CS/ Taiwan]

(Continued)

Table 1. Continued.

Author(s)	Summary of results [Method/Design (Cross-Sectional, CS; Longitudinal, L)/Country]
41. Wilson et al. (2007)	Depression is positively associated with the time missed at work. [Survey/ L/ US]
42. Wolff et al. (2016)	Informal caregivers providing substantial help with health care activities to older people with disabilities were more than 3 times as likely to experience work productivity loss (absenteeism and presenteeism). [Survey/ CS/ US]
43. Zacher and Schulz (2014)	POS in eldercare alleviated the link between eldercare demands and strain. [Survey/ CS/ Germany]
44. Zacher and Winter (2011)	POS in eldercare moderated the positive relationship between eldercare demand and strain, and the negative relationship between eldercare strain and work engagement. [Survey/ CS/ Germany]
45. Zacher et al. (2012)	Dependency of the older care-receiver in terms of impairment affects mental health and work performance of working informal caregivers, and the relationship is moderated by eldercare satisfaction. [Survey/ CS/ Germany]

caregivers to shed light on why informal caregivers need additional support from their workplace. Broadly, our review suggests that working informal caregivers experience conflicts between work and family, spillover between roles, and health and wellbeing implications as a result of engaging in both eldercare and work.

Eldercare provision was associated with conflicts between family and work, such that work/family demands conflicted with the functioning of family/work (Crespo et al., 2019; Dugan et al., 2016, 2020; Gordon & Rouse, 2013; Peng, Jex, et al., 2020; Wang et al., 2013), especially for those who worked more hours (Barrah et al., 2004). Both eldercare and paid work were associated with time and strain conflicts (Lam & Garcia-roman, 2017; Lee et al., 2010; Schneider et al., 2013). Both work and family roles were associated with spillover, where emotions and behaviours expressed in one role carry over to the other role (Sakka et al., 2016). Eldercare provision negatively affected the health (e.g. physical strain, physical health, depressive symptoms) and wellbeing (e.g. work engagement, emotional strain, life satisfaction, affect) of working informal caregivers (Crespo et al., 2019; Dugan et al., 2020; Duxbury et al., 2011; Juratovac & Zauszniewski, 2014; Y. M. Kim & Cho, 2018; Lam & Garcia-roman, 2017; Lee et al., 2001; Lozano et al., 2016; Pei et al., 2017; Wang et al., 2018; Zacher et al., 2012; Zacher & Winter, 2011). Working informal caregivers who felt their performance was negatively affected by caregiving reported lower life satisfaction and lower self-esteem (Reid et al., 2010), providing further evidence of the spillover effect between informal care and work.

Evidence for the role of eldercare provision in relation to work stress is context dependent, depending on the care hours of care provided and care trajectory (Dugan et al., 2016, 2020; Trukeschitz et al., 2013). Ghaffar (2020) suggested that the financial burden of eldercare provision (e.g. paying for goods and services, financial worries due to caregiving) lead to stress at work. In line with the findings relating to increased work–family conflict, informal caregivers who worked more hours were more likely to experience a higher level of stress (J. Kim et al., 2011). These findings indicate that the negative impact of juggling work and eldercare on wellbeing may only occur under certain contexts, such as when informal caregivers' finance or work performance was hampered. Further, especially when care hours were not long, eldercare provision was linked to better subjective wellbeing (measured by satisfaction with life, family, and work) and reduced the level of perceived work-related strain (Cheng et al., 2020; Trukeschitz et al., 2013).

In terms of impact on informal caregivers' work role, studies found negative relationships between eldercare and work performance (J. Kim et al., 2011; Reid et al., 2010; Zacher et al., 2012). Our review identified studies that demonstrated links between eldercare provision and reduced focus and commitment to work in informal caregivers. For example, providing eldercare was positively related to absenteeism (Reid et al., 2010; Shoptaugh et al., 2004; Wolff et al., 2016), presenteeism (Wolff et al., 2016), interruptions at work, and engaging in behaviours known as time theft or time banditry (i.e. spending work time on non-work activities). For informal caregivers these non-work activities may consist of leaving early, arriving late, or taking time off to perform care responsibilities, managing care over the phone, feeling worried about the care-receiver, and taking a longer than permitted break or day-dream (Gordon & Rouse, 2013; Peng, Jex, et al., 2020; Peng, Xu, et al., 2020; Reid et al., 2010). To cope with eldercare demands, informal caregivers may also change work arrangements such as adjusting work schedules, taking a leave of absence, reducing hours to work part-time, rejecting promotion, or changing jobs (Andersson et al., 2019; Barnett et al., 2009; Gordon & Rouse, 2013; Greaves et al., 2015; Trukeschitz et al., 2013).

In summary, managing both paid work and eldercare provision can have a negative impact on informal caregivers' health and wellbeing, their work–family life, and their employing organisations, however, the wellbeing of informal caregivers can improve if care provision was not too intensive.

Resources

Research question 2 examines the resources for working informal caregivers according to the IGLO framework. In the following sections, we discuss the findings at each level of resources; individual, group, leader, and organisation. For the purpose of this investigation, we define resources as anything that helps working informal caregivers to manage their dual responsibilities.

Individual-level resources

In terms of personality, core self-evaluation, which refers to the appraisal of self-capabilities, competence, and the positive expectation of life, helped individuals juggle work and eldercare demands (Greaves et al., 2015). From a coping perspective, Wang et al. (2013) found that informal caregivers who felt prepared reported less role strain in low work-care conflict settings when care-receivers had dementia.

The physical health, mental health, and wellbeing of informal caregivers affected how well they managed the dual responsibilities and therefore their work. Brown and Pitt-Catsouphes (2013, 2016) found that good self-assessed health was linked to lower levels of perceived stress and work–family conflict among informal caregivers. Mental health was a mediator between the interaction of eldercare demands with eldercare satisfaction and work performance (Zacher et al., 2012). Psychological wellbeing (self-esteem, mastery, and optimism) lowered the odds of incurring work interruptions (e.g. adjusting starting and ending hours of work, moving to part-time work, turning down progression, retiring early, or taking a leave of absence) among informal caregivers (Andersson et al., 2019). Good physical and mental health of informal caregivers could be a crucial resource for them to manage the dual responsibilities and play a

role as either a mediator or moderator in the relationship between eldercare demands and work-related outcomes.

