RETIREMENT OUTCOMES FOR FEMALE PRIMARY CARERS IN AUSTRALIA: A LITERATURE REVIEW

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ABSTRACT

Due to an ageing population, encouraging self-funded retirement has been a key goal of Australian government policy for the last three decades. However, the current model of superannuation—funded primarily by the Superannuation Guarantee (SG)—leaves significant segments of the Australian population at a disadvantage. These segments include groups of individuals who do not participate in the paid workforce due to their performance of non-paid work. This research paper examines the disadvantage experienced by female primary carers in Australia under the current model of superannuation.

The body of literature on superannuation has identified that a significant proportion of working age women take time out of the workforce to provide care and receive a minimal amount of assistance from the government and that this has a detrimental effect on their retirement outcomes. However, this paper identifies a gap in the existing literature as it does not consider the financial consequences in retirement for women who must care for their parents. In particular, this paper identifies the disadvantage experienced by those women who simultaneously, or sequentially, 'sandwich' caring for their parents with raising children.

Introduction

During the 1970s and 1980s, policy advisory bodies, governments and global institutions including the World Bank in 1994 expressed concern regarding future capacity to meet the financial needs of ageing populations in OECD nations (World Bank 1994). Suggestions for reform were focused on replacing, as far as possible, public Age Pensions with private systems based on life course superannuation contributions as a means of financing retirement. This strategy was ostensibly aimed at relieving the fiscal burden on future generations of taxpayers. However, the timing of its implementation and the surrounding political dialogue are indicative of a belief that public bodies were, by comparison to markets, inefficient in allocating social resources.

The Australian Retirement Income System was introduced in 1992 to alleviate what was perceived to be an impending fiscal crisis (Edey and Simon, 1996). Based on World Bank guidelines, Australia's three-pillared system consists of a means-tested public Age Pension, income from the investment of employment-based mandatory contributions and additional voluntary contributions for those willing and able to afford these. The architects of this scheme claimed that it was equitable, considering the retention of the Age Pension as a 'safety net' for those unable to fund themselves in retirement.

Since its implementation, Australia's Superannuation Guarantee (SG) has generated a body of research and opinion challenging claims that it is efficient or equitable or both (e.g. Cox, 2007). Critics of the system variously focus on its proffered administrative efficiency, its stability and sustainability in the context of fluctuating global and macroeconomic conditions, and its fundamental inequity. With regards to equity, a significant portion of critics emphasise that the SG particularly disadvantages women. They predict that many women in Australia are likely to rely to some degree on the Age Pension in retirement, which is concerning because women are more likely to have greater financial needs in retirement than men due to their longer life expectancy.

This is particularly the case for those women who work as carers, both formally and informally. The Australian Bureau of Statistics (ABS) 2012 Survey of Disability, Ageing and Carers (SDAC), defines a carer as:

> a person of any age who provides informal assistance, in terms of help or supervision to an older person or someone who has a disability or a long-term health condition. This assistance has been, or is likely to be, ongoing for at least six months (ABS 2012a, p.1).

The paid care industry is particularly gender-based in Australia, as well as internationally, with predominantly female employees. The gendered experiences and exploitation of formal care workers in Australia and in other countries have been extensively analysed and documented (Palmer and Eveline, 2012; Hogan, 2004; De Bellis, 2006; Healy and Moskes, 2005; Nelson, 1999). Although the formal care industry has grown exponentially in recent years, females employed in formal care work continue to receive low rates of pay and may have to sustain onerous working conditions (Smith, 2011). Lower rates of pay result in lower superannuation contributions and, thus, smaller retirement incomes. Women working as informal primary carers (providing full-time care to children, partners, or elderly parents) may qualify for government funded Carer Payments or Carer Allowances.

Feminist political economists have observed that employment and income-based retirement income systems are inherently gender-biased (Estes, 2004), given women's relative underrepresentation in the paid labour force and the persistent gender wage gap in Australia. For example, the median account balance for a man aged 60–64 was $110,000 in 2015–16, compared to just $36,000 for women of the same age (Clare, 2017, p.5). Patriarchal attitudes to women's labour in the historical transition from largely agricultural to industrial market societies, reconceptualized 'work' and 'domestic' activities into different categories (Folbre, 1991). In pre-capitalist societies, however, 'work' and 'domestic' activities were effectively undifferentiated. Thus, 'work' became identified with roles performed in the public sphere, while 'domestic' labour was performed in the private sphere. Feminists generally articulate the value of women's unpaid labour (and the implicit associated degree of economic exploitation) in terms of market-based value contributions to Gross Domestic Product. This dichotomy between legitimate 'work' that deserves to be paid and informal 'domestic' work is still evident in the lower rates of pay for formal caregiving roles and the purely governmental support payments offered informal carers, such as the Carer Payment or Carer Allowance. A 2015 study by Deloitte Access Economics estimated that one in eight Australians (2.86 million people) were providing informal care and 825,000 people identified as "primary carers" (Deloitte Access Economics, 2015, p.ii). In addition, the study revealed that informal carers provided 1.9 billion hours of care in 2015, with a total estimated cost of $60.3 billion (Deloitte Access Economics, 2015, p.15).

As a result, feminists such as Estes (2004) interpret the likely less favourable retirement outcomes for women in Australia as manifesting a patriarchal system that 'rewards' women's unpaid social labour with various degrees of poverty. In this regard, projected estimates of accumulated superannuation in the existing literature have highlighted the significance of the life course timing of paid employment, especially as it relates to particular groups of women who are at risk of living in poverty in retirement (ACOSS, 2012). These include mothers raising children and then returning to full-time or part-time work, migrant women from non-English speaking backgrounds, and women who divorce or are separated from their partners.

Several studies have focused on the likely dire financial outcomes in retirement for those female informal primary carers who provide important assistance to family members, friends and others (COTA Australia [formerly Council on the Ageing], 2015; Womens' Health in the North (WHIN) and Women's Health Goulburn North East (WHGNE), 2013). The examination of likely retirement incomes for these informal carers has been motivated by both their significant representation in the Australian population (nearly 12%) and the sizeable social and economic value of their unpaid labour. These studies have afforded valuable insights into the relationship between the life course timing of care provision and financial outcomes for carers in retirement. Additionally, these studies have focused on outcomes relating to just two of a range of care situations in Australia—namely, informal care of children with disabilities and care for a partner, the latter assumed to be undertaken mostly by mid-aged females.

However, in only focusing on these cohorts, researchers have failed to consider the approximate 30 per cent of working age carers who provide elder care. Many of these informal carers of elders could be considered members of a sandwich generation. This term is used to describe the group of mostly female baby boomers who, having had children at a relatively later age, are consequently faced with the dual responsibility of supporting and caring for teenaged and young adult children as well as their elderly parents (Fuller-Thomson, *et al.* 1997). Iskra and Smark (2017) suggest that the baby boomer generation, in particular, is more likely to have to bear financial responsibility for "three generations—their parents, themselves and their children—over a longer lifetime" (p.49).

Without further investigation, it cannot be assumed that financial outcomes in retirement for this group can be straightforwardly extrapolated from outcomes for the carer cohorts previously considered.

Evaluation of the superannuation system in Australia

While Australia's three-pillared system is considered by some to be one of the best retirement systems in the world—supported by cross-national studies in which Australia's current system figures favourably—theoretical analysis and modelling of the likely results has generated a range of criticisms (Hely, 1993–1994; Holzmann and Hinz, 2005; Australian Centre for Financial Studies, 2009). These criticisms include: the contention that the superannuation contributions being made are insufficient for pension replacement for the majority of working Australians; that the superannuation system is fragile; superannuation returns are highly sensitive to financial and macroeconomic fluctuations (Deloitte Access Economics, 2014); the superannuation system is not cost efficient; as well as claims that it is inequitable and unfair (Colebatch, 2009; Rice Warner Actuaries, 2012; Brown, 1994; Donath, 1998; Tinnion and Rothman, 1999; King, 2001; Preston and Austen, 2001; Kelly, Percival and Harding, 2002; Jefferson and Preston, 2002). Most importantly for the purpose of this paper, the superannuation system, being employment and income-based, has been identified by some critics as inherently gender-biased (Clare, 2001). In addition, the ratio of working to non-working people in Australia is becoming increasingly disproportionate and is "expected to decrease from 5:1 today to 2.7:1 by 2050" (Rickwood, *et al.* 2017, p.48).

A review of the Superannuation Guarantee by Kelly (2012) for the Certified Practising Accountants of Australia (CPA) identified that, contrary to the goal of superannuation—to allow individuals to self-fund their retirement, deeming the Age Pension as largely unnecessary—the current system has failed segments of Australians:

> Many who have spent a large portion of their working lives under this system will still be relying on the pension (Kelly, 2012, p.2).

Of particular note is CPA's claim that the current superannuation scheme will be unable to allow those "who have spent a large portion of their working lives under this system", to wholly self-fund their retirement (Kelly, 2012, p.2). If those individuals who spend the vast majority of their working lives employed (statistically males more than females), it is clear that females who provide primary care will need to rely heavily on the Age Pension, retiring with little superannuation.