A better socio-demographic background of the informal caregiver was found to be a protective factor due to the ease of access to the resources needed to cope with eldercare responsibilities. Caregivers with higher levels of education reported less eldercare-related role strain and emotional distress than those with lower educational attainment (Pei et al., 2017; Wang et al., 2011). The findings in aforementioned studies did not provide an explanation regarding the influence of education, but Pei et al. (2017) discussed that education might be a protective factor because it enabled informal caregivers to manage demands more effectively and how education is linked with a better paid job. In a similar vein, personal and household income were negatively related to eldercare role conflicts (Stephens et al., 2001). The negative impact of work interfering with caregiving on psychological wellbeing was stronger for informal caregivers with higher perceived financial needs (N. Kim & Gordon, 2014).

In summary, past studies have shown that individual resources can protect informal caregivers from the negative work, family, and health and wellbeing outcomes related to juggling the dual responsibilities. Such individual resources vary in their form, from stable constructs such as personality traits and socio-economic background to less stable ones such as health and coping strategies.

Group-level resources

Group-level resources which appeared within the studies in our review included co-worker support. Co-worker support was not found to impact either work–family conflict or work–family enrichment of informal caregivers (Tement & Korunka, 2015). Specifically, with regards to the strain-based conflict, one study found that perceived support from co-workers was related to the levels of strain reported by informal caregivers until perceived organisational support was included within the analysis (Zacher & Schulz, 2014).

Based on current evidence, the benefit of group-level resources appears limited, particularly since the impacts of group-level resources appear to be explained by organisational resources.

Leader-level resources

Five studies included in our review suggested supportive supervisors may be an important resource to enhance the health and wellbeing of informal caregivers. Family supportive supervisor behaviours (FSSBs) were positively associated with the perceived overall health and work–family balance satisfaction for informal caregivers (Rofcanin et al., 2019). An intervention study that aimed to improve leaders' engagement in family and work support demonstrated that having a supportive leader benefits informal caregiver by reducing their stress and psychological distress (Kossek et al., 2019).

Leaders also play a role in influencing the work-related outcomes of informal caregivers. Specifically, eldercare supportive supervision supported job performance via its impact on work engagement and limited time banditry for informal caregivers with a high caregiver burden (Peng, Xu, et al., 2020). Supervisor support was found to reduce turnover intentions through a reduction in work interference with family of informal caregivers (Barrah et al., 2004).

Supervisor support has also been studied as a moderator. Greaves et al. (2015) found that supervisor support was more beneficial to informal caregivers with high core self-evaluation, reducing turnover intentions via improved work satisfaction and reduced emotional exhaustion from work. When overall organisational support was taken into account, supervisor support no longer showed a significant effect on strain and had no moderating effect with eldercare demands on strain (Zacher & Schulz, 2014).

In summary, studies showed that supervisors' support towards eldercare or family care improved health and wellbeing as well as work-related outcomes of employees, its relative importance after considering other factors has yet to be explored.

Organisation-level resources

Organisational support for employees with informal care responsibilities impacts work engagement and strain (Zacher & Schulz, 2014; Zacher & Winter, 2011). Organisational support was especially helpful when eldercare demands and strain levels were high (Zacher & Winter, 2011). Work performance of informal caregivers receiving organisational support was less affected by work interruptions (e.g. miss work, make frequent calls, and worry about care recipients at work) than those without organisational support (J. Kim et al., 2011).

Flexible work arrangements are a form of organisational resource used to successfully manage work and care responsibilities, leading to outcomes such as reduced turnover among women (Schneider et al., 2013). Flexible work was associated with fewer interruptions at work, work–family conflicts, absenteeism, and depressive symptoms (Brown & Pitt-Catsoupes, 2013; Shoptaugh et al., 2004; Wang et al., 2011), although one study also found no association between work flexibility and work–family conflicts (Barrah et al., 2004).

In terms of organisational climate, Kossek et al. (2001) found that it was important for both the family and workplace to have a sharing and caring atmosphere for informal caregivers to improve work performance, family performance, and wellbeing. Family-supportive workplace was found to be negatively associated with work interference with family, which positively linked to turnover intention (Barrah et al., 2004), work–family balance satisfaction, and perceived overall health (Rofcanin et al., 2019), while negatively linked with work–family conflict (Brown & Pitt-Catsoupes, 2013). An intervention study found that a result-oriented work environment increases employees' control over work time, reduces stress and psychological distress among informal caregivers (Kossek et al., 2019). This suggests that an organisational culture that increases job resources (in this case job control) can benefit psychological health and wellbeing of informal caregivers, even when such support may not be directly linked with family needs. However, informal caregivers in jobs with low levels of autonomy reported higher levels of work–family enrichment than childcare only and no care employees, and the level of work–family enrichment for informal caregivers did not increase in moderate and high job autonomy unlike the childcare only and no care groups (Tement & Korunka, 2015). The benefit of increased job resources may be limited in some respects.

Employer-sponsored eldercare programmes (including referral services, counselling, financial assistance, day-care service, flexible work schedule) were found to lower job absence, increase work productivity, and help working informal caregivers to stay employed (Dembe et al., 2011). When such support is not available within the

organisation, organisational efforts to make employees aware of caregiving referral services and use community programmes was beneficial in easing the emotional strain of employees (Lozano et al., 2016). Informal caregivers who utilised organisational eldercare support programmes (e.g. eldercare resource and referral, employee assistance programme, financial counselling, flexible work arrangements, medical leave, or unpaid leave) were less likely to experience work interruptions, had lower turnover intentions, and lower intention to change their employment arrangement (Andersson et al., 2019; Barnett et al., 2009). This indicated that it was not only the availability, but the utilisation of support that is important for having a positive impact. However, usage of flexible work options depended on individuals' experience juggling eldercare and work hours (Oldenkamp et al., 2018).

In summary, studies showed that both official arrangements (i.e. flexible work and organisation support programmes) and soft management in organisations (i.e. creating a caring atmosphere) can help informal caregivers.