The inability of the Superannuation Guarantee to sustain independent financial income for retirees is supported by data from the Association of Superannuation Funds of Australia (ASFA). While their data demonstrates a gradual increase in superannuation balances for men and women across all age groups during the period 2011–2016, these figures ($270,710 for men and $157,050 for women in 2015–2016) still fall far short of the $545,000 ASFA identifies as necessary to fund a comfortable retirement (ASFA, 2017, p.13).

Thus, these studies identify fundamental flaws in the very concept of employment and income-based superannuation systems. This is demonstrated by the high percentage of women who must provide primary care for children, partners or parents and, as such, spend much of their working careers unemployed and without employer contributions to their superannuation. Further, it has been argued that employment and income-based superannuation schemes are more susceptible than public pension schemes to the destabilising impact of macroeconomic shocks. As Borowski (2013) has observed, employment and income-based superannuation systems are inherently susceptible to a range of risks, including inflation, exchange rate, investment, longevity, and political risks.

Fairness and equity

Although some studies investigating the equity of Australia's superannuation system focus on the tax treatment of voluntary contributions, a greater range of studies question whether the very concept of employment and income-based retirement provisioning can itself be fair (e.g. Sharp and Austen, 2007; Clare, 1994a; Clare, 1994b; Cox, 1994; Larkin, 1994; Pender, 1994; Rosenman and Winocur, 1994; Walpole, 1994; Roseman, 1995; Sharp, 1995). This line of criticism draws attention to the social structural context in which such schemes are implemented. Here it is worth pointing out that the neo-liberal regimes that have implemented private employment income-based superannuation schemes have, in the same period, presided over increasing disparities in the distribution of income and wealth as well as marked shifts from permanent full-time to casual and intermittent employment (Palley, 2007).

With reference to the current Australian system, of particular concern are those who are unemployed and underemployed. Some employers of the latter—i.e. casual and part-time workers— are exempted from making mandatory contributions, depending on hours worked and wages earned, as are non-business employers. Individuals who experience sustained periods of unemployment or underemployment during their lifetimes will likely have retirement funds well below those of the 'ideal' candidates in continuous full-time employment.

Although those who do not accumulate sufficient superannuation funds due to sporadic and/or poorly paid employment can always fall back on the welfare safety net of the Age Pension, its extreme modesty (particularly for renters, see Johnson *et al.* 2016) suggest that the financial struggles of the poor will not cease upon retirement. The prediction that the impoverished are likely to continue struggling under the current system is supported by a range of studies indicating a rise in the rate of elder poverty in Australia over the past few decades (Council on the Ageing, 2002; Harding, *et al.* 2001; ACOSS, 2012). This relationship is supported also by cross-national studies demonstrating a significant inverse relationship between reliance on private retirement income and levels of elder poverty in nations with relatively mature superannuation schemes (Scheiwe, 1999; Blackburn, 2002; O'Brien and Burgess, 2004).

Gender bias

A range of studies such as Estes (2004) and Cox (2007) have emphasised that, while Australia's superannuation system is inefficient and inequitable, it is particularly so for women. Critics of Australia's Superannuation Guarantee emphasise that any assessment of the current system should proceed from recognition of the fact that women generally require a greater amount of retirement income than men. This is partly because, on average, women live longer than men. They are also more likely to retire earlier than men. The ABS (2009) indicates that by age 65 approximately 67 per cent of men in Australia and 84 per cent of women will have retired.

Additionally, women also appear to require more income in retirement because at this period in their lives they are less likely than men to have repartnered or remarried (ABS, 2012b). This is significant given the increasing rates of separation and divorce in Australia over the past half century. The Family Law Act 1975, which came into operation at the beginning of 1976, has been identified as a contributing factor as it provided for 'no fault' divorce (Australian Government Department of Social Services, 2005). In 2016, there were 118,401 marriages registered and 46,604 divorces granted in Australia (ABS, 2016).

Women's greater need for sufficient superannuation income may also be attributed to the disproportionate burden on unpartnered adults of meeting household costs (Wells, 2012). These gender patterns in longevity and repartnering not only suggest that women's income needs in retirement are greater than men's, but also undermine any assumption that women can, or should be expected to, rely on male partners or male family members to meet their financial needs in retirement.

Given that the financial needs of women in retirement will generally be greater than those of men due to longer life expectancy, it is concerning that Australia's Superannuation Guarantee is biased against women. This bias is suggested by studies highlighting the significant gender gap in existing levels of superannuation savings. For example, a study of approximately 25,000 people in Australia highlighted an approximate 40 per cent gap between the superannuation savings of men and women—women were found to hold an average of $92,000 in superannuation savings, while men held an average of $154,000. Moreover, the difference appears to be more pronounced for those aged between 58–62—that is, for those approaching retirement, which has been recognised as largely a generational effect (Johnson, *et al.*, 2016; Stewart, 2012a; 2012b; Clare, 2017)

The 2016 study by Bianchi *et al.* provides baseline estimates of projected superannuation balances of Indigenous Australian workers. The results indicate a significant retirement income gap when compared with the median non-Indigenous male: 27 per cent for Indigenous males, and 39 percent for Indigenous females. Interestingly, Bianchi *et al.*'s data indicates far smaller differences in the superannuation balances of Indigenous males and females, than non-Indigenous Australians

(2016, p.372). This is due to the fact that male and female Indigenous Australians have nearly identical median income levels (Bianchi *et al.* 2016, p. 372).

As well as being the result of lower rates of pay for formal caring roles, and the fact that women must take time out of the workforce to perform informal caregiving roles, this superannuation disparity between Australian men and women is also the result of the gender pay gap. In Australia, this is indicated by the National Centre for Social and Economic Modelling (NATSEM) which suggests that, based on the work patterns of males and females in 2012, a 25-year-old man with a postgraduate degree is likely to earn $3.2 million over a lifetime, while a woman is likely to earn $2.5 million (NATSEM, 2012).

With the superannuation saving disparity identified between men and women in Stewart (2012), as well as the significant wage gap, many studies have predicted that the current Australian superannuation system will fail to adequately meet the retirement needs of many women. According to these studies, women in Australia will continue to rely heavily on the Age Pension in future (Olsberg, 2001; Kelly, Percival and Harding, 2001; Jefferson, 2003; 2005; Australian Human Rights Commission, 2009; Westpac Bank, 2013; Women in Super, 2014). It is important to note that these studies do not consider those women who must provide primary care for elders (parents or partner's parents) as well as children. If these studies demonstrate that the superannuation system will fail to adequately meet the retirement needs of many women (chiefly those who take a gap from the workforce to provide care for children), it will further fail to meet the retirement needs of those women who simultaneously, or sequentially, 'sandwich' caring for their parents with raising children.

Formal and informal female caregivers in Australia

In the 1970s when women began entering paid employment in large numbers, they were less able than men to combine previous caring responsibilities with paid work, especially when the caring responsibilities were demanding or onerous. This, along with the rise of the feminist movement, brought the issue of caring activities—who carers are, where and how they work, whether they are recognised and how they should be conceptualised—into the arena of public discourse. As a result, the terms "carer" and "caregiver" have become part of the vocabulary in post-industrial societies (Fine, 2007). Nonetheless, such terms commonly have vague boundaries and multiple uses. A specific terminology is required in order to avoid conceptual and empirical confusion. This paper primarily utilises carer definitions developed by the ABS.

Formal care work typically includes legally contracted work in childcare, aged care, nursing, and other health and welfare services in the community service sector primarily entailing direct, personal assistance with bodily or psychological wellbeing (ABS, 2003). Women's struggle to adequately balance caring responsibilities with paid work has resulted in the growth of the paid care industry (Smith, 2011).

Informal care work refers to unpaid carers and, in particular, those providing primary care. This may be care provided for children, partners, or elderly parents. In all cases, informal care work may be required for physical or psychological disability or long-term health conditions. There is no legal contract due or formal service provision.

In Australia, care work is further categorised in terms of the degree of assistance required and provided in carrying out activities in three core areas, such that a primary carer is defined as "someone who provides the most informal assistance to a person with a disability with one or more of the core activities of mobility, self-care and communication" (ABS, 2012a).

In estimating the extent of informal care work in Australia, it must be noted that the wide range of activities falling within this category makes it difficult to obtain precise figures. Additionally, it is important to note that many individuals providing such assistance may not regard their activity as 'work' or may not self-identify as carers (Qu, Edwards and Gray, 2012). Here, the difficulties are exacerbated by care work being undervalued, unrecorded and invisible in most industrial nations (Hess, 2013). As an estimate, in Australia in 2012, approximately 2.7 million people (11.9% of the population) were carers. Of these, 770,000 (3.4% of the population) identified as primary carers (ABS, 2012a). These numbers vary only slightly from those reported in earlier ABS Surveys and in The Household, Income and Labour Dynamics in Australia (HILDA) Waves 5–11 (ABS, 2008; Wilkins, 2014).