Demands

Research question 3 examines the demands faced by working informal caregivers according to the IGLO framework. Findings at each level will be described in turn.

Individual-level demands

We did not identify any studies examining how personality or behaviour may act as a demand in negatively affecting the personal and work-related outcomes of working informal caregivers. Employees' wellbeing was affected by informal eldercare differently in relation to their individual job characteristics and socioeconomic status. White-collar informal caregivers reported slightly reduced job satisfaction over time, whereas blue-collar informal caregivers were not affected (Cheng et al., 2020). Full-time working informal caregivers of older people with dementia reported more role strain than those who worked part-time (Wang et al., 2011), while eldercare provision increased satisfaction with work–life balance in part-time workers (Cheng et al., 2020).

As good health is a resource, poor health is a demand and can negatively impact work outcomes. Depressive symptoms were positively associated with the hours of work missed in the past 30 days for informal caregivers of older people with dementia (Wilson et al., 2007), which is consistent with our findings on individual resources.

Education was a protective factor (Pei et al., 2017; Wang et al., 2011), however, Longacre et al. (2017) found that highly educated informal caregivers were more likely to report that care interfered with work, especially for women (Stephens et al., 2001). Longacre et al. (2017) suggested that individuals with higher education levels may have more demanding jobs, which makes it harder to juggle care and work. Women and men were affected by informal eldercare provision differently. Women took more leaves of absence and were more likely to consider early retirement (Pei et al., 2017). Women reported more depressive symptoms and emotional strain than their male counterparts (Lee et al., 2001; Lozano et al., 2016). Eldercare demands were related to musculoskeletal disorders in women only (Y. M. Kim & Cho, 2018) and a higher percentage of them reported their health suffered due to caregiving (Pei et al., 2017). The aspect of eldercare that caregivers were most burdened by differed between men and women. Additional

physical demands from eldercare (i.e. helping with ADLs) triggered the exit of the labour market in men only, while hours devoted to eldercare influenced turnover intentions of women (Schneider et al., 2013).

In summary, individual differences may play a role as demands in terms of their occupation, employment mode, health, care trajectory, and gender. These factors are potential moderators in the relationship between informal eldercare provision and informal caregivers' wellbeing and work outcomes.

Group-level demands

Our search did not identify any studies that examined how group-level demands.

Leader-level demands

Our search did not identify any studies that examined how leader-level demands.

Organisational-level demands

Two studies explored the impact of organisational-level demands on informal caregivers. A study found negative associations between unsupportive work–family culture (e.g. demanding long work hours, negative consequences of turning down transfer due to family reasons) and perceived overall health and work–family balance satisfaction of informal caregivers (Rofcanin et al., 2019). A work climate for sacrificing family, that is an expectation at the workplace that encourages informal caregivers to reduce fulfilment of family duties for work performance, was positively linked to both work-to-family and family-to-work conflict, and negatively linked to wellbeing of individuals (Kossek et al., 2001). This suggested that a work climate that is not supportive towards a balanced work–family life is detrimental to the wellbeing of the informal caregivers due to increased conflicts.

Discussion

The present study reviewed and synthesised findings from quantitative studies on the impact of informal eldercare on workers in paid employment. The impact of demands and resources, especially those from the workplace, on health and wellbeing outcomes and work-related outcomes of informal caregivers found in past studies were systematically summarised under four levels of demands and resources using the JD-R and IGLO models to complement each other. The focuses and gaps of current research are identified from the OHP perspective and subsequently, the areas requiring further research are suggested.

Impact of eldercare provision

The findings in the papers that we reviewed suggested that eldercare provision conflicts with employment and contributes to the health and wellbeing of working informal caregivers. Such provision also negatively impacts organisations in terms of work engagement, absenteeism, and productivity, which has financial costs. These findings are in line with other recent reviews (Burch et al., 2019; Calvano 2013; Clancy et al., 2020) and we expanded on them further by pointing out that the nature of the job can affect

the ability of informal caregivers to juggle between work and care demands. For example, blue-collar workers usually have limited control over the work schedule, unlike white-collar workers. Further, informal caregivers may find ways to cope with multiple responsibilities, by making use of annual leaves for care or by forgoing training opportunities and social time (Bernard & Phillips, 2007). Support offered to informal caregivers should be adjusted according to their needs and job nature. Supporting the findings of recent reviews (Burch et al., 2019; Clancy et al., 2020), we note the presence of research that demonstrates the positive effects of dual responsibilities. Juggling multiple roles can be burdensome, but there are also positive sides of such situations such as bringing informal caregivers satisfaction. Future studies should also examine the positive influences towards informal caregivers from eldercare responsibilities, where a positive care model could then be proposed.

Demands and resources

We identified the demands and resources for working informal caregivers of older people at the IGLO levels to address Research Questions 2 and 3. The IGLO model provided a clear framework for the identification of levels of demands and resources in the workplace that could modify the relationship between negative impacts of eldercare to health and wellbeing outcomes, as well as work-related outcomes.

Individual-level demands and resources

The papers included in our review examined individual-level demands and resources in terms of gender, personality, health, and socio-economic background. Male and female informal caregivers were found to be affected differently by eldercare provision. This is possibly due to working women tend to be more burdened with care responsibilities (Carers UK, 2015), and the difficulties of participation in caregiving for men since men taking family arranging requests do not fit general expectations and organisations often lack family friendly policies targeting men (Lewis et al., 2007). The cost of changing jobs for female and male informal caregivers may be different (Schneider et al., 2013). Together, these reasons might explain why flexible work arrangements reduced turnover in women only. Eldercare responsibility was found to affect health and wellbeing outcomes, as well as work-related outcomes of men and women differently which is worth further investigation as to how and why this is the case.