According to the 2012 Survey of Disability, Ageing and Carers, 39 per cent of carers reported providing 40 hours or more of care per week (ABS, 2012a). This is comparable with the hours reported in the Australian Government House of Representatives Standing Committee on Family, Community, Housing and Youth (2009) publication *Who Cares…? Inquiry into Better Support for Carers*. Female primary carers comprised the greatest portion of this group. Examining the 2006 cohort of carers receiving Carer Payment or Carer Allowance, only 11.6 per cent reported caring for a person with a disability for twenty hours or less a week, and 58 per cent reported providing more than 100 weekly hours of care. This was likely to include being 'on call' as well as direct care. However, as the authors of the survey observe:

> While the number of hours caring may not always represent direct care, even being on call has implications for the lives of the carers and their families. Carers may not feel that they can leave the person in care by themselves, which has implications for engaging in a social life outside of the house, independent of the care recipient, and also in employment (Edwards, *et al.* 2008, p.xiv).

In 2006, almost half of primary informal care recipients had some type of physical disability, 16 per cent had an intellectual or learning disability, approximately 11 per cent had a psychiatric condition, approximately 5 per cent had a sensory or speech impediment, and almost 3 per cent had brain injury (Edwards, *et al.* 2008). In 2012, the most common types of physical illness or disability experienced by informal care recipients included back problems, arthritis and related disorders, diseases of the nervous system (e.g. multiple sclerosis and cerebral palsy), autism and congenital problems (ABS, 2012a). Those with intellectual and developmental disabilities requiring care are likely to be younger, while those with physical disabilities are more likely to be elderly. Individuals with a psychiatric illness requiring high levels of care (predominantly schizophrenia and substance related disorders) are most likely to be aged between 18 and 24 years. Although 60 per cent of young people with mental illnesses recover over the course of their lifetimes, 15 per cent lose their lives to suicide and at least 20 per cent live with mental illness for the rest of their lives (ABS, 2007).

From the perspective of the carers, HILDA data pooled between 2005–2011 indicates that 44 per cent of these carers were caring for a co-resident partner, 16.8 per cent were caring for a co-resident elderly parent or partner's parent, 15.1 per cent for an elderly parent or partner's parent living elsewhere, almost 11 per cent for a co-resident adult child with a disability, and approximately 9 per cent for a young child with a disability (Wilkins, 2014; See Appendix A4, Table A4:1). ABS (2008) data indicates similar proportions, with females providing primary care for an elderly parent or partner's parent comprising almost 30 per cent of all carers. Edwards, *et al.* (2008) note that a significant number of females providing primary elder care did so for more than 40 hours a week, the same as ABS (2008) data for those caring for a child with a disability.

Here it is pertinent to note that the proportion of females providing informal elder care tends to be obscured in surveys focusing on co-resident carers, since elderly parents are less likely than children or partners to be living with their primary carer. The significant proportion of female carers providing primary care for a parent tends also to be obscured if both male and female primary carers are considered, since the great majority of the relevant males are aged over 70 and are caring for a partner (Wilkins, 2014).

This cohort of (mostly female) individuals caring for multiple care recipients could be considered members of a sandwich generation—those likely to be simultaneously or sequentially 'sandwiched' between raising children and caring for their parents. The existence of a significant cohort simultaneously caring for elderly parents and non-disabled children is supported by ABS data indicating that most carers of elderly parents are aged between 35–65 years; almost half of primary carers in this age range are themselves parents of children younger than 15 years of age (ABS, 2008). However, while the impacts of simultaneously caring for multiple individuals are reportedly considerable (Edwards, *et al.* 2008), the impacts of sequentially raising children and primary caring for an elderly parent (or spouse) are equally, if not sometimes more, significant for financial outcomes in retirement. The data on working aged carers with children is not likely to capture the full extent of sequential 'sandwich care' since it excludes parents of children over the age of 15. The employment and financial impacts of this type of care are likely to be more widely spread across the carer's working life and, thus, require further studies that specifically target and assess the superannuation outcomes of this cohort.

Characteristics of informal carers

In Australia in 2012, a higher proportion of females than males provided primary informal care. Females comprised almost 70 per cent of primary carers and 56 per cent of all other carers (ABS, 2012a). Pooled HILDA data for 2006 to 2011 indicates that, among the cohort of working aged people in Australia, women are much more likely to be primary carers than men (Wilkins, 2014). However, after the age of 70, men are more likely to be primary carers than women (ABS, 2008).

The majority of carers are of workforce age (18–64 years), representing 75.6 per cent of all carers. In fact the ABS 2012 Survey of Disability, Ageing and Carers specifies that most of these are aged between 35 and 64 years (ABS, 2012a). It is also important to note that in 2003 approximately 101,600 children aged less than 15 years were caring for disabled parents or other family members (Australian Institute of Health and Welfare, 2004), which may also set them on a course of entrenched caring roles across their life course. In terms of educational achievements in the working age population (over 15 years of age), carers were found to be less likely than non-carers to have completed a Bachelor's degree or above (ABS, 2012a). The great majority of carers were born in Australia, with the remainder most commonly immigrating from the United Kingdom or New Zealand (ABS, 2012a).

Labour force participation of carers

The large body of Australian and international literature on the labour force participation of carers overwhelmingly notes the correlation between the extent and intensity of unpaid primary care and the carer's lower levels of employment and financial wellbeing. (For recent and comprehensive reviews of this literature see Nguyen, et al, 2013; OECD, 2011). The main variables associated with carers' lower labour force engagement include lower levels of educational attainment, poor health of the carer, provision of full-time care, caring for a child with a disability, and lack of support from people outside the household (Edwards, *et al.* 2008; Leigh, 2009; Bittman, 2007). In assessing the impact of caring on carers' retirement finances and on other factors, it is important here to determine the direction of causality between these correlates. Each of the abovementioned characteristics of informal carers is correlated with relatively low levels of labour market engagement for the population as a whole.

Superannuation and patriarchy

Jefferson's (2007) study of women's attitudes to financial planning concluded that concepts of 'work' and 'retirement' are significantly informed by gender roles. Studies have consistently shown women to have lower financial literacy rates than men, and some theorists have posited that this is due to ingrained notions of gender roles and norms. As a result, Jefferson's study culminates in an assertion that elevating women's financial literacy levels is not merely a matter of providing them with further information on regulations and risk calculations. Rather, it would entail transforming the socially and culturally prescribed conceptions and values pertaining to whether it is a woman's 'role' or 'responsibility' to investigate complex financial arrangements in the first place.

Further, an evaluation of superannuation upon divorce (Sheehan, *et al.* 2008) found that women were more likely to forgo a share of their former partner's superannuation balance in exchange for a greater portion of the family home.

While Parr, Ferris and Mahuteau's (2007) study found that an individual's superannuation balance is in inverse proportion to the number of children they have, their findings concluded that the relationship between the number of children and the median value of superannuation was much less significant for men than it was for women. This indicates that the cost of raising children played only a minor role in explaining the low level of superannuation balances compared with the effect of women's non-participation in the paid workforce.

Investigation of the superannuation balances of Australian women has also been undertaken into particular groups, such as separated and divorced women and migrant women (Maloney, *et al.* 2000; Murphy, 2006). Others have constructed micro-simulations based on various assumptions regarding wage rates, labour force participation, and other variables, which has been advocated to be the best alternative to (at present undeveloped) Australian longitudinal data. Preston and Austen's (2001) cross-sectional model stressed the "importance of education, occupation of employment as well as timing and length of exits from the paid workforce, in a retirement system where the emphasis is on self-funded retirement" (p.14).

Preston and Austen's results confirm the conclusions of a large number of previous studies indicating that women are marginalised and disadvantaged under Australia's current retirement income system. We posit that informal female carers are further disadvantaged based on patriarchal values that differentiate between 'work' and 'domestic' activities, of which 'caring' is deemed the latter. However, even though the figures indicated in the previous section attest to the fact that informal primary carers work 40 hours plus a week in this required caregiving role, the current superannuation system is set up to not only inadequately prepare men for self-funded retirement but, based on projected figures from all of the studies so far discussed, will necessarily situate these women to live in poverty for the entirety of their retirement. In this regard, a critical assessment of Australia's Superannuation Guarantee must, at the very least, examine likely financial outcomes in retirement for informal primary carers.

Financial outcomes of caring over the life course of carers

A 2011 OECD cross-national study indicated that those of working age undertaking informal care are at greater risk of experiencing poverty (OECD, 2011). This was also confirmed by the results of two surveys for individuals aged over 50 years—the European Survey on Health and Ageing (SHARE)(EXPH 2016) and the United States Health and Retirement Survey (US Department of Health and Human Services, 2007). The OECD's study and the two surveys referenced above highlighted lower wages due to career interruption and fewer opportunities for career advancement as being related factors. Panel data from HILDA Waves 8–11 (2008–2011) indicate that these adverse financial impacts of caring intensify with each year of care (Wilkins, 2014).

However, a 2007 cross-referencing of some retrospective comments of carers reported in Waves 1–4 of HILDA with international longitudinal patterns suggests that the adverse financial (and other) impacts of caring are experienced by carers often years after the main caring activity has ceased (Bittman, *et al.* 2007).