At the individual level, few studies examined how personality or behaviours affect informal caregivers as a demand. Findings suggested that core self-evaluation, planning and preparation, and health are factors that could help in certain circumstances. There were many studies examining how personality affects or moderates work–family conflicts (Allen et al., 2012), personal outcomes (Park et al., 2012) and work-related outcomes (Judge et al., 2002). However, not much had been done specifically in relation to working informal caregivers of older people. Past studies also suggested that some emotion regulation strategies at work may benefit the work performance and wellbeing of employees (Alam et al., 2019), but we did not identify any studies investigating these possible individual-level demands and resources among informal caregivers. The limited number of studies on how personality, cognitive processes, and behaviours affect working informal caregivers of older people may imply an assumption that there are

no differences in how these individual factors affect work–family conflict, health and wellbeing, and work-related outcomes among workers with and without eldercare responsibility. It has yet to be tested whether findings from working informal caregivers in general (e.g. parenting) can be directly applied to working informal caregivers of older people.

Informal caregivers in good health seemed to cope better in juggling work and eldercare. However, we cannot rule out any directional pathway between health, work, and caregiving. Good health may protect employees who juggle dual responsibilities, but the dual responsibilities may also hamper the health of individuals. Similar to wellbeing variables, Reid et al. (2010) examined self-esteem as a wellbeing outcome of work performance in informal caregivers, but self-esteem could also be viewed as a predictor of how well individuals manage work and family (Allen et al., 2012). There could be a feedback loop between health and wellbeing variables to other variables, and future research could explore how care trajectory may affect the relationship among these variables.

Socio-economic background could affect how effective informal caregivers juggle work and eldercare. People with better socio-economic backgrounds may be able to hire paid care or not worry about the expenses associated with eldercare. These findings were consistent with that of previous reviews (Burch et al., 2019; Clancy et al., 2020). There were mixed findings on whether a better educational background helps. Education may be associated with better care knowledge and managerial skills to manage multiple demands, but people with better job prospects and in more demanding jobs may find it harder to balance work and care. Further research should take education level as a factor that contributes to different circumstances of an individual, such as occupation and managerial skills, which may positively or negatively contribute towards the ability to juggle work and eldercare. Managers and employers should take into consideration the different circumstances that individuals may face when supporting informal caregivers.

Group-level demands and resources

At the group level, the usefulness of group support at work for informal caregivers was uncertain, especially when additional factors were taken into account (Zacher et al., 2012). Support from colleagues might be embedded within the organisational climate, as a family-friendly organisation could have employees embracing the importance of work–family balance and are more supportive and compassionate of the family needs of informal caregivers. More studies will need to be conducted to examine how and whether group-level resources benefit informal caregivers, especially in the time and behavioural aspects of work–family interface. Compared to other levels of the IGLO model, group-level demands and resources have received less research attention. We call for more research on how peer-to-peer interactions (such as making colleagues feel guilty for taking leave for family reasons) affect the health, wellbeing, and work-related outcomes of informal caregivers. Work groups influence employees' wellbeing and performance (Nielsen et al., 2017). Therefore, it is important to understand how interpersonal interactions and team characteristics may have a positive or negative impact.

Leader-level demands and resources

We found no studies of leader-level demands. Intuitively, leaders who are abusive and not supportive to informal caregivers will negatively affect the wellbeing of informal caregivers. Based on the findings in the above section, the role leaders can play is to reduce stress and psychological distress and increase work engagement among informal caregivers. Thus, how leaders can help informal caregivers to juggle both responsibilities in different work or care contexts (e.g. work environments, care trajectories, and care intensity) can be explored, as well as the mechanisms on how supervisors support work.

Supervisors can make supportive work adjustments when organisational-level policies are absent, but they can also put pressure on informal caregivers not to make use of existing family-friendly organisational policies. Supervisors are also employees that are affected by organisational culture, with their behaviour found to be associated with organisational culture and support (Rofcanin et al., 2019). Research looking into the interactions between organisational policies and leadership is needed. Supervisor support and behaviours can be examined as a moderator of organisational support to look at the possible cross-level impacts, and how it is influenced by organisational factors such as organisational culture and support.

Organisation-level demands and resources

Organisation-level demands and resources were studied in terms of work climate, as well as policies and benefits. Family-friendly policies and benefits (e.g. flexible work options and organisation eldercare programme) were helpful to informal caregivers and can eventually benefit organisations. Past reviews mentioned that such supports were beneficial to informal caregivers (Burch et al., 2019; Clancy et al., 2020), while our review extended on these summaries by discussing organisations' effort in promoting and referring informal caregivers to existing community services could still benefit both parties if the organisation is not able to offer an eldercare programme or flexible work options. The availability of such support and the utilisation of it are both important in examining the relationships among interested variables. Organisations should put more effort into creating a climate or culture that caters to the needs of informal caregivers and attenuate the negative impacts related to eldercare provision. Findings suggested that such climate or culture may not be limited to being family supportive. Findings also suggested that mutually beneficial outcomes can be achieved for both employees and organisations through the increase in organisational flexibility and understanding of the personal needs of informal caregivers.

A future research agenda

The IGLO model (Nielsen et al., 2017) provided us with a practical and actionable framework to organise the many factors that may impact the health and wellbeing and work-related outcomes of working informal caregivers. The model enabled us to provide specific actionable insights, as well as identified research gaps. At the individual level, we need more studies examining the impact of personality and cognitive-behavioural aspects of informal caregivers on their health and wellbeing and work-related outcomes. Demands have received less attention than resources, especially at the group- and leader-levels. Group, leader, and organisation-level demands and resources impacts the work

experience of informal caregivers which in turn may affect their wellbeing (Crespo et al., 2019). Future research should address the gaps in these areas to look at how peer-to-peer pressure and manager-to-employee pressures can influence the health and wellbeing and work-related outcomes of informal caregivers.

The studies included in our review rarely focused on more than two levels of demands and resources, despite some studies including multiple levels of resources (e.g. Brown & Pitt-Catsouphes, 2013, 2016; Tement & Korunka, 2015; Zacher & Schulz, 2014). Future studies should examine the multi-level interactions to examine the importance, frequency, and effects of each level of demand or resource, as well as the potential feedback loops between outcome variables (e.g. health and wellbeing, work-related outcomes) and demands and resources (e.g. health, co-worker support). For example, the impact of group-level resources may be embedded in organisational factors, since supportive organisations might lead to supportive teams where managers encourage the usage of flexible work options. The way organisational factors interact with group and leader level factors should be studied further to identify important elements to improve on the status quo.

In terms of research methods, the majority of studies we identified draw on cross-sectional data, which limits the ability to examine causality among factors. There is a need for more longitudinal studies to better understand the topic and the relationship between different levels of factors in the IGLO model, for example, the way organisational factors affect group and leader-level factors.

Strength and limitations of this study

The main strengths of our systematic literature review are (1) the clear overview of the factors that may support working informal caregivers of older people based on the IGLO model and our review showcases the complexity and the numerous factors that influence the impact of eldercare on informal caregivers. We provided an in-depth analysis of different levels of demands and resources regarding their implications, interactions with other factors and limitations especially in the work context and (2) the identification of understudied areas based on the IGLO model. The IGLO model provides a framework to guide changes in HR approaches which has benefits beyond the practical implications of existing reviews. For example, if an organisation applies the IGLO model to examine the resources and demands within specific cases of informal eldercare, they can integrate these findings with other HR approaches that apply IGLO. Thus, organisations may find it less effortful to structure or prioritise interventions that are able to support a broad audience rather than having separate interventions for all different types of issues impacting employees (Nielsen & Christensen, 2021).

Despite these strengths, some limitations must be considered. We included only English literature. The majority of the studies analysed data collected from Western countries such as the US and countries in Europe, thus the findings may represent phenomena heavily influenced by Western culture and societal settings. We also excluded qualitative studies to better integrate the findings from quantitative studies. A subsequent review should include qualitative studies to identify and amplify the subjective experience and thoughts of individuals. Grey literature, such as dissertations, unpublished articles, public or private sector research were also not included in this

review due to concerns in relation to methodological rigour and conflicts of interest. Due to the heterogeneity of the studies included in this literature review, we were unable to conduct a meta-analysis. We are therefore not able to make conclusions on the exact importance, frequency, and effects of each demand and resource that we mentioned above. Without adequate studies available for meta-analysis, or a single study that examines multi-levels of resources and demands at the same time, this leaves with us an incomplete jigsaw puzzle. In the future, when there are sufficient studies, a meta-analysis could be conducted to verify the results of this review and clarify the current inconsistencies.

Conclusions

The contributions of the paper are threefold. First, by synthesising research from different disciplines regarding the impact of eldercare on their working informal caregivers, we identified factors that could modify the relationship between the impacts of eldercare to health and wellbeing outcomes and work-related outcomes. This is the first paper to review the knowledge around working informal caregivers systematically by employing the JD-R model and a four-level IGLO model to identify the gaps in research in the area of OHP. Second, this study provided specific insights to employers, managers, and occupational health psychologists to support working informal caregivers in the workplace. Interventions to support informal caregivers can be developed at different levels, and some support is achievable even for organisations with limited resources. Third, we found that the current literature tends to be focused around certain levels and/or outcomes. The field also needs more diverse methods and broader scopes when further exploring this topic. The comprehensiveness of variable considerations and diversity in research methods are key areas to improve in this field of study.

Acknowledgements

We dedicate this paper to our dearest late Dr. Christine A. Sprigg.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The author(s) reported there is no funding associated with the work featured in this article.

ORCID

Winnie Wing Yee Lam  <http://orcid.org/0000-0001-5494-7185>

Karina Nielsen  <http://orcid.org/0000-0001-9685-9570>

Ciara M. Kelly  <http://orcid.org/0000-0001-9648-0720>

References

- Alam, M., Ezzedeen, S. R., & Latham, S. D. (2019). Managing work-generated emotions at home: An exploration of the “bright side” of emotion regulation. *Human Resource Management Review*, 29(4), 100678. <https://doi.org/10.1016/j.hrmr.2018.12.002>
- Allen, T. D., Johnson, R. C., Saboe, K. N., Cho, E., Dumani, S., & Evans, S. (2012). Dispositional variables and work-family conflict: A meta-analysis. *Journal of Vocational Behavior*, 80(1), 17–26. <https://doi.org/10.1016/j.jvb.2011.04.004>
- Andersson, M. A., Walker, M. H., & Kaskie, B. P. (2019). Strapped for time or stressed out? Predictors of work interruption and unmet need for workplace support among informal elder caregivers. *Journal of Aging and Health*, 31(4), 631–651. <https://doi.org/10.1177/0898264317744920>
- Bakker, A. B., & Demerouti, E. (2007). The Job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22(3), 309–328. <https://doi.org/10.1108/02683940710733115>
- Barnett, R. C., Gareis, K. C., Gordon, J. R., & Brennan, R. T. (2009). Usable flexibility, employees’ concerns about elders, gender, and job withdrawal. *The Psychologist-Manager Journal*, 12(1), 50–71. <https://doi.org/10.1080/10887150802665356>
- Barrah, J., Shultz, K., Baltes, B., & Stolz, H. (2004). Men’s and women’s eldercare-based work-family conflict: Antecedents and work-related outcomes. *Fathering: A Journal of Theory, Research, and Practice About Men as Fathers*, 2(3), 305–330. <https://doi.org/10.3149/fth.0203.305>
- Bernard, M., & Phillips, J. E. (2007). Working carers of older adults. *Community, Work and Family*, 10(2), 139–160. <https://doi.org/10.1080/13668800701270075>
- Brown, M., & Pitt-Catsoupes, M. (2013). Workplace characteristics and work-to-family conflict: Does caregiving frequency matter? *Journal of Gerontological Social Work*, 56(5), 452–460. <https://doi.org/10.1080/01634372.2013.792910>
- Brown, M., & Pitt-Catsoupes, M. (2016). A mediational model of workplace flexibility, work-family conflict, and perceived stress among caregivers of older adults. *Community, Work and Family*, 19(4), 379–395. <https://doi.org/10.1080/13668803.2015.1034656>
- Burch, K. A., Dugan, A. G., & Barnes-Farrell, J. L. (2019). Understanding what eldercare means for employees and organizations: A review and recommendations for future research. *Work, Aging and Retirement*, 5(1), 44–72. <https://doi.org/10.1093/workar/way011>
- Calvano, L. (2013). Tug of war: Caring for our elders while remaining productive at work. *Academy of Management Perspectives*, 27(3), 204–218. <https://doi.org/10.5465/amp.2012.0095>
- Carers, U. K. (2015). *Facts about carers: Policy briefing* (Issue October).
- Carers, U. K. (2019). Juggling work and unpaid care.
- Carlson, D., Ferguson, M., Hunter, E., & Whitten, D. (2012). Abusive supervision and work-family conflict: The path through emotional labor and burnout. *Leadership Quarterly*, 23(5), 849–859. <https://doi.org/10.1016/j.leaqua.2012.05.003>
- Cheng, Z., Jepsen, D. M., & Wang, B. (2020). A dynamic analysis of informal elder caregiving and employee wellbeing. *Journal of Business and Psychology*, 35, 85–98. <https://doi.org/10.1007/s10869-018-9603-4>
- Clancy, R. L., Fisher, G. G., Daigle, K. L., Henle, C. A., McCarthy, J., & Fruhauf, C. A. (2020). Eldercare and work among informal caregivers: A multidisciplinary review and recommendations for future research. *Journal of Business and Psychology*, 35(1), 9–27. <https://doi.org/10.1007/s10869-018-9612-3>
- Crespo, M., Guillén, A. I., & Piccini, A. T. (2019). Work experience and emotional state in caregivers of elderly relatives. *Spanish Journal of Psychology*, 22(e34), 1–11. <https://doi.org/10.1017/sjp.2019.34>
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25(3), 357–384. <https://doi.org/10.1177/014920639902500305>
- Day, A., & Nielsen, K. (2017). What does our organization do to help our well-being? Creating healthy workplaces and workers. In N. Chmiel, F. Fraccaroli, & M. Sverke (Eds.), *An*