Taking cross-sectional data, the ABS 2012 Survey of Disability, Ageing and Carers noted that carers were more likely than non-carers to have household incomes in the lowest two quintiles of equivalised gross household incomes (ABS, 2012a). Fifty-three per cent of carer households and 65 per cent of primary carer households fell into the poorest two quintiles as compared to 36 per cent of non-carer households. Moreover, only 7 per cent of primary carer households had gross equivalised incomes in the highest quintile compared with 23 per cent of non-carer households (ABS, 2012a). These findings are supported by both the HILDA pooled data for 2005–2011, and the Families Caring for a Person with a Disability Study (FCPDS) conducted in 2007 (Edwards, *et al.* 2008).

In this regard, the economic costs of caring are not confined to foregone wages and salaries. As Dow and Meyer (2010) note, the carer's household budget may be stretched by the need to purchase special equipment, to undertake home modifications and to pay for community support services, medical care and pharmaceuticals. Moreover, if the carer must work to cover the cost of such items, home-based or centre-based respite services become an additional expense.

Furthermore, informal primary carers are also at greater risk of experiencing poverty due to the extreme modesty of public welfare payments bestowed upon carers in Australia. Currently, the rate is $127.10 fortnightly for a Carers Allowance and $907.60 fortnightly for a Carers Payment. Subject to a means test, Carers Payment is provided on the condition that the recipient provides constant care to a co-resident frail or aged person or to a co-resident person with a disability or medical condition. A Carers Allowance is paid when additional daily care and attention is provided to a person with a disability or medical condition or someone who is frail and/or aged, and only on the condition that the carer meets the residence requirements (Department of Human Services, 2018).

The increasing necessity and monetary value of informal care

The likely increasing necessity of informal primary care in Australia and other OECD nations must be considered in light of a combination of several factors. Firstly, the ageing population places increasing demands on family members and others to provide informal care given the absence of increased public funding of formal aged care services (Productivity Commission, 2011). Secondly, projecting from current trends in survival rates for preterm infants, the number of children with a chronic illness or disability is also likely to increase over the next few decades (Schofield, *et al.* 2014). The increasing necessity for informal care in Australia becomes apparent when these trends are considered in light of the deinstitutionalisation or privatisation of a range of care services in Australia and the increasing cost to individuals of formal care over the past few decades (Rice, *et al.* 2008).

When considering the current monetary value of informal care in Australia, a number of counterfactuals must be employed. The value of such care could potentially be represented in terms of the hourly cost of replacing it with formal care. However, this method problematically assumes a lack of causal connection between the extent of informal care and the market remuneration to formal care workers. Alternatively, the monetary value of informal care can be estimated in terms of the hourly wages or salaries that informal carers forgo when not participating in the paid labour force. Using both methods as previously referenced, Deloitte Access Economics has estimated that the annual value of informal care in Australia in 2015 was $60.3 billion (Deloitte Access Economics, 2015, p.15).

This value and functional centrality of informal care in itself makes a case for examining Australia's Superannuation Guarantee in terms of retirement outcomes for informal carers. The system's failure to meet the needs of informal carers is in this regard inextricable from the sustainability of Australia's society and economy generally.

Summary of findings

The nature and the provision of informal care in Australia is a gender-based issue. This is partly because the vast majority of those people experiencing the adverse impacts of informal caregiving are primary carers and, as noted, approximately 70 per cent of these are women. This gender pattern in the provision of primary informal care extends across all OECD nations (OECD, 2011).

Interestingly, however, the relatively greater adversity experienced by female carers in Australia cannot be attributed entirely to their over-representation in the population of primary carers. The gender effects are manifest also in the fact that female primary carers are significantly more likely to provide more than 40 hours a week of primary care than their male primary carer counterparts (ABS, 2012a). This is compatible with the increased likelihood of male primary carers being in full-time work in comparison to their female counterparts. In 2012, only 15 per cent of female primary carers were employed on a full-time basis, and approximately one quarter were employed part-time (24%). The vast majority of the remainder were full-time carers and so were not able to participate in the labour force (ABS, 2012a). In this regard, an earlier ABS study notes males as being more likely to use paid leave, rostered days off, flex time, and working from home, in order to fit in care activity, whereas females are more likely to withdraw from the labour force or reduce their weekly hours (ABS, 2000).

In particular, the literature highlights the present and likely inadequate and inequitable outcomes for women in the current superannuation system. The statistics show that employment retirement income systems are inherently gender-biased given the stereotyping and discrimination underlying gender wage gaps and women's lower rates of labour force participation. This research has outlined the nature, extent, functional significance, and impacts of informal primary care in Australia. In doing so, it has demonstrated the pressing need for a study of financial outcomes in retirement for informal female primary carers. Further research studies targeting this particular demographic are needed to expand on the carer cohorts previously considered in the existing literature. Such research has the potential to inform public policy and affect real change in the lives of female primary carers and their retirement outcomes. This would have the potential to benefit not only the female primary carers themselves, but also their families and communities who are at present providing the support that a lack of retirement savings leaves them requiring.

Future research

Considering the employment and financial disadvantages for female primary carers, several researchers have indicated a need for analysis of likely retirement outcomes for this group (Qu, *et al.* 2012; Rice, *et al.* 2008; Dow and Meyer, 2010). It is our suggestion that such an analysis would benefit from Feminist Standpoint Theory's emphasis on the viewpoints of the marginalised in light of the differing and conflicting ways that specific groups of women experience patriarchy.

When focusing on likely financial outcomes in retirement for female carers of parents, certain methodological difficulties arise. Firstly, the relatively wide span of the working age cohort means that the age at which a woman reduces or ceases employment to care for a parent cannot be assumed within a narrow range. One may note, however, that a woman caring for a partner or spouse is more likely to be closer in age to the care recipient.

Further complexities arise when we recall that a significant proportion of informal elder care is likely to be 'sandwiched' with raising children or at least financially supporting them. As noted earlier in this article, the employment and financial impacts of providing 'multiple' care are as likely to arise from the intensity of meeting simultaneous demands as from cumulative impact of sequentially caring. In this regard, the likely retirement incomes of working aged women raising children and then caring for an elderly parent or spouse are of particular concern.

Considering the significance of life course employment patterns for superannuation balances, retirement incomes for these other carer cohorts cannot be subsumed under the two types of caring (formal and informal) considered in Nepal, *et al.* (2008) without further investigation. Given the relative immaturity of relevant longitudinal data for Australia, this investigation would require at least an expansion of the types of carer profiles drawn from cross-sectional data to include profiles for women caring for an elderly parent and various profiles of 'sandwich generation' women caring for an elder parent or partner while raising children or afterwards.

As well as these, the range of profiles estimating financial outcomes in retirement for female primary carers should address the fact that 11 per cent of informal care is provided for persons with a psychiatric illness (Edwards, *et al.* 2008). Given that individuals aged 18 to 24 are most susceptible to the types of psychiatric illnesses that require high-level prolonged care (ABS, 2007), parents or partners caring for these individuals are likely to experience significant financial impacts.

However, at this point we may also note that while expanding the range of hypothetical types of caring drawn from cross-sectional data may go some way towards addressing methodological problems in estimating female carers retirement incomes, this procedure will not in itself address certain other methodological problems. These additional problems, as noted above, arise from the episodic nature of caring combined with what we have noted are distinctively temporally asymmetrical impacts.

At present, HILDA has accumulated 18 years of panel data, extending from Wave 1 (2001), to Wave 18 (2018). However, participating individuals have only been asked to identify themselves as carers since Wave 5 (2005). Moreover, some questions relating to the provision of informal care have been included only since Wave 8 (2008). It is for this reason that Wilkins' (2014) report on HILDA information about carers relies mostly on data pooled over three to four years. Thus in the present context, HILDA is limited as a source of longitudinal data on life course employment, earnings and financial outcomes in retirement for female primary carers. This is particularly so since estimates based on recollections recorded in ABS and other surveys indicate that at least 50 per cent of primary carers have provided care for a period ranging from 4 to over 24 years, with at least half of these indicating that they have provided care for 10 to over 24 years (ABS 2008).

Considering Australian and international research suggesting that the impacts of caring on the carer become intensified with the duration of care it would seem that available panel data on carers in Australia may need to be supplemented by information from other sources for some years. This is especially the case when considering the life course employment and earnings information required in estimating carers' likely incomes in retirement.

These problems highlight the methodological difficulties that the relative immaturity of Australian longitudinal panel data presents when estimating financial outcomes in retirement for various groups in the Australian population. However as noted, these problems are particularly acute when estimating likely retirement incomes for female primary carers since panel data relating specifically to this cohort is just several years from infancy. Given the relative immaturity of Australia's current retirement income system, timely assessments informing modifications and reform must currently rely on projections from cross-sectional data. There is therefore a need for research that draws to some extent on static techniques comparable to those underlying existing estimates of likely retirement incomes for various cohorts in the Australian population by constructing likely retirement income scenarios based on a range of life-course employment and earnings profiles constructed largely from cross-sectional data.

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