- introduction to work and organizational psychology* (pp. 295–314). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781119168058.ch16>
- Dembe, A. E., Partridge, J. S., Dugan, E., & Piktialis, D. S. (2011). Employees' satisfaction with employer-sponsored elder-care programs. *International Journal of Workplace Health Management*, 4(3), 216–227. <https://doi.org/10.1108/17538351111172581>
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- Dugan, A. G., Barnes-Farrell, J. L., Fortinsky, R. H., & Cherniack, M. G. (2020). Acquired and persistent eldercare demands: Impact on worker well-being. *Journal of Applied Gerontology*, 39(4), 357–367. <https://doi.org/10.1177/0733464819870034>
- Dugan, A. G., Fortinsky, R. H., Barnes-Farrell, J. L., Kenny, A. M., Robison, J. T., Warren, N., & Cherniack, M. G. (2016). Associations of eldercare and competing demands with health and work outcomes among manufacturing workers. *Community, Work and Family*, 19(5), 569–587. <https://doi.org/10.1080/13668803.2016.1150809>
- Duxbury, L., Higgins, C., & Smart, R. (2011). Elder care and the impact of caregiver strain on the health of employed caregivers. *Work*, 40(1), 29–40. <https://doi.org/10.3233/WOR-2011-1204>
- Ghaffar, A. (2020). The impact of the financial cost of caring for greying on emotional exhaustion in the workplace: The mediating role of stress. *Turkish Journal of Business Ethics*, 13(1), 1–22. <https://doi.org/10.12711/tjbe.2020.13.1.0139>
- Gordon, J. R., & Rouse, E. D. (2013). The relationship of Job and elder caregiving involvement to work-caregiving conflict and work costs. *Research on Aging*, 35(1), 96–117. <https://doi.org/10.1177/0164027511424293>
- Greaves, C. E., Parker, S. L., Zacher, H., & Jimmieson, N. L. (2015). Turnover intentions of employees with informal eldercare responsibilities. *The International Journal of Aging and Human Development*, 82(1), 79–115. <https://doi.org/10.1177/0091415015624418>
- Halbesleben, J. R. B., Neveu, J. P., Paustian-Underdahl, S. C., & Westman, M. (2014). Getting to the “COR”: Understanding the role of resources in conservation of resources theory. *Journal of Management*, 40(5), 1334–1364. <https://doi.org/10.1177/0149206314527130>
- Health and Social Care Information Centre. (2017). *Health survey for England: Summary of key findings* (Issue December 2017).
- Hoff, A., Reichert, M., Hamblin, K. A., Perek-bialas, J., & Principi, A. (2014). Informal and formal reconciliation strategies of older peoples' working carers: The European carers @ work project. *Vulnerable Groups & Inclusion*, 5(1), 24264. <https://doi.org/10.3402/vgi.v5.24264>
- Ilies, R., Johnson, M. D., Judge, T. A., & Keeney, J. (2011). A within-individual study of interpersonal conflict as a work stressor: Dispositional and situational moderators. *Journal of Organizational Behavior*, 32(1), 44–64. <https://doi.org/10.1002/job.677>
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87(3), 530–541. <https://doi.org/10.1037/0021-9010.87.3.530>
- Juratovac, E., & Zauszniewski, J. A. (2014). Full-time employed and a family caregiver: A profile of women's workload, effort, and health. *Women's Health Issues*, 24(2), e187–e196. <https://doi.org/10.1016/j.whi.2014.01.004>
- Keefe, J. M., & Fancey, P. J. (2002). Work and eldercare: Reciprocity between older mothers and their employed daughters. *Candanian Journal on Aging*, 21(2), 229–242. <https://doi.org/10.1017/S0714980800001495>
- Kim, J., Ingersoll-Dayton, B., & Kwak, M. (2011). Balancing eldercare and employment: The role of work interruptions and supportive employers. *Journal of Applied Gerontology*, 32(3), 347–369. <https://doi.org/10.1177/0733464811423647>
- Kim, N., & Gordon, J. (2014). Addressing the stress of work and elder caregiving of the graying workforce: The moderating effects of financial strain on the relationship between work-caregiving conflict and psychological well-being. *Human Resource Management*, 53(5), 723–747. <https://doi.org/10.1002/hrm.21582>

- Kim, Y. M., & Cho, S. I. (2018). Associations of family demands and work–life conflict with musculoskeletal disorders among Korean workers. *International Journal of Environmental Research and Public Health*, 15(7), 1419. <https://doi.org/10.3390/ijerph15071419>
- Kossek, E. E., Colquitt, J. A., & Noe, R. A. (2001). Caregiving decisions, well-being, and performance: The effects of place and provider as a function of dependent type and work–family climates. *Academy of Management Journal*, 44(1), 29–44. <https://doi.org/10.2307/3069335>
- Kossek, E. E., Thompson, R. J., Lawson, K. M., Bodner, T., Perrigino, M. B., Hammer, L. B., Buxton, O. M., Almeida, D. M., Moen, P., Hurtado, D. A., Wipfli, B., Berkman, L. F., & Bray, J. W. (2019). Caring for the elderly at work and home: Can a randomized organizational intervention improve psychological health? *Journal of Occupational Health Psychology*, 24(1), 36–54. <https://doi.org/10.1037/ocp0000104>
- Lam, J., & Garcia-roman, J. (2017). General and proximal associations between unpaid eldercare, time constraints and subjective well-being. *International Journal of Care and Caring*, 1(1), 83–97. <https://doi.org/10.1332/239788217X14866303262183>
- Larsen, T. P. (2010). Flexicurity from the individual’s work - life balance perspective: Coping with the flaws in European child - and eldercare provision. *Journal of Industrial Relations*, 52(5), 575–593. <https://doi.org/10.1177/0022185610381562>
- Lee, J. A., Foos, P. W., & Clow, C. L. (2010). Caring for one’s elders and family-to-work conflict. *Psychologist-Manager Journal*, 13(1), 15–39. <https://doi.org/10.1080/10887150903540185>
- Lee, J. A., Walker, M., & Shoup, R. (2001). Balancing elder care responsibilities and work: The impact on emotional health. *Journal of Business and Psychology*, 16(2), 277–289. <https://doi.org/10.1023/A:1011165318139>
- Lewis, S., Gambles, R., & Rapoport, R. (2007). The constraints of a “work-life balance” approach: An international perspective. *International Journal of Human Resource Management*, 18(3), 360–373. <https://doi.org/10.1080/09585190601165577>
- Longacre, M. L., Valdmanis, V. G., Handorf, E. A., & Fang, C. Y. (2017). Work impact and emotional stress among informal caregivers for older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 72(3), 522–531. <https://doi.org/10.1093/geronb/gbw027>
- Lozano, Y. M., Martinez-Ramos, G. P., & Pilotti, M. (2016). Assessing caregivers’ needs in the workplace: A pilot study. *Educational Gerontology*, 42(7), 465–473. <https://doi.org/10.1080/03601277.2016.1156378>
- Martire, L. M., & Stephens, M. A. P. (2003). Juggling parent care and employment responsibilities: The dilemmas of adult daughter caregivers in the workforce. *Sex Roles*, 48(3–4), 167–173. <https://doi.org/10.1023/A:1022407523039>
- Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2011). Antecedents of work–family conflict: A meta-analytic review. *Journal of Organizational Behavior*, 32(5), 689–725. <https://doi.org/10.1002/job.695>
- Morganson, V. J., Major, D. A., & Litano, M. L. (2017). A multilevel examination of the relationship between leader–member exchange and work–family outcomes. *Journal of Business and Psychology*, 32(4), 379–393. <https://doi.org/10.1007/s10869-016-9447-8>
- Nielsen, K., & Christensen, M. (2021). Positive participatory organizational interventions: A multi-level approach for creating healthy workplaces. *Frontiers in Psychology*, 12, 696245. <https://doi.org/10.3389/fpsyg.2021.696245>
- Nielsen, K., Nielsen, M. B., Ogbonnaya, C., Käsälä, M., Saari, E., & Isaksson, K. (2017). Workplace resources to improve both employee well-being and performance: A systematic review and meta-analysis. *Work and Stress*, 31(2), 101–120. <https://doi.org/10.1080/02678373.2017.1304463>
- OECD. (2018). *Long-term care*. <http://www.oecd.org/els/health-systems/long-term-care.htm>
- OECD/European Commission. (2013). *United Kingdom. Highlights from a good life in old age? Monitoring and improving quality in long-term care*. June.
- Oldenkamp, M., Bültmann, U., Wittek, R. P. M., Stolck, R. P., Hagedoorn, M., & Smidt, N. (2018). Combining informal care and paid work: The use of work arrangements by working adult-child caregivers in the Netherlands. *Health and Social Care in the Community*, 26(1), e122–e131. <https://doi.org/10.1111/hsc.12485>

- Park, H. I., Beehr, T. A., Han, K., & Grebner, S. I. (2012). Demands-abilities fit and psychological strain: Moderating effects of personality. *International Journal of Stress Management*, 19(1), 1–33. <https://doi.org/10.1037/a0026852>
- Pei, X., Luo, H., Lin, Z., Keating, N., & Fast, J. (2017). The impact of eldercare on adult children's health and employment in transitional China. *Journal of Cross-Cultural Gerontology*, 32(3), 357–372. <https://doi.org/10.1007/s10823-017-9330-8>
- Peng, Y., Jex, S., Zhang, W., Ma, J., & Matthews, R. A. (2020). A. eldercare demands and time theft: Integrating family-to-work conflict and spillover–crossover perspectives. *Journal of Business and Psychology*, 35(1), 45–58. <https://doi.org/10.1007/s10869-019-09620-3>
- Peng, Y., Xu, X., Matthews, R., & Ma, J. (2020). B. One size fits all? Contextualizing family-supportive supervision to help employees with eldercare responsibilities. *Journal of Occupational Health Psychology*, 25(5), 368–383. <https://doi.org/10.1037/ocp0000237>
- Reid, R. C., Stajduhar, K. I., & Chappell, N. L. (2010). The impact of work interferences on family caregiver outcomes. *Journal of Applied Gerontology*, 29(3), 267–289. <https://doi.org/10.1177/0733464809339591>
- Rofcanin, Y., LasHeras, M., Escribano, P. I., & Stanko, T. (2019). FSSBs and elderly care: Exploring the role of Organizational context on employees' overall health and work–family balance satisfaction. *Journal of Business and Psychology*, 35, 403–419. <https://doi.org/10.1007/s10869-019-09629-8>
- Sakka, M., Sato, I., Ikeda, M., Hashizume, H., Uemori, M., & Kamibeppu, K. (2016). Family-to-work spillover and appraisals of caregiving by employed women caring for their elderly parents in Japan. *Industrial Health*, 54(3), 272–281. <https://doi.org/10.2486/indhealth.2015-0029>
- Scharlach, A. E., & Fredriksen, K. I. (1994). Elder care versus adult care does care recipient age make a difference. *Research on Aging*, 16(1), 43–68. <https://doi.org/10.1177/0164027594161004>
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In G. F. Bauer, & O. Hämmig (Eds.), *Bridging occupational, organizational and public health: A transdisciplinary approach* (pp. 1–249). Springer.
- Schneider, U., Trukeschitz, B., Muhlmann, R., & Ponocny, I. (2013). Do I stay or do I go? – Job change and labor market exit intentions of employees providing informal care to older adults. *Health Economics*, 22(December 2012), 1230–1249. <https://doi.org/10.1002/hec.2880>
- Shoptaugh, C. F., Phelps, J. A., & Visio, M. E. (2004). Employee eldercare responsibilities: Should organizations care? *Journal of Business and Psychology*, 19(2), 179–196. <https://doi.org/10.1007/s10869-004-0547-5>
- Skakon, J., Nielsen, K., Borg, V., & Guzman, J. (2010). Are leaders' well-being, behaviours and style associated with the affective well-being of their employees? A systematic review of three decades of research. *Work and Stress*, 24(2), 107–139. <https://doi.org/10.1080/02678373.2010.495262>
- Stephens, M. A. P., Townsend, A. L., Martire, L. M., & Druley, J. A. (2001). Balancing parent care with other roles: Interrole conflict of adult daughter caregivers. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 56(1), 24–P34. <https://doi.org/10.1093/geronb/56.1.P24>
- Suri, H., & Clarke, D. (2009). Advancements in research synthesis methods: From a methodologically inclusive perspective. *Review of Educational Research*, 79(1), 395–430. <https://doi.org/10.3102/0034654308326349>
- Tement, S., & Korunka, C. (2015). The moderating impact of types of caregiving on job demands, resources, and their relation to work-to-family conflict and enrichment. *Journal of Family Issues*, 36(1), 31–55. <https://doi.org/10.1177/0192513X13483971>
- Tennstedt, S. L., & Gonyea, J. G. (1994). An agenda for work and eldercare research: Methodological challenges and future directions. *Research on Aging*, 16(1), 85–108. <https://doi.org/10.1177/0164027594161006>
- The World Bank. (2017). *Population ages 65 and above*. <https://data.worldbank.org/>
- Trukeschitz, B., Schneider, U., Muhlmann, R., & Ponocny, I. (2013). Informal eldercare and work-related strain. *Journals of Gerontology - Series B Psychological Sciences and Social Sciences*, 68(2), 257–267. <https://doi.org/10.1093/geronb/gbs101>

- Wang, Y.-N., Hsu, W.-C., Yang, P.-S., Yao, G., Chiu, Y.-C., Chen, S.-T., Huang, T.-H., & Shyu, Y.-I. L. (2018). Caregiving demands, job demands, and health outcomes for employed family caregivers of older adults with dementia: Structural equation modeling. *Geriatric Nursing, 39*(6), 676–682. <https://doi.org/10.1016/j.gerinurse.2018.05.003>
- Wang, Y. N., Shyu, Y. I. L., Chen, M. C., & Yang, P. S. (2011). Reconciling work and family caregiving among adult-child family caregivers of older people with dementia: Effects on role strain and depressive symptoms. *Journal of Advanced Nursing, 67*(4), 829–840. <https://doi.org/10.1111/j.1365-2648.2010.05505.x>
- Wang, Y. N., Shyu, Y. I. L., Tsai, W. C., Yang, P. S., & Yao, G. (2013). Exploring conflict between caregiving and work for caregivers of elders with dementia: A cross-sectional, correlational study. *Journal of Advanced Nursing, 69*(5), 1051–1062. <https://doi.org/10.1111/j.1365-2648.2012.06092.x>
- Williams, A., Sethi, B., Duggleby, W., Ploeg, J., Markle-Reid, M., Peacock, S., & Ghosh, S. (2016). A Canadian qualitative study exploring the diversity of the experience of family caregivers of older adults with multiple chronic conditions using a social location perspective. *International Journal for Equity in Health, 2*(15), 40. <https://doi.org/10.1186/s12939-016-0328-6>
- Wilson, M. R., VanHoutven, C. H., Stearns, S. C., & Clipp, E. C. (2007). Depression and missed work among informal caregivers of older individuals with dementia. *Journal of Family and Economic Issues, 28*(4), 684–698. <https://doi.org/10.1007/s10834-007-9081-8>
- Wolff, J. L., Spillman, B. C., Freedman, V. A., & Kasper, J. D. (2016). A national profile of family and unpaid caregivers who assist older adults with health care activities. *JAMA Internal Medicine, 176*(3), 372–379. <https://doi.org/10.1001/jamainternmed.2015.7664>
- Yeandle, S., & Buckner, L. (2017). Older Workers and care-giving in England: The policy context for older workers' employment patterns. *Journal of Cross-Cultural Gerontology, 32*(3), 303–321. <https://doi.org/10.1007/s10823-017-9332-6>
- Zacher, H., Jimmieson, N. L., & Winter, G. (2012). Eldercare demands, mental health, and work performance: The moderating role of satisfaction with eldercare tasks. *Journal of Occupational Health Psychology, 17*(1), 52–64. <https://doi.org/10.1037/a0025154>
- Zacher, H., & Schulz, H. (2014). Employees' eldercare demands, strain, and perceived support. *Journal of Managerial Psychology, 30*(2), 183–198. <https://doi.org/10.1108/JMP-06-2013-0157>
- Zacher, H., & Winter, G. (2011). Eldercare demands, strain, and work engagement: The moderating role of perceived organizational support. *Journal of Vocational Behavior, 79*(3), 667–680. <https://doi.org/10.1016/j.jvb.2011.03.020>